DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

24 CFR Part 81

[Docket No. FR–4494–F–02]

RIN 2501–AC60

HUD's Regulation of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)

AGENCY: Office of the Assistant Secretary for Housing '' Federal Housing Commissioner, HUD.

ACTION: Final rule.

SUMMARY: This final rule establishes new housing goal levels for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (collectively, the ''Government Sponsored Enterprises,'' or the ''GSEs'') for the years 2001 through 2003. The new housing goal levels are established in accordance with the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA), and govern the purchase by Fannie Mae and Freddie Mac of mortgages financing low- and moderate-income housing, special affordable housing, and housing in central cities, rural areas and other underserved areas. Specifically, the final rule increases the Low- and Moderate-Income Housing Goal to 50 percent, the Geographically Targeted Goal to 31 percent, and the Special Affordable Housing Goal to 20 percent of units backing each GSE's annual eligible mortgage transactions. The Special Affordable Multifamily Subgoal increases to one percent of each GSE's average annual total dollar mortgage purchases in 1997 through 1999. This rule also establishes new provisions and clarifies certain other provisions of HUD's rules for counting different types of mortgage purchases towards the goals, including provisions regarding the use of bonus points for mortgages that are secured by certain single family rental properties and small multifamily properties; and the disallowance of goals credit for mortgage loans with predatory characteristics.

While Fannie Mae and Freddie Mac have been successful in providing stability and liquidity in the market for certain types of mortgages, their share of the affordable housing market is substantially smaller than their share of the total conventional, conforming mortgage market. There are several reasons for these disparities, related to the GSEs' purchase and underwriting guidelines; and to their relatively low level of activity in specific mortgage markets that provide financing for housing serving low- and moderate-income families, including small multifamily rental properties, single family owner-occupied rental properties, manufactured housing, and markets for seasoned mortgages on properties with affordable housing. As the GSEs continue to grow their businesses, the new goals will provide strong incentives for the two enterprises to more fully address the housing finance needs for very low-, low- and moderate-income families and residents of underserved areas and, thus, more fully realize their public purposes.

In addition, as government sponsored enterprises and market leaders, Fannie Mae and Freddie Mac have a public responsibility to help eliminate predatory mortgage lending practices which are inimical to the home financing and homeownership objectives that the GSEs were established to serve. Fannie Mae and Freddie Mac have adopted policies stating that they will not purchase mortgage loans with certain predatory characteristics. This final rule affirms the GSEs' actions by disallowing housing goals credit for mortgages having features that the GSEs themselves have identified as unacceptable.

EFFECTIVE DATE: January 1, 2001.

FOR FURTHER INFORMATION CONTACT: Director, Office of Government Sponsored Enterprises Oversight, Office of Housing, Room 6182, telephone 202–708–2224. For questions on data or methodology, contact John L. Gardner, Director, Financial Institutions Regulation Division, Office of Policy Development and Research, Room 8234, telephone (202) 708–1464. For legal questions, contact Kenneth A. Markison, Assistant General Counsel for Government Sponsored Enterprises/RESPA, Office of the General Counsel, Room 9262, telephone 202–708–3137. The address for all of these persons is Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410. Persons with hearing and speech impairments may access the phone numbers via TTY by calling the Federal Information Relay Service at (800) 877–8399.

SUPPLEMENTARY INFORMATION

I. General

A. Purpose

This final rule revises existing regulations implementing the Department of Housing and Urban Development's (the ''Department'' or ''HUD'') authority to regulate the GSEs. The authority exercised by the Department is established under:

(1) The Federal National Mortgage Association Charter Act (''Fannie Mae Charter Act''), which is Title III of the National Housing Act, section 301 *et seq.* (12 U.S.C. 1716 *et seq.*);

(2) The Federal Home Loan Mortgage Corporation Act (''Freddie Mac Act''), which is Title III of the Emergency Home Finance Act of 1970, section 301 *et seq.* (12 U.S.C. 1451 *et seq.*); and

(3) FHEFSSA, enacted as Title XIII of the Housing and Community Development Act of 1992 (Pub. L. 102–550, approved October 28, 1992) (12 U.S.C. 4501–4641).

(4) Section 7(d) of the Department of Housing and Urban Development Act (42 U.S.C. 3535(d)), which provides that the Secretary may make such rules and regulations as may be necessary to carry out his functions, powers, and duties, and may delegate and authorize successive redelegations of such functions, powers, and duties to officers and employees of the Department.

FHEFSSA substantially changed the Department's regulatory authorities governing the GSEs by establishing a separate safety and soundness regulator within the Department and clarified and expanded the Department's regulation of the GSEs' missions. Regulations first implementing the Department's authorities with respect to the GSEs' missions under FHEFSSA were issued on December 1, 1995 (24 CFR part 81).

This rule revises certain portions of those regulations concerning the GSEs' affordable housing goals and provisions related to how mortgage loans are treated in the calculation of performance under the housing goals. The remaining part of the preamble contains several endnotes. These endnotes appear at the end of the preamble.

B. Background

1. Fannie Mae and Freddie Mac

Fannie Mae and Freddie Mac engage in two principal businesses: investing in residential mortgages and guaranteeing securities backed by residential mortgages. Fannie Mae and Freddie Mac are chartered by Congress as Government Sponsored Enterprises to: (1) Provide stability in the secondary market for residential mortgages; (2) respond appropriately to the private capital market; (3) provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable

economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing; and (4) promote access to mortgage credit throughout the nation (including central cities, rural areas, and other underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.[1]

Fannie Mae and Freddie Mac receive significant explicit benefits through their status as GSEs that are not enjoyed by any other shareholder-owned corporations in the mortgage market. These benefits include: (1) Conditional access to a $2.25 billion line of credit from the U.S. Treasury; [2] (2) exemption from the securities registration requirements of the Securities and Exchange Commission and the States; [3] and (3) exemption from all State and local taxes except property taxes.[4]

Additionally, although the securities the GSEs guarantee and the debt instruments they issue are not backed by the full faith and credit of the United States, and nothing in this final rule should be construed otherwise, such securities and instruments trade at yields only a few basis points over those of U.S. Treasury securities and at yields lower than those for securities issued by comparable firms that are fully private but may be higher capitalized. The market prices for GSE debt and mortgage-backed securities, and the fact that the market does not require that those securities be rated by a national rating agency, suggest that investors perceive that the government implicitly backs the GSEs' debt and securities. This perception evidently arises from the GSEs' relationship to the Federal Government, including their public purposes, their Congressional charters, their potential direct access to U.S. Department of Treasury funds, and the statutory exemptions of their debt and mortgage-backed securities (MBS) from otherwise mandatory security laws. Consequently, each GSE enjoys a significant implicit benefit—its cost of doing business is significantly less than that of other firms in the mortgage market. According to a U.S. Department of Treasury 1996 study, the benefits of federal sponsorship are worth almost $6 billion annually to Fannie Mae and Freddie Mac. Of this amount, reduced operating costs (*i.e.,* exemption from SEC filing fees and from state and local income taxes) represent approximately $500 million annually. These estimates are broadly consistent with estimates by the Congressional Budget Office and General Accounting Office. According to the Department of the Treasury, Fannie Mae and Freddie Mac appear to pass through part of these benefits to consumers through reduced mortgage costs and retain part for their own stockholders.[5]

The GSEs have achieved an important part of their mission: providing stability and liquidity to large segments of the housing finance markets. As a result of the GSEs' activities, many home buyers have benefited from lower interest rates and increased access to capital, contributing, in part, to a record national homeownership rate of 66.8 percent in 1999. While the GSEs have been successful in providing stability and liquidity to certain portions of the mortgage market, the GSEs must further utilize their entrepreneurial talents and power in the marketplace and ''lead the mortgage finance industry'' to ''ensure that citizens throughout the country enjoy access to the public benefits provided by these federally related entities.'' [6]

Despite the record national homeownership rate in 1999, lower homeownership rates have prevailed for certain minorities, especially for African-American households (46.3 percent) and Hispanics (45.5 percent). These gaps are only partly explained by differences in income, age, and other socioeconomic factors. Disparities in mortgage lending are a contributing factor to lower homeownership rates and are reflected in loan denial rates of minority groups when compared to white applicants. Denial rates for conventional (non-government-backed) home purchase mortgage loans in 1998 were 54 percent for African Americans, 53 percent for Native American applicants, 39 percent for Hispanic applicants, 26 percent for White applicants, and 12 percent for Asian applicants.[7] Despite strong economic growth, low unemployment, low mortgage interest rates, and relatively stable home prices, housing problems continue to persist for low-income families and certain minorities.

In addition to disparities across racial groups, populations who live in certain types of housing have not benefited to the same degree as have others from the advantages and efficiencies provided by Fannie Mae and Freddie Mac. The GSEs have been much less active in purchasing mortgages in markets where there is a need for additional financing to address persistent housing needs including financing for small multifamily rental properties, manufactured housing, single family owner-occupied rental properties, seasoned affordable housing mortgages, and older housing in need of rehabilitation.

While HUD recognizes that the GSEs have played a significant role in the mortgage finance industry by providing a secondary market and liquidity for mortgage financing for certain segments of the mortgage market, it is this recognition of their ability, along with HUD's comprehensive analyses of the size of the mortgage market and the opportunities available, America's unmet housing needs, identified credit gaps, and HUD's consideration of the statutory factors under FHEFSSA that causes HUD to increase the level of the housing goals so that as the GSEs grow their businesses so they will address new markets and persistent housing finance needs.

2. Regulation of the GSEs

In 1968, Congress assigned HUD general regulatory authority over Fannie Mae,[8] and in 1989, Congress granted the Department essentially identical regulatory authority over Freddie Mac.[9] Under the 1968 law, HUD was authorized to require that a portion of Fannie Mae's mortgage purchases be related to the national goal of providing adequate housing for low- and moderate-income families. Accordingly, the Department established two housing goals—a goal for mortgages on low- and moderate-income housing and a goal for mortgages on housing located in central cities—by regulation, for Fannie Mae in 1978.[10] Each goal was established at the level of 30 percent of mortgage purchases. Similar housing goals for Freddie Mac were proposed by the Department in 1991 but were not finalized before October 1992, when Congress revised the Department's GSE regulatory authorities including requirements for new housing goals.

In 1992, Congress enacted the Federal Housing Enterprises Financial Safety and Soundness Act (FHEFSSA) as Title XIII of the Housing and Community Development Act of 1992 (Pub. L. 102–550, approved October 28, 1992) (12 U.S.C. 4501–4641), which established the Office of Federal Housing Enterprise Oversight (OFHEO) as the GSEs' safety and soundness regulator and affirmed, clarified and expanded the Secretary of Housing and Urban Development's responsibilities for GSE mission regulation. FHEFSSA provided that, except for the specific authority of the Director of OFHEO, the Secretary retained general regulatory power over the GSEs.[11] FHEFSSA also detailed and expanded the Department's specific

[11] 11. Sec. 1321.

powers and authorities, including the power to establish, monitor, and enforce housing goals for the GSEs' purchases of mortgages that finance housing for low- and moderate-income families; housing located in central cities, rural areas, and other underserved areas; and special affordable housing, affordable to very low-income families and low-income families in low-income areas.[12] The Department is required to establish each of the goals after consideration of certain prescribed factors relevant to the particular goal.[13]

FHEFSSA provided for a transition period during 1993 and 1994 and required HUD to establish interim goals for the transition period (58 FR 53048; October 13, 1993) (59 FR 61504; November 30, 1994). In November 1994, HUD extended the interim goals established for 1994 for both GSEs through 1995 while the Department completed its development of post transition goals.

The Department issued proposed and final rules in 1995 establishing and implementing the housing goals for the years 1996 through 1999. The rule provided that the housing goals for 1999 would continue beyond 1999 if the Department did not change the goals, and further provided that HUD may change the level of the goals for the years 2000 and beyond based upon HUD's experience and in accordance with HUD's statutory authority and responsibility.

In addition to establishing the level of the housing goals, the 1995 final rule included counting requirements for purposes of calculating performance under the housing goals. The new regulations also prohibited the GSEs from discriminating in any manner on any prohibited basis in their mortgage purchases, implemented procedures by which HUD exercises its authority to review new programs of the GSEs, required reports from the GSEs, established a public use data base on the GSEs' mortgage purchase activities while providing protections for confidential and proprietary information, and established enforcement procedures under FHEFSSA.

C. The Proposed Rule

On March 9, 2000,[14] HUD published a rule proposing new housing goal levels for Fannie Mae and Freddie Mac. The rule proposed to increase the level of the housing goals for the purchase by Fannie Mae and Freddie Mac of mortgages financing low- and moderate-income housing, special affordable housing, and housing in central cities, rural areas, and other underserved areas. The rule also proposed to clarify HUD's guidelines for counting different types of mortgage purchases under the housing goals, including treatment of missing affordability data and purchases of seasoned mortgage loans; use of bonus points for goals credit for purchases of mortgages secured by single family rental and small multifamily properties; and providing greater public access to certain types of mortgage data on the GSEs' mortgage purchases in HUD's public use database. The rule also solicited public comments on several other issues related to the housing goals including the appropriate role of credit enhancements in furthering affordable housing lending and whether the use of credit enhancements should be considered in calculating housing goal performance.

D. This Final Rule

In response to the proposed rule, HUD received over 250 comments. The comments came from the GSEs; individuals; representatives of lending institutions; non-profit organizations; community, consumer groups and civil rights organizations; local and State governments; and others. Following full consideration of the comments, HUD developed this final rule. The final rule is consistent with the approach announced in the proposed rule but does include some revisions adopted in light of the comments received. The final rule: (1) Increases the level of the housing goals for the years 2001 through 2003 as a result of HUD's review of the statutory factors under FHEFSSA to ensure that the GSEs continue and strengthen their efforts to carry out Congress' intent that the GSEs provide the benefits of the secondary market to families throughout the nation—the Low- and Moderate-Income Housing Goal increases to 50 percent, the Geographically Targeted Goal increases to 31 percent, the Special Affordable Housing Goal increases to 20 percent; and the Special Affordable Multifamily Subgoal increases to the respective average of one percent of each GSE's total mortgage purchases over 1997 through 1999; (2) establishes the use of bonus points for small multifamily properties with 5 to 50 units and for single family owner-occupied rental properties for the years 2001 through 2003; (3) establishes a temporary adjustment factor for Freddie Mac's multifamily mortgage purchases for the years 2001 through 2003; (4) prohibits the counting of high cost mortgage loans with predatory features for goals credit; (5) provides or clarifies counting rules for the treatment of missing affordability data, purchases of seasoned mortgage loans, purchases of federally insured mortgage loans and purchases of mortgage loans on properties with expiring assistance contracts; (6) provides for HUD's review of transactions to determine appropriate goal treatment; and (7) includes certain definitional and technical corrections to the regulations issued in 1995.

Specific changes included in the Final Rule from the provisions included in the Proposed Rule are as follows:

(1) The period covered by the housing goals is 2001 through 2003 and there is no transition year. The proposed rule had suggested the goals cover the period from 2000 through 2003 with 2000 serving as a transition year.

(2) The Special Affordable Multifamily Subgoal uses the average of 1997 through 1999 as the base period for establishing the level of the goal over the 2001 through 2003 period, rather than 1998 as the base period, as proposed. The subgoal remains a fixed dollar amount for each year of the period covered by the housing goals base equal to one percent of each GSE's average total mortgage purchases in 1997 through 1999.

(3) The final rule does not allow goals credit for predatory mortgage loans, and the rule describes specific characteristics, in addition to the HOEPA definition suggested in the proposed rule, to determine what types of loans are considered predatory. The final rule also identifies good lending practices with which mortgages should conform in order to count towards goals credit.

(4) The proposed provisions for the treatment of missing affordability data are retained but the final rule includes a five percent ceiling on the use of estimated affordability information for multifamily units.

(5) The guidance provided on how to determine if seasoned mortgage loan purchases meet the recycling requirements of the Special Affordable Housing Goal was expanded to (1) include additional types of lending organizations with affordable housing missions that are presumed to meet the recycling requirements; (2) adjust the Community Reinvestment Act (CRA) examination requirement for Federally regulated financial institutions to one ''Satisfactory'' rating for financial institutions with assets of $250 million or less to accommodate a less frequent examination schedule; and (3) specify requirements that a seller must meet for purposes of evaluating whether the seller meets the recycling requirements of 12 U.S.C. 4563(b)(1)(B).

(6) The final rule does not make changes to the definition of underserved

area other than the inclusion of tribal lands in underserved areas and does not address the public availability of mortgage data in the public use data base. As explained below, HUD will publish a decision on which data elements will be accorded proprietary and non-proprietary treatment by separate Order following publication of this final rule.

The analysis of Fannie Mae's and Freddie Mac's affordable housing performance, which is the basis for many of the changes in the final rule, is primarily based on data from 1997, 1998 and 1999. The GSEs' actual performance is presented through 1999. However, Home Mortgage Disclosure Act (HMDA) data which provides data on the conventional, conforming market was not available for 1999 at the time HUD prepared its analysis supporting this final rule. As HMDA data for 1999 were not available, comparisons between the GSEs and the market as a whole for that year are not possible. Further, as 1998 was a year with a large percentage of refinance mortgage transactions, at times 1997 data is utilized as it presents a more normal year in terms of home purchase mortgage transactions.

In finalizing these regulations, the Department is guided by and affirms the following principles established in the 1995 rulemaking:

(1) To fulfill the intent of FHEFSSA, the GSEs should lead the industry in ensuring that access to mortgage credit is made available for very low-, low- and moderate-income families and residents of underserved areas. HUD recognizes that, to lead the mortgage industry over time, the GSEs will have to stretch to reach certain goals and close the gap between the secondary mortgage market and the primary mortgage market. This approach is consistent with Congress' recognition that ''the enterprises will need to stretch their efforts to achieve'' the goals.[15]

(2) The Department's role as a regulator is to set broad performance standards for the GSEs through the housing goals, but not to dictate the specific products or delivery mechanisms the GSEs will use to achieve a goal. Regulating two exceedingly large financial enterprises in a dynamic market requires that HUD provide the GSEs with sufficient latitude to use their innovative capacities to determine how best to develop products to carry out their respective missions. HUD's regulations should allow the GSEs to maintain their flexibility and their ability to respond quickly to market opportunities. At the same time, the Department must ensure that the GSEs' strategies serve families in underserved markets and address unmet credit needs. The addition of bonus points to the regulatory structure provides an additional means of encouraging the GSEs' affordable housing activities to address identified, persistent credit needs while leaving the specific approaches to meeting these needs to the GSEs.

(3) Discrimination in lending—albeit sometimes subtle and unintentional—has denied racial and ethnic minorities the same access to credit to purchase a home that has been available to similarly situated non-minorities. The GSEs have a central role and responsibility to promote access to capital for minorities and other identified groups and to demonstrate the benefits of such lending to industry and borrowers alike. The GSEs also have an integral role in eliminating mortgage lending practices that are predatory.

(4) In addition to the GSEs' purchases of single family home loans, the GSEs also must continue to assist in the creation of an active secondary market for multifamily loans. Affordable rental housing is essential for those families who cannot afford or choose not to become homeowners. The GSEs must assist in making capital available to assure the continued development of rental housing.

II. Discussion of Public Comments

A. Overview

1. Public Comment

Of the over 250 comments received, by far the most detailed were the submissions of the two directly affected GSEs—Fannie Mae and Freddie Mac. Each GSE's comments were in large measure supportive of the overall goal structure proposed by the Department. The GSEs, however, did provide extensive appendices questioning the Department's methodology in determining market share for the three affordable housing goals, a key component for establishing the appropriate level of the housing goals.

Other commenters included national and regional industry related groups, non-profit organizations, state and local government officials, lenders, and individuals. In large measure, these commenters were also supportive of the Department's proposal to increase the affordable housing goals and the related provisions designed to streamline the counting rules used to calculate performance under the housing goals.

Other than the goals framework, the areas generating the largest response from commenters were the treatment of high cost mortgages, the role of credit enhancements in affordable lending transactions, and the availability of data on the public use data base. It should be noted that in evaluating these comments a large number of comments were received that included substantially similar responses, in both language and tone, to those submitted by Fannie Mae.

In addressing the appropriate goals treatment for high cost mortgages, one group of commenters, comprised primarily of non-profit and housing advocacy groups, felt the provisions included in the proposed rule disallowing credit for loans that meet the HOEPA definition should be strengthened. Other commenters, consistent with the comments provided by Fannie Mae, opposed any limitation of goals credit for predatory mortgage loans.

With regard to credit enhancements, a substantial majority of commenters noted that credit enhancements are a critical component of many affordable housing transactions. There was little support for limiting goals credit for affordable housing transactions that include credit enhancements without a better understanding of how to ensure that there are not negative implications for affordable housing transactions.

The Department received comments supporting both increased data availability and limited availability of data. One group of commenters, including non-profit organizations and academic researchers, felt the provisions included in the proposed rule should be adopted and, in some instances, expanded in order to fully understand and challenge the GSEs on their affordable housing activities. Again, another group of commenters, consistent with the comments provided by Fannie Mae, opposed the availability of additional data on the public use data base. This group of commenters included both lenders and non-profit organizations which felt the additional data would release confidential business information and could compromise the privacy of individuals, respectively. This final rule does not, however, address the availability of data on the public use data base.

A discussion of the general and specific comments on the rule follows in subsequent sections. While comments are summarized, not all of the comments are addressed explicitly in this preamble. HUD fully considered all of the comments and HUD's response is either explicit in this final rule or implicit in the general discussion of the rule or other comments. HUD is appreciative of the full range of public comments received and acknowledges the value of all of the comments

submitted in response to the proposed rule.

2. Other Public Input

As part of the public comment process, the Department conducted extensive outreach to educate and inform interested parties of the nature and extent of the GSEs' affordable housing activities. The outreach was undertaken in order to encourage comments on the proposed rule from a wide range of individuals, organizations and businesses that are interested in or are affected by Congress' charge to the GSEs to further the financing needs of underserved families and neighborhoods. The Department's outreach in this regard included two forums, three subject matter meetings, and meetings with various industry trade groups and non-profit organizations to discuss the provisions of the proposed rule. These sessions are described below. Further, additional information on these meetings is contained in the public docket file of this rule in Room 10276 at HUD Headquarters.

a. Forums. The Department conducted two forums designed to give participants an in-depth look at how well the GSEs are supporting affordable housing activities in local communities. One forum was held in Hartford, Connecticut and the other in Durham, North Carolina. Each forum had approximately 125 participants. In addition to sessions held at both forums that reviewed the GSEs' progress in meeting the affordable housing needs in the respective region, each forum had a session that addressed issues and needs specific to the region. In Hartford, a session was held on the role of multifamily housing in meeting affordable housing needs. Research was presented on how small multifamily properties disproportionately serve low-income families and data was provided on the extent of the GSEs' purchases of mortgages on small multifamily properties. Panel members discussed the unique problems of financing small multifamily properties and how Fannie Mae and Freddie Mac can better serve these markets. In Durham, a session was held on predatory lending. Panel members identified abusive practices and discussed the impacts that predatory lenders were having particularly on the elderly and in minority neighborhoods. Serious questions were raised as to whether Fannie Mae and Freddie Mac should be involved in this market.

b. Subject Matter Meetings. HUD also held three smaller discussion group sessions designed to address specific subject matters included in the proposed rule. Subject matter meetings were held on the availability of data on the public use data base, issues related to identifying and meeting the credit needs of non-metropolitan areas, and the role of credit enhancements in affordable housing lending.

c. Other Meetings. In addition to the meetings described above, the Department met with various industry trade groups and non-profit organizations to present the changes suggested in the proposed rule and the rationale for the changes. HUD also met with Fannie Mae and Freddie Mac to discuss their concerns regarding the proposed rule.

B. Subpart A—General

HUD proposed to revise the definitions of ''median income,'' ''metropolitan area,'' and ''underserved area'' in order to provide greater clarity, consistency and technical guidance. The few comments received on these definitions were supportive of the proposed technical changes. HUD also proposed certain changes to several aspects of the definition of underserved area to solicit public input on how best to identify the areas that are underserved by the mortgage credit markets.

1. Median Income

HUD proposed to change the definition of ''median income'' to require the GSEs to use HUD estimates of median family income to further clarify the appropriate process for the GSEs' determination of area incomes. HUD has implemented this change in this final rule. As part of this change to the definition of ''median income,'' HUD will provide the GSEs, on an annual basis, information specifying how HUD's published median family income estimates are to be applied. This change is needed because, in some cases, HUD publishes area median family income estimates for portions of areas rather than whole metropolitan statistical areas (MSAs) or primary metropolitan statistical areas (PMSAs).

2. Metropolitan Area

HUD proposed to clarify the definition of ''metropolitan area'' by revising the description of the relevant area for determining median incomes to eliminate the reference in § 81.2 to consolidated metropolitan statistical areas (CMSAs). HUD has implemented this change in the final rule. ''Metropolitan area'' was defined in § 81.2 under the 1995 final rule as an MSA, a PMSA, or a CMSA, designated by the Office of Management and Budget of the Executive Office of the President. This definition raised questions as to the definition of ''underserved area'' and the denominator of the affordability ratio used to compute the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal regarding whether to use the median income of the CMSA or the PMSA. HUD has consistently relied upon median incomes of PMSAs in defining underserved areas and determining denominators for the other goals and this final rule clarifies this point.

3. Underserved Area

a. Technical Definition. HUD proposed to revise the definition of ''underserved area'' to clarify the parameters of rural underserved areas. The definition under HUD's 1995 final rule omitted the requirement for a comparison between the ''greater of the State non-metropolitan median income or nationwide non-metropolitan median income'' from the ''income/minority'' provision even though it had provided for this comparison when qualifying mortgage purchases under the ''income-only'' provision. HUD proposed to add the comparative language to the ''income/minority'' provision for rural underserved areas. The revision applies the same median income standard to both the ''income-only'' and the ''income/minority'' definitions. HUD has implemented this change in § 81.2 of this final rule. (HUD also proposed other changes to the definition of ''underserved areas.'' These are discussed in Subpart B—Housing Goals.)

b. Other Changes Proposed and/or Comments Requested. The proposed rule described additional changes to the definition of underserved area relating to tribal lands and requested comments on possible changes to the income and minority requirements of the definition.

(1) Tribal Lands. HUD proposed to revise the definition of ''underserved areas'' in § 81.2 to designate all qualifying Indian reservations and trust lands as underserved areas.

c. Summary of Comments. Fannie Mae stated that it is ''particularly appropriate'' to include these lands in the definition of underserved areas. Fannie Mae added that it ''does not think it is feasible, practical, or appropriate to split trust lands between served and underserved designations, depending on the designation of the surrounding tracts or counties.'' Fannie Mae further commented that HUD's proposal could lead to ''split or proportional treatment of any one trust land,'' and that such areas should be

included as underserved areas ''without regard to income or minority status.'' Fannie Mae added that HUD should consider postponing this change until ''the new boundary files and data files'' become available from the 2000 Census. Fannie Mae further stated that HUD's proposal to define some underserved areas in terms of income and minority composition for the balance of a county or census tract excluding the area within any Federal or State American Indian reservation or tribal or individual trust land ''raises operational issues that will be difficult to overcome.''

Freddie Mac stated that ''In principal [sic], Freddie Mac has no objection to treating an American Indian Reservation or tribal land as a geographic whole'' for determining underserved areas. It added, however, that ''adoption of a definition that would involve geocoding rural loans at the subcounty level could present formidable practical problems.'' Freddie Mac recommended that HUD ''designate entire tracts in metropolitan areas and entire counties in nonmetropolitan areas that contain qualifying reservations and trust lands as underserved.''

Other commenters were generally supportive of the Department's proposal. One commenter called for an expansion of the proposal to include tribal service areas and urban living Native Americans.

d. HUD's Determination. HUD believes that treating tribal lands as separate geographic entities implies that the balance of counties or tracts excluding such areas would logically be treated as separate entities, but it recognizes Fannie Mae's argument that this could raise ''operational issues.'' HUD will issue operational guidance on this matter prior to the effective date of this Final Rule.

HUD evaluated Fannie Mae's recommendation to classify all American Indian and Alaskan Native (AIAN) areas as underserved areas, without regard to income or minority status, in light of the problems involved in obtaining a mortgage on even the very few higher-income (or low minority) tribal lands. HUD analyzed data on 1989 median incomes and minority concentrations for AIAN areas provided by the U.S. Bureau of the Census. HUD's analysis showed that, out of 248 AIAN areas with sufficient population to determine an area median family income, 19 areas, or 6.7 percent, would be classified as served and 265 areas, or 93.3 percent, as underserved. The 19 areas include some with very low minority concentrations and some with very high median incomes. HUD concludes that implementation of Fannie Mae's recommendation would, in a small but significant number of instances, substantially breach the principle that underserved areas are areas with low median incomes and/or high minority concentrations, as established in the 1995 Final Rule. Accordingly, HUD has not implemented Fannie Mae's recommendation.

HUD believes that designating entire tracts or counties that contain qualifying tribal lands as underserved areas is not appropriate. The purpose of the definitional change in underserved areas to include all tribal lands is to focus attention on the mortgage financing needs of Native American communities. By designating the entire county or census tract as underserved by virtue of the presence of tribal lands in a portion of it, this focus is lost. HUD believes that any geocoding problems arising from this proposal can be resolved. HUD will issue operational guidance on this matter prior to the effective date of this final rule.

HUD believes that underserved areas must have relatively fixed definitions—tribal service areas are evolving over time. The underserved areas goal is defined broadly by both geographic and area wide demographic features so that borrowers living in underserved areas benefit from the increased attention paid to lending in such areas as a result of HUD's geographic goal.

(2) Enhanced Tract Definition. In the proposed rule, comments were sought on possible changes to the current metropolitan underserved areas definition to better target underserved areas with higher mortgage denial rates and thereby promote better access to mortgage credit for these areas. Specifically, HUD proposed changing the current tract income ratio to an ''enhanced'' tract income ratio requiring that for tracts to qualify as underserved they must have a tract income ratio at or below the maximum of 80 percent of area median income or 80 percent of U.S. median income in metropolitan areas. The proposed change would make the underserved areas definition used by the GSEs consistent with the requirements of Federally insured depository institutions under the Community Reinvestment Act (CRA). The Department believes the concept has substantial merit, and there was a sizeable group of commenters that supported the concept, at least in part. However, there were a number of commenters, including the GSEs, that said that since the redesignation of census tracts as underserved would be based on data from the 1990 Census, and since data from the 2000 Census would not be available for a few years, it would not be appropriate to make such a change at this time. Rather, they suggested that the Department wait until updated information from the 2000 Census is available to analyze. The Department agrees that, with more current information to become available from the 2000 Census in the near future, the timing is not optimal to make a change in the underserved areas designation. Once information from the 2000 Census is available, the Department will determine whether this proposal merits consideration.

(3) Minority Composition. Similarly, the proposed rule requested comment on another approach to target high mortgage denial rate areas. The alternative approach would be to increase the minority component required to identify an area as underserved by increasing the requirement from 30 percent to 50 percent minority. Several commenters noted that increasing the minority component of a census tract to qualify as underserved would have a disproportionately negative impact on the Hispanic population. Commenters observed that Hispanic residential living patterns are not as concentrated as those of other minority groups. In addition, comments were provided suggesting that any changes in this area be considered once data from the 2000 Census is available before making a final determination in this regard. The Department has determined that it will obtain and analyze 2000 Census data and consider various minority population patterns and their relationship to the availability of mortgage credit before deciding whether this proposal continues to merit consideration.

(4) Rural Areas. The proposed rule requested comments on how best to define underserved rural areas, posing questions on whether the underserved rural areas should be identified by census tract or by county. HUD received comments that supported both approaches. Again, the commenters raised the issue of the 2000 Census. Consistent with the Department's other determinations regarding significant changes to the definition of underserved areas, HUD will not make any changes at this time in defining underserved rural areas and will wait for the opportunity to analyze the data from the 2000 Census.

C. Subpart B—Housing Goals

1. Overview

Comments received overwhelmingly supported the Department's proposal to increase the level of the affordable

housing goals. Both GSEs commented that, while meeting these goals will be a challenge (particularly the Underserved Areas Goal), they are committed to doing so. While some commenters, including the GSEs, expressed concern that the market scenarios used by HUD did not adequately consider an economic downturn, those commenters still felt that higher goals levels were appropriate. This section of the final rule reviews the statutory factors the Department must consider in setting the level of the housing goals, specific comments on the housing goals including the market methodology, and the determination made with regard to the level for each of the housing goals.

2. Statutory Considerations in Setting the Level of the Housing Goals

In establishing the housing goals, FHEFSSA requires the Department to consider six factors—national housing needs; economic, housing and demographic conditions; performance and effort of the GSEs toward achieving the goal in previous years; size of the conventional mortgage market serving the targeted population or areas, relative to the size of the overall conventional mortgage market; ability of the GSEs to lead the industry in making mortgage credit available for the targeted population or areas; and the need to maintain the sound financial condition of the GSEs. These factors are discussed in more detail in the following sections of this preamble and in the Appendices to this rule. A summary of HUD's findings relative to each factor follows:

a. National Housing Needs. Analysis and research by HUD and others in the housing industry indicate that there are, and will continue to be in the foreseeable future, substantial unmet housing needs among lower-income and minority families. Data from the American Housing Surveys demonstrate that there are substantial unmet housing needs among lower-income families. Many households are burdened by high homeownership costs or rent payments and will likely continue to face serious housing problems, given the dim prospects for earnings growth in entry-level occupations. According to HUD's ''Worst Case Housing Needs'' report, 21 percent of owner households faced a moderate or severe cost burden in 1997. Affordability problems were even more common among renters, with 40 percent paying more than 30 percent of their income for rent in 1997.[16]

Despite the growth during the 1990s in affordable housing lending, disparities in the mortgage market remain, with certain minorities, particularly African-American and Hispanic families, lagging the overall market in rate of homeownership. In addition, there is evidence that the aging stocks of single family rental properties and small multifamily properties with 5–50 units, which play a key role in lower-income housing, have experienced difficulties in obtaining financing. The ability of the nation to maintain the quality and availability of the existing affordable housing stock and to stabilize neighborhoods depends on an adequate supply of affordable credit to rehabilitate and repair older units.

(1) Single Family Mortgage Market. Many younger, minority, and lower-income families did not become homeowners during the 1980s due to the slow growth of earnings, high real interest rates, and continued house price increases. Over the past several years, economic expansion, accompanied by low interest rates and increased outreach on the part of the mortgage industry, has improved affordability conditions for lower-income families. Between 1994 and 1999, record numbers of lower-income and minority families purchased homes. First time homeowners have become a major driving force in the home purchase market over the past five years. Thus, the 1990s have seen the development of a strong affordable lending market. Despite the growth of lending to minorities, disparities in the mortgage market remain. For example, African-American applicants are still twice as likely to be denied a loan as white applicants, even after controlling for income.

(2) Multifamily Mortgage Market. Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, although not to the same degree as the single family mortgage market. Loans on multifamily properties are still viewed as riskier by some than mortgages on single family properties. Property values, vacancy rates, and market rents of multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced for single family mortgages.

There is a need for an on-going GSE presence in the multifamily secondary market both to increase liquidity and to further affordable housing efforts. The potential for an increased GSE presence is enhanced by the fact that an increasing proportion of multifamily mortgages are now originated in accordance with secondary market standards.

The GSEs can play a role in promoting liquidity for multifamily mortgages and increasing the availability of long-term, fixed rate financing for these properties. Increased GSE presence would provide greater liquidity to lenders, *i.e.*, a viable ''exit strategy,'' that in turn would serve to increase their lending. It appears that the financing of small multifamily rental properties with 5–50 units, where a substantial portion of the nation's affordable housing stock is concentrated, have been adversely affected by excessive borrowing costs. Multifamily properties with significant rehabilitation needs also appear to have experienced difficulty gaining access to mortgage financing. Moreover, the flow of capital into multifamily housing for seniors has been historically characterized by a great deal of volatility.

b. Economic, Housing, and Demographic Conditions. Studies indicate that changing population demographics will result in a need for the mortgage market to meet nontraditional credit needs and to respond to diverse housing preferences. The U.S. population is expected to grow by an average of 2.4 million persons per year over the next 20 years, resulting in 1.1 to 1.2 million new households per year. In particular, the continued influx of immigrants will increase the demand for rental housing while those who immigrated during the 1980s will be in the market to purchase owner-occupied housing. The aging of the baby-boom generation and the entry of the small baby-bust generation into prime home buying age is expected, however, to result in a lessening of housing demand. Non-traditional households have, and will, become more important as overall household formation rates slow down. With later marriages, divorce, and non-traditional living arrangements, the fastest growing household groups have been single parent and single person households. With continued house price appreciation and favorable mortgage terms, ''trade-up buyers'' will also increase their role in the housing market. There will also be increased credit needs from new and expanding market sectors, such as manufactured housing and housing for senior citizens. These demographic trends will lead to greater diversity in the homebuying market, which, in turn, will require greater adaptation by the primary and secondary mortgage markets.

As a result of the above demographic forces, housing starts are expected to average 1.5 million units annually between 2000 and 2003, essentially the same as in 1996–99.[17] Refinancing of

existing mortgages, which accounted for 50 percent of originations in 1998 and 34 percent in 1999, is expected to return to lower levels during 2000. The mortgage market remained strong with $1.3 trillion dollars in originations during 1999. A lower number of originations is expected in 2000 with approximately $962 billion in originations being projected by the Mortgage Bankers Association of America.

c. Performance and Effort of the GSEs Toward Achieving the Goal in Previous Years. Both Fannie Mae and Freddie Mac have improved their affordable housing loan performance since the enactment of FHEFSSA in 1992 and HUD's establishment of housing goals under the law. However, the GSEs' mortgage purchases continue to lag the overall market in providing financing for affordable housing to low- and moderate-income families, underserved borrowers and their neighborhoods, indicating that there is more that the GSEs can do to improve their performance. In addition, a large percentage of the lower-income loans purchased by the GSEs have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of those lower-income families who have little cash for making large down payments but can fully meet their monthly payment obligations. The discussion of the performance and effort of the GSEs toward achieving the housing goals in previous years is specific to each of the three housing goals. This topic is discussed below and further details are provided in the Appendices to this rule.

d. Size of the Mortgage Market Serving the Targeted Population or Areas, Relative to the Size of the Overall Conventional, Conforming Mortgage Market. The Department's analyses indicate that the size of the conventional, conforming market relative to each housing goal is greater than earlier estimates (based mainly on HMDA data for 1992 through 1994) used in establishing the 1996–1999 housing goals. The discussion of the size of the conventional mortgage market serving targeted populations or areas relative to the size of the overall conventional, conforming mortgage market is specific to each of the three housing goals. The Department's estimate of the size of the conventional mortgage market is discussed below and further details are provided in the Appendices to this rule.

e. Ability of the GSEs To Lead the Industry in Making Mortgage Credit Available for the Targeted Population or Areas. Research concludes that the GSEs have generally not been leading the market, but have lagged behind the primary market in financing housing for lower-income families and housing in underserved areas. However, the GSEs' state-of-the-art technology, staff resources, share of the total conventional, conforming market, and their financial strength suggest that the GSEs have the ability to lead the industry in making mortgage credit available for lower-income families and underserved neighborhoods.

The legislative history of FHEFSSA indicates Congress's strong concern that the GSEs need to do more to benefit low- and moderate-income families and residents of underserved areas that lack access to credit.[18] The Senate Report on FHEFSSA emphasized that the GSEs should ''lead the mortgage finance industry in making mortgage credit available for low- and moderate-income families.'' [19] FHEFSSA, therefore, specifically required that HUD consider the ability of the GSEs to lead the industry in establishing the level of the housing goals. FHEFSSA also clarified the GSEs' responsibility to complement the requirements of the Community Reinvestment Act [20] and fair lending laws [21] in order to expand access to capital to those historically underserved by the housing finance market.

While leadership may be exhibited through the GSEs' introduction of innovative products, technology, and processes and through establishing partnerships and alliances with local communities and community groups, leadership must always involve increasing the availability of financing for homeownership and affordable rental housing. Thus, the GSEs' obligation to lead the industry entails leadership in facilitating access to affordable credit in the primary market for borrowers at different income levels and housing needs, as well as for underserved urban and rural areas.

While the GSEs cannot be expected to solve all of the nation's housing problems, the efforts of Fannie Mae and Freddie Mac have not matched the opportunities that are available in the primary mortgage market. Although the GSEs were directed by Congress to lead the mortgage finance industry in making mortgage credit available for low- and moderate-income families, depository and other lending institutions have been more successful than the GSEs in providing affordable loans to lower-income borrowers and in historically underserved neighborhoods. In 1998 for example, very low-income borrowers accounted for 9.9 percent of Freddie Mac's acquisitions of home purchase mortgage loans, 11.4 percent of Fannie Mae's acquisitions, 15.2 percent of such mortgage loans originated and retained by depository institutions, and 13.3 percent of such mortgage loans originated in the overall conventional, conforming market. Similarly, mortgage purchases on properties located in underserved areas accounted for 20.0 percent and 22.5 percent of Freddie Mac's and Fannie Mae's purchases of home purchase loans, respectively, 26.1 percent of home purchase mortgages originated and retained by depository institutions and 24.6 percent of home purchase mortgages originated in the overall conventional, conforming market.

Between 1993 and 1998, Fannie Mae improved its affordable lending performance and made progress toward closing the gap between its performance and that of the overall mortgage market. During that period Freddie Mac showed less improvement and, as a result, did not make as much progress in closing the gap between its performance and that of the overall market for home loans. However, during 1999, Freddie Mac's purchases of goals qualifying home loans increased significantly relative to Fannie Mae's purchases and, as a result Freddie Mac now matches or out-performs Fannie Mae in several affordable lending categories. For example, during 1999, very low-income borrowers accounted for 11.0 percent of Freddie Mac's purchases of home loans in metropolitan areas, compared with 10.8 percent of Fannie Mae's. Similarly, mortgages on properties in underserved census tracts accounted for 21.2 percent of Freddie Mac's acquisitions of home purchase mortgage loans in metropolitan areas, compared with 20.6 percent of Fannie Mae's. The extent to which Freddie Mac has closed its performance gap relative to depositories and the overall market will be clarified once HUD has the opportunity to analyze 1999 HMDA data for metropolitan areas.

The Department estimates the GSEs provided financing for 55 percent of units financed by conventional, conforming mortgages in 1998.[22] However, the GSEs' mortgage market presence varies significantly by property type. While the GSEs accounted for about 68 percent of the owner-occupied units financed in the primary market in that year, their role was much less in the market for mortgages on rental properties. Specifically, HUD estimates that Fannie Mae and Freddie Mac accounted for only about 24 percent of rental units financed in 1998. Thus, the GSEs' presence in the rental mortgage market was well under half their presence in the market for mortgages on

single family owner-occupied properties.

Within the rental category, GSE purchases have accounted for 29 percent of the multifamily dwelling units that were financed in 1998. The GSEs have yet to play a major role in financing mortgages for rental units in single family rental properties (those with at least one rental unit and no more than four units in total), where their market share was only 19 percent.

As noted above, the GSEs continue to lag the overall conforming, conventional market in providing affordable home purchase loans to lower-income families and for properties in underserved neighborhoods. Additionally, a large percentage of the lower-income loans purchased by both GSEs have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of those lower-income families who find it difficult to raise enough cash for a large down payment. Also, while rental properties are an important source of low- and moderate-income rental housing, they represent only a small portion of the GSEs' business.

The appendices to this rule provide more information on HUD's analysis of the extent to which the GSEs have lagged the mortgage industry in funding loans to underserved borrowers and neighborhoods. From this analysis of the GSEs' performance in comparison with the primary mortgage market and with other participants in the mortgage markets, it is clear that the GSEs need to improve their performance relative to the primary market of conventional, conforming mortgage lending. The need for improvements in the GSEs' performance is especially apparent with respect to the single family and multifamily rental markets.

f. Need To Maintain the Sound Financial Condition of the GSEs. Based on HUD's economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD has concluded that the level of the goals as proposed would not adversely affect the sound financial condition of the GSEs. Further discussion of this issue is found in Appendix A.

3. Determinations Regarding the Level of the Housing Goals

There are several reasons the Department, having considered all the statutory factors, is increasing the level of the housing goals.

a. Market Needs and Opportunities. First, the GSEs appear to have substantial room for growth in serving the affordable housing mortgage market. For example, as discussed above, the Department estimates that the two GSEs' mortgage purchases accounted for 55 percent of the total (single family and multifamily) conventional, conforming mortgage market during 1998. In contrast, GSE purchases comprised only 44 percent of the low- and moderate-income mortgage market in 1998, 46 percent of the underserved areas market, and, a still smaller, 33 percent of the special affordable market. As discussed above, the GSE presence in mortgage markets for rental properties, where much of the nation's affordable housing is concentrated, is far below that in the single family owner-occupied market.

The GSEs' role in the mortgage market varies somewhat from year to year in response to changes in interest rates, mortgage product types, and a variety of other factors. Underlying market trends, however, show a clear and significant increase in the GSEs' role. Specifically, OFHEO estimates that the share (in dollars) of single family mortgages outstanding accounted for by mortgage-backed securities issued by the GSEs and by mortgages held in the GSEs' portfolios has risen from 31 percent in 1990 to 42 percent in 1999. In absolute terms, the GSEs' presence has grown even more sharply, as the total volume of single family mortgage debt outstanding has increased rapidly over this period.

The GSEs have indicated that they expect their role in the mortgage market to continue to increase in the future, as they develop new products, refine existing products, and enter markets where they have not played a major role in the past. The Department's housing goals for the GSEs also anticipate that their involvement in the mortgage market will continue to increase.

There are a number of segments of the multifamily, single family owner, and single family rental markets that the GSEs have not tapped in which the GSEs might play an enhanced role thereby increasing their shares of targeted loans and their performance under the housing goals. Six such areas are discussed below.

(1) Small Multifamily Properties. One sector of the multifamily mortgage market where the GSEs could play an enhanced role involves loans on small multifamily properties—those containing 5–50 units. These loans account for 39 percent of the units in recently mortgaged multifamily properties, according to the 1991 Survey of Residential Finance. However, the GSEs typically purchase relatively few of these loans. HUD estimates that the GSEs acquired loans financing only three percent of units in small multifamily properties originated during 1998. This is substantially less than the GSEs' presence in the overall multifamily mortgage market, which the Department estimates was 29 percent in 1998.

Increased purchases of small multifamily mortgages would make a significant contribution to performance under the goals, since the percentages of these units qualifying for the income-based housing goals are high—in 1999, 95 percent of units backing Fannie Mae's multifamily mortgage transactions qualified for the Low- and Moderate-Income Housing Goal, with a corresponding figure of 90 percent for Freddie Mac. That year, 43 percent of units backing Freddie Mac's multifamily transactions qualified for the Special Affordable Housing Goal, with a corresponding figure of 56 percent for Fannie Mae.

(2) Multifamily Rehabilitation Loans. Another multifamily market segment holding potential for expanded GSE presence involves properties with significant rehabilitation needs. Properties that are more than 10 years old are typically classified as ''C'' or ''D'' properties, and are considered less attractive than newer properties by many lenders and investors. Multifamily rehabilitation loans accounted for only 0.5 percent of units backing Fannie Mae's 1998 mortgage purchases and for 1.6 percent in 1999. These loans accounted for 1.9 percent of Freddie Mac's 1998 multifamily mortgage purchase total (with none indicated in 1999).

(3) Single Family Rental Properties. Studies show that single family rental properties are a major source of affordable housing for lower-income families, yet these properties are only a small portion of the GSEs' overall business.

HUD estimates that approximately 203,000 mortgages were originated on owner-occupied single family rental properties in 1998. These mortgages financed a total of 458,000 units—the owners' units plus an additional 254,000 rental units.[23] Data submitted to HUD by the GSEs indicate that, in 1998, together the GSEs acquired mortgages backed by 188,000 such units, 41 percent of the number of units financed in the primary market, well below the GSEs' overall 1998 market share of 55 percent.[24]

There is ample room for an enhanced GSE role in this goal-rich market. For the GSEs combined, 65 percent of the units in these properties qualified for the Low- and Moderate-Income Housing Goal in 1999, 32 percent qualified for the Special Affordable Housing Goal, and 54 percent qualified for the

Geographically Targeted Goal. Thus, significant gains could be made in performance on all of the goals if Fannie Mae and Freddie Mac played a larger role in the market for mortgages on single family owner-occupied rental properties (two to four units).

(4) Manufactured Homes. The Manufactured Housing Institute, in its Annual Survey of Manufactured Home Financing, reported that 116 reporting institutions originated $15.6 billion in consumer loans on manufactured homes in 1998, and that, with an average loan amount of about $30,000, approximately 520,000 loans were originated.

While the GSEs have traditionally played a minimal role in financing manufactured housing, they have recently stepped up their activity in this market. However, even with their increased level of activity, the GSEs' purchases probably accounted for less than 15 percent of total loans on manufactured homes in 1998—a figure well below their overall market presence of 55 percent.

There is ample room for an enhanced GSE role in this market, with its high concentration of goals qualifying mortgage loans. In 1998, for loans reported by 21 manufactured housing lenders (that are required by HMDA to report loan data), 76 percent qualified for the Low- and Moderate-Income Housing Goal in 1998, 42 percent qualified for the Special Affordable Housing Goal, and 47 percent qualified for the Geographically Targeted Goal. Thus, manufactured housing has significantly higher shares of goal qualifying loans than all single family owner-occupied properties, though purchases of these loans are not quite as goal-rich as loans on multifamily properties. In general, goal performance could be enhanced substantially if the GSEs were to play an increased role in the manufactured housing mortgage market.

(5) A-minus Loans. Industry sources estimate that subprime mortgage originations amounted to about $160 billion in 1999, and that these loans are divided evenly between the more creditworthy (''A-minus'') borrowers and less creditworthy (''B,'' ''C,'' and ''D'') borrowers. Based on HMDA data for 200 subprime lenders, the Department estimates that 58 percent of the units financed by subprime loans qualified for the Low- and Moderate-Income Housing Goal in 1998, 29 percent qualified for the Special Affordable Housing Goal, and 45 percent qualified for the Geographically Targeted Goal.

Freddie Mac has estimated that 10 to 30 percent of subprime borrowers would qualify for a prime conventional loan. Fannie Mae Chairman Franklin Raines has stated that half of all mortgages in the high cost subprime market are candidates for purchase by Fannie Mae. Both Fannie Mae and Freddie Mac recently introduced programs aimed at borrowers with past credit problems that would lower the interest rates for those borrowers that were timely on their mortgage payments. Freddie Mac has also purchased subprime loans through structured transactions that limit Freddie Mac's risk to the ''A'' piece of a senior-subordinated transaction.

However, there may be ample room for further enhancement of both GSEs' roles in the A-minus market. A larger role by the GSEs might help standardize mortgage terms in this market, possibly leading to lower interest rates.

(6) Seasoned Mortgages. Over the past five years, depository institutions (banks and thrifts) have been expanding their affordable loan programs and, as a result, have originated substantial numbers of loans to low-income and minority borrowers and to low-income and predominantly minority neighborhoods, under the incentive of the Community Reinvestment Act (CRA),[25] which requires many depository institutions to help meet the credit needs of their communities. As the GSEs noted in their comments, some of these loans, when originated, may not have met the GSEs' underwriting guidelines. A large number of the ''CRA-type'' loans that have been recently originated remain in thrift and bank portfolios; selling these loans on the secondary market would free up capital for depositories to originate new CRA loans. Given its enormous size, the CRA market segment provides an opportunity for Fannie Mae and Freddie Mac to expand their affordable housing financing programs. The Department recognizes that purchasing these loans may present some challenges for the GSEs. However, it appears these loans are beginning to be purchased by GSEs after the loans have seasoned and through various structured transactions. As explained in Appendix A, Fannie Mae's purchases of seasoned loans improved its performance on the housing goals in 1997 and 1998. Seasoned loan purchases did not have a similar impact in 1999. Freddie Mac, on the other hand, has not been as active as Fannie Mae in purchasing seasoned CRA type loans. With billions of dollars worth of CRA loans in bank portfolios, the early experience of Fannie Mae suggests that purchasing these loans could be an important strategy for reaching the housing goals and provide needed liquidity for a market that is serving the needs of low-income and minority homeowners.

(7) Lending to Minority Borrowers. The GSEs have an opportunity to play a leadership role in making mortgage credit more widely available to African American and other minority borrowers, who represent yet another underserved market. In 1998, for example, African American borrowers accounted for five percent of conventional, conforming single family mortgage loans originated in metropolitan areas, as shown in Appendix A.[26] By contrast, African American borrowers accounted for only 3.1 percent of Fannie Mae's metropolitan area mortgage purchases and three percent of Freddie Mac's mortgage purchases. Hispanic borrowers accounted for 5.2 percent of the metropolitan area conventional, conforming mortgage market in 1998, 4.8 percent of Fannie Mae's mortgage purchases and 4.4 percent of Freddie Mac's mortgage purchases.[27]

b. Market Share Higher than Goal Levels. The shares of the mortgage markets that would qualify for each of the housing goals are higher than the goal levels as they were set through 1999. Specifically, the Low- and Moderate-Income Housing Goal for 1997 through 1999 was 42 percent, but the market share for low- and moderate-income mortgages has been estimated at 50–55 percent. The Geographically Targeted Goal for 1997 through 1999 was 24 percent, but the estimated market share of geographically targeted mortgages has been estimated at 29–32 percent. The Special Affordable Housing Goal for 1997 through 1999 was 14 percent, but the estimated special affordable market share is 23–26 percent.[28] Thus, the increases in the housing goals implemented in this final rule and described below will significantly reduce the disparities that existed between the previous housing goals and HUD's market estimates. HUD's analysis indicates that the goal levels established in the final rule are reasonable and feasible and that its market estimates reflect significantly more adverse economic environments than have recently existed. Reasons for the remaining disparity between the GSE housing goals established in this final rule and the respective shares of the overall mortgage market qualifying for each of the housing goals are discussed below. See Appendix D for further discussion of these issues.

c. Need for Increased Affordable Single Family Mortgage Purchases. Higher housing goals are needed to assure that both Fannie Mae and Freddie Mac increase their purchases of

single family mortgages for lower-income families. The GSEs lag behind depository institutions and other lenders in the conventional, conforming market in providing mortgage funds for underserved families and their neighborhoods. Numerous studies have concluded that Fannie Mae and Freddie Mac have room to increase their purchases of affordable loans originated by primary lenders. The single family affordable market, which had only begun to grow when HUD set housing goals in 1995, has now established itself with seven straight years (1993–1999) of solid performance. Current projections suggest that the demand for affordable housing by minorities, immigrants, and non-traditional households will be maintained in the post-1999 period, leading to additional opportunities for the GSEs to support mortgage lending benefiting families targeted by the housing goals.

d. Market Disparities. Despite the recent growth in affordable lending, there are many groups who continue to face problems obtaining mortgage credit and who would benefit from a more active and targeted secondary market. Homeownership rates for lower-income families, certain minorities, and central city residents are substantially below those of other families, and the disparities cannot simply be attributed to differences in income. Immigrants represent a ready supply of potential first-time home buyers and need access to mortgage credit. Special needs in the market, such as rehabilitation of older two- to four-unit properties, could be helped by new mortgage products and more flexibility in underwriting and appraisal guidelines. The GSEs, along with primary lenders and private mortgage insurers, have been making efforts to reach out to these underserved portions of the markets. However, more needs to be done, and the proposed increases in the housing goals are intended to encourage additional efforts by Fannie Mae and Freddie Mac.

e. Impact of Multifamily Mortgage Purchases. When the 1996–99 goals were established in December 1995, Freddie Mac had only recently reentered the multifamily mortgage market, after an absence from the market in the early 1990s. Freddie Mac has made progress in rebuilding its multifamily mortgage purchase program, with its purchases of these loans rising from $191 million in 1993 to $7.6 billion in 1999. Freddie Mac's limited role in the multifamily market was a significant constraint when HUD set the level of the housing goals for 1996 through 1999. While Freddie Mac has made progress in recent years in significantly increasing its multifamily mortgage purchases, Freddie Mac's smaller multifamily portfolio relative to that of Fannie Mae has meant fewer refinance opportunities from within its portfolio. Accordingly, the Department is providing Freddie Mac with a temporary adjustment factor for purchases of mortgages in multifamily properties with more than 50 units under the 2001–2003 goals as it continues to increase its multifamily mortgage purchases, as discussed in more detail, below.

f. Financial Capacity to Support Affordable Housing Lending. A wide variety of quantitative and qualitative indicators demonstrate that the GSEs' have ample, indeed robust, financial strength to improve their affordable lending performance. For example, the combined net income of the GSEs has risen steadily over the last decade, from $677 million in 1987 to over six billion dollars in 1999. This financial strength provides the GSEs with the resources to lead the industry in making mortgage financing available for families and neighborhoods targeted by the housing goals.

g. Closing the Gap Between the GSEs and the Market. This section discusses the relationship between the housing goals, the GSEs' performance and HUD's market estimates; and identifies key segments of the affordable market in which the GSEs have had only a weak presence. To lay the groundwork for this discussion, the following table summarizes the Department's findings regarding GSE performance under the 1997–2000 goals and the new goal levels for 2001–2003 as compared to HUD's estimates for 1995–1998 markets as well as HUD's projected market estimates for 2001–2003:

Percentage of Eligible Units Financed

	1997-2000 Goals	2001-2003 Goals	GSEs' Average performance 1996-1999 (Fannie Mae /Freddie Mac	HUD's Estimated 1995-1998 Market Average[29]	HUD's Projected market Estimate
Low- and Moderate Income	42%	50%	45.3% 43.2%	56%	50-55%
Geographically Targeted	24%	31%	27.7% 26.2%	33%	29-32%
Special Affordable Housing	14%	20%	16.1% 15.6%	28%	23-26%

It is evident from this table that the new goal levels for the Low- and Moderate-Income Housing Goal and Special Affordable Housing Goal are below HUD's projected market estimate for the years covered by the new housing goals. One reason for this disparity can be discerned by disaggregating GSE purchases by property type, which shows that the GSEs have little presence in some important segments of the affordable housing market. For example, as shown in Figure 1, in 1998, the GSEs purchased loans representing only 19 percent of rental units in single family rental properties, and only three percent of units in small multifamily properties mortgaged that year. Figure 2 provides additional detail providing unit data comparing the GSEs' with the conventional, conforming market. Typically, about 90 percent of rental units in single family rental and small multifamily properties qualify for the Low- and Moderate-Income Housing Goal. One reason that the GSEs' performance under the Low- and Moderate-Income Housing Goal falls short of HUD's market estimate is that the GSEs have had only a weak and inconsistent presence in financing these important sources of affordable housing, notwithstanding that these market segments are important components in the market estimate. In the overall conventional, conforming mortgage market, rental units in single family properties and in small multifamily properties are expected to represent approximately 21 percent of the overall mortgage market, and 33 percent of units backing mortgages qualifying for the Low- and Moderate-Income Housing Goal. Yet in 1999, units in such properties accounted for 6.6 percent of the GSEs' overall purchases, and only 11.5 percent of the GSEs' purchases meeting the Low- and Moderate-Income Housing Goal. The continuing weakness in GSE purchases of mortgages on single

family rental and small multifamily properties is a major factor explaining the shortfall between GSE performance and that of the primary mortgage market.

For a variety of reasons, the GSEs have historically viewed the single family rental and small multifamily market segments as more difficult for them to penetrate than the single family owner-occupied mortgage market. In order to provide the GSEs with an incentive to enter these markets and to provide this housing the benefits of greater financing through the secondary market, HUD is proposing to award ''bonus points'' for the GSEs' purchases of mortgages on owner-occupied single family rental properties and small multifamily properties in calculating credit toward the housing goals. The bonus points will make the Department's increased housing goals easier for the GSEs to attain if they devote resources to affordable market segments where their past role has been limited and there are significant needs for greater secondary market involvement.

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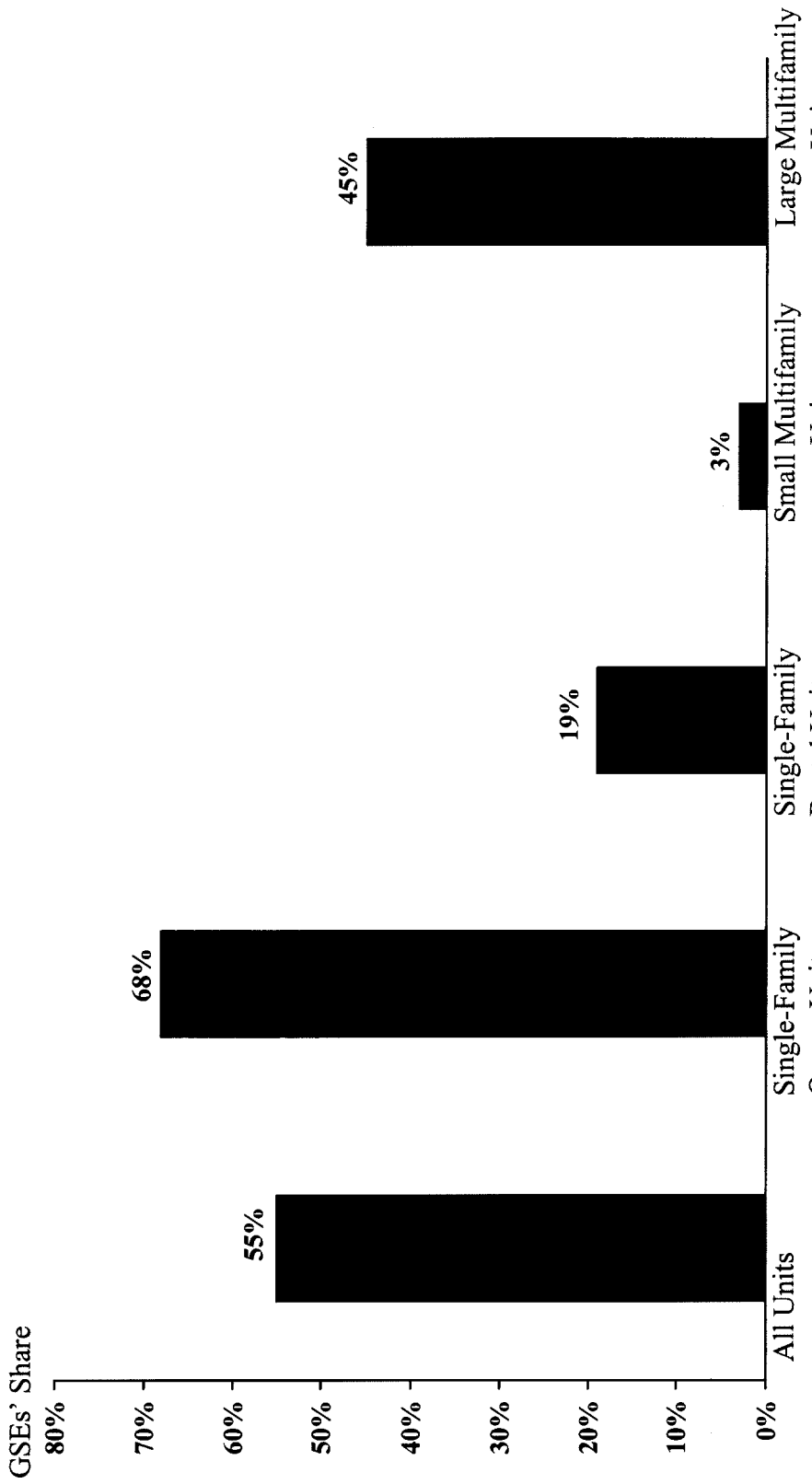
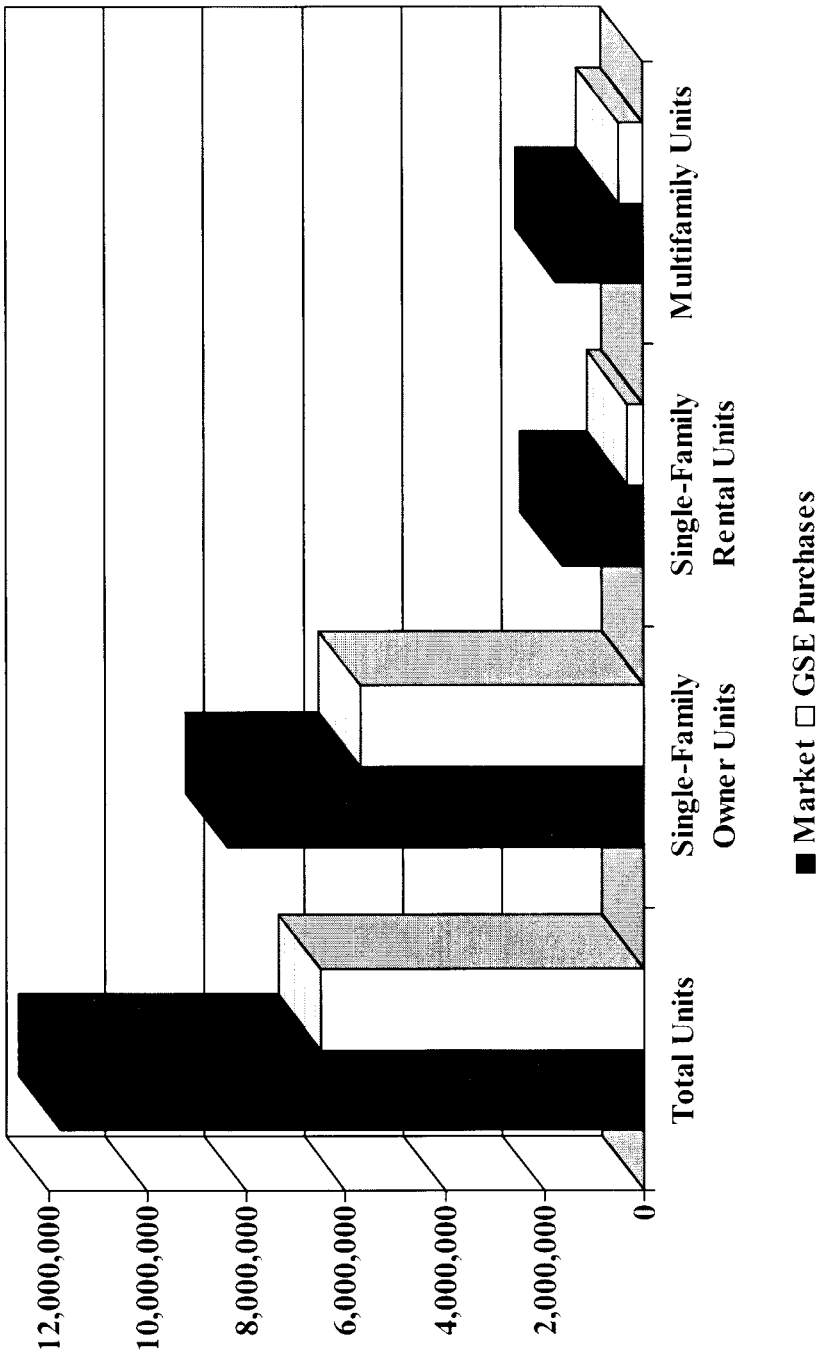
Figure 1
GSEs' Share of the 1998 Conventional Conforming Market by Property Type



Source: See Table A.7b, Appendix A, and discussion of mortgages on small multifamily properties in Appendix A, Section G.

Figure 2
Units in the 1998 Conventional Conforming Mortgage Market Compared to GSE Purchases By Property Type



Source: See Table A.7b, Appendix A.

4. Summary of Comments on HUD's Analysis of Statutory Factors

HUD received several comments on the factors for determining the goal levels. Fannie Mae and Freddie Mac provided numerous technical comments on HUD's analyses in the appendices to the proposed rule. Most of the comments focused on two related topics concerning HUD's market methodology: (a) HUD's model for the determining the market size for each of the three housing goals; and (b) HUD's analysis of the GSEs' performance in the single family owner-occupied portion of the conventional, conforming mortgage market. Section A of Appendices A, B and C and Section B of Appendix D provide a more extensive discussion of HUD's response to the various questions raised by the GSEs about the factors for determining the housing goals.

a. Market Share Methodology. In Appendix D, HUD estimates the following market shares for the three housing goals during 2001–2003: 50–55 percent for the Low-Mod Goal, 23–26 percent for the Special Affordable Goal, and 29–32 percent for the Geographically Targeted Goal. Neither GSE objected to HUD's basic approach to calculating these market shares, which involves estimating (1) the share of the market (in dwelling units) by type of property (single family owner-occupied, single family rental, and multifamily), (2) the proportion of dwelling units financed by mortgages for each type of property meeting each goal, and (3) projecting the size of the total market by weighting each such goal share by the corresponding market share. In fact, both Fannie Mae and Freddie Mac stated that HUD's market share model was a reasonable approach

for estimating the goals qualifying shares of the mortgage market. Freddie Mac stated that the Department took the correct approach in estimating the size of the conventional, conforming market by examining several different data sets, using alternative methodologies, and conducting sensitivity analyses. Fannie Mae expressed similar sentiments asserting that HUD's model for assessing the size of the affordable housing market is reasonable.

Both GSEs were critical, however, of HUD's implementation of its market methodology. Their major comments on the market methodology fall into two general areas. First, the GSEs expressed concern about HUD's assumptions and use of specific data elements both in constructing the distribution of property shares among single family owner-occupied, single family rental, and multifamily properties and in estimating the goals qualifying shares for each property type. The GSEs contended that HUD chose assumptions and data sources that resulted in an overstatement of the market estimate for each of the housing goals. In particular, the GSEs claimed that HUD overstated the importance of rental properties (both single family and multifamily) in its market model and overstated the Low- and Moderate-Income, Special Affordable, and Geographically Targeted shares of the single family owner market. Second, both GSEs argued that HUD's market estimates depended heavily on a continuation of recent conditions of economic expansion and low interest rates. According to the GSEs, HUD's range of market estimates did not include periods of adverse economic and affordability conditions such as those which existed in the early 1990s.

b. GSEs' Performance in Single Family Owner-Occupied Market. Both GSEs differed with HUD's conclusions that they lag the conventional, conforming market in funding mortgages for the goals qualifying segments of the single family owner-occupied market. Rather, the GSEs hold strongly that they have led the mortgage market, from both quantitative and qualitative perspectives. The GSEs expressed concern about HUD's assumptions and treatment of HMDA data in estimating the goals qualifying shares for single family owner-occupied mortgages. The GSEs assert that certain portions of the conforming mortgage market (such as manufactured housing loans and selected CRA loans)—those market segments where they have not been very active—should be excluded from HUD's definition of the owner market. From their own analysis that excludes these markets from HMDA data, the GSEs conclude that they match or exceed the market in funding affordable loans.

It should be noted that the GSEs extend their criticism to other researchers that have examined this issue of their leading the market with HMDA and related data. Appendix A summarizes findings of several research studies that have reached the same conclusion as HUD—that the GSEs have lagged the market in affordable lending

c. Volatility of the Mortgage Market. Both GSEs claimed that HUD had not adequately considered the impact that changes in the national economy could have on the size of the affordable lending market and that HUD should significantly lower its market estimates to reflect adverse economic conditions. The GSEs commented that HUD based its market estimates on the unusually favorable economic and housing market conditions that have existed since 1995. The GSEs relied on a Freddie Mac funded study by PriceWaterhouse-Coopers (PWC) which concluded that the low- and moderate-income share of the mortgage market was heavily influenced by interest rate movements and changes in the rate of economic growth.[30] PWC claims that the low-mod share of the market ranged from 35 percent to 56 percent during the 1990s, with a mean of 46 percent. HUD's analysis, on the other hand, finds that the low- and moderate-income share of the market averaged 53 percent during the 1990s.

In HUD's view, a major shortcoming of the PWC report is that it underestimates the size of the multifamily mortgage market by relying on multifamily originations reported in HMDA data. While HMDA is for many purposes a preeminent data source on single family lending, its usefulness as a multifamily data source is much more limited due to severe underreporting of loan originations. Indeed, HMDA is not widely used as a multifamily data source in published works by highly regarded independent researchers, nor by Fannie Mae in its comments submitted in response to HUD's proposed rule.

The discussion of single family lending in the PWC document initially appears to contradict HUD's analysis in Appendix D of the proposed rule, but this is mainly because HUD's analysis is based upon the conforming, conventional mortgage market, whereas PWC includes FHA loans and loans above the conforming loan limit, at least in the same years.[31] Because the GSEs are prohibited from purchasing loans above the conforming limit, and because HUD is directed by statute to focus on the conventional market in setting the housing goals, it is necessary to restrict analyses of the mortgage market to the conventional, conforming market for purposes of establishing the housing goals.

As explained in Appendices A and D, HUD is aware that the mortgage market is dynamic in character and susceptible to significant changes in conditions that would affect the overall level of affordable lending to lower-income families. In response to concerns expressed about the volatility of the mortgage markets over time, HUD has estimated a range of market shares for each of the housing goals for the years 2001–2003 of 50–55 percent for the Low- and Moderate-Income Housing Goal, 23–26 percent for the Special Affordable Housing Goal, and 29–32 percent for the Geographically Targeted Goal—that reflect economic environments significantly more adverse than those which existed during the period between 1995 and 1998, when the units financed in the conventional, conforming market meeting the Low- and Moderate-Income Housing Goal averaged 56 percent, the Special Affordable Housing Goal, 28 percent, and the Geographically Targeted Goal, 33 percent.

HUD conducted detailed sensitivity analyses for each of the housing goals to reflect affordability conditions that are less conducive to lower-income homeownership than those that existed during the mid- to late-1990s. For example, the low- and moderate-income percentage for single family home purchase loans can fall to as low as 34 percent—or four-fifths of its 1995–98 average of over 42 percent—before the projected low- and moderate-income share of the overall market would fall below 50 percent. Additional sensitivity analyses examining recession and proportionately higher refinance scenarios and varying other key assumptions, such as the size of the multifamily market, show that HUD's market estimates consider a range of mortgage market and affordability conditions and provide a sound basis for setting housing goals for the years 2001–03.

HUD recognizes that under certain adverse circumstances, the goals qualifying market shares could fall below its estimates. However, as HUD stated in its 1995 GSE Rule, while the housing goals must be feasible, setting goals so that they can be met even under the very worst of circumstances is unreasonable. As HUD stated in its 1995 Final GSE Rule, policy should not be based on market estimates that include the worst possible economic scenarios.

HUD believes that the range for the market shares should be broad enough to reflect the likely scenarios including an expected range of volatility in the mortgage market over the period during which the new housing goals will be in effect.

FHEFSSA and HUD recognize that conditions could change in ways that would require revised expectations. Thus, HUD is given the statutory discretion to revise the goals if the need arises. Further, current regulations require that, if a GSE fails or if there is a substantial probability that a GSE will fail one or more of the housing goals, notice be provided to the GSE and an opportunity provided for the GSE to explain the reason for the failure, or potential failure, and to provide information as to the feasibility of achieving the housing goal. The Department then makes a determination, taking into consideration market and economic conditions and the financial condition of the GSE, as to whether the goal was feasible. If the goal is determined not to be feasible, no further action is taken. If the goal is determined to be feasible, the GSE is given the opportunity to submit, for HUD's approval, a housing plan demonstrating how the goal will be achieved in the future. Thus, there are adequate protections for the GSEs if they are unable to achieve one or more of their housing goals due to a dramatic downturn in the market.

d. Shortcomings of Mortgage Market Data Bases. Major mortgage market data bases such as HMDA and the American Housing Survey (AHS) are used to implement HUD's market share model. The GSEs made extensive criticisms of these data bases, concluding from their critiques that the ranges for the estimates of the goals-qualifying market shares should be wider to reflect uncertainty due to inadequate data. Examples of problems asserted by the GSEs include: overstating of low-income loans in HMDA data; inability of HMDA data to identify important segments of the market (such as subprime lenders); underreporting of multifamily mortgages in HMDA data and generally unreliable reporting of rental mortgages in other data bases; underreporting of income in the AHS; and the fact that some important mortgage market data bases such as the 1991 Residential Mortgage Finance Survey are dated.

HUD agrees that a single comprehensive source of information on mortgage markets is not available. Nevertheless, HUD considered and analyzed a number of data sources for the purpose of estimating market size, since no single source could provide all the data elements needed for its market model. In the appendices, HUD carefully defines the range of uncertainty associated with each data source, pulls together estimates of important market parameters from independent sources, and conducts sensitivity analyses to show the effects of various assumptions. In fact, Freddie Mac noted that ''We support the Department's approach for addressing the empirical challenges of setting the goals by examining several different data sets, using alternative methodologies, and conducting sensitivity analysis.''

While HUD recognizes the shortcomings of the various data and the inability to derive precise point estimates of various market parameters, HUD does not believe that these limitations call for expanding the range of the market estimates, as suggested by the GSEs. One purpose of the appendices is to demonstrate that careful consideration of independent data sources can lead to reliable ranges of estimates for the goals-qualifying shares of the mortgage market. HUD demonstrates the robustness of its market estimates by reporting the results of numerous sensitivity analyses that examine a range of assumptions about the existing data on the rental and owner markets. It should also be emphasized that while there are some problems with existing mortgage market data, there is a wealth of information on important components of the market. For example, HMDA data provide wide coverage of the single family owner market in metropolitan areas, yielding important information on the borrower income and census tract (underserved area) characteristics of that market, and thus providing useful information on the affordability characteristics of the single family rental and multifamily housing stock.

HUD's specific responses to the GSEs' comments on data are included mainly in Section A of Appendices A, B and C and Section B of Appendix D. For example, as noted there, HUD disagrees with the GSEs' assertions regarding the seriousness of the bias problem (*i.e.*, overstating low-income loans) in HMDA data. HUD does not rely heavily on some of the data bases that the GSEs criticize (*e.g.*, the borrower income data from the AHS and the 1991 Residential Finance Survey).

e. Size of the Multifamily Market. Because a high proportion of multifamily units qualify for the housing goals (*e.g.*, 90 percent typically qualify for the Low- and Moderate-Income Housing Goal and about 50 percent for the Special Affordable Goal), the size of the multifamily market is an important determinant of the overall market shares for the housing goals, as estimated by HUD's model. Both GSEs commented that HUD overstated the role of multifamily financing, which they asserted led to HUD's overstated estimated market shares. Freddie Mac and PriceWaterhouseCoopers, in particular, advocated the use of HMDA data for measuring the size of the multifamily market.

As explained in Appendix D, HUD disagrees with Freddie Mac's and PWC's analysis of the multifamily market. That appendix contains a detailed discussion of the size of the multifamily mortgage market that considers a number of alternative data sources providing ample evidence on multifamily origination volume over the years 1990 to 1999. HUD finds that newly mortgaged multifamily units represent an average of 16–17 percent of units financed during the 1990s. HUD's estimated multifamily market shares exceed estimates prepared by PWC (averaging 8.7 percent for 1991–1998); Appendix D outlines what HUD regards as errors in the PWC study that led to its unrealistically low estimates of the multifamily origination market. The three multifamily market shares—13.5 percent, 15 percent, and 16.5 percent—that HUD emphasizes in its market share model accommodates the possibility of a recession or heavy refinance year.

f. GSEs' Affordable Lending Performance—Defining the Relevant Market. As noted earlier, HUD uses HMDA data to show that even though the GSEs have improved their performance since 1993, they have lagged depositories and others in the conventional, conforming market in funding affordable loans, both since 1993 and particularly during the more recent 1996–98 period when the new housing goals were in effect. In their analyses, the GSEs reach the opposite conclusion—each concludes that they already match or even lead the market, depending on the affordable category being considered. The GSEs obtain this result by adjusting HMDA market data to exclude single family loans that they perceive as not being available for them to purchase.

Both GSEs provided numerous comments concerning the types of mortgages that HUD should exclude from the definition of the single family owner market. Fannie Mae states that it ''can only purchase or securitize mortgages that primary market lenders are willing to sell'' and that ''HUD fails to adjust for those housing markets that are not fully available to Fannie Mae

and Freddie Mac.'' Freddie Mac states that it ''has not achieved, and is unlikely to achieve in the near term, the same penetration in the subprime and manufactured housing segments of the market as it has achieved in the conventional, conforming market'' and, therefore, HUD should not include these segments in its market definition. According to the GSEs, markets that are ''not available'' to them or where they are not a ''full participant'' should be excluded from HUD's market definition. In addition to the subprime and manufactured housing markets, examples of market segments mentioned by the GSEs for exclusion consisted of the following: low-down payment mortgages (those with loan-to-value ratios greater than 80 percent) without private mortgage insurance or some other credit enhancement; loans financed through state and local housing finance agencies; below-market-interest-rate mortgages; specialized CRA mortgages; and portions of depository portfolios that are not available for purchase by the GSEs at the time of mortgage origination.

HUD disagrees with the comments offered by the GSEs advocating exclusion of those market segments that they have not yet been able to penetrate. The conventional, conforming market represents the appropriate benchmark for evaluating GSE performance as discussed previously, even if this is not the market that the GSEs perceive as available for them to purchase. However, with respect to the subprime market, HUD believes that the risky, B&C portion of that market should be excluded from the market estimates for each of the housing goals. Thus, HUD includes only the A-minus portion of the subprime market in its overall estimates of the goals-qualifying market shares.

Excluding other important segments of the mortgage market as the GSEs recommend would render the resulting market benchmark useless for evaluating the GSEs' performance. The loans that the GSEs would exclude are important sources of goals credit and, in fact, are the very loans the GSEs are supposed to be reaching out to finance. A recent report by the Department of Treasury demonstrated the targeting of CRA-type loans to lower-income and minority families. Numerous studies have shown that the manufactured home sector is an important source of low-income housing. In many of these markets, a more active secondary market could encourage lending to traditionally underserved borrowers. While HUD recognizes that some segments of the market may be more challenging for the GSEs to enter than others, the data reported in Figure 2 of this Appendix show that the GSEs have ample opportunities to purchase goals-qualifying mortgages. Furthermore, HUD recognizes the challenge of reaching segments of these markets by not setting each goal at the very top of its market estimate range.

Finally, it should also be noted that the GSEs' purchases under the housing goals are not limited to new mortgages that are originated in the current calendar year. The GSEs can purchase loans from the substantial, existing stock of affordable loans—after these loans have seasoned and the GSEs have had the opportunity to observe their payment performance.

g. HUD's Determination. HUD carefully examined the comments on its analysis of the statutory factors used to determine the appropriate level of the housing goals, particularly the methodology used to establish the market share for each of the goals. Based on that evaluation, as well as HUD's additional analysis of its estimates, HUD determined that its basic methodology is a reasonable and valid approach to estimating market share and that the percentage ranges for each of the three market share estimates do not need to be adjusted from those provided in the proposed rule. While a number of technical changes have been made in this final rule in response to the comments, the approach for determining market size has not been modified substantially. The detailed evaluations show that the methodology, as modified, produces conservative estimates of the market share for each goal. HUD recognizes the uncertainty regarding some of these estimates, which has led the Department to undertake a number of sensitivity and other analyses to reduce this uncertainty and also to provide a range of market estimates (rather than precise point estimates) for each of the housing goals.

5. Period Covered by the Housing Goals

This final rule establishes housing goals for the years 2001 through 2003. The proposed rule would have established housing goals for the GSEs for the year 2000 as well as 2001–2003, with higher housing goals than currently required for 2000, a transition year, and still higher goals for 2001–2003.

The GSEs commented that since the proposed rule would have set transitional goals for 2000, if the goals are established later in 2000, then 2001 should become the transition year.

HUD has considered the issue and concluded that while it could establish higher ''transitional'' goals for 2000 as were proposed late in the year, and require that the GSEs perform at the new goal levels, given the publication date of this final rule, HUD will not require that the GSEs meet higher goals for 2000.

At the same time, HUD has determined that establishing 2001 as a transition year is unnecessary and unwarranted. The goal levels for the years 2001–2003, and 2000, were announced in July 1999 and formally proposed earlier this year, providing the GSEs ample notice of the goal levels expected for these years. Indeed, data indicate that the GSEs have increased their efforts in 2000 in light of the proposed 2001–2003 levels. Moreover, the Department's analysis of the statutory factors supports establishment of the goals for 2001–2003 at the levels proposed as both reasonable and feasible. Accordingly, the housing goals for 2000 shall remain at the levels previously established in accordance with §§ 81.12(c)(3), 81.13(c)(3), and 81.14(c)(3) of the regulations as they existed prior to the effectiveness of this final rule. The housing goals for 2001–2003 are established at the levels HUD proposed.

The Department believes the new goal levels established by this rule to be appropriate based upon consideration of the statutory factors and comments received. Setting the goal levels for years 2001–2003 provides the GSEs with a level of predictability to enable them to develop and implement business strategies to achieve the goals.

6. Low- and Moderate-Income Housing Goal, § 81.12

This section discusses the Department's consideration of the statutory factors in arriving at and the comments received on the new housing goal level for the Low- and Moderate-Income Housing Goal, which targets mortgages on housing for families with incomes at or below the area median income. After consideration of these factors, this final rule establishes the goal for the percentage of dwelling units to be financed by each GSE's mortgage purchases for each of the years 2001–2003 that are affordable to low- and moderate-income families at 50 percent. A short discussion of the statutory factors received follows. Additional information analyzing each of the statutory factors is provided in Appendix A, ''Departmental Considerations to Establish the Low- and Moderate-Income Housing Goal,'' and Appendix D, ''Estimating the Size of the Conventional Conforming Market for each Housing Goal.''

a. Market Estimate for the Low- and Moderate-Income Housing Goal. The Department estimates that dwelling units serving low- and moderate-income families will account for 50–55 percent of total units financed in the overall conventional, conforming mortgage market during the period 2001 through 2003. HUD has developed a reasonable range, rather than a point estimate, that accounts for significantly more adverse economic conditions than have existed recently.

b. Past Performance of the GSEs under the Low- and Moderate-Income Housing Goal. During the transition period from 1993 through 1995, Fannie Mae's performance under the Low- and Moderate-Income Housing Goal jumped sharply in one year, from 34.2 percent in 1993 to 44.8 percent in 1994, before declining to 42.3 percent in 1995. It then stabilized at just over 45 percent in 1996 and 1997. Fannie Mae's performance in 1998 declined to 44.1 percent due in large measure to the high volume of refinance loans that Fannie Mae funded in 1998, before rising to 45.9 percent in 1999.

During the same period, Freddie Mac demonstrated more consistent gains in performance under the Low- and Moderate-Income Housing Goal, from 29.7 percent in 1993 to 37.4 percent in 1994 and 38.9 percent in 1995. Freddie Mac then achieved 41.1 percent in 1996, and 42.6 percent and 42.9 percent in 1997 and 1998, respectively. In 1999, Freddie Mac's performance increased sharply to 46.1 percent.

The housing goals that have been in effect prior to this final rule specified that in 1996 at least 40 percent of the number of units financed by mortgage purchases of the GSEs and eligible to count toward the Low- and Moderate-Income Goal should qualify as low- and moderate-income, and at least 42 percent should qualify as such in each year from 1997 through 1999. Fannie Mae surpassed these goal levels by 5.6 percentage points in 1996, 3.7 percentage points in 1997, 2.1 percentage points in 1998, and 3.9 percentage points in 1999. Freddie Mac surpassed the goals by 1.1 percentage points, 0.6 percentage points, 0.9 percentage points and 4.1 percentage points in 1996, 1997, 1998 and 1999, respectively.

Fannie Mae's performance on the Low- and Moderate-Income Housing Goal has surpassed Freddie Mac's in every year but one, 1999, when Freddie Mac slightly outperformed Fannie Mae (46.1 percent versus 45.9 percent). However, Freddie Mac's 1999 performance represented a 55 percent increase over its 1993 level, exceeding the 34 percent increase by Fannie Mae over the same period, recognizing, however, that Fannie Mae's 1993 performance was significantly greater than Freddie Mac's.

The GSEs' performance under the Low- and Moderate-Income Housing Goal for the 1996 through 1999 period is summarized below:

SUMMARY OF GSEs' PERFORMANCE UNDER THE LOW- AND MODERATE-INCOME HOUSING GOAL 1996–1999 [32]

[In percentages]

	1996	1997	1998	1999
Required Goal Level	40	42	42	42
Fannie Mae: Percent Low- and Moderate-Income	45.6	45.7	44.1	45.9
Freddie Mac: Percent Low- and Moderate-Income	41.1	42.6	42.9	46.1

Freddie Mac's improved performance since 1993 is due mainly to its increased purchases of multifamily loans as it has again become active in this market. Some housing industry observers believe that the establishment of the Low- and Moderate-Income Housing Goal has been an important factor in explaining Freddie Mac's re-entry into the multifamily market. In fact, as indicated above, multifamily mortgage purchases represent a significant component of both GSEs' activities in meeting the Low- and Moderate-Income Housing Goal, even though multifamily loans comprise a relatively small portion of the GSEs' business activities. In 1999, while Fannie Mae's multifamily purchases represented only nine percent of its total mortgage acquisition volume measured in terms of dwelling units, these purchases comprised 20 percent of units qualifying for the Low- and Moderate-Income Housing Goal. Multifamily purchases were eight percent of the units financed by Freddie Mac's 1999 mortgage purchases but represented 17 percent of the units comprising Freddie Mac's low- and moderate-income mortgage purchases.

c. Summary of Comments. A number of commenters recommended that the Low- and Moderate-Income Housing Goal include separate goals targeting a portion of the GSEs' business to multifamily housing and a portion to single family housing. While there are distinctly different issues relevant to the single family market and the multifamily market, the Department does not believe that it is necessary or appropriate to establish separate goals for those two markets. First, the increased level of the Low- and Moderate-Income Housing Goal in this final rule will require an increase in both single family and multifamily mortgage purchases. HUD's present analysis of these markets indicates that a unitary goal will best achieve increased performance in both markets. Second, this final rule adopts a number of incentives to encourage the GSEs to move into markets with unmet needs including the financing of smaller multifamily properties. HUD will, however, continue to examine market needs and evaluate the effects of the goal structure established in this final rule on the GSEs' single family and multifamily mortgage purchase performance. Based on this ongoing review, HUD may at a future date consider separate single family and multifamily goals or subgoals under the Low- and Moderate-Income Housing Goal, as warranted.

Fannie Mae expressed no objection to the higher goal level, provided the Department retains the proposed housing goals framework, including the proposed changes to the counting rules, in the final rule. Freddie Mac supports the goal framework included in the proposed rule and is committed to meeting the new goal levels. The Department's response to the issues raised by Fannie Mae and Freddie Mac relative to HUD's market share methodologies and its analysis of the statutory factors are discussed above.

Overall, other commenters were supportive of the proposed increase in the Low- and Moderate-Income Housing Goal. One group of commenters thought that, since the GSEs are mandated to lead the market, the level of the Low- and Moderate-Income Housing Goal should be increased further. Another group of commenters supported the increased level of the goal, but felt the Department needed to be prepared to

accommodate shifts in economic conditions that may have a negative impact on the GSEs' ability to meet the housing goals.

d. HUD's Determination. The Low- and Moderate-Income Housing Goal established in this final rule is reasonable and appropriate having considered the factors set forth in FHEFSSA. HUD set the level of the housing goal conservatively, relative to the Department's market share estimates, in order to accommodate a variety of economic scenarios. Moreover, current examination of the gaps in the mortgage markets, along with the estimated size of the market available to the GSEs, demonstrates that the number of mortgages secured by housing for low- and moderate-income families is more than sufficient for the GSEs to achieve the new goal.

Therefore, having considered all the statutory factors including housing needs, projected economic and demographic conditions for 2001 to 2003, the GSEs' past performance, the size of the market serving low- and moderate-income families, and the GSEs' ability to lead the market while maintaining a sound financial condition; HUD has determined that the annual goal for mortgage purchases qualifying under the Low- and Moderate-Income Housing Goal will be 50 percent of eligible units financed in each of the years 2001, 2002 and 2003. The new goal level will increase the GSEs' current level of performance to a level that is consistent with reasonable estimates of the low- and moderate-income housing market.

7. Central Cities, Rural Areas, and Other Underserved Areas Goal, § 81.13

This section discusses the Department's consideration of the statutory factors in arriving at and comments received on the proposed new housing goal level for the Central Cities, Rural Areas, and Other Underserved Areas Housing Goal (the Geographically Targeted Goal).

The Geographically Targeted Goal focuses on areas currently underserved by the mortgage finance system. The 1995 Final Rule provided that mortgage purchases count toward the Geographically Targeted Goal if such purchases finance properties that are located in underserved census tracts. In § 81.2, HUD defined ''underserved areas'' for metropolitan areas (in central cities and other underserved areas) as census tracts where either: (1) The tract median income is at or below 90 percent of the area median income (AMI); or (2) the minority population is at least 30 percent and the tract median income is at or below 120 percent of AMI. The AMI ratio is calculated by dividing the tract median income by the MSA median income. The minority percent of a tract's population is calculated by dividing the tract's minority population by its total population.

For properties in non-metropolitan (rural) areas, mortgage purchases count toward the Geographically Targeted Goal where such purchases finance properties that are located in underserved counties. These are defined as counties where either: (1) The median income in the county does not exceed 95 percent of the greater of the state or nationwide non-metropolitan median income; or (2) minorities comprise at least 30 percent of the residents and the median income in the county does not exceed 120 percent of the state non-metropolitan median income.

After analyzing the statutory factors and considering the comments, this final rule establishes the goal for the percentage of dwelling units financed by each GSE's mortgage purchases on properties that are located in underserved areas for each of the years 2001–2003 be 31 percent. A short discussion of the statutory factors follows. Additional information analyzing each of the statutory factors is provided in Appendix B, ''Departmental Considerations to Establish the Central Cities, Rural Areas, and Other Underserved Areas Goal,'' and Appendix D, ''Estimating the Size of the Conventional Conforming Market for Each Housing Goal.''

a. Market Estimate for the Geographically Targeted Goal. The Department estimates that dwelling units in underserved areas will account for 29–32 percent of total units financed in the overall conventional, conforming mortgage market during the period 2001 through 2003. HUD has developed a reasonable range, rather than a point estimate, that accounts for significantly more adverse economic conditions than have existed recently.

b. *Past Performance of the GSEs under the Geographically Targeted Goal.* The housing goals that have been in effect prior to this final rule required that in 1996 at least 21 percent of the units financed by the GSEs' mortgage purchases should count toward the Geographically Targeted Goal, and at least 24 percent in 1997 through 1999. Fannie Mae surpassed the goal by 7.1 percentage points in 1996, 4.8 percentage points in 1997, 3.0 percentage points in 1998, and 2.8 percentage points in 1999. Freddie Mac surpassed the goal by 4.0, 2.3, 2.1 and 3.5 percentage points in 1996, 1997, 1998, and 1999, respectively. The GSEs' performance for the 1996–99 period is summarized below:

SUMMARY OF GSE PERFORMANCE UNDER THE GEOGRAPHICALLY TARGETED GOAL 1996–1999 [33]

[In percentages]

	1996	1997	1998	1999
Required Goal Level	21	24	24	24
Fannie Mae: Percent Geographically Targeted	28.1	28.8	27.0	26.8
Freddie Mac: Percent Geographically Targeted	25.0	26.3	26.1	27.5

Although both GSEs have improved their performance in underserved areas, on average, their mortgage purchases continue to lag the primary market in providing financing for housing in these areas. On average, during the 1996–1998 period, mortgage purchases on properties in underserved areas accounted for 19.9 percent of Freddie Mac's purchases of single family home purchase mortgages, compared with 22.9 percent of Fannie Mae's purchases, 25.8 percent of mortgages retained by portfolio lenders, and 24.9 percent of all home purchase mortgages originated in the conventional, conforming market. These figures indicate that Freddie Mac has been less likely than Fannie Mae to purchase mortgages on properties in underserved neighborhoods. Through 1998, Freddie Mac had not made progress in reducing the gap between its performance and that of the overall market. In 1992, underserved areas accounted for 18.6 percent of Freddie Mac's purchases of home purchase mortgages and for 22.2 percent of such mortgage loans originated in the conforming market, which yields a ''Freddie Mac-to-Market'' ratio [34] of

0.84. By 1998, the ''Freddie Mac-to-Market'' ratio had actually fallen to 0.81. During the same period, the ''Fannie Mae-to-Market'' ratio increased from 0.82 to 0.93. However, in 1999, Freddie Mac's purchase share for underserved area loans increased while Fannie Mae's declined. In 1999, underserved areas accounted for 21.2 percent of Freddie Mac's home purchase mortgage loan acquisitions, compared with 20.6 percent for Fannie Mae.[35]

In evaluating the GSEs' past performance, it should be noted that while borrowers in underserved metropolitan areas tend to have much lower incomes than borrowers in other areas, this does not mean that GSE performance in underserved areas must be derived from mortgages on housing for lower income families. In 1999, housing for above median-income households accounted for about half of the single family owner-occupied mortgages the GSEs purchased in underserved areas.

c. Summary of Comments. Fannie Mae expressed no objection to the higher goal level provided the Department retains the proposed housing goals framework, including the proposed changes to the counting rules, in the final rule. Freddie Mac supported the overall goal framework included in the proposed rule but recommended that the Geographically Targeted Goal be set at 30 percent. Freddie Mac noted that it was committed to stretching to meet the proposed new goal levels, but believed that the level of the Geographically Targeted Goal was set too far toward the high end of the market estimate, making it more difficult to achieve. The Department's response to the issues raised by both Fannie Mae and Freddie Mac relative to HUD's estimates of the markets and its analysis of the statutory factors used to set the level of the goals was discussed above.

Overall, other commenters were supportive of the proposed increase in the Geographically Targeted Goal. Certain commenters noted that by placing the level of the goal around the midpoint of the estimate of market size, the GSEs will be encouraged to move into a market leadership position. Another group of commenters supported the increased level of the goal, but felt the Department needed to be prepared to accommodate changes in economic circumstances that may have a negative impact on the GSEs' ability to meet the housing goals.

d. HUD's Determination. The Geographically Targeted Goal established in this final rule is reasonable and appropriate, considering the factors set forth in FHEFSSA. The Department's market share estimates for the Geographically Targeted Goal accommodate a variety of economic scenarios. In addition, a current examination of the gaps in the mortgage markets, along with the estimated size of the market available to the GSEs, demonstrates the opportunities for the GSEs to purchase mortgages secured by housing in underserved areas of the nation.

Therefore, having considered all statutory factors including housing needs, projected economic and demographic conditions for 2001 to 2003, the GSEs' past performance, the size of the market for central cities, rural areas and other underserved areas, and the GSEs' ability to lead the market while maintaining a sound financial condition; HUD is establishing the annual goal for mortgage purchases qualifying under the Geographically Targeted Goal to be 31 percent of eligible units financed in each of the years 2001, 2002 and 2003. The new goal level will increase the GSEs' current level of performance to a level that is consistent with reasonable estimates of the housing market in underserved areas.

8. Special Affordable Housing Goal, § 81.14

This section discusses the Department's consideration of the statutory factors in arriving at, and the comments received on, the new housing goal level for the Special Affordable Housing Goal, which counts mortgages on housing for very low-income families and low-income families living in low-income areas. After consideration of these factors and the comments received, this final rule establishes the goal for the percentage of the total number of dwelling units financed by each GSE's mortgage purchases for housing affordable to very low-income families and low-income families living in low-income areas for each of the years 2001–2003 at 20 percent. A short discussion of the statutory factors follows. Additional information analyzing each of the statutory factors is provided in Appendix C, ''Departmental Considerations to Establish the Special Affordable Housing Goal,'' and Appendix D, ''Estimating the Size of the Conventional Conforming Market for Each Housing Goal.

a. Market Estimate for the Special Affordable Housing Goal. The Department estimates that dwelling units serving very low-income families and low-income families living in low-income areas will account for 23–26 percent of total units financed in the overall conventional, conforming mortgage market during the period 2001 through 2003. HUD has developed a reasonable range, rather than a point estimate, that accounts for significantly more adverse economic conditions than have existed recently.

b. Past Performance of the GSEs under the Special Affordable Housing Goal. The Special Affordable Housing Goal is designed to ensure that the GSEs serve the very low- and low-income portion of the housing market. However, analysis of HMDA data shows that the shares of mortgage loans for very low-income homebuyers are smaller for the GSEs' mortgage purchases than for depository institutions and others originating mortgage loans in the conforming conventional market. HUD's analysis suggests that the GSEs should improve their performance in providing financing for the very low-income housing market.

The housing goals that have been in effect prior to this final rule specified that in 1996 at least 12 percent of the number of units eligible to count toward the Special Affordable Housing Goal should qualify as special affordable, and at least 14 percent in 1997 through 1999. As indicated below, Fannie Mae surpassed the goal by 3.4 percentage points in 1996, 3.0 percentage points in 1997, 0.3 percentage points in 1998 and 3.6 percentage points in 1999. Freddie Mac surpassed the goal by 2.0, 1.2, 1.9, and 3.2 percentage points in 1996, 1997, 1998, and 1999, respectively. The GSEs' performance for the 1996–99 period is summarized below:

SUMMARY OF GSE PERFORMANCE UNDER THE SPECIAL AFFORDABLE HOUSING GOAL 1996–1999[36]

	1996 (in percent)	1997 (in percent)	1998 (in percent)	1999 (in percent)
Required Goal Level	12	14	14	14
Fannie Mae:				
Percent Low-and Moderate-Income	15.4	17.0	14.3	17.6
Freddie Mac:				

SUMMARY OF GSE PERFORMANCE UNDER THE SPECIAL AFFORDABLE HOUSING GOAL 1996–1999 [36]—Continued

	1996 (in percent)	1997 (in percent)	1998 (in percent)	1999 (in percent)
Percent Low-and Moderate-Income	14.0	15.2	15.9	17.2

As noted above, HMDA and GSE data for metropolitan areas show that both GSEs lag depository institutions and other lenders in providing financing for home loans that qualify for the Special Affordable Housing Goal. Special affordable loans, which include loans for very low-income borrowers and low-income borrowers living in low-income areas, accounted for 9.8 percent of Freddie Mac's purchases of home purchase mortgages during 1996–98, 11.9 percent of Fannie Mae's purchases, 16.7 percent of newly originated loans retained by depository institutions, and 15.3 percent of all new originations in the conventional, conforming market. While Freddie Mac has improved its special affordable lending since the housing goals were put in place in 1993, up until 1999 it had not made as much progress as Fannie Mae in closing the gap with depository institutions and other lenders in the home loan market. In 1998, Freddie Mac's special affordable performance was 73 percent of the primary market proportion of home loans that would qualify under the Special Affordable Housing Goal, compared to Fannie Mae's performance of 85 percent during the same period. In 1999, Freddie Mac did match Fannie Mae, as special affordable loans accounted for 12.5 percent of its home loan purchases versus 12.3 percent of Fannie Mae's home loan purchases. Market data for 1999 are not yet available.

The multifamily market is especially important in the establishment of the Special Affordable Housing Goal for Fannie Mae and Freddie Mac because of the relatively high percentage of multifamily units meeting the Special Affordable Housing Goal. For example, in 1999, 56 percent of units financed by Fannie Mae's multifamily mortgage purchases met the Special Affordable Housing Goal, representing 31 percent of units counted toward the Special Affordable Housing Goal, at a time when multifamily units represented only nine percent of its total purchase volume.[37]

c. Summary of Comments. Fannie Mae expressed no objection to the higher goal level, provided the Department retains the proposed housing goals framework, including the proposed changes to the counting rules, in the final rule. Freddie Mac supported the goal framework included in the proposed rule and is committed to stretching to meet the new goal levels. The Department's response to the issues raised by both Fannie Mae and Freddie Mac relative to HUD's market share methodologies and its analysis of the statutory factors used to set the level of the goals was discussed above.

Overall, other commenters were supportive of the proposed increase in the Special Affordable Housing Goal. One group of commenters thought that, since the GSEs are mandated to lead the market, the level of the Special Affordable Housing Goal should be increased even more, at a minimum, to the lower range of the Department's market share, at 23–24 percent. Another group of commenters supported the increased level of the goal but felt the Department needed to be prepared to accommodate changes in economic circumstances that may have a negative impact on the GSEs' ability to meet the housing goals.

d. HUD Determination. The Special Affordable Housing Goal established in the final rule is reasonable and appropriate, considering the factors set forth in FHEFSSA. The market share estimates for this goal reflect a variety of economic scenarios significantly more adverse than have existed recently. Current examination of the gaps in the mortgage markets, along with the estimated size of the market available to the GSEs, demonstrates that the number of mortgages secured by housing for special affordable families is more than sufficient for the GSEs to achieve the goal.

Having considered all statutory factors including housing needs, projected economic and demographic conditions for 2001 to 2003, the GSEs' past performance, the size of the market serving very low-income families and low-income families living in low-income areas, and the GSEs' ability to lead the market while maintaining a sound financial condition; HUD is establishing the annual goal for mortgage purchases qualifying under the Special Affordable Housing Goal at 20 percent of eligible units financed by each GSE in each of the years 2001, 2002 and 2003. This new goal level will increase the GSEs' current level of performance to a level that is consistent with reasonable estimates of the special affordable housing market.

e. Special Affordable Housing Goal: Multifamily Subgoal. This final rule modifies the proposed rule by implementing a multifamily subgoal based upon each GSE's respective average mortgage purchase volume for the years 1997 through 1999. The proposed rule suggested that the subgoal be established at 0.9 percent of each GSE's dollar volume of combined 1998 mortgage purchases in 2000 and at 1.0 percent of combined 1998 mortgage purchases from 2001 through 2003. In this final rule, the level of the subgoal is established at a fixed level of one percent of the average of each GSE's respective dollar volume of combined (single family and multifamily) mortgage purchases in the years 1997, 1998 and 1999. This level is $2.85 billion for Fannie Mae and $2.11 billion for Freddie Mac, in each of the years 2001 through 2003.

f. Summary of Comments. Both Fannie Mae and Freddie Mac opposed establishing the special affordable multifamily subgoal as a percentage of their 1998 transaction volumes, stating that 1998 was in some respects an unusual year in the mortgage markets. Instead, they both recommended that the special affordable multifamily subgoal be established as a percentage of a five year average of each GSE's transactions volume. Freddie Mac commented further that HUD's proposed subgoal was unreasonably high.

Many other commenters supported the multifamily subgoal, although they questioned whether 1998 was the appropriate base year upon which to establish the subgoal. Some commenters asserted that the proposed subgoal was too high, in light of an expected decline in multifamily origination volume. Other commenters noted that the subgoal was too low, based on the needs of very low- and low-income families and those in rural areas. Yet, others agreed the subgoal should continue to be percentage based, but argued that the baseline year should move from year to year. Still other commenters felt that the multifamily subgoal should be eliminated, as it no longer appears to serve a purpose, particularly since Freddie Mac has re-entered the multifamily market.

g. HUD's Determination. Both the multifamily mortgage market and Freddie Mac's multifamily transactions volume have grown significantly during the 1990's, indicating both increased opportunity and capacity to grow by Freddie Mac. While Freddie Mac continues to lag behind Fannie Mae somewhat in its multifamily volume, it appears to be within reach of catching up with its larger competitor with regard to the multifamily proportion of total purchases. In 1999, Fannie Mae's multifamily mortgage purchases were 9.5 percent of its total mortgage purchases and Freddie Mac's multifamily mortgage purchases were 8.3 percent of its total mortgage purchases.

Freddie Mac's multifamily special affordable transactions volume was $2.7 billion in 1998 and $2.3 billion in 1999, which demonstrates Freddie Mac's capacity to generate significant multifamily special affordable volume in a favorable market environment. However, the Department is mindful of the fact that the multifamily market conditions experienced during 1998 were very favorable and may not be fully representative of future years. HUD expects conventional multifamily volume in 2001 through 2003 to be somewhat lower than the level reached during 1998.

The Special Affordable Housing Multifamily Subgoal established in this final rule is reasonable and appropriate based on the Department's analysis of this market. The Department's decision to retain the multifamily subgoal is based on the fact that HUD's analysis indicates that multifamily housing still serves the housing needs of lower-income families and families in low-income areas to a greater extent than single family housing. By retaining the multifamily subgoal, the Department ensures that the GSEs continue their activity in this market and that they achieve, at least, a minimum level of special affordable multifamily mortgage purchases that are affordable to lower-income families. Now that more recent data is available, it is apparent that taking 1999 mortgage volume into consideration, along with that of 1997 and 1998, more accurately corresponds to the relative size and respective capabilities of the GSEs over the 2001–2003 goals period. Accordingly, as noted above, this final rule establishes each GSE's special affordable multifamily subgoal at the respective average of one percent of that GSEs' combined mortgage purchases over 1997 through 1999.

h. Multifamily Subgoal Alternatives. In the proposed rule, HUD identified three alternative approaches for specifying multifamily subgoals for the GSEs based on a (i) minimum number of units; (ii) minimum percentage of multifamily acquisition volume; and (iii) minimum number of mortgages acquired. While some of these proposals did receive support from commenters, HUD does not see any compelling reason to alter the dollar based structure of the multifamily subgoal as established in the regulations, which can be updated and adapted to the current market environment by basing it upon recent acquisition volume. It is noteworthy that the Special Affordable Housing Goal, as a percentage of business goal based on the number of units financed, combines elements of options (i) and (iii). HUD's decision to award bonus points toward the housing goals for GSE transactions involving small multifamily properties with 5–50 units will achieve some of the intended policy objectives associated with option (iii).

9. Bonuses and Subgoals

a. Overview. The Department proposed to introduce a system of bonus points to encourage the GSEs to increase their activity in specified underserved markets that serve low- and moderate-income families and families in underserved areas. Bonus points were specifically proposed to encourage increased involvement by the GSEs under goals established for the years 2000–2003 for purchases of mortgages financing small multifamily properties (5–50 units) and two to four unit owner-occupied properties that contain rental units. The areas for which bonus points were suggested are areas in which the GSEs' mortgage purchases have traditionally played a minor role but which provide significant sources of affordable housing and for which the need for mortgage credit persists. As a regulatory incentive to encourage the GSEs to increase their mortgage purchase activity in underserved markets, the Department proposed the use of bonus points for mortgage purchases in these important segments of the housing market. HUD also sought comments on the utility of applying bonus points and other regulatory incentives such as subgoals to other underserved segments of the market including manufactured housing, multifamily properties in need of rehabilitation, and properties in tribal areas.

This final rule incorporates the use of bonus points for small multifamily properties and owner-occupied single family rental properties as proposed for the years 2001 through 2003.

b. Summary of Comments. Fannie Mae and Freddie Mac commented in detail on the use of bonus points and subgoals. Fannie Mae supported the use of bonus points to provide incentives to expand its presence in the markets for both the small multifamily and single family owner-occupied, 2–4 unit property. Fannie Mae opposed the use of subgoals for that purpose, however, arguing that they would result in micromanagement of its business operation. Fannie Mae added that ''these two property types pose great difficulties for the secondary market to serve and will require new channels, new products, new modes of operation, and significant investments to better understand the risks.'' Fannie Mae also recommended that if the Department adopts bonus points, the points should continue beyond 2003.

Freddie Mac supported using bonus points and opposed using subgoals for small multifamily and single family owner-occupied, 2–4 unit property mortgage acquisitions. As with Fannie Mae, Freddie Mac commented that subgoals would result in micromanagement of its business. Freddie Mac also recommended calculating the threshold for 2–4 unit properties based on the period from 1995–1999 instead of using a five-year rolling average. Overall, Freddie Mac commented that it would prefer bonus points to subgoals for any targeted market segments.

Other commenters were generally supportive of the use of bonus points, with many noting that bonus points were preferable to additional subgoals. This group of commenters felt that additional subgoals would result in micromanagement of the GSEs' business operations but felt that bonus points provided an incentive rather than a mandate to move into markets that were underserved.

One group of commenters was opposed to bonus points. Among many of these commenters, however, there was support for incentives for the GSEs to purchase mortgages on small rental properties, noting that the market is underserved and provides an excellent source of affordable rental housing. Specific comments regarding the use of bonus points concluded that bonus points would: (a) Allow the GSEs to meet the goals with less effort and that they might lead the GSEs to relax their single family efforts; and (b) inflate goal performance numbers. It was suggested by several commenters that subgoals would be a more appropriate vehicle to encourage the GSEs' involvement in those segments of the market as well as other segments, *e.g.,* mortgages made to

minority borrowers and home purchase mortgages. Some commenters suggested that since there was evidence that the small multifamily mortgage market is well served by community banks, thrifts and small life insurance companies, there is no need for HUD to award bonus points as an incentive for the GSEs to enter that market.

c. HUD's Determination. This final rule adopts the two categories for bonus points that were proposed by the Department. Bonus points are a temporary incentive for the GSEs to step up their efforts to serve this particular need. Availability of bonus points for this purpose beyond 2003, therefore, will require a determination by the Department that the bonus points continue to serve this need. HUD's research and analysis indicates that there is substantial unmet need in these two areas and believes that these are markets the GSEs should serve better. While HUD has determined to establish bonus points in the two market areas proposed, HUD does not believe that either the use of subgoals, that would be unenforceable under FHEFSSA (except for the Special Affordable Housing Goal), or bonus points amounts to micromanagement of the GSEs. By utilizing bonus points the GSEs can choose whether to increase their presence in these markets, and by evaluating the impact of these incentives on the GSEs' mortgage purchase patterns, the Department can evaluate the reasonableness and effectiveness of bonus points as a tool to increase activity in specific markets.

d. Additional Bonus Points and Subgoals. Commenters suggested a wide variety of other areas to consider for either bonus points and/or subgoals including those for which views were invited. Suggestions by commenters for subgoals included home purchase mortgages and mortgages to minority borrowers. Commenters also suggested either bonus points and/or subgoals for reverse mortgages, groups with low homeownership rates, rural multifamily housing programs, manufactured housing, and expiring Section 8 assistance contracts, among other types of transactions. While there was some support for directing bonus points for encouraging GSE financing for minorities there was, however, no consensus among the commenters for this or other specific categories that bonus points and subgoals should address. Since HUD believes that the increased goals under this rule will result in increased financing of affordable housing and increased home ownership opportunities for minorities and other families in underserved areas, HUD has determined to establish bonus points only in the two categories proposed at this time. As indicated above, HUD will, however, monitor the effectiveness of these bonus points closely, based on these results and future housing needs, may establish bonus points for other mortgage purchases in the future.

10. Temporary Adjustment Factor for Freddie Mac

a. Overview. To overcome any lingering effects of Freddie Mac's decision to dismantle and then cautiously reestablish a multifamily mortgage purchase program in the early 1990s, the Department proposed an incentive for Freddie Mac to further expand its scope of multifamily operations through the use of a temporary adjustment factor for its multifamily mortgage purchases in calculating its performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal. In determining Freddie Mac's performance for each of these two goals, the Department proposed that each unit in a property with more than 50 units meeting either of these two housing goals would be counted as 1.2 units in the numerator of the respective housing goal percentage. The temporary adjustment factor would be limited to properties with more than 50 units to avoid overlap with the proposal to award bonus points for multifamily properties with 5–50 units. Comments were requested on whether the proposed temporary adjustment factor for Freddie Mac was set at an appropriate level and whether such an adjustment factor should be phased out prior to 2003.

This final rule incorporates the temporary adjustment factor for Freddie Mac for multifamily properties, other than those small multifamily units receiving bonus credit, as proposed for the years 2001 through 2003.

b. Summary of Comments. Fannie Mae and Freddie Mac commented in detail on the application of a temporary adjustment factor for Freddie Mac's multifamily business. Fannie Mae opposed the application of a temporary adjustment factor for Freddie Mac's multifamily business. Fannie Mae stated that Freddie Mac made a business decision to leave the multifamily market and HUD's action would effectively punish Fannie Mae for staying in the market. Fannie Mae recommended that instead of a temporary adjustment factor, HUD should lower Freddie Mac's goals to levels that would represent a similar ''stretch'' as the higher goal levels that would be established for Fannie Mae.

Freddie Mac supported the idea of a temporary adjustment factor but recommended that it be set at a multiplier of 1.35 instead of 1.2. Noting that the difference in size and age between Freddie Mac's and Fannie Mae's multifamily portfolios makes goal achievement easier for Fannie Mae, Freddie Mac also recommended that the temporary adjustment factor apply to all three goals. Freddie Mac also opposed any phasing out or elimination of the adjustment factor.

Other comments on the proposal were mixed. While there were many comments in support of the proposal, a number of commenters objected to the proposal, observing that by providing the temporary adjustment factor, HUD would be rewarding Freddie Mac for leaving the multifamily mortgage market in previous years. Commenters also suggested that the same objective could be achieved through the Special Affordable Multifamily Subgoal or by establishing separate housing goals for the single family and multifamily market. Many of these commenters said that, if the temporary adjustment factor were adopted for Freddie Mac, it should be phased out over a period of time.

c. HUD's Determination. In the period since HUD's interim housing goals took effect in January 1993, the volume of Freddie Mac's multifamily mortgage purchase transactions has grown significantly, both in absolute terms and as a proportion of its total mortgage purchases. Freddie Mac's 1993 multifamily transactions volume was only $191 million, compared with $7.6 billion in 1999. In 1999, Freddie Mac's multifamily transactions volume represented 8.3 percent of units backing its total mortgage purchases, close to the Fannie Mae proportion of 9.5 percent. Thus, while Freddie Mac continues to lag behind Fannie Mae somewhat in its multifamily volume, it appears to be within reach of catching up with Fannie Mae with regard to the multifamily proportion of total purchases.

In discussing the Department's appropriations for fiscal year 2000, the Conference Report stated in October, 1999 that ''* * * the stretch affordable housing efforts required of each of Freddie Mac and Fannie Mae should be equal, so that both enterprises are similarly challenged in attaining the goals. This will require the Secretary to recognize the present composition of each enterprise's overall portfolio in order to ensure regulatory parity in the application of regulatory guidelines measuring goal compliance.'' [38]

Consistent with Congress' October 1999 guidance, HUD's analysis indicates that a 1.2 adjustment factor applied to Freddie Mac's mortgage purchases for multifamily properties of more than 50 units for purposes of the Low- and Moderate-Income and Special Affordable Housing Goals, as proposed, is sufficient both to overcome any lingering effects of Freddie Mac's decision to leave the multifamily market in the early 1990s and to ''ensure regulatory parity,'' taking account of the recent magnitude of difference between the GSEs' respective multifamily shares of business and the multifamily market projections detailed in Appendix D. Therefore, while the goals are set at the same levels, the Department has decided to implement the temporary adjustment factor as proposed. The temporary adjustment factor of 1.2 will be applied to the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal. The temporary adjustment factor will terminate December 31, 2003. The temporary adjustment factor will not apply to Fannie Mae.

11. High Cost Mortgages

a. Overview. The proposed rule requested comments on whether HUD should disallow goals credit for high cost mortgage loans, and if so, whether HUD should define high cost mortgage loans using the Home Ownership and Equity Protection Act (HOEPA) [39] or an alternative definition. HOEPA defines high cost mortgages as those that meet an annual percentage rate (APR) threshold (more than 10 percentage points above the yield on Treasury securities of comparable maturity; the Federal Reserve Board can adjust the threshold down to 8 percent or up to 12 percent), or a threshold for points and fees charged (exceeding the greater of 8 percent of the loan amount or $400—adjusted for inflation to $451 for the year 2000). HOEPA requires additional disclosures and restricts certain loan terms (*e.g.*, prepayment penalties, balloon payments, and negative amortization) and practices (*e.g.* failing to consider a borrower's ability to repay) for those mortgages.[40]

The proposed rule also requested comments on the potential benefits, if any, associated with the GSEs' presence in the various higher cost mortgage markets, such as the standardization of underwriting guidelines or reductions in interest rates, as well as the potential dangers, if any, associated with the GSEs' presence in those markets. Finally, the proposed rule requested comments on what additional data would be useful for the purposes of monitoring the GSEs' activities in this area and on whether certain of these data elements should be included in the public use data base. The proposed rule noted that possible data elements that could be collected from the GSEs for monitoring include loan level data on the annual percentage rate, debt-to-income ratio, points and fees, and prepayment penalties.

b. HUD/Treasury Report. On June 20, 2000, HUD and the Department of Treasury jointly released a report entitled ''Curbing Predatory Home Mortgage Lending,'' which detailed predatory or abusive lending practices in connection with higher cost loans in the subprime mortgage market. These practices include charging excessive fees, lending to borrowers without regard to their ability to repay, establishing prepayment penalties that prevent high cost borrowers from refinancing into lower cost loans, abusive terms and conditions that include packing loans with products such as single premium credit insurance, and other practices, including failing to steer borrowers to the lowest-cost product for which they qualify and incomplete reporting of borrowers' payment history to credit bureaus. The report recommended legislative and regulatory action to combat predatory lending while maintaining access to credit for low- and moderate-income borrowers. Respecting the secondary mortgage market, the report recommended that HUD restrict the GSEs from funding loans with predatory features since such loans may undermine homeownership by low- and moderate-income families. HUD and Treasury noted ''while the GSEs currently play a relatively small role in the subprime market today, they are beginning to reach out with new products in this marketplace.''

Recently the GSEs have each announced corporate policies against the purchase of loans with certain features. Fannie Mae has established greater limitations than Freddie Mac, although Fannie Mae has been less involved in the subprime market to date. Fannie Mae announced that ''[f]or loans delivered to Fannie Mae, the points and fees charged to a borrower should not exceed 5 percent, except where this would result in an unprofitable origination,'' and that Fannie Mae will not purchase high cost mortgages as defined under HOEPA. Fannie Mae announced further that it ''will not purchase or securitize any mortgage for which a prepaid single-premium credit life insurance policy was sold to the borrower,'' and that it will generally only allow prepayment penalties under the terms of a negotiated contract and where the lender adheres to the following criteria: A mortgage that has a prepayment penalty should provide some benefit to the borrower (such as a rate or fee reduction for accepting the prepayment premium); the borrower also should be offered the choice of another mortgage product that does not require payment of such premium; the terms of the mortgage provision that requires a prepayment penalty should be adequately disclosed to the borrower, and the prepayment penalty should not be charged when the mortgage debt is accelerated as a result of the borrower's default in making his or her mortgage payments.

Fannie Mae also announced that it will not purchase loans from lenders who steer borrowers to higher cost products if those borrowers qualify for lower cost products. Freddie Mac announced that it will not purchase HOEPA loans, nor will it purchase mortgage loans with single-premium credit life insurance. Both GSEs have announced that they will require lenders who sell them loans to file monthly full-file credit reports on every borrower. While the GSEs' policies differ somewhat in their scope and specificity, both have publicly expressed strong concern about predatory lending practices and have adopted policies requiring them to look harder at particular loan terms and their seller/servicers' business practices, and restricting their purchases of loans originated with such terms and practices. However, the GSEs' broad guidelines describing the characteristics of loans that they intend to make ineligible for purchase lack important details and are subject to changes in corporate direction, or other changes. Therefore, HUD and Treasury recognized in the report that such corporate policies may not be sufficient and that regulations would be needed to address this issue.

c. Summary of Comments. Many commenters on the proposed rule supported the disallowance of credit under the GSE housing goals for high cost mortgages. Some of these commenters commended the GSEs for beginning to offer quality loan products to credit-impaired borrowers. Those commenters argued, however, that restrictions on goals credit for certain loans would not prohibit the GSEs from purchasing all subprime loans but merely those that are likely to be predatory and wealth-stripping. Other commenters argued that without adequate controls, the GSEs' forays into the subprime market will not translate

into lower costs for borrowers, but will only lower the cost of capital for subprime lenders.

Some commenters wrote that the GSEs should not receive credit under the housing goals for high cost mortgages that are subject to HOEPA. Many other commenters felt that such a standard would not go far enough, and that the GSEs should not receive goals credit for purchasing loans with certain features. Such features would include fees greater than 3 percent of the loan amount, prepayment penalties on high cost loans, and prepaid single premium credit life insurance that is to be financed in the loan. Commenters also provided additional features for which the GSEs should not receive goals credit, including negative amortization and accelerating indebtedness, fees to renew or modify, balloon payments, yield spread premiums, mandatory arbitration, or high cost loans for which the borrower did not receive homeownership counseling.

One commenter suggested that the Department should treat loans purchased from an institution that engages in predatory lending the same as loans that actually have predatory features in order to send a message that such lenders are not responsible business partners and to restrict further the availability of mortgage credit for such loans. Other commenters suggested that the GSEs should not be allowed to purchase subprime loans at all, so that they will have an incentive to develop conventional mortgage products to reach out to those borrowers. Another suggestion was that the GSEs should be affirmatively penalized for purchasing certain abusive mortgages (*i.e.,* by subtracting points from the numerator but fully counting such loans in the denominator).

A number of commenters suggested that GSEs should be required to conduct fair lending reviews of subprime loans before they purchase them in order to receive credit. Such reviews would include determining whether the lending institution is reporting borrowers' full payment histories to credit bureaus.

Many of the commenters that supported the disallowance of goals credit for high cost loans and loans with certain harmful features asserted that the GSEs' support of such lending poses great risks. These commenters argued that the types of mortgage products that strip equity out of homes and lead to higher foreclosures are not consistent with the GSEs' public mission. Further, to the extent that defaults on these loans lead to losses, these commenters asserted that the GSEs' financial condition will likely be affected.

With regard to data collection and reporting, several commenters suggested that the GSEs should be required to provide full information on their subprime loans, including the APR, total closing costs, points, and fees (including financed credit insurance premiums), delinquency and foreclosure rates, and the length of time between purchase and refinance on an aggregate basis.

Both GSEs and a large group of commenters objected to the Department's proposal regarding the disallowance of goals credit for purchases of high cost mortgages. Many of those commenting in this regard provided substantially similar responses to those submitted by Fannie Mae. These commenters emphasized the difference between legitimate subprime lending and lending through the use of abusive and predatory practices such as those outlined in the HUD/Treasury report. Several of these commenters expressed concern that the Department should not take any action that would discourage the GSEs from serving the subprime market. The GSEs both remarked that they are using enhanced technology (*e.g.,* their respective automated underwriting systems) to allow them to offer products targeted toward borrowers with impaired credit, and that they are, therefore, able to move into the legitimate subprime market in a responsible and prudent manner, bringing liquidity, standardization, and efficiency to that market. The GSEs argue that disallowing goals credit for high cost mortgages will provide a disincentive for them to reach out to those borrowers and will do nothing to combat the predatory lending practices about which the Department is concerned. Indeed, Fannie Mae argued that disallowing goals credit for high cost mortgages would simply drive predatory lending ''into the government market or to secondary market sources who are less responsible than Fannie Mae on this issue.''

Fannie Mae argued that disallowing goals credit for high cost mortgages is inconsistent with the Department's inclusion of A-minus mortgages in the market estimates to which the Department compares the GSEs' performance. Fannie Mae further argued that the Department would need to ''recalibrate the goals'' in order to implement a system of disallowing goals credit for high cost mortgages, which would be ''extremely difficult, if not impossible'' due to ''the lack of reliable market data on loan costs.''

Nonetheless, Fannie Mae urged the Department to work with other regulatory agencies to collect more data on the problem. Freddie Mac urged the Department to await the outcome of any Federal legislative or regulatory initiatives that may arise as a result of the widespread concern and focus on these issues among members of Congress and regulatory agencies.

The GSEs also both objected to any additional reporting requirements related to monitoring their purchases of high cost mortgages. Fannie Mae argued that the relevant information is not now captured in the primary market, and that collecting and reporting this information would force a ''tremendous change to the way the market operates.'' Freddie Mac similarly argued that the required data elements are not stored uniformly across lenders, and collecting and reporting such data elements would require ''substantial investments,'' the economic impacts of which would likely be considerable.

d. HUD's Determination. After considering the issues raised by the commenters, the Department has determined that, in accordance with the Secretary's authority under section 1336(a)(2) of FHEFSSA, the GSEs should not be assigned credit toward the Affordable Housing Goals for purchasing certain high cost mortgages including mortgages with certain unacceptable features. The GSEs have a statutory responsibility to lead the industry in making mortgage credit available to low and moderate income families and underserved areas. In carrying out this responsibility, the GSEs should seek to make the lowest cost credit available while ensuring that they do not purchase loans that actually harm borrowers and support unfair lending practices. The HUD/Treasury report recommended regulatory and/or legislative restrictions that would go beyond the matter of goals credit and would prohibit the GSEs from purchasing certain types of loans with high costs and/or predatory features altogether. These proposals stem from the concern that mortgages with predatory features undermine homeownership by low-and moderate-income families in derogation of the GSEs' Charter missions. As pointed out in the HUD/Treasury Report, ''While the secondary market could be viewed as part of the problem of abusive practices in the subprime mortgage market, it may also represent a large part of the solution to the problem. If the secondary market refuses to purchase loans that carry abusive terms, or loans originated by lenders engaging in abusive practices, the primary market might

react to the resulting loss of liquidity by ceasing to make these loans.''

Accordingly, consistent with and combining restrictions already voluntarily undertaken by both GSEs, this final rule restricts credit under the goals for purchases of high cost loans including mortgages with certain unacceptable terms and resulting from unacceptable practices. Specifically, the GSEs will not receive credit toward any of the Affordable Housing Goals for dwelling units financed by mortgages that come within HOEPA's thresholds for high cost mortgages, nor will they receive credit for mortgages with certain unacceptable features or resulting from unacceptable practices. The housing goals provide incentives to encourage GSE efforts to finance housing for low and moderate income families, housing in underserved areas, and special affordable housing. Therefore, HUD has determined that the GSEs should not receive the incentive of goals credit for purchasing high cost mortgages including mortgages with unacceptable features.

(1) Mortgages that Come Within HOEPA's Thresholds. The final rule disallows goals credit for dwelling units financed by mortgages that come within HOEPA's thresholds, *i.e.,* with an APR of 10 percentage points or higher above the yield on Treasury securities of comparable maturity, or with points and fees that are above the greater of 8 percent of the loan amount or $451. HOEPA's thresholds provide a discernible and standard industry measure of a class of loans that are very high cost, that present a very high risk that their borrowers will lose their homes, and that the GSEs themselves have determined not to purchase. While originating such loans is not illegal, but rather made subject to additional disclosures and protections under HOEPA, loans at these levels should not be encouraged by receiving credit under the goals. In incorporating the HOEPA high cost loan standards in this rule, the thresholds are subject to adjustment by the Federal Reserve Board [41] or Congress. This rule is established to encompass such adjustments unless the GSEs are otherwise notified in writing by HUD. While HOEPA itself only covers closed end loans made to refinance existing mortgages and closed end home equity loans, this final rule also applies the HOEPA thresholds to home purchase mortgages.

(2) Mortgages with Unacceptable Terms or Conditions or Resulting from Unacceptable Practices. This final rule also disallows goals credit for dwelling units financed by mortgages with features that the GSEs themselves, either through announced policies or practices, have identified as unfair to borrowers and unacceptable. Specifically, these include mortgages with:

(a) *Excessive fees,* where the total points and fees charged to a borrower exceed 5 percent of the loan amount, except where this restriction would result in an unprofitable origination. For such cases, involving small loans, this rule provides a maximum dollar amount of $1000, or such other amount as may be requested by a GSE and determined appropriate by the Secretary, as an alternative to the 5 percent limit. For purposes of this provision, points and fees include: (i) Origination fees, (ii) underwriting fees, (iii) broker fees, (iv) finder's fees, and (v) charges that the lender imposes as a condition of making the loan—whether they are paid to the lender or a third party. For purposes of this provision, points and fees would not include: (i) Bona fide discount points; (ii) fees paid for actual services rendered in connection with the origination of the mortgage, such as attorneys' fees, notary's fees, and fees paid for property appraisals, credit reports, surveys, title examinations and extracts, flood and tax certifications, and home inspections; (iii) the cost of mortgage insurance or credit-risk price adjustments; (iv) the costs of title, hazard, and flood insurance policies; (v) state and local transfer taxes or fees; (vi) escrow deposits for the future payment of taxes and insurance premiums; and (vii) other miscellaneous fees and charges that, in total, do not exceed 0.25 percent of the loan amount.

This restriction on goals credit for mortgages with excessive fees does not, of course, supplant the restriction on goals credit for HOEPA loans. If a mortgage has fees that exceed 5 percent of the loan amount as described in the immediately preceding paragraph, but do not exceed the 8 percent/$451 threshold under HOEPA, the mortgage would not receive credit toward the goals. HUD, Treasury, the GSEs, and many others have recognized that mortgages with excessive fees are a particularly onerous problem and disproportionately affect the low- and moderate-income borrowers that the GSEs are to serve. Therefore, this final rule will remove any incentive under the goals for the GSEs to purchase loans with excessive fees as described above. Having said that, the HUD/Treasury report called upon the Federal Reserve Board to expand the HOEPA ''points and fees'' threshold to include certain additional types of fees, including (i) fees and amounts imposed by third party closing agents (except payments for escrow and primary mortgage insurance), (ii) prepayment penalties that are levied on a refinancing, and (iii) all compensation received by a mortgage broker in connection with the mortgage transaction. As mentioned above, if the Federal Reserve changes the HOEPA thresholds, such changes will be encompassed within HUD's housing goals, unless HUD notifies the GSEs otherwise.

(b) Prepayment penalties, except where: (i) the mortgage provides some benefits to the borrower (*e.g.,* such as rate or fee reduction for accepting the prepayment premium); (ii) the borrower is offered the choice of a mortgage that does not contain such a penalty; (iii) the terms of the mortgage provision containing the prepayment penalty are adequately disclosed to the borrower; and (iv) the prepayment penalty is not charged when the mortgage debt is accelerated as the result of the borrower's default in making his or her mortgage payments.

(c) Single premium credit life insurance products sold in connection with the origination of the mortgage.

(d) Evidence that the lender did not adequately consider the borrower's ability to make payments, i.e., mortgages that are originated with underwriting techniques that focus on the borrower's equity in the home, and do not give full consideration to the borrower's income and other obligations. Ability to repay must be based upon relating the borrower's income, assets, and liabilities to the mortgage payments.

(3) Mortgages Contrary to Good Lending Practices. As the GSEs have recognized in their own policies and many of the commenters pointed out as well, while good mortgage lending practices can reduce costs to borrowers, contrary practices can result in loans that are higher cost to borrowers in ways that are not directly reflected in the interest rate, points, or fees. Therefore, to remove any goals incentive for the GSEs to purchase mortgages or categories of mortgages regarding which there is evidence that lenders engaged in specific practices contrary to good lending practices identified in the rule, this rule provides that the GSEs may not receive goals credit for such loans or categories of loans. These specific practices identified in this rule that lenders employ to avoid abusive lending include regularly reporting complete borrower information to credit agencies, avoiding steering borrowers to higher cost products, and complying with fair lending requirements.

FHEFSSA and HUD's GSE regulations at 24 CFR 81.41, prohibit the GSEs from discriminating in any manner in making

any mortgage purchases because of race, color, religion, sex, handicap, familial status, age or national origin. Since abusive lenders often specifically target and aggressively solicit homeowners in predominantly lower-income and minority communities who may lack sufficient access to mainstream sources of credit, it is essential that the GSEs scrutinize lender practices to protect against buying loans that are the result of unlawful discrimination. For example, good lending practices that help lenders avoid unlawful discrimination include employee training programs, periodic loan sampling, specifically tailored recordkeeping and reporting requirements, and other reviews. The GSEs have reported, consistent with their pledges not to buy certain harmful loans, that they will be looking closer at the lending practices of entities with which they do business, and HUD commends those efforts. HUD will review the processes the GSEs employ to ascertain positive practices to avoid unlawful discrimination and steering borrowers to higher cost products, as well as monthly credit reporting. This final rule provides that where HUD finds evidence that loans or categories of loans do not conform to such positive practices, HUD may deny goals credit for such loans in accordance with § 81.16(d) of this rule.

HUD recognizes that the particular loan terms and practices that are identified as abusive and unacceptable may change as some unscrupulous actors adjust to new restrictions and as the GSEs and HUD gain experience with abuses. Accordingly, to allow flexibility this rule allows the Department to modify the list of terms and practices that will not receive goals credit, by providing that the GSEs may request modifications to the list and that the Secretary will after reviewing such submissions determine whether or not to change the abuses for which goals credit will be restricted. HUD also will continue to monitor the mortgage industry with regard to abusive lending practices and may determine that future modifications are necessary and require further rulemaking.

The restrictions and provisions in sections (1), (2), and (3), above, address terms and practices that are harmful to mortgage borrowers. Accordingly, these restrictions and provisions in this rule apply to mortgages purchased through the GSEs' ''flow'' business, as well as mortgages purchased or guaranteed through structured transactions. Since these restrictions and provisions are consistent with the GSEs' own measures, the Department does not believe that any of these restrictions will provide a disincentive for the GSEs to provide financing for borrowers with slightly impaired credit through innovative products that can bring competition and efficiencies to the legitimate subprime market.

While the GSEs themselves will presumably be obtaining certain additional data and information to carry out their previously announced purchase restrictions and to monitor lending practices, HUD is not establishing any requirements for additional data to carry out these provisions under this rule. Subsequently, HUD plans to request only such additional data as is necessary. In this regard, HUD will consult with the GSEs, as practicable, to develop reasonable data reporting requirements that will not present an undue additional burden.

12. Data On Unit Affordability, § 81.15

The GSEs have reported that at times it can be difficult and costly for them to obtain the data on incomes and rents that is necessary to establish affordability for goals purposes, especially for seasoned loan transactions and some negotiated transactions. HUD proposed to allow (1) the use of estimation techniques to approximate unit rents in multifamily properties where current rental information is unavailable and (2) the exclusion of units, both single family and multifamily, from goal calculations where it is impossible to obtain full data or estimate values, subject to certain limits.

As has been discussed, GSE purchases of mortgages on rental properties disproportionately serve the affordable housing market. Typically, around 90 percent of rental units backing GSE mortgage purchases would count towards the Low- and Moderate-Income Housing Goal and around 50 percent would meet the affordability requirements of the Special Affordable Housing Goal (excluding missing data). HUD did not want the lack of data on affordability to act as a disincentive for the GSEs to purchase mortgages in these important sectors, which have been identified by HUD as having substantial unmet credit needs in the mortgage market. While single family owner-occupied units are also affected by missing data, these units are typically not as affordable as the GSEs' rental purchases. Consequently, the provision in the proposed rule to exclude units from the numerator and denominator for single family owner-occupied properties is limited to properties located in lower income areas and is subject to a cap.

a. Multifamily Rental Units.

(1) Overview. The Department proposed allowing the use of estimated rents for multifamily units with missing data, subject to HUD review and approval of the data sources and methodologies used in computing them. The Department asked for comment on whether it should establish a percentage ceiling on the use of estimated rents.

HUD further proposed that, in cases where multifamily rents are missing and where application of estimated rents is not possible, such units be excluded from both the denominator and numerator for purposes of calculating performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal. The Department requested comment on whether it should establish a percentage ceiling for the exclusion of multifamily units with missing data from the denominator for goal calculation purposes.

(2) Summary of Comments. Several commenters endorsed the concept of using estimated data to calculate performance toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when multifamily rent data are missing. No commenters indicated opposition to allowing the use of estimated rents.

In its comments, Fannie Mae stated that HUD should, in order to provide operational certainty, incorporate an approved methodology into the regulations for estimating rents on multifamily properties where actual rent data are missing. Freddie Mac commented that the GSEs should be given the choice of whether to provide estimated rents or to exclude units from the denominator for purposes of calculating goals performance in instances of missing multifamily rent data.

In cases where calculation of estimated rents is not feasible, a number of commenters wrote in support of excluding the units in question from the denominator as well as the numerator for purposes of calculating performance toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal. One commenter opposed such exclusion, noting that by including all multifamily units in the denominator whether or not the GSEs have the required income and rent data places a more serious burden on the GSEs to obtain the data and focus on affordable lending in the multifamily area.

With regard to the issue of percentage ceilings, Freddie Mac suggested a two-percent (2%) ceiling on the exclusion of multifamily units from the denominator

because of missing rents. Other commenters suggested alternative limits, *e.g.*, a half-of-one percent (0.5%) ceiling or a one-percent (1%) ceiling for the combined total of multifamily units with estimated rent and units excluded from the denominator. Only Fannie Mae indicated opposition to such a ceiling, writing that ''Enforcement of percentage ceilings will perpetuate penalties against and create a disincentive for Fannie Mae to engage in the very business that HUD has identified for expanded penetration—single family, owner-occupied, 2–4 unit housing and small multifamily rental properties.''

(3) HUD's Determination. In order to promote liquidity in the multifamily mortgage market, including mortgages on properties which may not have current data on the affordability of such units the Department believes that it is reasonable for the GSEs to provide estimated affordability data for such properties, which would be utilized for purposes of calculating performance toward the Low- and Moderate-Income Goal and the Special Affordable Housing Goal as long as the data sources and methodology are reliable. The data sources and methodology used by a GSE to estimate affordability data are, therefore, subject to HUD review and approval. Estimated affordability data may be used up to a maximum of five (5) percent of units backing GSE multifamily purchases in any given year.

In its evaluation of whether to accept a proposed methodology for estimating affordability data, the Department will seek to determine: (a) The reliability of the data source(s) used including the size of the sample used; (b) the accuracy of the calculations; and (c) the reasonableness of the proposed methodology with regard to providing an unbiased measure of GSE performance toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, including the degree to which the methodology accurately predicts affordability information and goals performance on units backing GSE acquisitions in cases where current affordability data are known. The GSEs will be required to certify that any proposed estimated affordability methodology meets these standards. Methodologies that tend to understate actual rents, or which otherwise tend to overstate the affordability of GSE multifamily mortgage purchases or exaggerate GSE goals performance relative to actual performance, will not be considered acceptable by HUD.

Once a methodology is approved, the Department will closely monitor its implementation and its effects on calculated goals performance. Withdrawal of Departmental approval of an estimated affordability methodology could be warranted if evidence becomes available indicating that use of estimated affordability methodologies is unreliable or has undermined GSE incentives to collect and maintain rent data.

HUD does not believe it is necessary to codify in the regulations the specific methodology for estimating affordability data. The concept of estimating affordability data is new relative to the affordable housing goals. Both HUD and the GSEs need to evaluate the implications of the methodology proposed, monitor performance over time using such data, evaluate new data sources that may become available and become more predictive. HUD needs the flexibility to make changes and refinements to the approved methodology based on experience, without unnecessary limitations. In approving any methodology and data sources, HUD will, of course, be mindful of the GSEs' needs for operational certainty in making determinations.

With regard to circumstances where estimation of affordability on multifamily properties with missing data is not feasible, HUD believes it is reasonable to exclude such units from the denominator as well as the numerator for purposes of calculating performance toward the Low- and Moderate-Income Goal and the Special Affordable Housing Goal. The Department does not believe that a percentage ceiling on the exclusion of multifamily units with missing data from the denominator is needed in order to preserve incentives for data collection, and could actually be harmful from the standpoint of the reliability of the housing goals as a measure of actual GSE performance. Because the percent of multifamily units qualifying for the Low- and-Moderate Income Goal is so much higher than the average across all property types (over 90 percent for multifamily, compared with approximately 45 percent overall), an incentive will remain in place for the GSEs to collect rent data or obtain reliable estimated rents wherever it is feasible to do so. For the same reason, the Department believes that applying a ceiling on exclusion of units from the denominator as well as the numerator for goal calculation purposes would undermine the reliability of the Low- and Moderate Income Goal as a measure of actual GSE performance, since multifamily units above the ceiling would be counted as not being affordable when, in fact, there is approximately a 90 percent probability that such units do meet the requirements of the Low- and Moderate-Income Housing Goal. Similar arguments could be made with regard to the Special Affordable Housing Goal. Therefore, a percentage ceiling on removal of units from the denominator as well as the numerator is not necessary or warranted at this time.

b. Single Family Rental Units.

(1) Overview. The Department further proposed to exclude rental units in 1–4 unit properties with missing rent data from the denominator as well as the numerator in calculating performance under the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal. HUD asked for comment on whether it should establish a percentage ceiling for such exclusions.

This final rule retains the provision excluding rental units in 1–4 unit properties with missing rent data from the numerator and the denominator in calculating performance under the two goals. These properties disproportionately serve affordable housing markets and the GSEs should be active in this segment of the market. As the Department is awarding bonus points for the units in owner-occupied single family rental properties, the GSEs have a large incentive to obtain the required affordability data. When the data is not available, however, the Department does not wish to create a disincentive to purchase mortgages on these properties simply because affordability data is not available.

(2) Summary of Comments. A number of commenters wrote in favor of excluding rental units in 1–4 unit properties from the denominator as well as the numerator for purposes of calculating performance toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when rent data are missing. No commenters indicated opposition to such exclusion.

Writing in support of the ceiling concept, Freddie Mac suggested a two-percent (2%) ceiling on the exclusion of single family rental units from the denominator. Fannie Mae objected to such a ceiling, commenting that a ceiling was unnecessary given that it is in Fannie Mae's interest to obtain rent data on single family rental properties when it is cost effective to do so. Other commenters endorsed a percentage ceiling on the number of single family rental units that would be excluded from the denominator as well as the numerator for purposes of calculating performance toward the Low- and Moderate-Income Housing Goal and the

Special Affordable Housing Goal when rent data are missing.

Fannie Mae and Freddie Mac both suggested that the use of estimated rents should be permitted for single family rental properties with missing data.

(3) HUD's Determination. With regard to single family rental units with missing rent data, HUD believes it is reasonable to remove such units from the denominator as well as the numerator for purposes of calculating performance toward the Low- and Moderate-Income Goal and the Special Affordable Housing Goal. Because of the high degree of affordability of single family rental units, the Department does not believe that a percentage ceiling on exclusion of single family rental units with missing data from the denominator is needed in order to preserve incentives for data collection, and could actually be harmful from the standpoint of the reliability of the housing goals as a measure of actual GSE performance. HUD will monitor the GSEs' use of missing data provisions to ensure that they are being used in a reasonable way.

The Department has determined not to permit the use of estimated affordability data where it is missing for single family rental units. There are several reasons why HUD believes this a reasonable and prudent decision.

A decision to exclude units with missing affordability data from the numerator as well as the denominator for certain goals calculation purposes on single family rental properties removes a potential disincentive to an expanded GSE presence in the markets for mortgages on single family rental properties at the same time. The Department believes this segment of the market has unmet credit needs. To encourage the GSEs to move into this market, it is awarding bonus points for the rental and owner-occupied units in owner-occupied single family rental properties. The use of bonus points will serve as an additional incentive to the GSEs to obtain the necessary affordability data in order to obtain bonus credit.

Furthermore, HUD calculates affordability of single family rental units for purposes of the housing goals using origination-year rents, in contrast to multifamily, where acquisition year rents are used. While acquisition year rents on multifamily properties may sometimes be difficult to provide on seasoned and negotiated transactions where lenders have not continued to collect annual rent data following loan origination, this situation does not apply to single family rental properties, since information on rent at the time of loan origination is ordinarily required by lenders and secondary market institutions as part of the loan underwriting process.

The Department's decision to allow the estimation of affordability data with the limitations provided in this rule for multifamily rental units affords an opportunity to pilot the estimated rent methodology in an appropriately controlled environment.

c. Single Family Owner-Occupied Units.

(1) Overview. The Department also proposed to exclude single family owner-occupied units from the denominator as well as the numerator for purposes of calculating performance toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when data on borrower income are missing, provided the unit is located in a census tract with median income less than or equal to area median. HUD proposed to restrict this exclusion up to a ceiling of one percent (1%) of the total number of single family, owner-occupied dwelling units eligible to be counted toward the respective housing goal.

This final rule retains the provision to exclude single family owner-occupied mortgages from both the numerator and the denominator when borrower income is missing for properties located in lower income areas subject to a one percent maximum.

(2) Summary of Comments. A number of commenters wrote in favor of excluding at least some single family owner-occupied units from the denominator as well as the numerator for purposes of calculating performance toward the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal when income data are missing. One commenter indicated opposition to such exclusion.

Both Fannie Mae and Freddie Mac expressed opposition to restricting the exclusion of single family owner-occupied units with missing income data from the denominator only in lower-income areas. They recommended a two percent ceiling without these geographic restrictions.

In its comments, Fannie Mae stated that ''the place-based restriction that HUD proposes implies an unreasonable assumption that all the units that are missing data outside of the low-income census tracts are not affordable. The effect of the cap is to deny credit for units that are missing data and even when those units have some statistical likelihood of serving loans to low- and moderate-income borrowers. HUD's proposed methodology treats loans to low- and moderate-income borrowers differently simply because the borrower chose to purchase a property in a higher-income area.'' While opposed, in principle, to the concept of a ceiling on the exclusion of missing single family owner-occupied units from the denominator for goals calculation purposes, Fannie Mae stated that any ceiling established by the Department should be set at ''not less than two percent.''

Similarly, Freddie Mac wrote that ''A substantial fraction of mortgages in above-average income tracts are made to low- and moderate-income families' citing 1998 HMDA data in support of this contention. Consequently, ''geographic restrictions would erroneously exclude many low- and moderate-income loans from performance measures.''

Several commenters endorsed HUD's proposed one percent ceiling on exclusion of single family owner-occupied units with missing data from the denominator although some commenters thought the ceiling should be lower than one percent. A number of other commenters expressed opposition to this ceiling. No comments were received on the geographic restrictions aside from those from the GSEs.

(3) HUD's Determination.

With regard to single-family owner-occupied units with missing income data, HUD believes it is reasonable to remove such units from the denominator as well as the numerator up to one percent of the eligible total for purposes of calculating performance toward the Low- and Moderate-Income Goal and the Special Affordable Housing Goal provided such units are located in tracts where median income is less than or equal to area median income.

The percentage ceiling and the restriction to tracts where median income is less than or equal to area median income are both necessary in order to ensure that the exclusion does not result in undue exaggeration of GSE performance as calculated in achieving the housing goals as compared to actual performance. Because single family owner-occupied units are significantly less affordable than all other property types in the conventional, conforming mortgage market according to HUD's estimates (approximately 36 percent single family owner-occupied units meet the Low-and Moderate-Income Housing Goal, compared with 45 percent overall), excluding single family owner-occupied units with missing data from the denominator as well as the numerator could significantly raise the proportion of GSE acquisitions counting toward the Low-and Moderate-Income and Special Affordable Housing Goals

above actual performance. The one-percent ceiling on exclusion of single family owner-occupied units from the denominator places a limit on the degree to which such exclusions bias or affect the data, and the restriction to tracts with income less than area median serves to increase the likelihood that the affordability characteristics of the excluded units resembles that of the ''typical'' GSE purchase, further limiting the bias that would otherwise be introduced.

In HUD's view, the proposed geographic restriction on the exclusion of missing single family owner-occupied units from the denominator as well as the numerator for certain goals calculation purposes is, therefore, reasonable and necessary to correct for the bias that would otherwise be introduced even with a one-percent ceiling. Fannie Mae's contention that ''the place-based restriction that HUD proposes implies an unreasonable assumption that all the units that are missing data outside of the low-income census tracts are not affordable'' is not pertinent to HUD's determination. The Department made no such assumption. HUD is well aware that many low-income borrowers choose to live in tracts with median income above the area median, as pointed out by Fannie Mae. Conversely, however, a significant number of above median-income borrowers choose to live in tracts with median income below the area median. HMDA data does, however, show a strong correlation between borrower income as a percent of area median and tract income as a percent of area median, suggesting that tract income serves as a useful predictor of borrower of income. For example, in 1998, 55 percent of conforming, conventional owner-occupied loans in tracts where median income was less than area median were to low-and moderate-income borrowers. In contrast, only 33 percent of loans in high-income tracts were to low-and moderate-income borrowers. (Overall, 42 percent of single family owner-occupied loans in HMDA data were to low-and moderate-income borrowers.) HUD's analysis of GSE loan-level data reveal a similar correlation between borrower income as a percent of area median and tract income as a percent of area median, although the low-mod percentage of GSE acquisitions is lower than in HMDA data.

Accordingly, HMDA findings support the conclusions that HUD's proposed geographic restrictions on the exclusion of missing single family owner-occupied data will (i) result in goals calculations that more accurately track actual performance than would otherwise be the case and (ii) respond appropriately to any perceived weakening of incentives for the GSEs to collect affordability data to the extent feasible.

d. Other Matters. Freddie Mac argued that units with missing census tract data should be excluded from the denominator as well as the numerator for purposes of calculating performance toward the Underserved Areas Goal up to a maximum of 0.5 percent of the total.

The Department has not determined, however, that it is reasonable to remove units with missing geographic information from the denominator as well as the numerator for purposes of calculating performance toward the Underserved Areas Goal. In those limited instances where census tract (for metropolitan areas) or county (for nonmetropolitan areas) cannot be determined using automated methods, manual methods can be used.

13. Seasoned Mortgage Loan Purchases ''Recycling'' Requirement

a. Overview. Under section 1333(b)(1)(B) of FHEFSSA, [42] special rules apply for counting purchases of portfolios of seasoned mortgages under the Special Affordable Housing Goal. Specifically, the statute requires that purchases of seasoned mortgage portfolios receive full credit toward the achievement of the Special Affordable Housing Goal if ''(i) the seller is engaged in a specific program to use the proceeds of such sales to originate additional loans that meet such goal; and (ii) such purchases or refinancings support additional lending for housing that otherwise qualifies under such goal to be considered for purposes of such goal.'' [43] HUD refers to this provision as the ''recycling requirement.''

The proposed rule suggested changes to § 81.14(e)(4) of the current regulations. The proposed language was intended to provide guidance to the GSEs with regard to the recycling requirements described above and to provide new, simpler rules when it is evident based on the characteristics of a mortgage seller that the recycling requirements would likely be met.

The rule proposed that certain categories of lenders could be presumed to conduct a lending program meeting the recycling requirements of the statute and regulations. These categories include federally regulated financial institutions with satisfactory ratings on recent Community Reinvestment Act examinations and specific categories of lenders with affordable housing missions.

b. Guidance Provided on Recycling Requirements. Commenters were generally supportive of the overall guidance proposed by the Department with regard to determining when recycling requirements were met in order to count purchases of seasoned mortgage loans toward the Special Affordable Housing Goal, assuming they otherwise qualified for the goal. These provisions are included in the final rule with three specific changes based on the comments received. The changes made in the proposed language relate to the satisfactory CRA requirement for Federally insured financial institutions, identification of other institutions and/or organizations presumed to meet the recycling requirements, and the treatment of third party originations under the recycling provision. Changes made in the final rule on these three aspects are discussed in more detail below.

c. CRA Requirement.

(1) Summary of Comments. Overall commenters supported the proposed changes identifying specific criteria and standards for the recycling requirements. However, many commenters disagreed with HUD's requirement that a financial institution subject to CRA examinations must have received ''at least a satisfactory performance evaluation rating for at least the two most recent examinations under the Community Reinvestment Act'' to be presumed to meet the recycling requirements.

Fannie Mae, Freddie Mac and several other commenters suggested that a satisfactory performance evaluation rating on the most recent examination is sufficient, as opposed to the two most recent examinations, since the period between examinations can be as long as 60 months. A number of commenters noted that this could be a particularly difficult requirement for small institutions, who are examined much less frequently.

Other commenters suggested that two consecutive outstandings is a more suitable standard, as 78 percent of banks received satisfactory ratings in their 1999 CRA exams and about 75 percent received these ratings in previous years.

Still other commenters were supportive of HUD's proposal of at least a satisfactory performance evaluation rating for at least the two most recent examinations under the Community Reinvestment Act because it would reduce the compliance burden of both the GSEs and depository institutions, allowing them to spend more time on the business of financing housing loans.

(2) HUD's Determination. HUD has reviewed these comments and noted that the proposed rule, in establishing the CRA examinations and ratings of financial depository institutions as a

basis for determining that a financial institution met the recycling requirements for seasoned loan purchases under the Special Affordable Housing Goal, did not make a distinction between small and large depository institutions as intended and reflected in the CRA regulation [44] and the Gramm-Leach-Bliley Act of 1999. [45] The 1995 CRA regulation distinguishes, for examination purposes, four different types of financial institutions based on their size, structures, and operations: Small banks, large banks, wholesale banks, and limited purpose banks. Accordingly, the 1995 regulation provides different performance procedures, standards, ratings, and cycles for small banks, large banks, wholesale banks, and limited purpose banks. All of the procedures reflect the intent of the regulation to establish performance-based CRA examinations that are complete and accurate but, to the maximum extent possible, mitigate the compliance burden for institutions.

Under section 712 of the Gramm-Leach-Bliley Act, small banks with aggregate assets of not more than $250 million will be subject to routine examination:

- Not more than once every 60 months for an institution that has achieved a rating of ''outstanding record of meeting community credit needs'' at its most recent examination;
- Not more than once every 48 months for an institution that has received a rating of ''satisfactory record of meeting community credit needs'' at its most recent examination.
- As deemed necessary by the appropriate federal financial supervisory agency for an institution that has received a rating of ''less than satisfactory record of meeting community credit needs'' at its most recent examination.

In view of the comments received and based on its analysis of the 1995 CRA regulations and the Gramm-Leach-Bliley Act of 1999, this rule includes the recycling requirement that a financial institution have ''at least a satisfactory performance evaluation rating for at least the two most recent examinations under the Community Reinvestment Act'' for large banks and wholesale banks that are subject to CRA examinations. Limited purpose banks are not making home mortgage loans and therefore are not relevant for this analysis. This final rule adds a provision for small institutions with assets of no more than $250 million that such institutions must have received ''a satisfactory performance evaluation rating for the most recent examination under the Community Reinvestment Act to be presumed to meet the requirements in paragraphs (e)(4)(i) through (e)(4)(iv) of this section for seasoned loans.'' This safe harbor provision will also apply to the affiliates of depository institutions, provided that these affiliates are subject to the CRA examinations.

With regard to the suggestion that the standard for CRA examinations be two consecutive outstanding ratings, the Department believes that such a standard would be counterproductive. The purpose of the standard is to identify those financial institutions that are in the business of serving affordable housing markets. Using a satisfactory CRA examination rating achieves that purpose and is retained in the final rule.

d. Classes or Categories of Organizations Presumed to Meet Recycling Requirement.

(1) Summary of Comments. With regard to other additional classes of institutions or organizations that should be recognized as meeting the recycling requirements, most commenters, including the GSEs, agreed with HUD's proposal that State Housing Finance Agencies or Special Affordable Housing Loan Consortia should be presumed to meet the recycling requirements. However, both GSEs urged that HUD provide them with ''as much flexibility as possible on this provision.'' Fannie Mae opposed HUD approval of additional lending institutions or organizations and, instead recommended that HUD provide a list of HUD-approved institutions, and criteria for the GSEs to qualify lenders or certain kinds of lending or transactions. Freddie Mac suggested HUD ''broaden the regulatory presumption of recycling to all sellers of mortgages so long as they originate or purchase qualifying special affordable housing goal mortgages in the ordinary course of business.''

A great number of commenters suggested that HUD's list also include other ''non-traditional lenders'' who serve targeted communities and who could potentially benefit from the liquidity that the change could provide. These commenters mentioned the following institutions: Community development financial institutions, minority owned lenders, women owned lenders, non-profit lenders, and public revolving loan funds.

Other commenters urged HUD to include all credit unions in HUD's list because credit unions originate low-cost residential loans that make housing affordable to millions of credit union members even though they are exempt from CRA requirements. At a minimum, it was suggested that ''seasoned loans purchased from community development credit unions, which are chartered to serve low-income communities, should qualify for goal credit.

(2) HUD's Determination. HUD has reviewed the above comments and agreed to expand the safe harbor provision to include the following institutions or classes of institutions that the GSEs may presume meet the recycling requirements as long as these institutions have an affordable housing mission: State housing finance agencies; affordable housing loan consortia; Federally insured credit unions that are either (a) community development credit unions, or (b) credit unions that are members of the Federal Home Loan Bank System and meet the first-time homebuyer standard of the Community Support Program; community development financial institutions; public loan funds; and non-profit lenders. The final rule retains the requirement that any additional classes of institutions or organizations must be approved by the Department. The final rule establishes a reasonable set of lender characteristics that are presumed to meet the recycling provisions that cover a large portion of the affordable lending market. For those lenders falling outside of these parameters, the final rule provides the GSEs with broad guidance as to what a recycling program should include if a lender does not fall into an accepted category. The GSEs have broad latitude to evaluate the circumstances of a particular lender in counting seasoned loan purchases toward the Special Affordable Housing Goal. A GSE does not have to get prior approval to do business with a lender that does not fall into the presumptive category as long as the GSE verifies and monitors that the lender is conducting an affordable lending program consistent with the guidelines provided. Prior approval is only required if a seller of loans falls outside the boundaries established in the final rule and the GSE wants them designated among the category of institutions already identified and presumed to meet the requirements. The Department does not anticipate that such action will limit the GSEs ability to conduct business in any material way, but rather will relieve the burden of having to verify and monitor the lending programs of those entities presumed to meet the recycling requirements.

e. Third Party Transactions.

(1) Overview. In the proposed rule, HUD solicited comments on the treatment under the recycling provisions of structured transactions where the mortgage loans included in the transaction were originated by a

depository institution or mortgage banker engaged in mortgage lending on special affordable housing but acquired, packaged and re-sold by a third-party, *e.g.,* an investment banking firm that is not in the business of affordable housing lending.

(2) Summary of Comments. Fannie Mae believes that ''the appropriate approach is to extend the streamlined application to third party deliveries.'' Fannie Mae argues that when it purchases loans delivered by third parties, it ''is supporting the marketplace dynamic that provides liquidity,'' and therefore ''the intermediate step in no way degrades the liquidity support provided to the institutions or the mortgage products.''

Freddie Mac did not address this issue directly but pointed out that Congressional intent underlying the seasoned, recycling requirement was ''to ensure that the proceeds will be used in a manner that increases the availability of mortgage credit for the benefit of low-income families.'' According to Freddie Mac, Congress' interest was to ensure that ''mortgage proceeds were funneled back into the mortgage market, not that specific types of lending programs should be used to recycle these proceeds.'' Thus, Freddie Mac recommends that HUD include all mortgage sellers that regularly engage in originating or purchasing mortgages that meet the special affordable housing goal criteria. The alternative, according to Freddie Mac, would be ''adoption of the BIF/SAIF regulatory presumption while maintaining the current regulatory scheme.''

(3) HUD's Determination. HUD recognizes that Congress intended that the housing goals generally and the recycling provisions specifically were to expand the availability of affordable housing with particular emphasis on the purchase of loans that are originated in conjunction with affordable housing programs, the creation of innovative product lines, or the building of institutional capacity and infrastructure among others in the industry.[46] If the mortgages were, in fact, originated by an entity that meets the new recycling presumptions, *i.e.,* is regularly in the business of mortgage lending; is a BIF-insured or SAIF-insured depository institution; and is subject to, and has received at least a satisfactory performance evaluation rating under the Community Reinvestment Act, or is among the enumerated class or classes of organizations whose primary business is financing affordable housing mortgages; but the mortgages were delivered to the GSEs by a third party seller after a relatively short holding period, the purchase of such mortgages would meet the intent of Congress and fulfill the spirit of the recycling requirement. Therefore, in this final rule, HUD will allow mortgages delivered by such third party sellers to meet the recycling presumptions in § 81.14(e)(4)(vi) and (vii) of this final rule if the mortgages were originated by an entity that comes within the recycling presumptions; and the seller acted for, or in conjunction with, such entity in the transaction with the GSE. A seller that holds loans itself for more than six months is not presumed to be acting for, or in conjunction with, such an entity. Accordingly, the final rule excepts such sellers from the benefit of the presumption. Notwithstanding, a seller that otherwise meets the tests of the recycling provisions may qualify under the rules on its own behalf. Moreover, in any case, if the mortgages were originated by an entity that does not meet the recycling presumptions, the GSEs can still get goals credit under the Special Affordable Housing Goal if they verify and monitor that the originator, acting in conjunction with a seller, meets the recycling requirements in § 81.14(e)(4)(i) through (iv).

14. Counting Federally Insured Mortgages Including HECMs, Mortgages on Housing in Tribal Areas and Mortgages Guaranteed by the Rural Housing Service Under the Housing Goals

a. Overview. Under § 81.16(b)(3) of HUD's regulations prior to this final rule, non-conventional mortgages—mortgages that are guaranteed, insured or otherwise obligations of the United States—did not generally count under the three housing goals. However, mortgage loans under the Home Equity Conversion Mortgage (HECM) Program and the RHS's Guaranteed Rural Housing Loan Program have received credit under the Special Affordable Housing Goal. FHEFSSA specifically provides that mortgages that cannot be readily securitized through the Government National Mortgage Association (GNMA) or another Federal agency and for which a GSE's participation substantially enhances the affordability should receive full credit under the Special Affordable Housing Goal. On this basis, those two categories of mortgages would count under that goal if they finance housing for very low-income families or low-income families in low-income areas and meet recycling requirements if seasoned.

In the proposed rule, HUD proposed to amend § 81.16(b)(3) to count and give full credit for the following types of mortgage loans toward all three housing goals: mortgage loans under the HECM Program, mortgages guaranteed by RHS, and mortgage loans made under FHA's Section 248 program and HUD's Section 184 program for properties in tribal lands. (This section has also been amended as described herein at paragraph 14, Expiring Assistance Contracts.) HUD also proposed that other types of mortgages involving Federal guarantees, insurance or other Federal obligation may be eligible for credit under the goals if a GSE submits documentation to HUD that supports eligibility for HUD's approval and the Department determines, in writing, that the financing needs addressed by such programs are not well served and that the mortgage purchases under such program should count under the housing goals.

b. Summary of Comments. Commenters other than the GSEs generally supported the proposed change allowing goals credit for the GSEs' purchases of HECMs and rural and tribal mortgages. They stressed the need for liquidity for such programs and for encouraging the GSEs to better serve these markets. They pointed out that these markets are still undeveloped and underserved.

Fannie Mae supported the proposed changes with regard to government loans, but Freddie Mac made no comment.

A few commenters recommended that HUD count all reverse mortgages, not just HECMs, toward the three goals. Other commenters suggested that loans guaranteed by the RHS' Sections 538 and 515 programs should also receive goals credit as they provide high quality affordable multifamily housing for lower-income families in rural areas.

Some commenters suggested that HUD also should include all mortgages that are supported in some way by state and local governments. Others recommended that predevelopment grants or loans, interim development or bridge financing, and permanent financing be considered.

Fannie Mae objected to the proposal for HUD's review and approval of goals credit for other types of government loan programs and requested that HUD provide a set of criteria for the GSEs to apply and make their own determinations. According to Fannie Mae, the GSEs should receive goal credit for the purchase of specialized government program loans if two conditions are met: (1) Loans are made under any federally-insured programs (except for FHA loans insured under section 203(b) or VA loans insured under the VA single family insurance program); and (2) the GSEs add valuable

liquidity, lower costs, additional credit enhancements, or some other value to the financing of these loans.

c. HUD's Determination. In view of this general support for the proposed changes and based upon its review of data on the GSEs' mortgage purchases of HECMs, RHS mortgages and loans made to Native Americans under FHA's Section 248 program and HUD's Section 184 program, this final rule amends § 81.16(b)(3) to except mortgages under the HECM program, single-family mortgages guaranteed by RHS under the Section 502 program, and loans made under FHA's Section 248 program and HUD's Section 184 program on properties in tribal lands from the general exclusion from goals credit for non-conventional loans. This final rule allows goal credit for those specific Federally insured or guaranteed mortgage loans.

As proposed, the final rule provides that HUD will review other types of mortgages involving Federal guarantees, insurance or other Federal obligation for goals credit. HUD's review of the GSEs' non-conventional mortgage purchases is needed, among other reasons, to ensure compliance with FHEFSSA, which permits mortgages that cannot be readily securitized through GNMA or another Federal agency and for which a GSE's participation substantially enhances liquidity, to receive full credit under the Special Affordable Housing Goal. In view of the ample liquidity among the great majority of FHA loans, HUD must exercise ongoing responsibility to evaluate whether the GSEs' mortgage purchases under non-conventional mortgage programs (other than HECM program, specified RHS mortgage programs, and FHA's Section 248 program and HUD's Section 184 program on properties in tribal lands) should count under the Special Affordable Housing Goal. Beyond its responsibility under the Special Affordable Housing Goal, HUD must continually determine whether goals credit should be provided for particular GSE purchases. HUD has evaluated and considered the specific programs enumerated above and, at this time, is able to determine that goals credit should be given for the GSEs purchases of mortgages under these programs because these purchases will address credit needs that are not well served. For other programs, HUD must make the same careful and complete evaluation before it can decide in accordance with FHEFSSA whether goals credit is warranted.

This final rule retains a provision that to the extent categories of non-conventional mortgage purchases that now count toward the goals, they no longer will be excluded from the denominator of the GSEs' mortgage purchases as are other non-conventional loans that do not receive credit under the goals.

15. Expiring Section 8 Assistance Contracts

a. Overview. Over 900,000 housing units in approximately 10,000 multifamily projects have been financed with FHA-insured mortgages and supported by project based Section 8 housing assistance contracts.[47] Many of these contracts will expire over the next five years. A significant portion of these contracts currently provide for rents for assisted units that substantially exceed the rents for comparable unassisted units in the local market. Simply reducing rents to a level which may not support the project's debt service would risk likely defaults on the FHA-insured mortgage payments resulting in substantial claims to FHA's insurance funds.

In October 1997, Congress enacted the Multifamily Assisted Housing Reform and Affordability Act of 1997 (MAHRA; 42 U.S.C. 1737f) specifically to address the problem of expiring contract for project-based Section 8 rent subsidies for certain multifamily rental projects, most of which are insured by FHA. MAHRA authorized a new Mark-to-Market Program designed to preserve low-income rental housing affordability while reducing the long-term costs of Federal rental assistance for these projects.[48] MAHRA establishes processes and standards for debt restructuring under the program where it is determined that such restructuring is appropriate and necessary.

MAHRA also amended section 1335(a) of FHEFSSA (12. U.S.C. 4565(a)(5)) to require Fannie Mae and Freddie Mac to ''assist in maintaining the affordability of assisted units in eligible multifamily housing projects with expiring contracts.'' MAHRA amendments further stipulate that such actions shall constitute part of the contribution of each GSE toward meeting its housing goals as determined by the Secretary. In the proposed rule, HUD proposed to provide partial to full credit under the housing goals as determined by HUD for actions that maintain the affordability of assisted units in eligible multifamily housing projects with expiring contracts include the restructuring or refinancing of mortgages, and credit enhancements or risk-sharing arrangements to modified or refinanced mortgages. HUD solicited comments on how and to what extent the GSEs should receive credit for such actions.

b. Summary of Comments. Commenters who addressed this issue were generally supportive of HUD's proposal to award credit for these activities. Although Freddie Mac did not express an opinion in its comments, Fannie Mae expressed some support for HUD's approach. However, Fannie Mae requested that HUD consider some revisions to its proposal. Specifically, Fannie Mae suggested that HUD broaden its definition of actions which would receive credit to include the purchase of FHA-insured mortgages, mortgage revenue bonds and equity investments, including Low Income Housing Tax Credits. Fannie Mae suggested that HUD strike the language ''* * * as determined by HUD'' from the final rule to avoid a regulatory process that requires prior HUD approval for determining goals credit. Fannie Mae also suggested that actions qualifying for credit under this section should always receive full, rather than partial, credit.

c. HUD's Determination. HUD has determined that it is both appropriate and consistent with the statutory mandates of FHEFSSA and MAHRA that actions taken by the GSEs to assist in maintaining the affordability of assisted multifamily units with expiring contracts receive goals credit as part of the GSEs' contributions in meeting their housing goals as determined by the Secretary. HUD's current counting rules permit the GSEs to receive full credit for purchases of mortgages or interests in mortgages as set forth in 24 CFR 81.16. Those rules address goals eligibility standards for credit enhancements, the purchase of refinanced mortgages, mortgage revenue bonds and risk-sharing. Because HUD intends that goals credit for actions in conjunction with expiring assistance contracts should conform to actions that are already awarded credit in other transactions, HUD has determined that it is not necessary to restate these rules with respect to eligibility of actions for goals credit that assist the Mark-to-Market program. Accordingly, this final rule revises the language to eliminate redundancies by referencing current regulations.

HUD agrees with Fannie Mae that the purchase of FHA-insured mortgages resulting from restructured financings of projects with expiring assistance contracts is an appropriate activity to include in actions eligible for goals credit. Accordingly, HUD has amended § 81.14(e)(3) to specify that purchases of mortgages on projects with expiring assistance contracts that meet the

requirements of 12 U.S.C. 4563(b)(1)(A)(i) and (ii) will receive full credit toward achievement of the special affordable housing goal.

This final rule also clarifies the counting treatment for actions a GSE takes to modify or restructure the terms of mortgages with expiring assistance contracts which it may hold in portfolio, provided such restructuring results in lower debt service costs to the project's owner. HUD has added § 81.16(c)(9)(ii) to provide full credit under any housing goal for these activities.

HUD has reviewed comments from Fannie Mae, Freddie Mac, and others regarding awarding goals credit for equity investments, particularly Low Income Housing Tax Credits (LIHTCs). These comments, while not necessarily offered in response to this section of the proposed rule, indicate a continuing interest in counting these transactions under the goals. The Department agrees that the GSEs' participation in LIHTCs plays a vital role in the development of affordable housing. By excluding these investments from goals credit HUD does not intend to convey any lack of appreciation for their importance. However, FHEFSSA imposes certain standards on what can and cannot be counted towards the housing goals.[49]

Specifically, only mortgage purchases as defined in FHEFSSA and the implementing regulation meet the standard for eligibility. As described in the preamble to HUD's 1995 regulation, the purchase of LIHTCs is not a mortgage purchase or the equivalent of a mortgage purchase and, therefore, is not eligible for goals credit under HUD's general counting requirements as set forth in the implementing regulation.

While MAHRA does provide that actions to maintain the affordability of assisted units under MAHRA will count under the goals, MAHRA does not specifically impose standards for counting actions with respect to expiring assistance contracts under the goals but leaves this matter to HUD's determination. In determining whether actions count under the goals, HUD will generally be guided by definitions and counting conventions set forth in the implementing regulation. In instances where a GSE engages in actions not specified in the implementing regulation but which it believes warrant goals credit, or where a GSE provides more than one form of assistance for a single project, the GSE must submit the transaction to HUD for a determination on the appropriate level of credit to be awarded if the goals credit is sought. In making a determination, HUD will award counting treatment for those actions that are required under MAHRA and that may count under FHEFSSA.

A few commenters expressed concern about the counting treatment for mortgage purchases on projects with expiring contracts that ''opt out'' of the assisted program. One commenter suggested that HUD impose additional affordability requirements as a condition of awarding goals credit for such transactions. However, HUD finds that the issue of affordability relative to goals credit is already well established. HUD's current regulations address the income requirements for determining how mortgage purchases are counted under any of the housing goals. There are other statutory provisions that also address long-term affordability. Projects that rely upon or intend to rely upon equity investments from the LIHTC program must meet tax code requirements for affordability for a 15-year period.[50] Mortgages secured by projects subject to restructuring plans must provide for a Use Agreement that includes affordability restrictions and remains in effect for at least 30 years.[51] HUD believes that the current counting rules and statutory definitions under FHEFSSA and MAHRA are sufficient to ensure that goals credit is awarded appropriately for mortgage purchases that meet prescribed housing affordability standards.

16. Provision for HUD to Review New Activities To Determine Appropriate Counting Under the Housing Goals

a. Overview. In order to address confusion about whether a given transaction will receive credit under the housing goals, HUD proposed adding a provision at § 81.16(d) to further clarify its position regarding HUD's authority review new activities, or classes of transactions, to determine appropriate counting treatment under the housing goals.

While the GSEs participate in transactions and activities that support community and housing development in general, FHEFSSA is clear that only ''mortgage purchases'' count toward performance on the housing goals. Section 81.16(a) of the regulations stipulates that the Secretary shall consider whether a transaction or activity of the GSE is substantially equivalent to a mortgage purchase and either creates a new market or adds liquidity to an existing market. As provided in § 81.16(b), HUD has determined that certain transactions do not meet those criteria and, therefore, will not count toward a GSE's housing goals performance. Examples include equity investments in housing development projects; commitments, options or rights of first refusal to acquire mortgages; mortgage purchases financing secondary residences; purchases of non-conventional mortgages and government housing bonds except under certain circumstances. As provided in § 81.16(c), HUD has determined that certain other transactions, including credit enhancements in certain situations, REMIC purchases and guarantees in certain circumstances, and others, do count as mortgage purchases.

HUD believes that, in order to meet higher goal levels, the GSEs will need to continue to develop new products and approaches while also remaining mindful of FHEFSSA's requirements. HUD invited comment on this proposal.

b. Summary of Comments. Commenters who addressed this issue generally offered support for the proposal. Some commenters, however, confused HUD's proposal to review classes of transactions for goals counting treatment with the Department's New Programs Approval authority as set forth in § 81.51 which relates to HUD's review of a new GSE activity to determine whether it is a new program and whether it is authorized under the GSE's charter and in the public interest. The provision in § 81.16(d) of the proposed rule concerns instead whether a class of transactions counts as mortgage purchases that will receive credit under the housing goals. In HUD's proposed rule, no regulatory changes to the New Programs Approval authority were proposed.

Of the comments received, Fannie Mae addressed the issue of counting classes of transactions under the goals in some detail. Generally, Fannie Mae expressed an overall objection to any regulatory provisions that would require prior HUD approval for goals counting purposes, believing instead that HUD should codify clear but flexible rules that remove all uncertainty regarding goals counting treatment. Fannie Mae further stated that prior HUD review could ''put in place a disincentive to the development of new and innovative products.'' Fannie Mae did not suggest any specific examples of classes of transactions or characteristics that HUD should exclude from a prior review process nor did it specify how regulatory guidance could be constructed to address future events. However, Fannie Mae did suggest that HUD impose a 30-day time frame for review after which the transaction(s) would be approved for goals credit unless HUD had notified the GSE otherwise during the review period.

Another commenter expressed concern that HUD intends to count

transactions that are not formally mortgages if HUD believes they serve a new market or add liquidity to an existing market, thereby potentially allowing the GSEs to expand their activities into areas now served by others.

c. HUD's Determination. In assessing these concerns, HUD believes that Fannie Mae's suggestions for additional codified regulatory guidance in lieu of any HUD review are impractical and unnecessary. The regulation already includes numerous provisions that address eligible transactions and their counting treatment. In fact, virtually all transactions in current use which could be substantially equivalent to a mortgage purchase have been addressed elsewhere in the counting rules. Nevertheless, given the pace of innovation in the mortgage and investment markets and the likelihood that the GSEs will devise new lending and marketing approaches in the future, providing a prior-review requirement to address goals counting treatment for these future transactions is both an efficient and practical solution while a more prescriptive approach may not be sufficiently foresighted or encompassing thereby disadvantaging both the public's and the GSEs' interests.

HUD regards concerns that by adding § 81.16(d) to the regulation, HUD is opening the door to counting non-mortgage transactions towards the goals as unwarranted. The regulatory language is explicit in stating that, in order to count towards goals performance, transactions must be ''mortgage purchases'' in accordance with FHEFSSA. The regulatory language does not use ''liquidity'' as a criteria for review and approval to count transactions for goals credit, and ''liquidity'' is not a defining element of ''mortgage purchase'' under this regulation. Further, the regulation explicitly states which classes of transactions are currently ineligible, and it provides guidance on criteria necessary for qualifying other classes of transactions. Thus the plain meaning of the regulations including the counting rule conventions set forth in the regulation would preclude a broader interpretation of § 81.16(d).

HUD has further determined that establishment of a time limit for HUD review of GSE requests to count transactions is unnecessary. While HUD is aware of the need for responsive action to a GSE's request for guidance and will respond to such requests reasonably, rigid time frames may not provide sufficient review of complex transactions to best serve the public interest. Accordingly, HUD has implemented § 81.16(d) as originally proposed.

17. Counting Rules—Clarifying Technical Provisions

a. Especially Low Income. Section 81.14(d)(1)(i) of the regulations provides that dwelling units in a multifamily property will count toward the Special Affordable Housing Goal if 20 percent of the units are affordable to families whose incomes do not exceed 50 percent of the area median income. HUD's regulations at §§ 81.17 through 81.19 stipulate that the income requirements are to be adjusted based on family size and provide adjustment tables for qualifying family income where incomes do not exceed from 60 percent to 100 percent of area median income. However, there has been no similar adjustment table provided for families whose incomes do not exceed 50 percent of area median income. HUD proposed to amend those sections to provide additional adjustment tables for such families. To be consistent, HUD also proposed to designate such families as ''especially low-income families'' for purposes of the Department's GSE regulations and to reflect this change in § 81.14. HUD received no comments on these proposals. Therefore, this final rule implements the changes as proposed in § 81.14 and §§ 81.17 through 81.19.

b. Defining the ''Denominator''. HUD proposed amending the calculation of ''Denominator'' to clarify that the denominator does not include GSE transactions or activities that are not mortgages or transactions that are specifically excluded. HUD received no comments on this proposed change, and this final rule implements the change as proposed in 81.14(a)(2).

c. Balloon Note Conversions. HUD proposed to amend the definition of ''Refinancing'' at § 81.2 to exclude a conversion of a balloon mortgage note on a single family property to a fully amortizing mortgage note provided the GSE already owns or has an interest in the balloon note at the time of the conversion. HUD also proposed amending the counting rules at § 81.16(b)(9) to exclude these transactions from the denominator. Fannie Mae suggested deleting other proposed language which sought to clarify that single family loans with conversion features which had already been exercised prior to purchase by the GSE would count as new purchases. Fannie Mae believed this additional language created confusion and was unnecessary stating that the revised definition of ''Refinancing'' at § 81.2 already provided sufficient clarification. HUD agrees with this comment. Accordingly, this final rule implements the proposed changes to § 81.2 and to § 81.16(b)(9), with slight revisions to § 81.16(b)(9) to avoid any potential confusion.

d. Title I. HUD proposed awarding the GSEs half credit for purchases of mortgage loans insured under HUD's Title I property improvement and manufactured homes program. Fannie Mae and one other commenter asked that the Department award full credit for Title I mortgages saying that these mortgages support affordable housing needs. Fannie Mae noted that purchases of these loans were difficult transactions to undertake and for this reason should receive more than half credit. One other commenter recommended that no goals credit be given for Title I loans, asserting that such loans do not directly support affordable housing needs.

Given the limited number of comments and their conflicting nature, the Department decided to retain the provision in the final rule that purchases of Title I loans will receive half credit under the housing goals. As explained in more detail in the appendices to this final rule, HUD has determined that such loans finance an important source of affordable housing and an enhanced GSEs role could improve the affordability of such loans for lower-income families.

18. Credit Enhancements

a. Overview. The GSEs utilize a large variety of credit enhancements, for both single family and multifamily mortgage purchases, to reduce the credit risk to which they might otherwise be exposed. For example, the GSEs generally require the use of mortgage insurance on single family loans with loan-to-value ratios exceeding 80 percent. While more common in the multifamily mortgage market, seller-provided credit enhancements may also be required for GSE purchases of single family mortgage loans. Other types of credit enhancements include arrangements such as credit enhancements in structured transactions where a GSE may acquire a pool of loans, mortgage-backed securities (MBS), or real estate mortgage investment conduits (REMICs), and then create separate senior and subordinated securities, structured so that the subordinated securities absorb credit losses; spread accounts, in which a GSE may create a special class of unguaranteed securities where pass-through payments will cease in the event of default of the underlying mortgage collateral; acquisition of senior tranches of REMIC securities by the GSEs which are enhanced by the

presence of subordinate tranches and where the collateral is already credit enhanced prior to purchase; and agency pool insurance coverage provided by a mortgage seller.

Since enactment of FHEFSSA in 1992, HUD's regulations have awarded full goals credit for the purchase of most mortgages or interests in mortgages that otherwise qualify under the definition for each goal regardless of the level of credit risk a GSE might bear in the transaction. However, the increasing complexity of, and prevalence in, the use of credit enhancements have raised questions about whether the GSEs should receive full credit towards the goals for transactions where their credit risk exposure is minimal. In the proposed rule, HUD sought comments on various questions regarding the appropriate goals treatment for transactions with credit enhancements. For example, assuming credit risk can be measured, HUD asked commenters to consider whether HUD should establish a sliding scale from 0 to 100 percent for awarding goals credit depending on the GSE's risk exposure in a transaction. HUD also asked for comments on other issues including whether a minimum risk threshold should be established in order for a transaction to receive any goals credit as well as comments on whether HUD should measure counterparty risk on seller-provided credit enhancements.

b. Summary of Comments. The overwhelming majority of commenters, including Fannie Mae and Freddie Mac, responded with strong opposition to the concept of basing goals credit on the level of credit risk borne by a GSE in the transaction. Freddie Mac expressed concern that, in addition to being inconsistent with the Freddie Mac Act and FHEFSSA, discounting goals credit for protections against default cost would lead to a host of unintended consequences and practical problems, including measurement problems. For example, with regard to multifamily mortgages especially, Freddie Mac stated that ''when cross-default or cross-collateralization techniques are used to price credit enhancements, there is no ready and straightforward method of allocating default cost protection to the risks presented by the individual mortgages, let alone to the housing units that are financed by each of those mortgages.''

Fannie Mae also strongly opposed any goals scoring approach based on the level of credit enhancement. Fannie Mae stated that credit enhancements are essential to its safe and sound operation and, in fact, are explicitly recognized under OFHEO's risk-based capital standard as an important risk management tool. Fannie Mae further stated that reducing goals credit based on the level of credit enhancement ''is contrary to our charter, misconstrues the purpose of Fannie Mae, distorts the efficient functioning of the capital markets, increases the cost of homeownership, restricts the availability of capital, and weakens the financial soundness of Fannie Mae.''

Commenters representing state and local housing finance agencies, for-profit and non-profit advocacy and consumer groups, trade associations, and the mortgage lending and investment industry were nearly unanimous in voicing objections to any regulatory approach that considered levels of credit enhancements in assigning goals credit. The recurring objection held that such an approach would undermine the purpose of the housing goals regulation by disrupting the risk-sharing partnerships that are critical to making affordable housing lending a reality, thereby resulting in a negative consequence to homeownership. For example, some commenters expressed concern that such an approach could interfere with the GSEs' incentive to develop new affordable mortgage products using risk-sharing arrangements while others felt that reducing goals credit based on the level of risk would have the effect of reducing the amount and liquidity of funds available for affordable housing lending rather than force the GSEs to take on more risk than they felt they could effectively manage. These commenters remarked that since risk sharing arrangements allow more industry partners to bring more capital to the mortgage market, they were concerned that the affordable housing market would be adversely impacted if HUD adopted a regulatory counting scheme that penalized the GSEs for sharing risk.

Two commenters, however, suggested there may be instances in which goals credit should be limited and suggested further review and study of the issue. One commenter stated that the financial benefits of GSE status can and should function as an offset for the assumption of some amount of credit risk but also cautioned that HUD must carefully consider the effects of any regulatory change in this area, especially how OFHEO and the financial markets would view encouraging the GSEs to assume certain credit risks and what effect this approach could have on mortgage rates. Another commenter suggested that HUD establish an industry working group to examine these issues in greater detail. This commenter also supported limiting goals credit on the GSEs' purchase of seasoned mortgages when the selling institution provides a credit enhancement beyond customary representations and warranties, and also supported some limitation on goals credit for loans securitized in commercial mortgage-backed securities (CMBS) and REMIC structures to the risk level of the tranches purchased by the GSEs.

One commenter suggested that, in assigning goals credit based on the GSEs' actual involvement in facilitating the flow of private capital into low/mod communities, there may be a useful prototype in the CRA provisions for allotting goals credit based upon the type of mortgage purchase transaction, *i.e.,* the purchase of newly originated loan versus other mortgage investments. HUD appreciates this suggestion and plans to consider it further.

c. HUD's Determination. HUD has taken the position that GSE credit enhancement transactions provide needed liquidity to the mortgage markets and play a key role in affordable housing lending. As explained in a study HUD has undertaken with the Urban Institute to assess recent innovations in the secondary market for low- and moderate-income lending, the GSEs' purchase of interests in CRA loans is identified as one approach to how the enterprises facilitate liquidity for loans that do not conform to standard guidelines.[52] Investment analysts also report that the GSEs' credit enhancement of CRA REMIC securities results in a more attractive debt instrument for investors and a higher return for issuers which benefits lenders seeking to liquidate their CRA portfolios and ultimately borrowers.

HUD recognizes there also are other valid reasons to grant the GSEs full credit under the housing goals for mortgage purchase transactions involving credit enhancements even where the enterprises bear relatively minimal credit risk. For example, in the absence of private mortgage insurance for multifamily mortgages, seller provided credit enhancements apparently are a viable means by which secondary market purchasers may delegate certain of their underwriting responsibilities and share risks. When a GSE purchases a mortgage subject to a recourse agreement or similar arrangement with the lender, the GSE still retains credit risk with respect to holders of the GSEs' mortgage-backed security or, where the mortgage is held in portfolio, for its own account. Of course, even if the GSE is not bearing

substantial credit risk, the GSE may still be bearing other types of risk. For example, the protection afforded to the GSE under recourse agreements is dependent on the soundness of the party to whom the GSE has recourse. In addition, the GSE assumes interest rate risk for mortgages that are retained in portfolio.

In analyzing credit enhancement issues, thus far, there has emerged no clear approach to establishing an appropriate ''risk threshold'' associated with mortgages purchased by a GSE, below which credit toward the goals should not be granted. Under typical recourse agreements or similar arrangements, GSEs rarely divest themselves of credit risk associated with mortgage purchases in clear-cut percentages of risk. Some arrangements have time or dollar limits. The relative risk assumed by the GSE on one loan compared to another relates not only to the relative risk management characteristics (including mortgage insurance and recourse arrangements), but also to loan-to-value ratios, multifamily debt coverage ratios, interest rate risk, and many other parameters. Moreover, whether there is subsequent securitization or resecuritization of a GSE interest also bears upon the degree of credit risk retained by the GSE in a transaction.

Any determination about discounting goals credit based on the level of risk borne by a GSE in the transaction also must take into account consistency with the GSEs' Charter Acts which require the GSEs to obtain mortgage insurance or its equivalent for certain single family mortgages, and must consider the financial safety and soundness requirements under FHEFSSA as well as its housing goals provisions.

Accordingly, HUD has determined, based on its analysis of available information on the GSEs' credit enhanced transactions, comments and other input received on the proposed rule, as well as its analysis of the law, the complexity of these issues requires additional evaluations before changes are made to these rules. These evaluations will further assess the extent to which the GSEs' use of credit enhancements add value and liquidity to the marketplace, especially for affordable housing lending, as well as the impact their use has on the GSEs' mandate to play a leadership role in the mortgage markets. To assist its evaluations, HUD is undertaking further review and analysis on credit enhancements. Topics being covered in this review include the GSEs' use of credit enhancements provided by seller-servicers, third party vendors, and buyers of subordinated debt in the GSEs' single family and multifamily mortgage transactions. In addition, HUD will continue its assessments of credit enhancement structures including newly introduced structures to determine how and to what extent, if any, HUD's goal counting rules should be modified in the future.

19. Public Use Data Base and Public Information

Section 1323 of FHEFSSA requires that HUD make available to the public data relating to the GSEs' mortgage purchases. In the legislative history of FHEFSSA, Congress indicated its intent that the GSE public use data base is to supplement HMDA data.[53] The purpose of the GSE data base is to assist the public, including mortgage lenders, planners, researchers, and housing industry groups, as well as HUD and other government agencies, in studying the GSEs' mortgage activities and the flow of mortgage credit and capital into the nation's communities. At the same time, section 1326 of FHEFSSA protects from public access and disclosure, proprietary data and information that the GSEs submit to the Department and requires HUD to protect such data or information by order or regulation.

To comply with FHEFSSA, HUD established a public use data base to collect and make available to the public, loan-level data on the GSEs' single family and multifamily mortgage purchases. In Appendix F to the December 1, 1995 final rule, the Department specified the structure of the GSE public use data base and identified the data to be withheld from public use.

The single family data was to be disclosed in three separate files—a Census Tract File (with geographic identifiers down to the census tract level), a National File A (with mortgage-level data on owner-occupied 1-unit properties), and a National File B (with unit-level data on all single family properties). The national files do not have geographic indicators. The multifamily data was to be disclosed in two separate files ''a Census Tract File and a National File. Each file consists of two parts, one part containing mortgage loan level data and the other containing unit level data for all multifamily properties. For each file, Appendix F identified data elements that were considered proprietary and those that were not proprietary and available to the public, and specified further that certain proprietary elements would be recoded or categorized into ranges to protect the proprietary information and to permit the release of non-proprietary information to the public. This multi-file structure was designed to allow the greatest dissemination of loan-level data, without disclosing proprietary data of the GSEs and causing competitive harm by, for example, allowing competitors to determine the GSEs' marketing and pricing strategies at the local level.

On October 17, 1996, a Final Order describing each data element submitted by the GSEs and the proprietary or nonproprietary nature of each element was published in the **Federal Register**. The Final Order also recoded, adjusted, and categorized in ranges certain proprietary loan-level data elements to protect proprietary GSE information. HUD released the recoded data elements and the data elements that were identified as non-proprietary information to the public.

In the fall of 1996, the Department released the first publicly available GSE loan level data base, containing non-proprietary information on every mortgage purchased by the GSEs from 1993 to 1995. Subsequently, HUD has made the 1996, 1997, 1998, and 1999 databases available to the public. In addition, HUD issued an order determining that certain aggregations of data that may otherwise be proprietary at the loan level is not proprietary at an aggregated level. Through that order, it is possible for HUD to make available to the public specific tables of nonproprietary information about the GSEs' activities and housing goal performance.

After consideration of the current structure of the GSE public use data base, the Department proposed several changes to its classifications of the GSEs' mortgage data. Those proposed changes were either technical in nature or would, by reclassifying certain data from proprietary to non-proprietary, make available to the public the same data from the GSEs that is made available by primary lenders under the Home Mortgage Disclosure Act (HMDA).

HUD received comments from both GSEs as well as trade organizations, advocacy groups, researchers, and lenders on this issue. Comments were almost evenly divided between those groups approving of increased data disclosure at the loan-level and those that opposed the proposals, mostly out of concern for protecting the privacy of borrowers' and lenders' business strategies. Both GSEs were strongly opposed to increased disclosure, citing competitive issues resulting from the release of what each GSE considered to be proprietary, confidential business information. Fannie Mae and Freddie Mac expressed general concern that

recoding certain loan-level data as non-proprietary at either the census tract or national file level would reveal information about lender relationships, pricing arrangements, and management of credit and interest rate risks. Fannie Mae also took issue with HUD's efforts to conform data available in the GSE public use data base to HMDA data for research purposes, contending that both databases are fundamentally different and cannot be readily reconciled. Lenders expressed a similar concern about the potential for additional public data to reveal business strategies, commenting that the more data HUD makes available through the public use data base, the more likely that other lenders would be able to discern the competition's lending strategies.

Some trade organizations viewed the proposed changes as potentially harmful to consumers. Their viewpoints were representative of similar concerns expressed by lenders and the GSEs. One organization wrote that exposing more detailed information about the consumer to the general public will only enhance the ability of sellers of credit to take unfair advantage of the consumer, particularly the urban and minority consumer.'' Another urged that HUD be ''sensitive to emerging technology when deciding what data elements to make public on the [public use data base] files. Consumer financial and credit information privacy must be a paramount concern to the Department.'' A third organization strongly opposed releasing additional data out of concern for borrowers' privacy and ''potential exposure of association members' confidential business information.'' Another commenter, however, supported increased disclosure of data, contending that access to more data should lead to a better understanding of the affordable housing market and to reduced costs for those operating in the market.

Housing and community organizations generally viewed HUD's proposed changes as a series of improvements that would make the public use data base more compatible with HMDA data and, therefore, more valuable as a research tool. One commenter also supported bringing the public use data base into conformity with HMDA stating that comparisons between the two databases are ''extremely important'' in evaluating the GSEs'' mandate to lead the primary market.

HUD recognizes the potential harm that the release of truly proprietary data could have on the GSEs as well as their lending partners and is cognizant of its responsibilities under FHEFSSA to preserve and protect such data from public disclosure. Also, any implication that additional disclosure of GSE data might in fact facilitate a further loss of borrower privacy or encourage predatory lending practices are issues that HUD believes warrant especially close scrutiny.

In recognition of its responsibilities to proceed with the utmost caution in releasing data, HUD follows a rigorous six-factor determination process in considering whether to accord proprietary treatment to mortgage data. For every data element under consideration for non-proprietary treatment, HUD evaluates:

(1) The type of data or information involved and the nature of the adverse consequences to the GSE, financial or otherwise, that could result from disclosure;

(2) The existence and applicability of any prior determinations by HUD, any other Federal agency, or a court, concerning similar data or information;

(3) The measures taken by the GSE to protect the confidentiality of the mortgage data and similar data before and after its submission to the Secretary;

(4) The extent to which the mortgage data is publicly available including whether the data or information is available from other entities, from local government offices or records, including deeds, recorded mortgages, and similar documents, or from publicly available data bases;

(5) The difficulty that a competitor, including a seller/servicer, would face in obtaining or compiling the mortgage data; and

(6) Such additional facts and legal and other authorities as the Secretary may consider appropriate, including the extent to which particular mortgage data, when considered together with other information, could reveal proprietary information.

Section 1326 of FHEFSSA and § 81.75 of the regulations provide that the Department may, by regulation or order, issue a list of information that shall be accorded proprietary treatment. HUD utilized the proposed rule to suggest changes to the proprietary treatment of certain GSE data. The comments received in response offered useful insights into concerns of many different organizations including the GSEs' respecting the proposed changes.

Based on the comments received, HUD is not making a determination on this matter as part of this rulemaking. HUD will issue a decision on which data elements will be accorded proprietary and non-proprietary treatment by separate order following publication of this final rule in accordance with the Department's regulations at §§ 81.72 through 81.74.

20. Other Considerations

a. Data Reporting. Many of the changes included in the final rule involve changes in data reporting requirements. The Department will not establish those requirements in this final rule, but rather will establish them in accordance with FHEFSSA and 24 CFR part 81, considering the proprietary concerns of the GSEs and other considerations in the public interest.

Specific areas where additional data will need to be collected include but are not limited to indicators for mortgages located in tribal lands, identification of units with estimated affordability data mortgage loans receiving bonus points and the temporary adjustment factor, and mortgages relating to Section 8 assistance contracts.

One area in particular that will require additional data elements is high cost mortgage loans. In order to monitor and enforce the restrictions included in this final rule, new data and reporting requirements may be required, as appropriate. The Department notes that the HUD/Treasury report recommended that the Federal Reserve amend its regulations to require the collection of similar data items under the Home Mortgage Disclosure Act (HMDA), including information on loan price (APR and cost of credit) and borrower debt-to-income ratio for HOEPA loans. If such recommendations are implemented, it may affect the data reporting required under this rule.

b. Comments Regarding Regional Issues. Several commenters offered comments on the need to inform various communities and regions around the country of the GSEs' affordable housing goal performance in those areas. Separate from this rulemaking, as described above, HUD has recently taken steps to make more MSA level information, on an aggregated basis, about the GSEs mortgage purchases available to the public. HUD encourages the residents of local communities and regions of the country to increase their knowledge of the roles the GSEs' play in their areas and, toward that end, HUD will make available information to build understanding of the GSEs' activities.

c. Technical Correction. Section 81.76(d) describes the protection of GSE information by HUD officers and employees. That section has cited HUD's Standards of Conduct regulations in 24 CFR part 0. HUD's Standards of Conduct regulations in part 0 were, however, largely superseded by new financial disclosure regulations codified in 5 CFR part 2634, new executive

branch-wide Standards of Conduct codified in 5 CFR part 2635, and supplemental HUD-specific Standards of Conduct codified in 5 CFR part 7501. Consequently, in 1996, HUD removed the current text of 24 CFR part 0 and replaced it with a single section (§ 0.1) that provides cross-references to those provisions. (See final rules published in the **Federal Register** on April 5, 1996 (61 Fed. Reg. 15,350), and on July 9, 1996 (61 Fed. Reg. 36,246).) In order to correct § 81.76(d), this final rule will revise the references to those provisions accordingly.

III. Findings and Certifications

Executive Order 12866

The Office of Management and Budget (OMB) reviewed this final rule under Executive Order 12866, *Regulatory Planning and Review*, which the President issued on September 30, 1993. This rule was determined economically significant under E.O. 12866. Any changes made to this final rule subsequent to its submission to OMB are identified in the docket file, which is available for public inspection between 7:30 a.m. and 5:30 p.m. weekdays in the Office of the Rules Docket Clerk, Office of General Counsel, Room 10276, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC. The Economic Analysis prepared for this rule is also available for public inspection in the Office of the Rules Docket Clerk.

Congressional Review of Major Final Rules

This rule is a ''major rule'' as defined in Chapter 8 of 5 U.S.C. The rule has been submitted for Congressional review in accordance with this chapter.

Paperwork Reduction Act

HUD's collection of information on the GSEs' activities has been reviewed and authorized by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520), as implemented by OMB in regulations at 5 CFR part 1320. The OMB control number is 2502–0514.

Environmental Impact

In accordance with 24 CFR 50.19(c)(1) of HUD's regulations, this final rule would not direct, provide for assistance or loan and mortgage insurance for, or otherwise govern or regulate real property acquisition, disposition, lease, rehabilitation, alteration, demolition, or new construction; nor would it establish, revise, or provide for standards for construction or construction materials, manufactured housing, or occupancy. Therefore, this final rule is categorically excluded from the requirements of the National Environmental Policy Act.

Regulatory Flexibility Act

The Secretary, in accordance with the Regulatory Flexibility Act (5 U.S.C. 605(b)), has reviewed this rule before publication and by approving it certifies that this rule would not have a significant economic impact on a substantial number of small entities. This final regulation is applicable only to the GSEs, which are not small entities for purposes of the Regulatory Flexibility Act, and, thus, does not have a significant economic impact on a substantial number of small entities.

Executive Order 13132, Federalism

Executive Order 13132 (''Federalism'') prohibits, to the extent practicable and permitted by law, an agency from promulgating a regulation that has federalism implications and either imposes substantial direct compliance costs on State and local governments and is not required by statute, or preempts State law, unless the relevant requirements of section 6 of the Executive Order are met. This final rule does not have federalism implications and does not impose substantial direct compliance costs on State and local governments or preempt State law within the meaning of the Executive Order.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments, and the private sector. This final rule would not impose any Federal mandates on any State, local, or tribal governments, or on the private sector, within the meaning of the UMRA.

Endnotes to Preamble

1. See sec. 301 of the Federal National Mortgage Association Charter Act (Fannie Mae Charter Act) (12 U.S.C. 1716); sec. 301(b) of the Federal Home Loan Mortgage Corporation Act (Freddie Mac Act) (12 U.S.C. 1451 note).
2. Secs. 306(c)(2) of the Freddie Mac Act and 304(c) of the Fannie Mae Charter Act.
3. Secs. 306(g) of the Freddie Mac Act and 304(d) of the Fannie Mae Charter Act.
4. Secs. 303(e) of the Freddie Mac Act and 309(c)(2) of the Fannie Mae Charter Act.
5. U.S. Department of Treasury, *Government Sponsorship of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation* (1996), page 3.
6. S. Rep. No. 282, 102d Cong., 2d Sess. 34 (1992).
7. FFIEC Press Release, July 29, 1999.
8. Section 802(ee) of the Housing and Urban Development Act of 1968 (Pub. L. 90–448, approved August 1, 1968; 82 Stat. 476, 541).
9. See sec. 731 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) (Pub. L. 101–73, approved August 9, 1989), which amended the Freddie Mac Act.
10. See 24 CFR 81.16(d) and 81.17 (1992 codification).
11. Sec. 1321.
12. See generally secs. 1331–34.
13. Secs. 1332(b), 1333(a)(2), 1334(b).
14. 65 FR 12632–12816
15. S. Rep. No. 282, 102d Cong., 2d Sess. 34 (1992) at 35.
16. *Rental Housing Assistance—The Worsening Crisis: A Report to Congress on Worst Case Housing Needs,* Department of Housing and Urban Development, Office of Policy Development and Research, (March 2000).
17. *Standard & Poor's DRI Review of the U.S. Economy.* (June 2000), p. 57.
18. See, *e.g.,* S. Rep. at 34.
19. S. Rep. at 34.
20. 12 U.S.C. 2901 *et seq.*
21. See section 1335(3)(B).
22. The following discussion is based on analysis of conventional, conforming mortgage loans which were originated in 1998, and which may have been acquired by the GSEs in 1998 or 1999. Appendix A contains further details regarding GSE acquisitions of 1997 originations as well. HUD will analyze GSE purchases in relation to the 1999 mortgage market once HUD has the opportunity to analyze 1999 HMDA data for metropolitan areas.
23. Totals do not add due to rounding.
24. This percentage differs from the GSEs' 19 percent market share for rental units in single family rental properties financed in 1998 chiefly because the 41 percent figure reported here includes owner-occupied units in 2–4 unit properties which also have rental units.
25. A recent Treasury-sponsored report on CRA found that banks and thrifts increased the share of their mortgage originations to low-income borrowers and communities from 25 percent in 1993 to 28 percent in 1998. See Robert E. Litan, Nicolas P. Retsinas, Eric S. Belsky, and Susan White Haag, *The Community Reinvestment Act After Financial Modernization: A Baseline Project,* U.S. Department of Treasury, April 25, 2000.
26. African American borrowers accounted for 6.5 percent of all conforming home loans, including FHA and VA loans, in metropolitan areas in 1998. Further information on the GSEs' purchases of mortgage loans to minority borrowers may be found in Appendix A.
27. Hispanic borrowers were 6.7 percent of all conforming metropolitan area home loans, including FHA and VA loans, in 1998. Further information on the GSEs' purchases of mortgage loans to minority borrowers may be found in Appendix A.

28. The low- and moderate-income market share is the estimated proportion of newly mortgaged units in the market serving low- and moderate-income families. The two other shares are similarly defined. HUD's conservative range of estimates (such as 50–55 percent) reflects uncertainty about future market conditions.

29. Appendix D explains the specific reasons for the 1995–98 market estimates for the low-mode and special affordable housing goals are higher than the upper end of HUD's market projections for the years 2001–2003. Based on average 1993–1998 experience, HUD's projection model assumes that refinance borrowers have higher incomes than home purchase borrowers; however, between 1995 and 1997, refinance borrowers had lower incomes. On average, the 1995–98 period also exhibited a slightly higher percentage of rental units financed than assumed in HUD's projection model. See Appendix D for other reasons the 1995–1998 average market estimates are higher than those projected for the years 2001–2003.

30. PriceWaterhouse-Coopers, ''The Impact of Economic Conditions on the Size and the Composition of the Affordable Housing Market'' (April 5, 2000).

31. In 1998, PWC estimates the size of the single family mortgage market at $1.5 trillion. This estimate is identical to the widely used estimate by the Mortgage Bankers Association for the entire single family mortgage market, including FHA and jumbo loans.

32. The figures presented for goal performance are based on HUD analysis of the GSEs' loan level data. Some results differ marginally from the corresponding figures presented by Fannie Mae and Freddie Mac in their respective Annual Housing Activities Reports (AHARs) to HUD, reflecting differences in application of counting rules.

33. The figures presented for goal performance are based on HUD's analysis of the GSEs' loan level data. Some results differ marginally from the corresponding figures presented by the GSEs in their AHARs, reflecting differences in application of counting rules.

34. GSE to market ratio is calculated by dividing the performance of the respective GSE by the performance of the market.

35. Freddie Mac-to-Market and Fannie Mae-to-Market ratios cannot be calculated until 1999 HMDA data is available.

36. The figures presented for goal performance are based on HUD's analysis of the GSEs' loan level data. Some results differ from the corresponding figures presented by Fannie Mae in its AHARs by one to two percentage points. The difference largely reflects differences between HUD and Fannie Mae in application of counting rules relating to counting of seasoned mortgage loans for purposes of this goal. Freddie Mac's AHAR figures for this goal differ marginally from the official figures presented above, also reflecting differences in application of counting rates.

37. The percentage of Freddie Mac's multifamily transactions counting toward the Special Affordable Goal was unusually low in 1999 relative to previous years, but the multifamily sector still contributed significantly to Freddie Mac's performance on the Special Affordable Goal. In 1999, 43 percent of units backing Freddie Mac's multifamily transactions met the Special Affordable Goal, representing 22% of units counted toward the Goal. Multifamily units were eight per cent of Freddie Mac's total purchase volume in 1999.

38. U.S. House of Representatives, *Congressional Record.* (October 13, 1999), p. H10014.

39. 15 U.S.C. 1601 note; Title I, Subtitle B of the Riegle Community Development and Regulatory Improvement Act of 1994, Pub. L. 103–325 (Sept. 23, 1994); 108 Stat. 2190–98.

40. Currently, HOEPA covers refinancings of mortgages. 15 U.S.C. 1601(aa)(1).

41. As mentioned above, HOEPA grants the Federal Reserve Board authority to lower the APR trigger to 8 percentage points over comparable treasuries (or to raise it to 12 percentage points above), 15 U.S.C. 1602(aa)(2), and to broaden the class of costs counted toward the fees trigger, 15 U.S.C. 1602(aa)(4)(D).

42. 12 U.S.C. 4563(b)(1)(B).

43. *Id.*

44. CRA regulations were published as a joint final rule on May 4, 1995. The regulation is codified at 12 CFR Part 25, CFR Parts 228 and 203, 12 CFR Part 345, and 12 CFR Part 563e for the Office of the Comptroller of the Currency, the Federal Reserve Board, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision, respectively.

45. Pub. L. 106–102; approved November 12, 1999.

46. See S. Rep. No. 282, 102nd Cong., 2nd Sess. 39 (1992); H.R. Rept. 206, 102nd Cong., 1st Sess. 59 (1991)

47. *Ibid.*

48. 24 CFR parts 401 and 402, Multifamily Housing Mortgage and Housing Assistance Restructuring Program (Mark-to-Market): Final Rule, March 22, 2000.

49. The 1992 House committee report on the bill that later became FHEFSSA emphasizes that ''the goals included in this legislation are specifically not to include purchases of equity for low-income housing tax credits.'' (House of Representatives Report 102–206, 102d Congress, 1st Session, p. 60.)

50. *Handbook of Housing and Development Law,* 1996, p. 10–8 and IRC Sec. 42 (i)(1).

51. 42 U.S.C. 1437f, sec. 514(e)(6)

52. Kenneth Temkin, Jennifer E. H. Johnston, and Charles Calhoun, *An Assessment of Recent Innovations in the Secondary Market for Low- and Moderate-Income Lending,* report submitted to the U.S. Department of Housing and Urban Development (March 2000).

53. See S. Rep. No. 282, 102d Cong., 2d Sess. 39 (1992).

List of Subjects in 24 CFR Part 81

Accounting, Federal Reserve System, Mortgages, Reporting and recordkeeping requirements, Securities.

Accordingly, 24 CFR part 81 is amended as follows:

PART 81—THE SECRETARY OF HUD'S REGULATION OF THE FEDERAL NATIONAL MORTGAGE ASSOCIATION (FANNIE MAE) AND THE FEDERAL HOME LOAN MORTGAGE CORPORATION (FREDDIE MAC)

1. The authority citation for 24 CFR part 81 continues to read as follows:

Authority: 12 U.S.C. 1451 *et seq.*, 1716–1723h, and 4501–4641; 42 U.S.C. 3535(d) and 3601–3619.

2. Section 81.2, is amended by revising the definitions of ''*Median income*'' ''*Metropolitan area,*'' and ''*Underserved area*,'' by adding a new paragraph (7) to the definition of ''*Refinancing*,'' and by adding new definitions for ''*HOEPA mortgage,*'' ''*Mortgages contrary to good lending practices*,'' and ''*Mortgages with unacceptable terms or conditions or resulting from unacceptable practices*,'' to read as follows:

§ 81.2 Definitions.

* * * * *

''*HOEPA mortgage*'' means a mortgage for which the annual percentage rate (as calculated in accordance with the relevant provisions of section 107 of the Home Ownership Equity Protection Act (HOEPA) (15 U.S.C. 1606)) exceeds the threshold described in section 103(aa)(1)(A) of HOEPA (15 U.S.C. 1602(aa)(1)(A)), or for which the total points and fees payable by the borrower exceed the threshold described in section 103(aa)(1)(B) of HOEPA (15 U.S.C. 1602(aa)(1)(B)), as those thresholds may be increased or decreased by the Federal Reserve Board or by Congress, unless the GSEs are otherwise notified in writing by HUD. Notwithstanding the exclusions in section 103(aa)(1) of HOEPA, for purposes of this part, the term ''*HOEPA mortgage*'' includes all types of mortgages as defined in this section, including residential mortgage transactions as that term is defined in section 103(w) of HOEPA (15 U.S.C. 1602(w)), but does not include reverse mortgages.

* * * * *

Median income means, with respect to an area, the unadjusted median family income for the area as most recently determined and published by HUD. HUD will provide the GSEs annually with information specifying how HUD's published median family income estimates for metropolitan areas are to be applied for the purposes of determining median family income.

Metropolitan area means a metropolitan statistical area (''MSA''), or primary metropolitan statistical area (''PMSA''), or a portion of such an area

for which median family income estimates are published annually by HUD.

* * * * *

''*Mortgages contrary to good lending practices*'' means a mortgage or a group or category of mortgages entered into by a lender and purchased by a GSE where it can be shown that a lender engaged in a practice of failing to:

(1) Report monthly on borrowers' repayment history to credit repositories on the status of each GSE loan that a lender is servicing;

(2) Offer mortgage applicants products for which they qualify, but rather steer applicants to high cost products that are designed for less credit worthy borrowers. Similarly, for consumers who seek financing through a lender's higher-priced subprime lending channel, lenders should not fail to offer or direct such consumers toward the lender's standard mortgage line if they are able to qualify for one of the standard products;

(3) Comply with fair lending requirements; or

(4) Engage in other good lending practices that are:

(i) Identified in writing by a GSE as good lending practices for inclusion in this definition; and

(ii) Determined by the Secretary to constitute good lending practices.

''*Mortgages with unacceptable terms or conditions or resulting from unacceptable practices*'' means a mortgage or a group or category of mortgages with one or more of the following terms or conditions:

(1) Excessive fees, where the total points and fees charged to a borrower exceed the greater of 5 percent of the loan amount or a maximum dollar amount of $1000, or an alternative amount requested by a GSE and determined by the Secretary as appropriate for small mortgages.

(i) For purposes of this definition, points and fees include:

(A) Origination fees;

(B) Underwriting fees;

(C) Broker fees;

(D) Finder's fees; and

(E) Charges that the lender imposes as a condition of making the loan, whether they are paid to the lender or a third party.

(ii) For purposes of this definition, points and fees do not include:

(A) Bona fide discount points;

(B) Fees paid for actual services rendered in connection with the origination of the mortgage, such as attorneys' fees, notary's fees, and fees paid for property appraisals, credit reports, surveys, title examinations and extracts, flood and tax certifications, and home inspections;

(C) The cost of mortgage insurance or credit-risk price adjustments;

(D) The costs of title, hazard, and flood insurance policies;

(E) State and local transfer taxes or fees;

(F) Escrow deposits for the future payment of taxes and insurance premiums; and

(G) Other miscellaneous fees and charges that, in total, do not exceed 0.25 percent of the loan amount.

(2) Prepayment penalties, except where:

(i) The mortgage provides some benefits to the borrower (*e.g.,* such as rate or fee reduction for accepting the prepayment premium);

(ii) The borrower is offered the choice of another mortgage that does not contain payment of such a premium;

(iii) The terms of the mortgage provision containing the prepayment penalty are adequately disclosed to the borrower; and

(iv) The prepayment penalty is not charged when the mortgage debit is accelerated as the result of the borrower's default in making his or her mortgage payments.

(3) The sale or financing of prepaid single-premium credit life insurance products in connection with the origination of the mortgage;

(4) Evidence that the lender did not adequately consider the borrower's ability to make payments, *i.e.,* mortgages that are originated with underwriting techniques that focus on the borrower's equity in the home, and do not give full consideration of the borrower's income and other obligations. Ability to repay must be determined and must be based upon relating the borrower's income, assets, and liabilities to the mortgage payments; or

(5) Other terms or conditions that are:

(i) Identified in writing by a GSE as unacceptable terms or conditions or resulting from unacceptable practices for inclusion in this *definition;* and

(ii) Determined by the Secretary as an unacceptable term or condition of a mortgage for which goals credit should not be received.

* * * * *

Refinancing means * * *

* * * * *

(7) A conversion of a balloon mortgage note on a single family property to a fully amortizing mortgage note where the GSE already owns or has an interest in the balloon note at the time of the conversion.

* * * * *

Underserved area means:

(1) For purposes of the definitions of ''Central city'' and ''Other underserved area,'' a census tract, a Federal or State American Indian reservation or tribal or individual trust land, or the balance of a census tract excluding the area within any Federal or State American Indian reservation or tribal or individual trust land, having:

(i) A median income at or below 120 percent of the median income of the metropolitan area and a minority population of 30 percent or greater; or

(ii) A median income at or below 90 percent of median income of the metropolitan area.

(2) For purposes of the definition of ''*Rural area*'':

(i) In areas other than New England, a whole county, a Federal or State American Indian reservation or tribal or individual trust land, or the balance of a county excluding the area within any Federal or State American Indian reservation or tribal or individual trust land, having:

(A) A median income at or below 120 percent of the greater of the State non-metropolitan median income or the nationwide non-metropolitan median income and a minority population of 30 percent or greater; or

(B) A median income at or below 95 percent of the greater of the State non-metropolitan median income or nationwide non-metropolitan median income.

(ii) In New England, a whole county having the characteristics in paragraphs (2)(i)(A) or (2)(i)(B) of this definition; a Federal or State American Indian reservation or tribal or individual trust land, having the characteristics in paragraphs (2)(i)(A) or (2)(i)(B) of this definition; or the balance of a county, excluding any portion that is within any Federal or State American Indian reservation or tribal or individual trust land, or metropolitan area where the remainder has the characteristics in paragraphs (2)(i)(A) or (2)(i)(B) of this definition.

(3) Any Federal or State American Indian reservation or tribal or individual trust land that includes land that is both within and outside of a metropolitan area and that is designated as an underserved area by HUD. In such cases, HUD will notify the GSEs as to applicability of other definitions and counting conventions.

* * * * *

3. Section 81.12 is amended as follows:

a. Paragraph (b) is amended by revising the last sentence; and

b. Paragraph (c) is revised, to read as follows:

§ 81.12 Low- and Moderate-Income Housing Goal.

* * * * *

(b) *Factors.* * * * A statement documenting HUD's considerations and findings with respect to these factors, entitled ''Departmental Considerations to Establish the Low-and Moderate-Income Housing Goal,'' was published in the **Federal Register** on October 31, 2000.

(c) *Goals.* The annual goals for each GSE's purchases of mortgages on housing for low-and moderate-income families are:

(1) For each of the years 2001–2003, 50 percent of the total number of dwelling units financed by that GSE's mortgage purchases in each of those years unless otherwise adjusted by HUD in accordance with FHEFSSA; and

(2) For the year 2004 and thereafter HUD shall establish annual goals. Pending establishment of goals for the year 2004 and thereafter, the annual goal for each of those years shall be 50 percent of the total number of dwelling units financed by that GSE's mortgage purchases in each of those years.

4. Section 81.13 is amended as follows:

a. Paragraph (b) is amended by revising the last sentence; and

b. Paragraph (c) is revised, to read as follows:

§ 81.13 Central Cities, Rural Areas, and Other Underserved Areas Housing Goal.

* * * * *

(b) *Factors.* * * * A statement documenting HUD's considerations and findings with respect to these factors, entitled ''Departmental Considerations to Establish the Central Cities, Rural Areas, and Other Underserved Areas Housing Goal,'' was published in the **Federal Register** on October 31, 2000.

(c) *Goals.* The annual goals for each GSE's purchases of mortgages on housing located in central cities, rural areas, and other underserved areas are:

(1) For each of the years 2001–2003, 31 percent of the total number of dwelling units financed by that GSE's mortgage purchases in each of those years unless otherwise adjusted by HUD in accordance with FHEFSSA; and

(2) For the year 2004 and thereafter HUD shall establish annual goals. Pending establishment of goals for the year 2004 and thereafter, the annual goal for each of those years shall be 31 percent of the total number of dwelling units financed by that GSE's mortgage purchases in each of those years.

* * * * *

5. Section 81.14 is amended as follows:

a. Paragraph (b) is amended by revising the last sentence;

b. Paragraph (c) is revised;

c. Paragraph (d) is amended by revising paragraph (d)(1)(i);

d. Paragraph (e) is amended by revising paragraphs (e)(2), (e)(3), and (e)(4);

e. Paragraph (f) is redesignated as paragraph (g) and the last sentence of the newly redesignated paragraph (g) is revised; and

f. A new paragraph (f) is added; to read as follows:

§ 81.14 Special Affordable Housing Goal.

* * * * *

(b) * * * A statement documenting HUD's considerations and findings with respect to these factors, entitled ''Departmental Considerations to Establish the Special Affordable Housing Goal,'' was published in the **Federal Register** on October 31, 2000.

(c) *Goals.* The annual goals for each GSE's purchases of mortgages on rental and owner-occupied housing meeting the then-existing, unaddressed needs of and affordable to low-income families in low-income areas and very low-income families are:

(1) For each of the years 2001, 2002, and 2003, 20 percent of the total number of dwelling units financed by that GSE's mortgage purchases in each of those years unless otherwise adjusted by HUD in accordance with FHEFSSA. The goal for each year shall include mortgage purchases financing dwelling units in multifamily housing totaling not less than 1.0 percent of the average annual dollar volume of combined (single family and multifamily) mortgages purchased by the respective GSE in 1997, 1998 and 1999, unless otherwise adjusted by HUD in accordance with FHEFSSA; and

(2) For the year 2004 and thereafter HUD shall establish annual goals. Pending establishment of goals for the year 2004 and thereafter, the annual goal for each of those years shall be 20 percent of the total number of dwelling units financed by that GSE's mortgage purchases in each of those years. The goal for each such year shall include mortgage purchases financing dwelling units in multifamily housing totaling not less than 1.0 percent of the annual average dollar volume of combined (single family and multifamily) mortgages purchased by the respective GSE in the years 1997, 1998 and 1999.

(d) * * *

(1) * * *

(i) 20 percent of the dwelling units in the particular multifamily property are affordable to especially low-income families; or

* * * * *

(e) * * *

(2) Mortgages insured under HUD's Home Equity Conversion Mortgage (''HECM'') Insurance Program, 12 U.S.C. 1715 z–20; mortgages guaranteed under the Rural Housing Service's Single Family Housing Guaranteed Loan Program, 42 U.S.C. 1472; mortgages on properties on tribal lands insured under FHA's Section 248 program, 12 U.S.C. 1715 z–13, HUD's Section 184 program, 12 U.S.C. 1515 z–13a, or Title VI of the Native American Housing Assistance and Self-Determination Act of 1996, 25 U.S.C. 4191–4195; meet the requirements of 12 U.S.C. 4563(b)(1)(A)(i) and (ii).

(3) HUD will give full credit toward achievement of the Special Affordable Housing Goal for the activities in 12 U.S.C. 4563(b)(1)(A), provided the GSE submits documentation to HUD that supports eligibility under 12 U.S.C. 4563(b)(1)(A) for HUD's approval.

(4)(i) For purposes of determining whether a seller meets the requirement in 12 U.S.C. 4563(b)(1)(B), a seller must currently operate on its own or actively participate in an on-going, discernible, active, and verifiable program directly targeted at the origination of new mortgage loans that qualify under the Special Affordable Housing Goal.

(ii) A seller's activities must evidence a current intention or plan to reinvest the proceeds of the sale into mortgages qualifying under the Special Affordable Housing Goal, with a current commitment of resources on the part of the seller for this purpose.

(iii) A seller's actions must evidence willingness to buy qualifying loans when these loans become available in the market as part of active, on-going, sustainable efforts to ensure that additional loans that meet the goal are originated.

(iv) Actively participating in such a program includes purchasing qualifying loans from a correspondent originator, including a lender or qualified housing group, that operates an on-going program resulting in the origination of loans that meet the requirements of the goal, has a history of delivering, and currently delivers qualifying loans to the seller.

(v) The GSE must verify and monitor that the seller meets the requirements in paragraphs (e)(4)(i) through (e)(4)(iv) of this section and develop any necessary mechanisms to ensure compliance with the requirements, except as provided in paragraph (e)(4)(vi) and (vii) of this section.

(vi) Where a seller's primary business is originating mortgages on housing that qualifies under this Special Affordable Housing Goal such seller is presumed to meet the requirements in paragraphs (e)(4)(i) through (e)(4)(iv) of this section. Sellers that are institutions that are:

(A) Regularly in the business of mortgage lending;

(B) A BIF-insured or SAIF-insured depository institution; and

(C) Subject to, and has received at least a satisfactory performance evaluation rating for

(*1*) At least the two most recent consecutive examinations under, the Community Reinvestment Act, if the lending institution has total assets in excess of $250 million; or

(*2*) The most recent examination under the Community Reinvestment Act if the lending institutions which have total assets no more than $250 million are identified as sellers that are presumed to have a primary business of originating mortgages on housing that qualifies under this Special Affordable Housing Goal and, therefore, are presumed to meet the requirements in paragraphs (e)(4)(i) through (e)(4)(iv) of this section.

(vii) Classes of institutions or organizations that are presumed have as their primary business originating mortgages on housing that qualifies under this Special Affordable Housing Goal and, therefore. are presumed in paragraphs (e)(4)(i) through (e)(4)(iv) of this section to meet the requirements are as follows: State housing finance agencies; affordable housing loan consortia; Federally insured credit unions that are:

(A) Members of the Federal Home Loan Bank System and meet the first-time homebuyer standard of the Community Support Program; or

(B) Community development credit unions; community development financial institutions; public loan funds; or non-profit mortgage lenders. HUD may determine that additional classes of institutions or organizations are primarily engaged in the business of financing affordable housing mortgages for purposes of this presumption, and if, so will notify the GSEs in writing.

(viii) For purposes of paragraph (e)(4) of this section, if the seller did not originate the mortgage loans, but the originator of the mortgage loans fulfills the requirements of either paragraphs (e)(4)(i) through (e)(4)(iv), paragraph (e)(4)(vi) or paragraph (e)(4)(vii) of this section; and the seller has held the loans for six months or less prior to selling the loans to the GSE, HUD will consider that the seller has met the requirements of this paragraph (e)(4) and of 12 U.S.C. 4563(b)(1)(B).

* * * * *

(f) *Partial credit activities.* Mortgages insured under HUD's Title I program, which includes property improvement and manufactured home loans, shall receive one-half credit toward the Special Affordable Housing Goal until such time as the Government National Mortgage Association fully implements a program to purchase and securitize Title I loans.

(g) *No credit activities.* * * * For purposes of this paragraph (g), ''mortgages or mortgage-backed securities portfolios'' includes mortgages retained by Fannie Mae or Freddie Mac and mortgages utilized to back mortgage-backed securities.

6. In § 81.15, paragraph (a) is revised, paragraph (d) is amended by revising the second sentence and by adding two new sentences at the end, and paragraph (e) is amended by re-designating paragraph (e)(6) as (e)(7), and by adding a new paragraph (e)(6), to read as follows:

§ 81.15 General requirements.

(a) *Calculating the numerator and denominator.* Performance under each of the housing goals shall be measured using a fraction that is converted into a percentage.

(1) *The numerator.* The numerator of each fraction is the number of dwelling units financed by a GSE's mortgage purchases in a particular year that count toward achievement of the housing goal.

(2) *The denominator.* The denominator of each fraction is, for all mortgages purchased, the number of dwelling units that could count toward achievement of the goal under appropriate circumstances. The denominator shall not include GSE transactions or activities that are not mortgages or mortgage purchases as defined by HUD or transactions that are specifically excluded as ineligible under § 81.16(b).

(3) *Missing data or information.* When a GSE lacks sufficient data or information to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of a particular housing goal, that mortgage purchase shall be included in the denominator for that housing goal, except under the circumstances described in paragraphs (d) and (e)(6) of this section.

* * * * *

(d) *Counting owner-occupied units.* * * * To determine whether mortgagors may be counted under a particular family income level, *i.e.* especially low, very low, low or moderate income, the income of the mortgagors is compared to the median income for the area at the time of the mortgage application, using the appropriate percentage factor provided under § 81.17. When the income of the mortgagors is not available to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the Low- and Moderate-Income Housing Goal or the Special Affordable Housing Goal, a GSE may exclude single family owner-occupied units located in census tracts with median income less than or equal to area median income according to the most recent census from the denominator as well as the numerator, up to a ceiling of one percent of the total number of single family owner-occupied dwelling units eligible to be counted toward the respective housing goal in the current year. Mortgage purchases in excess of the ceiling will be included in the denominator and excluded from the numerator if they are missing data.

(e) * * *

(6) *Affordability data unavailable.* (i) *Multifamily.* When information regarding the affordability of a rental unit is not available, a GSE's performance with respect to such a unit may be evaluated with estimated affordability information, so long as the Department has reviewed and approved the data source and methodology for such estimated data. The use of estimated information to determine affordability may be used up to a maximum of five percent of the total number of units backing the GSEs' multifamily mortgage purchases in the current year, adjusted for REMIC percentage and participation percent. When the application of affordability data based on an approved market rental data source and methodology is not possible, and therefore the GSE lacks sufficient information to determine whether the purchase of a mortgage originated after 1992 counts toward the achievement of the Low- and Moderate-Income Housing Goal or the Special Affordable Housing Goal, HUD will exclude units in multifamily properties from the denominator as well as the numerator in calculating performance under those goals.

(ii) *Rental units in 1–4 unit single family properties.* When neither the income of prospective or actual tenants of a rental unit in a 1–4 unit single family property nor actual or average rent data is available, and, therefore, the GSE lacks sufficient information to determine whether the purchase of a mortgage originated after 1992 counts toward achievement of the Low- and Moderate-Income Housing Goal or the

Special Affordable Housing Goal, a GSE may exclude rental units in 1–4 unit single family properties from the denominator as well as the numerator in calculating performance under those goals.

* * * * *

7. Section 81.16 is amended as follows:

a. Paragraph (a) is revised;

b. Paragraph (b) is amended by revising paragraphs (b)(3) and (b)(9) and by adding a new paragraph (b)(10);

c. Paragraph (c) is amended by adding introductory text, by revising paragraph (c)(6), and by adding new paragraphs (c)(9), (c)(10), (c)(11), (c)(12), and (c)(13); and

d. A new paragraph (d) is added; to read as follows:

§ 81.16 Special counting requirements.

(a) *General.* HUD shall determine whether a GSE shall receive full, partial, or no credit for a transaction toward achievement of any of the housing goals. In this determination, HUD will consider whether a transaction or activity of the GSE is substantially equivalent to a mortgage purchase and either creates a new market or adds liquidity to an existing market, provided however that such mortgage purchase actually fulfills the GSE's purposes and is in accordance with its Charter Act.

(b) * * *

(3) Purchases of non-conventional mortgages except:

(i) Where such mortgages are acquired under a risk-sharing arrangement with a Federal agency;

(ii) Mortgages insured under HUD's Home Equity Conversion Mortgage (''HECM'') insurance program, 12 U.S.C. 1715z–20; mortgages guaranteed under the Rural Housing Service's Single Family Housing Guaranteed Loan Program, 42 U.S.C. 1472; mortgages on properties on lands insured under FHA's Section 248 program, 12 U.S.C. 1715z–13, or HUD's Section 184 program, 12 U.S.C. 1515z–13a, or Title VI of the Native American Housing Assistance and Self-Determination Act of 1996, 25 U.S.C. 4191–4195; and mortgages with expiring assistance contracts as defined at 42 U.S.C. 1737f;

(iii) Mortgages under other mortgage programs involving Federal guarantees, insurance or other Federal obligation where the Department determines in writing that the financing needs addressed by the particular mortgage program are not well served and that the mortgage purchases under such program should count under the housing goals, provided the GSE submits documentation to HUD that supports eligibility and that HUD makes such a determination, or

(iv) As provided in § 81.14(e)(3)

* * * * *

(9) Single family mortgage refinancings that result from conversion of balloon notes to fully amortizing notes, if the GSE already owns or has an interest in the balloon note at the time conversion occurs.

(10) Any combination of factors in paragraphs (b)(1) through (9) of this section.

(c) *Other special rules.* Subject to HUD's primary determination of whether a GSE shall receive full, partial, or no credit for a transaction toward achievement of any of the housing goals as provided in paragraph (a) of this section, the following supplemental rules apply:

* * * * *

(6) *Seasoned mortgages.* A GSE's purchase of a seasoned mortgage shall be treated as a mortgage purchase for purposes of these goals and shall be included in the numerator, as appropriate, and the denominator in calculating the GSE's performance under the housing goals, except where the GSE has already counted the mortgage under a housing goal applicable to 1993 or any subsequent year, or where the Department determines, based upon a written request by a GSE, that a seasoned mortgage or class of such mortgages should be excluded from the numerator and the denominator in order to further the purposes of the Special Affordable Housing Goal.

* * * * *

(9) *Expiring assistance contracts.* In accordance with 12 U.S.C. 4565(a)(5), actions that assist in maintaining the affordability of assisted units in eligible multifamily housing projects with expiring contracts shall receive credit under the housing goals as provided in paragraph (b)(3)(ii) and in accordance with paragraphs (b) and (c)(1) through (c)(9) of this section.

(i) For restructured (modified) multifamily mortgage loans with an expiring assistance contract where a GSE holds the loan in portfolio and facilitates modification of loan terms that results in lower debt service to the project's owner, the GSE shall receive full credit under any of the housing goals for which the units covered by the mortgage otherwise qualify.

(ii) Where a GSE undertakes more than one action to assist a single project or where a GSE engages in an activity that it believes assists in maintaining the affordability of assisted units in eligible multifamily housing projects but which is not otherwise covered in paragraph (c)(9)(i) of this section, the GSE must submit the transaction to HUD for a determination on appropriate goals counting treatment.

(10) *Bonus points.* The following transactions or activities, to the extent the units otherwise qualify for one or more of the housing goals, will receive bonus points toward the particular goal or goals, by receiving double weight in the numerator under a housing goal or goals and receiving single weight in the denominator for the housing goal or goals. Bonus points will not be awarded for the purposes of calculating performance under the special affordable housing multifamily subgoal described in § 81.14(c). All transactions or activities meeting the following criteria will qualify for bonus points even if a unit is missing affordability data and the missing affordability data is treated consistent with § 81.15(e)(6)(i). Bonus points are available to the GSEs for purposes of determining housing goal performance for each year 2001 through 2003. Beginning in the year 2004, bonus points are not available for goal performance counting purposes unless the Department extends their availability beyond December 31, 2003 for one or more types of activities and notifies the GSEs by letter of that determination.

(i) *Small multifamily properties.* HUD will assign double weight in the numerator under a housing goal or goals for each unit financed by GSE mortgage purchases in small multifamily properties (5 to 50 physical units), provided, however, that bonus points will not be awarded for properties that are aggregated or disaggregated into 5–50 unit financing packages for the purpose of earning bonus points.

(ii) *Units in 2–4 unit owner-occupied properties.* HUD will assign double weight in the numerator under the housing goals for each unit financed by GSE mortgage purchases in 2- to 4-unit owner-occupied properties, to the extent that the number of such units financed by mortgage purchases are in excess of 60 percent of the yearly average number of units qualifying for the respective housing goal during the five years immediately preceding the year of mortgage purchase.

(11) *Temporary adjustment factor for Freddie Mac.* In determining Freddie Mac's performance on the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, HUD will count each qualifying unit in a property with more than 50 units as 1.2 units in calculating the numerator and as one unit in calculating the

denominator, for the respective housing goal. HUD will apply this temporary adjustment factor for each year from 2001 through 2003; for the year 2004 and thereafter, this temporary adjustment factor will no longer apply.

(12) *HOEPA mortgages and mortgages with unacceptable terms and conditions.* HOEPA mortgages and mortgages with unacceptable terms or conditions as defined in § 81.2 will not receive credit toward any of the three housing goals.

(13) *Mortgages contrary to good lending practices.* The Secretary will monitor the practices and processes of the GSEs to ensure that they are not purchasing loans that are contrary to good lending practices as defined in § 81.2. Based on the results of such monitoring, the Secretary may determine in accordance with paragraph (d) of this section that mortgages or categories of mortgages where a lender has not engaged in good lending practices will not receive credit toward the three housing goals.

(d) *HUD review of transactions.* HUD will determine whether a class of transactions counts as a mortgage purchase under the housing goals. If a GSE seeks to have a class of transactions counted under the housing goals that does not otherwise count under the rules in this part, the GSE may provide HUD detailed information regarding the transactions for evaluation and determination by HUD in accordance with this section. In making its determination, HUD may also request and evaluate additional information from a GSE with regard to how the GSE believes the transactions should be counted. HUD will notify the GSE of its determination regarding the extent to which the class of transactions may count under the goals.

8. Section 81.17 is amended by adding a new paragraph (d), to read as follows:

§ 81.17 Affordability—Income level definitions—family size and income known (owner-occupied units, actual tenants, and prospective tenants).

* * * * *

(d) *Especially-low-income* means, in the case of rental units, where the income of actual or prospective tenants is available, income not in excess of the following percentages of area median income corresponding to the following family sizes:

Number of persons in family	Percentage of area median income
1	35
2	40
3	45
4	50
5 or more	(*)

*50% plus (4.0% multiplied by the number of persons in excess of 4).

9. Section 81.18 is amended by adding a new paragraph (d), to read as follows:

§ 81.18 Affordability—Income level definitions—family size not known (actual or prospective tenants).

* * * * *

(d) *For especially-low-income,* income of prospective tenants shall not exceed the following percentages of area median income with adjustments, depending on unit size:

Unit size	Percentage of area median income
Efficiency	35
1 bedroom	37.5
2 bedrooms	45
3 bedrooms or more	(*)

*52% plus (6.0% multiplied by the number of bedrooms in excess of 3).

10. In § 81.19, paragraph (d) is re-designated as paragraph (e), a new paragraph (d) is added and the second sentence of the newly re-designated paragraph (e) is revised, to read as follows:

§ 81.19 Affordability—Rent level definitions—tenant income is not known.

* * * * *

(d) *For especially-low-income,* maximum affordable rents to count as housing for especially-low-income families shall not exceed the following percentages of area median income with adjustments, depending on unit size:

Unit size	Percentage of area median income
Efficiency	10.5
1 bedroom	11.25
2 bedrooms	13.5
3 bedrooms or more	(*)

*15.6% plus (1.8% multiplied by the number of bedrooms in excess of 3).

* * * * *

(e) *Missing Information.* * * * If a GSE makes such efforts but cannot obtain data on the number of bedrooms in particular units, in making the calculations on such units, the units shall be assumed to be efficiencies except as provided in § 81.15(e)(6)(i)

11. In § 81.76, paragraph (d) is revised to read as follows:

§ 81.76 FOIA requests and protection of GSE information.

* * * * *

(d) *Protection of information by HUD officers and employees.* The Secretary will institute all reasonable safeguards to protect data or information submitted by or relating to either GSE, including, but not limited to, advising all HUD officers and employees having access to data or information submitted by or relating to either GSE of the legal restrictions against unauthorized disclosure of such data or information under the executive branch-wide standards of ethical conduct, 5 CFR part 2635, and the Trade Secrets Act, 18 U.S.C. 1905. Officers and employees shall be advised of the penalties for unauthorized disclosure, ranging from disciplinary action under 5 CFR part 2635 to criminal prosecution.

* * * * *

Dated: October 16, 2000.

William C. Apgar,

Assistant Secretary for Housing—Federal Housing Commissioner.

Note: The Following Appendices Will Not Appear in the Code of Federal Regulations.

Appendix A—Departmental Considerations To Establish the Low- and Moderate-Income Housing Goal

A. Introduction and Response to Comments

Sections 1 and 2 provide a basic description of the rule process. Section 3 discusses comments on the proposed rule and the Department's responses. Section 4 discusses conclusions based on consideration of the factors.

1. Establishment of Goal

In establishing the Low- and Moderate-Income Housing Goals for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), collectively referred to as the Government-Sponsored Enterprises (GSEs), Section 1332 of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (12 U.S.C. 4562) (FHEFSSA) requires the Secretary to consider:

1. National housing needs;
2. Economic, housing, and demographic conditions;
3. The performance and effort of the enterprises toward achieving the Low- and Moderate-Income Housing Goal in previous years;
4. The size of the conventional mortgage market serving low- and moderate-income families relative to the size of the overall conventional mortgage market;
5. The ability of the enterprises to lead the industry in making mortgage credit available for low- and moderate-income families; and
6. The need to maintain the sound financial condition of the enterprises.

2. Underlying Data

In considering the statutory factors in establishing these goals, HUD relied on data from the 1995 American Housing Survey (AHS), the 1990 Census of Population and Housing, the 1991 Residential Finance Survey (RFS), the 1995 Property Owners and Managers Survey (POMS), other government reports, reports submitted in accordance with the Home Mortgage Disclosure Act (HMDA), and the GSEs. In order to measure performance toward achieving the Low- and Moderate-Income Housing Goal in previous years, HUD analyzed the loan-level data on all mortgages purchased by the GSEs for 1993–99 in accordance with the goal counting provisions established by the Department in the December 1995 rule (24 CFR part 81).

3. Response to Comments

a. Introduction

Fannie Mae and Freddie Mac provided detailed comments on HUD's discussion of the factors for determining the goal levels in Appendix A of the proposed rule. A major portion of their substantive comments concerned HUD's analysis of the GSEs' performance relative to the market. Both GSEs disagreed with HUD's conclusions that they lag the conventional conforming market in funding mortgages for the goals-qualifying segments (low-mod borrowers, special affordable borrowers, and underserved neighborhoods) of the single-family owner market. The GSEs argued strongly that they have led the mortgage market, from both quantitative and qualitative perspectives (explained below). The GSEs expressed concern about HUD's assumptions and treatment of specific data in estimating the goals-qualifying shares for single-family owner mortgages. The GSEs concluded that HUD chose assumptions and data sources that result in an overstatement of the low-mod, special affordable, and underserved areas shares of owner mortgages.

It should be noted that the GSEs extended their criticisms to other researchers who have examined this issue of their targeted lending performance relative to the overall mortgage market. Section E.3 of this appendix summarizes findings of several independent studies that have also concluded that the GSEs have lagged the market in affordable lending. For the most part, these studies have used the same HMDA-based methodology described in Section E.2 of this appendix.

The GSEs focused many of their comments on the adequacy of HMDA data, the main source for the goals-qualifying shares of the conventional conforming market, against which the GSEs are compared. The GSEs argued that HMDA data are biased (*i.e.,* overstate the goals-qualifying shares of the market) and that significant portions of HMDA data are not relevant for calculating the market standard for evaluating GSE performance in the conventional conforming market. These and related comments of the GSEs are discussed below in subsections b–f.

Both GSEs also argued that HUD's analysis and conclusions depended on a continuation of recent conditions of economic expansion and low interest rates. According to the GSEs, HUD's range of market estimates did not include periods of adverse economic and affordability conditions, such as existed in the early 1990s. HUD discusses the GSEs' comments on economic volatility in Section B of Appendix D. As explained there, HUD's ranges of market estimates for each of the housing goals are conservative, because they allow for economic and interest rate conditions much more adverse than existed during the mid- to late-1990s.

The discussion that follows summarizes HUD's responses to the GSEs' comments on the ''leading the market'' analysis that HUD has conducted in Section E.2 of this appendix—that section fully develops the various concepts referenced here. The final two subsections, g and h, discuss additional issues that the GSEs raised about HUD's analysis of the factors in Appendix A.

b. Overview of Leading the Owner Market—Quantitative Analysis

The analysis of HMDA data in Section E.2 of this appendix indicates demonstrates that even though the GSEs have improved their performance since 1993, they have lagged depositories and others in the conventional conforming market in funding affordable loans, both since 1993 and during the more recent 1996–98 period when the new housing goals have been in effect. For example, underserved areas accounted for 22.9 (19.9) percent of Fannie Mae's (Freddie Mac's) purchases of home loans between 1996 and 1998, compared with 24.4 percent for the entire conforming market (excluding B&C loans). Based on comparisons such as these, HUD concludes that the GSEs need to continue improving their performance so that they can match or exceed the overall market in affordable lending.

In their comments, the GSEs reached the opposite conclusion—each stated that they already match or even lead the market, depending on the affordable category being considered. The GSEs also assert that HUD's analysis does not accurately reflect their performance relative to the overall market. Freddie Mac stated that ''the shares of Freddie Mac's loan purchases serving low- and moderate-income families, families in underserved areas and minority families mirror those of the primary market''. Freddie Mac said that its market calculations ''account for the limitations on loans we [Freddie Mac] can purchase'' (see below). Similarly, Fannie Mae stated that ''an appropriate comparison between Fannie Mae and the primary single-family market shows that we [Fannie Mae] serve a higher percentage of low- and moderate-income borrowers, a higher percentage of minority borrowers, and a higher percentage of borrowers in underserved areas than does the primary market''.

Both the GSEs and HUD rely on HMDA data for the market estimates. However, as suggested by the GSEs' comments, they frequently adjust HMDA data to exclude loans in the market that they perceive as not being available for them to purchase. The types of adjustments made by the GSEs, and HUD's response to those adjustments, are discussed in the next subsection. HUD's conclusions about the appropriate definition of the conventional conforming market are also discussed in Section E of this appendix, which provides a detailed analysis of the GSEs' goals-qualifying purchases in the single-family-owner market, and in Appendix D, which provides overall (both single-family and multifamily) estimates of the goals-qualifying shares of the market. In Appendix D, HUD excludes B&C loans from its overall estimates of the market. In this appendix, HUD illustrates (to the extent HMDA data allow) the effects of excluding B&C loans on the GSE-market comparisons, as well as the effects of excluding other loan categories such as manufactured housing loans. However, as explained below, HUD does not believe that HMDA data for the conventional conforming market should be adjusted to reflect the GSEs' perceptions about the characteristics of loans that are available for them to purchase.

c. Relevant Market for Single-Family Owner Properties

Both GSEs provided numerous comments concerning the types of mortgages that HUD should exclude from the definition of the single-family owner market, both when HUD is evaluating the GSEs' performance relative to the conventional conforming owner market (*i.e.,* determining whether the GSEs' lead or lag the market for single-family-owner mortgages) and when HUD is calculating the overall market shares for each housing goal (as described in Appendix D). Fannie Mae stated that it ''can only purchase or securitize mortgages that primary market lenders are willing to sell'' and that certain types of products (such as ARMs) ''are particularly difficult to structure for sale to the secondary market''. Fannie Mae added that ''HUD fails to adjust for those housing markets that are not fully available to Fannie Mae and Freddie Mac''. Freddie Mac stated that it ''has not achieved, and is unlikely to achieve in the near term, the same penetration in the subprime and manufactured housing segments of the market as it has achieved in the conventional, conforming market'' and therefore HUD should not include these segments in its market definition. According to the GSEs, markets that are ''not available'' to them or where they are not a ''full participant'' should be excluded from HUD's market definition. In addition to the subprime and manufactured housing markets, examples of market segments mentioned by the GSEs for exclusion included: low-down payment mortgages (those with loan-to-value ratios greater than 80 percent) without private mortgage insurance or some other credit enhancement; loans financed through state and local housing finance agencies; below-market-interest-rate mortgages; specialized CRA mortgages; and portions of depository portfolios that are not available at mortgage origination for purchase by the GSEs.

To analyze the availability of loans originated by depositories to the GSEs, Fannie Mae funded a study by KPMG Barefoot-Marrinan (KPMG). According to Fannie Mae, KPMG found that the advent of the Community Reinvestment Act (CRA) had encouraged depositories to hold lower-income loans in portfolio. Depositories may not offer their products for sale on the secondary market not only because they are

outside of the GSEs' guidelines, but also because of business and portfolio strategy reasons (such as the interest-rate-duration advantage of holding ARMs in portfolio).

Freddie Mac estimated the impacts on HUD's market estimates of excluding from the market definition both specialized community development (CRA-type) loans and portions of depository portfolios. Based on Freddie Mac's analysis, the low-mod (underserved areas) share of the owner market would fall by four (three) percentage points and HUD's overall low-mod and underserved areas market estimates would each fall by about two percentage points. In commenting on whether Freddie Mac leads or lags depositories in affordable lending, Freddie Mac said that the HMDA data for depositories should be adjusted downward to exclude depositories' high-LTV loans without private mortgage insurance, their below-market rate loans, their subprime loans, and coverage bias in HMDA (see the next subsection). Based on these adjustments, Freddie Mac reduced the 1998 HMDA-reported underserved areas percentage for depositories from 26.1 percent to 20.0, which led Freddie Mac to conclude that its performance equals or exceeds the performance of depositories on loans that are likely to be sold to Freddie Mac.

HUD's Response. In general, HUD disagrees with the comments offered by the GSEs about excluding those market segments that they haven't yet been able to penetrate fully. Congress stated that HUD was to estimate the size of the conventional conforming mortgage market, not the market that the GSEs perceive as available for them to purchase. However, with respect to the subprime market, HUD believes that the risky, B&C portion of that market should be excluded from the market definition for each of the housing goals. Thus, HUD includes only the A-minus portion of the subprime market in its overall estimates of the goals-qualifying market shares. In Appendix D, HUD explains its methodology for adjusting the overall market estimates to exclude B&C loans. Section E.2 of this appendix uses HMDA data and the GSEs' loan-level data to examine the GSEs' performance in the single-family owner portion of the conventional conforming mortgage market in metropolitan areas. B&C loans are not identified in HMDA data; however, HUD shows the effects of adjusting the owner market definition for subprime and B&C loans by using a list of lenders that specialize in subprime loans (see Table A.4b).

Excluding other important segments of the lower-income mortgage market, as the GSEs recommend, would render the resulting market benchmark useless for evaluating the GSEs' performance. The loans that the GSEs would exclude are important sources of lower-income credit and, in fact, are among the very loans the GSEs are supposed to be funding. A recent report by the Department of Treasury demonstrated the targeting of CRA-type loans to lower-income and minority families. Numerous studies have shown that the manufactured home sector is an important source of low-income housing. In many of these markets, a more active secondary market would encourage lending to traditionally underserved borrowers. While HUD recognizes that some segments of the market may be more challenging for the GSEs than others, the data reported in Tables A.7a and A.7b of this Appendix show that the GSEs have ample opportunities to purchase goals-qualifying mortgages. As market leaders, the GSEs should be looking for innovative ways to pursue this business, rather than suggesting that it is not available to the secondary market. Furthermore, there is evidence that the GSEs can earn reasonable returns on their goals business. The Economic Analysis that accompanies this final rule provides evidence that the GSEs have been earning financial returns on their purchases of goals-qualifying loans that are only slightly below their 20–25 percent return on equity from their normal business.

HUD also disagrees with other specific comments offered by the GSEs. For example, HUD does not think that the data for depositories should be adjusted downward as proposed by Freddie Mac and Fannie Mae. Both types of institutions receive government benefits and both operate in the conventional conforming market. Furthermore, if a GSE makes a business decision to not pursue certain types of goals-qualifying loans in one segment of the market, they are free to pursue goals-qualifying owner and rental property mortgages in other segments of the market. With respect to loans that are originated without private mortgage insurance, the GSEs have been quite innovative in structuring transactions to provide alternative credit enhancements. Between 1997 and 1999, Freddie Mac was involved in 16 structured transactions totaling $8.1 billion, with Freddie Mac's 1999 business accounting for over $5 billion of this total.[1] HUD gives full goals credit for such credit-enhanced transactions.

Finally, it should be noted that the GSEs' purchases under the housing goals are not limited to new mortgages that are originated in the current calendar year. The GSEs can purchase loans from the substantial, existing stock of affordable loans held in lenders' portfolios, after these loans have seasoned and the GSEs have had the opportunity to observe their payment performance. In fact, based on Fannie Mae's experience in 1997–98, the purchase of seasoned loans appears to be one useful strategy for purchasing goals-qualifying loans. In Section E.2, HUD's comparisons of the GSEs' single-family performance with those of depositories and the overall single-family market include the GSEs' purchases of prior-year as well newly-originated loans.

d. Bias in HMDA Data

Both GSEs refer to findings from a study by Peter Zorn and Jim Berkovec concerning potential bias in HMDA data.[2] Based on a comparison of the borrower and census tract characteristics between Freddie Mac-purchased loans (from Freddie Mac's own data) and loans identified in 1993 HMDA data as sold to Freddie Mac, Zorn and Berkovec conclude that HMDA data overstates the percentage of conventional, conforming loans originated for lower-income borrowers and for properties located in underserved census tracts. The data reported in Table A.4a of this appendix, which are based on more recent data than the Zorn and Berkovec paper, do not appear to support their findings. With respect to the goals-qualifying percentages for GSE purchases, comparing columns 2 and 4 for Fannie Mae, and columns 6 and 8 for Freddie Mac, show that the HMDA-reported goals-qualifying percentages for loans sold to the GSEs are not always larger than the corresponding percentages for loans the GSEs report as purchased. In fact, the HMDA-reported percentages are more likely to be smaller than the GSE-reported percentages for the Special Affordable and Underserved Areas Goals, yielding conclusions different from those drawn by Zorn and Berkovec with regard to bias in the HMDA data. In addition, as noted in Appendix D, other research has concluded that a portion of lower-income loan originations are not even reported to HMDA. Thus it is not clear that more recent and complete data would support the Zorn and Berkovec findings.

e. Other Technical Comments Related to GSE Performance in Single-Family Owner Market

MSA-Level Analysis. In its comments, Fannie Mae raised several concerns about HUD's comparisons between Fannie Mae and the primary market at the metropolitan statistical area (MSA) level (see Table A.5 in this appendix). Essentially, Fannie Mae questioned the relevance of any analysis at the local level, given that the housing goals are national-level goals. HUD believes that its metropolitan-area analyses support and clarify the national analyses on GSE performance. While official goal performance is measured only at the national level, HUD believes that analyses of, for example, the numbers of MSAs where Fannie Mae and Freddie Mac lead or lag the local market increases public understanding of the GSEs' performance. For example, if the national aggregate data showed that one GSE lagged the market in funding loans in underserved areas, it would be of interest to the public to determine if this reflected particularly poor performance in a few large MSAs or if it reflected shortfalls in many MSAs. In this case, an analysis of individual MSA data would increase public understanding of that GSE's performance.

Missing Data. Both GSEs mentioned the increasing problem of missing information in HMDA data and in their own data bases—particularly with regard to borrower race/ethnicity. HUD agrees that treatment of missing data is an important issue when measuring GSE performance and developing estimates of the size of the affordable market. Both Appendices A and D use several techniques for situations where data are limited or missing. HUD's treatment of missing data reflects a consistent commitment to fair and reasonable analyses, and is designed to permit ''apples-to-apples'' comparisons between the GSEs and the market to the extent possible. When calculating portfolio percentages for different sectors of the mortgage market, HUD followed its usual procedure of excluding loans with missing data. In certain analyses involving market shares, HUD used a variety of techniques such as reallocating missing data, making adjustments for undercoverage by HMDA data, or using data from other

sources to estimate the absolute number of mortgage originations. In general, HUD believes that methods for addressing missing data are reasonable and appropriate.

Lender-Purchased Loans. When analyzing HMDA data, Fannie Mae included loans purchased by lenders, as well as loans originated by lenders, in its market definition. HUD included only HMDA-reported mortgage originations in its market definition—mortgages purchased by lenders were not included in HUD's market data. To do so would involve double counting loan originations in the HMDA data.

Prior-Year/Current-Year Analysis. Fannie Mae raised a number of concerns about HUD's separation of its purchases into ''prior-year'' loans and ''current-year'' loans. Section E.2 of this appendix discusses this issue in some detail. Much of HUD's analysis is conducted along the lines that Fannie Mae recommends—considering each GSE's total purchases (of both prior-year mortgages and current-year mortgages) in a single calendar year. For example, see the discussion of the GSEs' past performance in Section E of this appendix and the data in Tables A.3 and A.4. But HUD believes the GSEs' performance should also be analyzed by focusing on the total number of mortgages from a particular origination year that the GSEs have purchased to date. Comparing the GSEs' current-year purchases, including prior-year originations, with newly-originated mortgages would result in somewhat of an ''apples-to-oranges'' comparison. Hence, to conduct more of an ''apples-to-apples'' comparison between the GSEs and the market, it is necessary to restrict the analysis to GSE loan acquisitions originated in a particular year (see Tables A.7a and A.7b). HUD recognizes some of the problems that result from analyses that focus on a single origination year. However, as indicated by the variety of analyses provided in Appendix A, HUD believes that both frameworks are useful for understanding the GSEs' role in the affordable lending market.

f. Leading the Market—The Qualitative Dimension

The GSEs commented that they make a sizable contribution toward serving the housing needs of a wide range of American families through their innovative outreach and the overall leadership they provide to the affordable lending market. This ''qualitative'' dimension of market leadership comes from their normal operations in the market. Each GSE gave numerous examples of their market leadership, similar to the discussion that HUD provides in Section G of this appendix. Fannie Mae noted its *Trillion Dollar Commitment,* its programs with minority-and women-owned lenders, its initiative with Community Development Financial Institutions, and its numerous initiatives in the technology area. Freddie Mac noted similar program initiatives and outreach efforts, and stated that it has been a ''leader in removing historical barriers to mortgage credit'' and that a recent HUD-commission study commended both Freddie Mac and Fannie Mae for their leadership in the liberalization of mortgage underwriting standards.

HUD understands the important role that the GSEs play in the market and applauds their efforts to re-examine their underwriting standards and to reach out to traditionally underserved borrowers and neighborhoods. This perspective is reflected in Section G of this appendix, which discusses qualitative dimensions of the GSEs' ability to lead the industry. HUD concludes that due to their dominant role in the market, their ability to influence the types of loans that lenders will originate, their utilization of state-of-the-art technology, and their financial strength, the GSEs have the ability to lead the market in affordable lending and to reach out to those markets that have traditionally not received the benefits of an active secondary market.

g. Linking Housing Needs to GSEs

Fannie Mae commented that HUD's analysis of housing needs in Appendix A needed to more carefully identify the appropriate roles for the public sector and the GSEs. Similar to its comments on HUD's 1995 rule, Fannie Mae expressed concern that HUD did not distinguish between general housing needs of low- and moderate-income households and those needs that the GSEs can reasonably be expected to address. In this appendix, HUD presents an analysis of general housing needs to comply with FHEFSSA, which requires the Secretary to consider such needs when establishing the housing goals. HUD's examination of national housing needs does not suggest that the GSEs can or should meet all of those needs. Rather, the analysis is intended to provide background on the evolution and current state of the housing markets for low- and moderate-income households. HUD recognizes that the GSEs alone can not mitigate some of the more extreme problems identified in this analysis.

However, with more focused effort, the GSEs can assist in addressing several problems discussed in this appendix with regard to single-family and multifamily housing. On the single-family side, the GSEs can develop secondary market programs for ''untapped'' markets such as 2–4 unit rental properties and properties needing rehabilitation in the nation's inner cities. The GSEs can increase their support of more customized mortgage products and underwriting, with greater outreach to those families who have not been served with traditional products, underwriting, and marketing. Particularly important in this regard, the GSEs can ensure that their automated underwriting systems recognize the special circumstances of lower-income and minority borrowers. As discussed in Section 3.d of this appendix, HUD and others are concerned about potential negative effects of mortgage scoring on industry efforts to reach out to lower-income and minority families.

On the multifamily side, with new product development and partnerships, the GSEs can more fully address the credit needs of the current market for affordable rental housing. This appendix cities several areas where the GSEs can help. One segment that would benefit from a more active secondary market is small multifamily properties—an important part of the rental housing market that is currently not being adequately served by the GSEs. The GSEs can work to improve overall efficiency and stability in this market by developing new products and promoting increased standardization and streamlined procedures.

The GSEs have been immensely successful in the financing of traditional single-family housing. HUD recognizes that ''untapped'' markets will present some difficulties and challenges for the GSEs. But by helping develop a secondary market in these areas, the GSEs will bring increased liquidity, added stability, and ultimately lower interest rates and rents for lower-income families in these segments of the market.

h. Barriers to Higher GSE Performance on the Housing Goals

Fannie Mae raised concerns with respect to the interplay of the housing goals and the risk-based capital standard proposed by OFHEO. Fannie Mae stated that ''the risk-based capital proposal represents another potentially significant barrier to meeting the goals that was not analyzed by the Department.'' OFHEO previously addressed this question in their notice of proposed rulemaking, dated April 13, 1999, concluding that ''the risk-based capital standard will not affect the Enterprises' ability to purchase affordable housing loans.'' [3] In part, this conclusion was based on the finding that in 1996 and 1997, Freddie Mac would have enjoyed capital surpluses under OFHEO's proposed rule, despite increased purchases of loans meeting the housing goals. OFHEO concluded that even in more adverse economic environments, ''the capital cost of single family loans meeting the Enterprises' affordable housing goals should not be materially different, on average, from the cost of other loans.''

Of the various issues mentioned by Fannie Mae in relation to OFHEO's proposed regulation, implications of the rule for high-LTV and multifamily lending are of the greatest relevance with regard to affordable lending and the GSEs' housing goals.

High-LTV Lending. Fannie Mae stated concerns regarding the impacts of the proposed OFHEO regulation on high-LTV lending:

> The risk-based capital regulation as proposed imposes disproportionately high capital requirements on high-LTV loans. These requirements will impair our ability to serve those borrowers with limited resources. High-LTV lending is critically important to our affordable housing initiatives and outreach to first-time homebuyers.[4]

It is not apparent that OFHEO's proposed rulemaking would impose ''disproportionate'' capital requirements on high-LTV loans. Because high-LTV loans typically have higher default rates, it is reasonable to require the GSEs to hold more capital against high-LTV loans than against low-LTV loans, other things being equal.

If Fannie Mae's view is that the proposed OFHEO regulation requires the GSEs to hold more capital against high-LTV loans than is the case for other financial institutions, their comments submitted in response to HUD's proposed housing goals rule do not contain any material documenting such a claim.

However, it is noteworthy that the GSEs enjoy benefits not conferred on other financial institutions (*e.g.,* exemption from state and local taxes and exemption from securities registration). There is no evidence that Congress intended for the GSE risk-based capital requirements to be strictly comparable to capital standards for other regulated financial institutions.

OFHEO's proposed rule would require the GSEs to hold more capital against high-LTV loans, assuming the GSEs charge the same guarantee against such loans as they do against low-LTV loans. In practice, however, the GSEs implicitly charge higher guarantee fees on high-LTV loans, mitigating the need for additional capital beyond what is added through the guarantee fee. In its discussion of this issue, OFHEO concluded that ''Both Enterprises use internal capital models that reflect the higher risk of high LTV loans and already may incorporate higher capital costs into the implicit fees charged for these loans.'' [5]

In addition, OFHEO observed that multifamily loans, which predominantly benefit low-and moderate-income households, act as a hedge against high-LTV loans in a down-rate environment ''so that higher costs on high LTV single family loans are substantially offset by lower costs on multifamily loans,'' reducing the amount of capital that the GSEs would otherwise be required to hold against high-LTV loans.

Multifamily Risk-Sharing. Fannie Mae contends that, under the provisions of OFHEO's proposed rule, its Delegated Underwriting and Servicing (DUS) multifamily program ''will be impaired because of the onerous ''haircuts'' specified in the proposed capital regulation.'' The ''haircuts'' mentioned by Fannie Mae refer to adjustments for counterparty risk proposed by OFHEO under risk-sharing provisions such as those governing the DUS program.

Because of the importance of counterparty risk to GSE safety and soundness, it is certainly reasonable and necessary for OFHEO to take such risk into consideration in formulating its risk-based capital regulation for the GSEs. HUD notes that OFHEO received extensive comments from the GSEs and others on this issue in response to its proposed rule. Because the OFHEO capital standard is presently at the proposed rule stage, and not a final rule, it would be premature and inappropriate for HUD to speculate at this time on the possible implications of OFHEO's capital standards on GSE multifamily performance. The multifamily market and the GSEs' capabilities within it will continue to evolve during and after the time period when OFHEO revises and finalizes its proposed capital regulation in response to comments. Any implications of the OFHEO capital standards for GSE activities related to multifamily mortgages or affordable housing will merit consideration in future rounds of HUD's GSE rulemaking.

4. Conclusions Based on Consideration of the Factors

The discussion of the first two factors covers a range of topics on housing needs and economic and demographic trends that are important for understanding mortgage markets. Information is provided which describes the market environment in which the GSEs must operate (for example, trends in refinancing activity) and is useful for gauging the reasonableness of specific levels of the Low- and Moderate-Income Housing Goal. In addition, the severe housing problems faced by lower-income families are discussed.

The third factor (past performance) and the fifth factor (ability of the GSEs to lead the industry) are also discussed in some detail in this Appendix. The fourth factor (size of the market) and the sixth factor (need to maintain the GSEs' sound financial condition) are mentioned only briefly in this Appendix. Detailed analyses of the fourth factor and the sixth factor are contained in Appendix D and in the economic analysis of this rule, respectively.

The factors are discussed in sections B through H of this appendix. Section I summarizes the findings and presents the Department's conclusions concerning the Low- and Moderate-Income Housing Goal. The consideration of the factors in this appendix has led the Secretary to the following conclusions:

- Despite the record national homeownership rate of 66.8 percent in 1999, much lower rates prevailed for minorities, especially for African-American households (46.7 percent) and Hispanics (45.5 percent), and these lower rates are only partly accounted for by differences in income, age, and other socioeconomic factors.
- Pervasive and widespread disparities in mortgage lending continued across the nation in 1998, when the loan denial rate was 10.2 percent for white mortgage applicants, but 23.9 percent for African Americans and 18.9 percent for Hispanics.[6]
- Despite strong economic growth, low unemployment, the lowest mortgage rates in 1998–99 in 25 years, and relatively stable home prices, there is clear and compelling evidence of deep and persistent housing problems for Americans with the lowest incomes. The number of very-low-income American households with ''worst case'' housing needs is at an all-time high—5.4 million.[7]
- Changing population demographics will result in a need for the primary and secondary mortgage markets to meet nontraditional credit needs, respond to diverse housing preferences and overcome information barriers that many immigrants and minorities face. In addition, market segments such as single-family rental properties, small multifamily properties, manufactured housing, and older inner city properties would benefit from the additional financing and pricing efficiencies of a more active secondary mortgage market.
- The Low- and Moderate-Income Housing Goals for both GSEs were 40 percent in 1996 and 42 percent in 1997–1999. Fannie Mae surpassed these goals, with a performance of 45.6 percent in 1996, 45.7 percent in 1997, 44.1 percent in 1998, and 45.9 percent in 1999. Freddie Mac's performance of 41.1 percent in 1996, 42.6 percent in 1997 and 42.9 percent in 1998 narrowly exceeded these goals, but Freddie Mac's performance jumped sharply in 1999 to 46.1 percent, exceeding Fannie Mae's performance for the first time, by a narrow margin.
- Several studies have shown that both Fannie Mae and Freddie Mac lag behind depository institutions and the overall conventional conforming market in providing affordable home loans to lower-income borrowers and underserved neighborhoods. Though 1998 Fannie Mae made efforts to improve its performance, while Freddie Mac made less improvement, and therefore fell behind Fannie Mae, depositories, and the overall market in serving lower-income and minority families and their neighborhoods. This indicated that there was room for both GSEs (but particularly Freddie Mac) to improve their funding of single-family home mortgages for lower-income families and underserved communities. Data on the performance of depositories and the primary market is not yet available for 1999, thus it is not possible to determine if the GSEs continued to lag these sectors of the market last year. But, based on the data provided by the GSEs to the Department, Freddie Mac's single-family low- and moderate-income performance in 1999 exceeded Fannie Mae's performance. It remains to be seen whether this represents a new trend, or a temporary reversal of the pattern for the 1996–98 period.
- The GSEs' presence in the goal-qualifying market is significantly less than their presence in the overall mortgage market. Specifically, HUD estimates that they accounted for 40 percent of all owner-occupied and rental units financed in the primary market in 1997, but only 32 percent of low- and moderate-income units financed. Their role was even lower for low-and moderate-income rental properties, where they accounted for 26 percent of low- and moderate-income multifamily units financed and only 14 percent of low- and moderate-income single-family rental units financed. These general patterns were also evident in 1998, a heavy refinance year, except that the GSEs had a higher share of the single-family owner market.
- Other issues have also been raised about the GSEs' affordable lending performance. A large percentage of the lower-income loans purchased by the enterprises have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the mortgage credit needs of lower-income families who do not have sufficient cash to make a high down payment. Also, while single-family rental properties are an important source of low- and moderate-income rental housing, they represent only a small portion of the GSEs' business.
- Freddie Mac has re-entered the multifamily market, after withdrawing for a time in the early 1990s. Thus, concerns regarding Freddie Mac's multifamily capabilities no longer constrain their performance with regard to the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal to the same degree that prevailed at the time the Department issued its 1995 GSE regulations. However, Freddie Mac's multifamily presence remains proportionately lower than that of Fannie Mae. For example, units in

multifamily properties accounted for 7.3 percent of Freddie Mac's mortgage purchases during 1994–99, compared with 11.8 percent for Fannie Mae. Because a relatively large proportion of multifamily units qualify for the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal, through 1998 Freddie Mac's lower multifamily presence was a major factor contributing to its weaker overall performance on these two housing goals relative to Fannie Mae. But in 1999, multifamily units accounted for 8.2 percent of total units financed by Freddie Mac and 9.5 percent of total units financed by Fannie Mae, the narrowest gap of the 1994–99 period.

- The overall presence of both GSEs in the multifamily mortgage market falls short of their involvement in the single-family market. Specifically, the GSEs' purchases of 1997 originations accounted for 50 percent of the owner market, but only 24 percent of the multifamily market. Further expansion of the presence of both GSEs in the multifamily market is needed in order for them to make significant progress in closing the gaps between the affordability of their mortgage purchases and that of the overall conventional market.
- The GSEs have proceeded cautiously in expanding their multifamily purchases during the 1990s. Fannie Mae's multifamily lending has been described by Standard & Poor's as ''extremely conservative,'' and Freddie Mac has not experienced a single default on the multifamily mortgages it has purchased since 1993.[8] By the end of 1999, both GSEs' multifamily performance had improved to the point where multifamily delinquency rates were lower than those for single-family loans.[9]
- Because of the advantages conferred by Government sponsorship, the GSEs are in a unique position to provide leadership in addressing the excessive cost and difficulty in obtaining mortgage financing for underserved segments of the multifamily market, including small properties with 5–50 units and properties in need of rehabilitation.

B. Factor 1: National Housing Needs

This section reviews the general housing needs of low- and moderate-income families that exist today and are expected to continue in the near future. In so doing, the section focuses on the affordability problems of lower- income families and on racial disparities in homeownership and mortgage lending. It also notes some special problems, such as the need to rehabilitate our older urban housing stock.

1. Homeownership Gaps

Despite a record national homeownership rate, many Americans, including disproportionate numbers of racial and ethnic minorities, are shut out of homeownership opportunities. Although the national homeownership rate for all Americans was at an all-time high of 67.1 percent in the first quarter of 2000, the rate for minority households was lower. The homeownership rate for African-American households was 47.4 percent. Similarly, just 45.7 percent of Hispanic households owned a home.

Importance of Homeownership. Homeownership is one of the most common forms of property ownership as well as savings.[10] Historically, home equity has been the largest source of wealth for most Americans. Only recently has stock equity exceeded home equity as a share of total household wealth. Even with stocks appreciating faster than home prices over the past decade, still 59 percent of all homeowners in 1998 held more than half of their net wealth in the form of home equity. Among low-income homeowners (household income less than $20,000), half held more than 70 percent of their wealth in home equity in 1995.[11] Median net wealth for renters was less than four percent of the median net wealth for homeowners in 1998. For low-income households, renter median net wealth is less than two percent of homeowner median net wealth.[12] Thus a homeownership gap translates directly into a wealth gap.

Homeownership promotes social and community stability by increasing the number of stakeholders and reducing disparities in the distributions of wealth and income. There is growing evidence that planning for and meeting the demands of homeownership may reinforce the qualities of responsibility and self-reliance. White and Green [13] provide empirical support for the association of homeownership with a more responsible, self-reliant citizenry. Both private and public benefits are increased to the extent that developing and reinforcing these qualities improve prospects for individual economic opportunities.

Barriers to Homeownership. Insufficient income, high debt burdens, and limited savings are obstacles to homeownership for younger families. As home prices skyrocketed during the late 1970s and early 1980s, real incomes also stagnated, with earnings growth particularly slow for blue collar and less educated workers. Through most of the 1980s, the combination of slow income growth and increasing rents made saving for home purchase more difficult, and relatively high interest rates required large fractions of family income for home mortgage payments. Thus, during that period, fewer households had the financial resources to meet down payment requirements, closing costs, and monthly mortgage payments.

Economic expansion and lower mortgage rates substantially improved homeownership affordability during the 1990s. Many young, lower-income, and minority families who were closed out of the housing market during the 1980s re-entered the housing market during the last decade. However, many households still lack the financial resources and earning power to take advantage of today's homebuying opportunities. Several trends have contributed to the reduction in the real earnings of young adults without college education over the last 15 years, including technological changes that favor white-collar employment, losses of unionized manufacturing jobs, and wage pressures exerted by globalization. Fully 45 percent of the nation's population between the ages of 25 and 34 have no advanced education and are therefore at risk of being unable to afford homeownership.[14] African Americans and Hispanics, who have lower average levels of educational attainment than whites, are especially disadvantaged by the erosion in wages among less educated workers.

In addition to low income, high debts are a primary reason households cannot afford to purchase a home. According to a 1993 Census Bureau report, nearly 53 percent of renter families have both insufficient income and excessive debt problems that may cause difficulty in financing a home purchase.[15] High debt-to-income ratios frequently make potential borrowers ineligible for mortgages based on the underwriting criteria established in the conventional mortgage market.

An additional barrier to homeownership is the fear and uncertainty about the buying process and the risks of ownership. A study using focus groups with renters found that even among those whose financial status would make them capable of homeownership, many felt that the buying process was insurmountable because they feared rejection by the lender or being taken advantage of.[16] Also, many feared the obligations of ownership, because of concerns about the risk of future deterioration of the house or the neighborhood.

Finally, discrimination in mortgage lending continues to be a barrier to homeownership. Disparities in treatment between borrowers of different races and neighborhoods of different racial makeup have been well documented. These disparities are discussed in the next section.

2. Disparities in Mortgage Financing

Disparities Between Borrowers of Different Races. Research based on Home Mortgage Disclosure Act (HMDA) data suggests pervasive and widespread disparities in mortgage lending across the Nation. For 1998, the denial rate for white mortgage applicants was 10.2 percent, while 23.9 percent of African-American and 18.9 percent of Hispanic applicants were denied. Even after controlling for income, the African-American denial rate was approximately twice that of white applicants. A major study by researchers at the Federal Reserve Bank of Boston found that mortgage denial rates remained substantially higher for minorities in 1991–93, even after controlling for indicators of credit risk.[17] African-American and Hispanic applicants in Boston with the same borrower and property characteristics as white applicants had a 17 percent denial rate, compared with the 11 percent denial rate experienced by whites. A subsequent study conducted at the Federal Reserve Bank of Chicago reported similar findings.[18]

Several possible explanations for these lending disparities have been suggested. The studies by the Boston and Chicago Federal Reserve Banks found that racial disparities cannot be explained by reported differences in creditworthiness. In other words, minorities are more likely to be denied than whites with similar credit characteristics, which suggests lender discrimination. In addition, loan officers, who may believe that race is correlated with credit risk, may use race as a screening device to save time, rather

than devote effort to distinguishing the creditworthiness of the individual applicant.[19] This violates the Fair Housing Act.

Underwriting Rigidities. Underwriting rigidities may fail to accommodate creditworthy low-income or minority applicants. For example, under traditional underwriting procedures, applicants who have conscientiously paid rent and utility bills on time but have never used consumer credit would be penalized for having no credit record. Applicants who have remained steadily employed, but have changed jobs frequently, would also be penalized. Over the past few years, lenders, private mortgage insurers, and the GSEs have adjusted their underwriting guidelines to take into account these special circumstances of lower-income families. Many of the changes recently undertaken by the industry to expand homeownership have focused on finding alternative underwriting guidelines to establish creditworthiness that do not disadvantage creditworthy minority or low-income applicants.

However, because of the enhanced roles of credit scoring and automated underwriting in the mortgage origination process, it is unclear to what degree the reduced rigidity in industry standards will benefit borrowers who have been adversely impacted by the traditional guidelines. Some industry observers have expressed a concern that the greater flexibility in the industry's written underwriting guidelines may not be reflected in the numerical credit and mortgage scores which play a major role in the automated underwriting systems that the GSEs and others have developed. Thus lower-income and minority loan applicants, who often have lower credit scores than other applicants, may be dependent on the willingness of lenders to take the time to look beyond such credit scores and consider any appropriate ''mitigating factors,'' such as the timely payment of their bills, in the underwriting process. For example, there is a concern in the industry that a ''FICO'' score less than 620 means an automatic rejection of a loan application without further consideration of any such factors.[20] This could disproportionately affect minority applicants. More information on the distribution of credit scores and on the effects of implementing automated underwriting systems is needed.[21]

Disparities Between Neighborhoods. Mortgage credit also appears to be less accessible in low-income and high-minority neighborhoods. As discussed in Appendix B, 1998 HMDA data show that mortgage denial rates are nearly twice as high in census tracts with low-income and/or high-minority composition, as in other tracts (19.4 percent versus 10.3 percent). Numerous studies have found that mortgage denial rates are higher in low-income census tracts, even accounting for other loan and borrower characteristics.[22] These geographic disparities can be the result of cost factors, such as the difficulty of appraising houses in these areas because of the paucity of previous sales of comparable homes. Sales of comparable homes may also be difficult to find due to the diversity of central city neighborhoods. The small loans prevalent in low-income areas are less profitable to lenders because up-front fees to loan originators are frequently based on a percentage of the loan amount, although the costs incurred are relatively fixed. Geographic disparities in mortgage lending and the issue of mortgage redlining are discussed further in Appendix B.

3. Affordability Problems and Worst Case Housing Needs

The severe problems faced by low-income homeowners and renters are documented in HUD's ''Worst Case Housing Needs'' reports. These reports, which are prepared biennially for Congress, are based on the American Housing Survey (AHS), conducted every two years by the Census Bureau for HUD. The latest report analyzes data from the 1997 AHS and focuses on the housing problems faced by low-income renters, but some data is also presented on families living in owner-occupied housing. In introducing the most recent study, Secretary Cuomo noted that it found that ''despite the booming economy, worst case housing needs continue to increase'' and such needs ''have now reached an all-time high of million households.'' [23]

The ''Worst Cases'' report measures three types of problems faced by homeowners and renters:

- Cost or rent burdens, where housing costs or rent exceed 50 percent of income (a ''severe burden'') or range from 31 percent to 50 percent of income (a ''moderate burden'');
- The presence of physical problems involving plumbing, heating, maintenance, hallway, or the electrical system, which may lead to a classification of a residence as ''severely inadequate'' or ''moderately inadequate;'' and
- Crowded housing, where there is more than one person per room in a residence.

The study reveals that in 1997, 5.4 million households had ''worst case'' housing needs, defined as housing costs greater than 50 percent of household income or severely inadequate housing among unassisted households.

a. Problems Faced by Owners

Of the 65.5 million owner households in 1997, 5.5 million (8.5 percent) confronted a severe cost burden and another 8.3 million (12.7 percent) faced a moderate cost burden. There were 725,000 households with severe physical problems and 916,000 which were overcrowded. The report found that 25.4 percent of American homeowners faced at least one severe or moderate problem.

Not surprisingly, problems were most common among very low-income owners.[24] More than a third of these households faced a severe cost burden, and an additional 23 percent faced a moderate cost burden. And 7 percent of these families lived in severely or moderately inadequate housing, while 2 percent faced overcrowding. Only 38 percent of very low-income owners reported no problems.

Over time the percentage of owners faced with severe or moderate physical problems has decreased, as has the portion living in overcrowded conditions. However, affordability problems have grown—the shares facing severe (moderate) cost burdens were only 3 percent (5 percent) in 1978, but rose to 5 percent (11 percent) in 1989 and 8 percent (13 percent) in 1997. The increase in affordability problems apparently reflects a rise in mortgage debt in the late 1980s and early 1990s, from 21 percent of homeowners' equity in 1983 to 36 percent in 1995.[25] The Joint Center for Housing Studies also attributes this to the growing gap between housing costs and the incomes of the nation's poorest households.[26] As a result of the increased incidence of severe and moderate cost burdens, the share of owners reporting no problems fell from 84 percent in 1978 to 78 percent in 1989 and 75 percent in 1997.

b. Problems Faced by Renters

Problems of all three types listed above are more common among renters than among homeowners. In 1997 there were 6.7 million renter households (20 percent of all renters) who paid more than 50 percent of their income for rent.[27] Another 6.8 million faced a moderate rent burden, thus in total 40 percent of renters paid more than 30 percent of their income for rent.

Among very low-income renters, 72 percent faced an affordability problem, including 44 percent who paid more than half of their income in rent. More than one-third of renters with incomes between 51 percent and 80 percent of area median family income also paid more than 30 percent of their income for rent.

Affordability problems have increased over time among renters. The shares of renters with severe or moderate rent burdens rose from 32 percent in 1978 to 36 percent in 1989 and 42 percent in 1997.

The share of families living in inadequate housing in 1997 was higher for renters (12 percent) than for owners (4 percent), as was the share living in overcrowded housing (6 percent for renters, but only 1 percent for owners). Crowding and inadequate housing were more common among lower-income renters, but among even the lowest income group, affordability was the dominant problem. The prevalence of inadequate and crowded rental housing diminished over time until 1995, while affordability problems grew. But in 1997 there were also sharp increases in the inadequate and crowded shares of rental housing.

Other problems faced by renters discussed in the ''Worst Cases'' report include the loss between 1991 and 1997 of 370,000 rental units affordable to very low-income families, the increase in ''worst case needs'' among working families between 1991 and 1997, and the shortage of units affordable to very low-income households (especially in the West).

4. Other National Housing Needs

In addition to the broad housing needs discussed above, there are additional needs confronting specific sectors of the housing and mortgage markets. This section presents a brief discussion of three such areas and the roles that the GSEs play or might play in addressing the needs in these areas. Other needs are discussed throughout these appendices.

a. Single-family Rental Housing

The 1996 Property Owners and Managers Survey reported that 51 percent of all rental

housing units are located in ''multifamily'' properties—*i.e,* properties that contain 5 or more rental units. The remaining 49 percent of rental units are found in the ''mom and pop shops'' of the rental market—''single-family'' rental properties, containing 1–4 units. These small properties are largely individually-owned and managed, and in many cases the owner-managers live in one of the units in the property. They include many properties in older cities, such as the duplexes in Baltimore and the triple-deckers in Boston. A number of these single-family rental properties are in need of financing for rehabilitation, discussed in the next subsection.

Single-family rental units play an especially important role in lower-income housing. The 1997 AHS found that 59 percent of such units were affordable to very low-income families—exceeding the corresponding share of 53 percent for multifamily units. These units also play a significant role in the GSEs' performance on the housing goals, since 30 percent of the single-family rental units financed by the GSEs in 1999 were affordable to very low-income families.

There is not, however, a strong secondary market for single-family rental mortgages. While single-family rental properties comprise a large segment of the rental stock for lower-income families, they make up a small portion of the GSEs' business. In 1999 the GSEs purchased $26 billion in mortgages for such properties, but this represented 5 percent of the total dollar volume of each enterprise's 1999 business and 8 percent of total single-family units financed by each GSE. With regard to their market share, HUD estimates that the GSEs have financed only about 19 percent of all single-family rental units that received mortgages in 1998, well below the GSEs' estimated market share of 68 percent for single-family owner properties.

Given the large size of this market, the high percentage of these units which qualify for the GSEs' housing goals, and the weakness of the secondary market for mortgages on these properties, an enhanced presence by Fannie Mae and Freddie Mac in the single-family rental mortgage market would seem warranted.[28]

b. Rehabilitation Problems of Older Areas

A major problem facing lower-income households is that low-cost housing units continue to disappear from the existing housing stock. Older properties are in need of upgrading and rehabilitation. These aging properties are concentrated in central cities and older inner suburbs, and they include not only detached single-family homes, but also small multifamily properties that have begun to deteriorate.

The ability of the nation to maintain the quality and availability of the existing affordable housing stock and to stabilize the neighborhoods where it is found depends on an adequate supply of credit to rehabilitate and repair older units. But obtaining the funds to fix up older properties can be difficult. The owners of small rental properties in need of rehabilitation may be unsophisticated in obtaining financing. The properties are often occupied, and this can complicate the rehabilitation process. Lenders may be reluctant to extend credit because of a sometimes-inaccurate perception of high credit risk involved in such loans.

The GSEs and other market participants have recently begun to pay more attention to these needs for financing of affordable rental housing rehabilitation.[29] However, extra effort is required, due to the complexities of rehabilitation financing, as there is still a need to do more.

c. Small Multifamily Properties

There is evidence that small multifamily properties with 5–50 units have been adversely affected by differentials in the cost of mortgage financing relative to larger properties.[30] While mortgage loans can generally be obtained for most properties, the financing that is available is relatively expensive, with interest rates as much as 150 basis points higher than those on standard multifamily loans. Loan products are characterized by shorter terms and adjustable interest rates. Borrowers typically incur costs for origination and placement fees, environmental reviews, architectural certifications (on new construction or substantial rehabilitation projects), inspections, attorney opinions and certifications, credit reviews, appraisals, and market surveys.[31] Because of a large fixed element, these costs are usually not scaled according to the mortgage loan amount or number of dwelling units in a property and consequently are often prohibitively high on smaller projects.

d. Other Needs

Further discussions of other housing needs and mortgage market problems are provided in the following sections on economic, housing, and demographic conditions. In the single-family area, for example, an important trend has been the growth of the subprime market and the GSEs' participation in the A-minus portion of that market. Manufactured housing finance and rural housing finance are areas that could be served more efficiently with an enhanced secondary market presence. In the multifamily area, properties in need of rehabilitation represent a market segment where financing has sometimes been difficult. Other housing needs and mortgage market problems are also discussed.

C. Factor 2: Economic, Housing, and Demographic Conditions: Single-Family Mortgage Market

This section discusses economic, housing, and demographic conditions that affect the single-family mortgage market. After a review of housing trends and underlying demographic conditions that influence homeownership, the discussion focuses on specific issues related to the single-family owner mortgage market. This subsection includes descriptions of recent market interest rate trends, homebuyer characteristics, and the state of affordable lending. Section D follows with a discussion of the economic, housing, and demographic conditions affecting the multifamily mortgage market.

1. Recent Trends in the Housing Market

Solid economic growth, low interest rates, price stability, and an unemployment rate of 4.2 percent, the lowest rate since 1969, combined to make 1999 a very strong year for the housing market. The employment-population ratio reached a record 64.3 percent last year, and a broad measure of labor market distress, combining the number of unemployed and the duration of unemployment, was down by 54 percent from its 1992 peak.[32] Rising real wages, a strong stock market, and higher home prices all contributed to a continuation of the rise in net household worth, contributing to the strong demand for housing.

Homeownership Rate. In 1980, 65.6 percent of Americans owned their own home, but due to the unsettled economic conditions of the 1980s, this share fell to 63.8 percent by 1989. Major gains in ownership have occurred over the last few years, with the homeownership rate reaching a record level of 66.8 percent in 1999, when the number of households owning their own home was 7 million greater than in 1994, an unprecedented five-year increase.

Gains in homeownership have been widespread in over the last six years.[33] As a result, the homeownership rate rose from:

- 42.0 percent in 1993 to 46.7 percent in 1999 for African American households,
- 39.4 percent in 1993 to 45.5 percent in 1999 for Hispanic households,
- 73.7 percent in 1993 to 77.6 percent in 1999 for married couples with children,
- 65.1 percent in 1993 to 67.2 percent in 1999 for household heads aged 35–44, and
- 48.9 percent in 1993 to 50.4 percent in 1999 for central city residents.

However, as these figures demonstrate, sizable gaps in homeownership remain.

Sales of New and Existing Homes.[34] New home sales rose at a rate of 7.5 percent per year between 1991 and 1999, and exceeded the previous record level (set in 1998) by 2 percent in 1999. The market for new homes has been strong throughout the nation, with record sales in the South and Midwest during 1999. New home sales in the Northeast and West, while strong, are running below the peak levels attained during their strong job markets of the mid-1980s and late-1970s, respectively.

The National Association of Realtors reported that 5.2 million existing homes were sold in 1999, overturning the old record set in 1998 by 5 percent. Combined new and existing home sales also set a record of 6.2 million last year. Since existing homes account for more than 80 percent of the total market and sales of existing homes are strong throughout the country, combined sales reach record levels in three of the four major regions of the nation and came within 97 percent of the record in the Northeast.

One of the strongest sectors of the housing market in recent years has been shipments of manufactured homes, which more than doubled between 1991 and 1996, and essentially leveled off at the 1996 record during 1997–99. Two-thirds of manufactured home placements were in the South, where they comprised more than one-third of total new homes sold in 1999.

Economy/Housing Market Prospects. As noted above, the U.S. economy is coming off

several years of economic expansion, accompanied by low interest rates and high housing affordability. In fact, 1999 was a record year for housing sales. The remainder of this subsection discusses the future prospects for the housing market.

According to Standard & Poor's DRI, the housing market is slowing down from the record breaking pace of over five million single-family existing homes sold during 1999.[35] Sales of existing single-family homes are on a pace of 4.5 million units for 2000. Between 2001 and 2004, existing single-family home sales are expected to average 4.2 million units. Housing starts are expected to average 1.5 million units over the same period. Housing should remain affordable, as indicated by out-of-pocket costs as a share of disposable income, which are expected to continue their downward trend through 2004, dipping below 24 percent by 2003. According to Standard & Poor's DRI, the 30-year fixed rate mortgage rate is expected to average 8.4 percent in 2000, and then trend down to 7.7 percent by 2004.

The Congressional Budget Office (CBO)[36] projects that real Gross Domestic Product will grow at an average rate of 2.7 percent from 2001 through 2005, down from the expected 4.9 percent growth rate during 2000. The ten-year Treasury rate is projected to average 6.0 percent between 2001 and 2005. Inflation, as measured by the Consumer Price Index (CPI) is projected to remain modest during the same period, averaging 2.7 percent. The unemployment rate is expected to remain low over the next four years, averaging 4.3 percent.

Certain risks exist, however, which could undermine the wellbeing of the economy. The probability of a recession still exists for the next couple of years. Under a pessimistic scenario (10 percent probability), Standard & Poor's DRI predicts that if a stock-market correction were to occur toward the end of 2000, housing starts could fall to 1.2 million units. With relatively low inflation, DRI anticipates that the Federal Reserve would respond quickly by lower interest rates. This would revive the housing market, although the recovery would be slow, with starts not returning to pre-recession levels until late 2004.[37] An alternative scenario has a recession arriving in 2002, resulting from a Federal Reserve overreaction to higher inflation and a stock market correction in late 2001 or early 2002 (which DRI predicts with a probability of 35 percent). Under this scenario, housing starts would fall to almost one million units. As a result of lower interest rates, the housing market would rebound strongly, with starts reaching near-record levels by the end of 2004.[38]

In addition to DRI and CBO, the Mortgage Bankers Association predicts that for 2000/2001 housing starts will reach 1.6/1.5 million units for 2000 and 2001 and the 30-year fixed rate mortgage rate will average 8.5/9.0 percent.[39] Fannie Mae predicts that the Federal Reserve will successfully engineer a soft landing, with real growth of the economy slowing to a two to three percent pace in 2001. As a result, mortgage originations should decline to $967 billion, 27 percent less than the 1998 record level.[40]

2. Underlying Demographic Conditions

Over the next 20 years, the U.S. population is expected to grow by an average of 2.4 million per year. This will likely result in 1.1 to 1.2 million new households per year, creating a continuing need for additional housing.[41] This section discusses important demographic trends behind these overall household numbers that will likely affect housing demand in the future. These demographic forces include the baby-boom, baby-bust and echo baby-boom cycles; immigration trends; ''trade-up buyers;'' non-traditional and single households; and the growing income inequality between people with different levels of education.

As explained below, the role of traditional first-time homebuyers, 25-to-34 year-old married couples, in the housing market will be smaller in the next decade due to the aging of the baby-boom population.[42] However, growing demand from immigrants and non-traditional homebuyers will likely fill in the void. The Joint Center for Housing Studies recently projected that the share of the U.S. population accounted for by racial and ethnic minorities would increase from 25 percent to 30 percent by the year 2010.[43] The echo baby-boom (that is, children of the baby-boomers) will also add to housing demand later in the next decade. Finally, the growing income inequality between people with and without a post-secondary education will continue to affect the housing market.

The Baby-Boom Effect. The demand for housing during the 1980s and 1990s was driven, in large part, by the coming of homebuying age of the baby-boom generation, those born between 1945 and 1964. Homeownership rates for the oldest of the baby-boom generation, those born in the 1940s, rival those of the generation born in the 1930s. Due to significant house price appreciation in the late-1970s and 1980s, older baby-boomers have seen significant gains in their home equity and subsequently have been able to afford larger, more expensive homes. Circumstances were not so favorable for the middle baby-boomers. Housing was not very affordable during the 1980s, their peak homebuying age period. As a result, the homeownership rate, as well as wealth accumulation, for the group of people born in the 1950s lags that of the generations before them.[44]

As the youngest of the baby-boomers, those born in the 1960s, reached their peak homebuying years in the 1990s, housing became more affordable. While this cohort has achieved a homeownership rate equal to the middle baby-boomers, they live in larger, more expensive homes. As the baby-boom generation ages, demand for housing from this group is expected to wind down.[45]

The baby-boom generation was followed by the baby-bust generation, from 1965 through 1977. Since this population cohort is smaller than that of the baby-boom generation, it is expected to lead to reduced housing demand during the next decade, though, as discussed below, other factors have kept the housing market very strong in the 1990s. However, the echo baby-boom generation (the children of the baby-boomers, who were born after 1977), while smaller than the baby-boom generation, will reach peak homebuying age later in the first decade of the new millennium, softening the blow somewhat.[46]

Immigrant Homebuyers. Past, present, and future immigration will also help keep homeownership growth at a respectable level. During the 1980s, 6 million legal immigrants entered the United States, compared with 4.2 million during the 1970s and 3.2 million during the 1960s.[47] As a result, the foreign-born population of the United States doubled from 9.6 million in 1970 to 19.8 million in 1990, and is expected to reach 31 million by 2010.[48] While immigrants tend to rent their first homes upon arriving in the United States, homeownership rates are substantially higher among those that have lived here for at least 6 years. In 1996, the homeownership rate for recent immigrants was 14.7 percent while it was 67.4 percent for native-born households. For foreign-born naturalized citizens, the homeownership rate after six years was a remarkable 66.9 percent.[49]

Immigration is projected to add even more new Americans in the 1990s, which will help offset declines in the demand for housing caused by the aging of the baby-boom generation. While it is projected that immigrants will account for less than four percent of all households in 2010, without the increase in the number of immigrants, household growth would be 25 percent lower over the next 15 years. As a result of the continued influx of immigrants and the aging of the domestic population, household growth over the next decade should remain at or near its current pace of 1.1–1.2 million new households per year, even though population growth is slowing. If this high rate of foreign immigration continues, it is possible that first-time homebuyers will make up as much as half of the home purchase market over the next several years.[50]

Past and future immigration will lead to increasing racial and ethnic diversity, especially among the young adult population. As immigrant minorities account for a growing share of first-time homebuyers in many markets, HUD and others will have to intensify their focus on removing discrimination from the housing and mortgage finance systems. The need to meet nontraditional credit needs, respond to diverse housing preferences, and overcome the information barriers that many immigrants face will take on added importance.

Trade-up Buyers. The fastest growing demographic group in the early part of the next millennium will be 45-to 65-year olds. This will translate into a strong demand for upscale housing and second homes. The greater equity resulting from recent increases in home prices should also lead to a larger role for ''trade-up buyers'' in the housing market during the next 10 to 15 years.

Nontraditional and Single Homebuyers. While overall growth in new households has slowed down, nontraditional households have become more important in the homebuyer market. With later marriages and more divorces, single-person and single-parent households have increased rapidly. First-time buyers include a record number of never-married single households, although

their ownership rates still lag those of married couple households. According to the Chicago Title and Trust's Home Buyers Surveys, the share of first-time homebuyers who were never-married singles rose from 21 percent in 1991 to 37 percent in 1996, and to a record 43 percent in 1997. However, in 1999 never-married singles fell to 30 percent of first-time homebuyers.[51] The shares for divorced/separated and widowed first-time homebuyers have stayed constant over the period, at eight percent and one percent, respectively.[52] The National Association of Realtors reports that ''single individuals, unmarried couples and minorities are entering the market as first-time buyers in record numbers.'' [53] With the increase in single person households, it is expected that there will be a greater need for apartments, condominiums and townhomes.

Due to weak house price appreciation, traditional ''trade-up buyers'' stayed out of the market during the early 1990s. Their absence may explain, in part, the large representation of nontraditional homebuyers during that period. However, since 1995 home prices have increased 20 percent. Single-parent households are also expected to decline as the baby-boom generation ages out of the childbearing years. For these reasons, nontraditional homebuyers may account for a smaller share of the housing market in the future.

Growing Income Inequality. The Census Bureau recently reported that the top 5 percent of American households received 21.4 percent of aggregate household income in 1998, up sharply from 16.1 percent in 1977. The share accruing to the lowest 80 percent of households fell accordingly, from 56.5 percent in 1977 to 50.8 percent in 1998. The share of aggregate income accruing to households between the 80th and 95th percentiles of the income distribution was virtually unchanged over this period.[54]

The increase in income inequality over the past two decades has been especially significant between those with and those without post-secondary education. The Census Bureau reports that by 1997, the mean income of householders with a high school education (or less) was less than half that for householders with a bachelor's degree (or more). According to the Joint Center for Housing Studies, inflation-adjusted median earnings of men aged 25 to 34 with only a high-school education decreased by 14 percent between 1989 and 1995.[55] So, while homeownership is highly affordable, this cohort lacks the financial resources to take advantage of the opportunity. As discussed earlier, the days of the well-paying unionized factory job have passed. They have given way to technological change that favors white-collar jobs requiring college degrees, and wages in the manufacturing jobs that remain are experiencing downward pressures from economic globalization. The effect of this is that workers without the benefit of a post-secondary education find their demand for housing constrained.

3. Single-Family Owner Mortgage Market

The mortgage market has undergone a great deal of growth and change over the past few years. Low interest rates, modest increases in home prices, and growth in real household income have increased the affordability of housing and resulted in a mortgage market boom. Total originations of single-family loans increased from $458 billion in 1990 to $859 billion in 1997 and then jumped to a record $1.507 trillion during the heavy refinancing year of 1998, before declining to $1.287 billion in 1999, the second highest level recorded.[56] There have also been many changes in the structure and operation of the mortgage market. Innovations in lending products, added flexibility in underwriting guidelines, the development of automated underwriting systems and the rise of the subprime market, have had impacts on both the overall market and affordable lending during the 1990s.

The section starts with a review of trends in the market for mortgages on single-family owner-occupied housing. Next, trends in affordable lending, including new initiatives and changes to underwriting guidelines and the prospects for potential homebuyers are discussed. The section concludes with a summary of the activity of the GSEs relative to originations in the primary mortgage market.

a. Basic Trends in the Mortgage Market

Interest Rate Trends. The high and volatile mortgage rates of the 1980s and early 1990s have given way to a period with much lower and more stable rates in the last six years. Interest rates on mortgages for new homes were above 12 percent as the 1980s began and quickly rose to more than 15 percent.[57] After 1982, they drifted downward slowly to the 9 percent range in 1987–88, before rising back into double-digits in 1989–90. Rates then dropped by about one percentage point a year for three years, reaching a low of 6.8 percent in October-November 1993 and averaging 7.2 percent for the year as a whole.

Mortgage rates turned upward in 1994, peaking at 8.3 percent in early 1995, but fell to the 7.5 percent-7.9 percent range for most of 1996 and 1997. However, rates began another descent in late-1997 and averaged 6.95 percent for 30-year fixed rate conventional mortgages during 1998, the lowest level since 1968, before rising to an average of 7.44 percent in 1999.[58]

Other Loan Terms. When mortgage rates are low, most homebuyers prefer to lock in a fixed-rate mortgage (FRM). Adjustable-rate mortgages (ARMs) are more attractive when rates are high, because they carry lower rates than FRMs and because buyers may hope to refinance to a FRM when mortgage rates decline. Thus the Federal Housing Finance Board (FHFB) reports that the ARM share of the market jumped from 20 percent in the low-rate market of 1993 to 39 percent when rates rose in 1994.[59] The ARM share has since trended downward, falling to 22 percent in 1997 and a record low of 12 percent in 1998, before rising back to 22 percent in 1999.

In 1997 the term-to-maturity was 30 years for 83 percent of conventional home purchase mortgages. Other maturities included 15 years (11 percent of mortgages), 20 years (2 percent), and 25 years (1 percent). The average term was 27.5 years, up slightly from 26.9 years in 1996, but within the narrow range of 25–28 years which has prevailed since 1975.

One dimension of the mortgage market which has changed in recent years is the increased popularity of low- or no-point mortgages. FHFB reports that average initial fees and charges (''points'') have decreased from 2.5 percent of loan balance in the mid-1980s to 2 percent in the late-1980s, 1.5 percent in the early 1990s, and less than 1.0 percent in 1995–97. In 1998, 21 percent of all loans were no-point mortgages. These lower transactions costs have increased the propensity of homeowners to refinance their mortgages.[60]

Another recent major change in the conventional mortgage market has been the proliferation of high loan-to-value ratio (LTV) mortgages. Loans with LTVs greater than 90 percent (that is, down payments of less than 10 percent) made up less than 10 percent of the market in 1989–91, but 25 percent of the market in 1994–97. Loans with LTVs less than or equal to 80 percent fell from three-quarters of the market in 1989–91 to an average of 56 percent of mortgages originated in 1994–97. As a result, the average LTV rose from 75 percent in 1989–91 to nearly 80 percent in 1994–97.[61]

The statistics cited above pertain only to home purchase mortgages. Refinance mortgages generally have shorter terms and lower loan-to-value ratios than home purchase mortgages.

Mortgage Originations: Refinance Mortgages. Mortgage rates affect the volume of both home purchase mortgages and mortgages used to refinance an existing mortgage. The effects of mortgage rates on the volume of home purchase mortgages are felt through their role in determining housing affordability, discussed in the next subsection. However, the largest impact of rate swings on single-family mortgage originations is reflected in the volume of refinancings.

During 1992–93, homeowners responded to the lowest rates in 25 years by refinancing existing mortgages. In 1989–90 interest rates exceeded 10 percent, and refinancings accounted for less than 25 percent of total mortgage originations.[62] The subsequent sharp decline in mortgage rates drove the refinance share over 50 percent in 1992 and 1993 and propelled total single-family originations to more than $1 trillion in 1993—twice the level attained just three years earlier.

The refinance wave subsided after 1993, because most homeowners who found it beneficial to refinance had already done so and because mortgage rates rose once again.[63] Total single-family mortgage originations bottomed out at $639 billion in 1995, when the refinance share was only 15 percent. This meant that refinance volume declined by more than 80 percent in just two years.

A second surge in refinancings began in late-1997, abated somewhat in early 1998, but regained momentum in June 1998. The refinance share rose above 30 percent in mid-1997, exceeded 40 percent in late-1997, and peaked at 64 percent in January, before falling to 40 percent by May 1998. This share increased steadily over the June–September 1998 period, and averaged 50 percent for

1998. The refi boom ended abruptly in early 1999, as the share of loans for refinancings fell from 60 percent in the first quarter to 27 percent in the second quarter and 22 percent in the third and fourth quarters. Total originations, driven by the volume of refinancings, amounted to $859 billion in 1997 and were $1.507 trillion in 1998, nearly 50 percent higher than the previous record level of $1.02 trillion attained in 1993, before falling to $1.287 trillion last year. Total refinance mortgage volume in 1998 was estimated to be nearly 10 times the level attained in 1995. The refinance wave from 1997 through early 1999 reflects other factors besides interest rates, including greater borrower awareness of the benefits of refinancing, a highly competitive mortgage market, and the enhanced ability of the mortgage industry (including the GSEs), utilizing automated underwriting and mortgage origination systems, to handle this unprecedented volume expeditiously.

Mortgage Originations: Home Purchase Mortgages. In 1972 the median price of existing homes in the United States was $27,000 and mortgage rates averaged 7.52 percent; thus with a 20 percent down payment, a family needed an income of $7,200 to qualify for a loan on a median-priced home. Actual median family income was $11,100, exceeding qualifying income by 55 percent. The National Association of Realtors (NAR) has developed a housing affordability index, calculated as the ratio of median income to qualifying income, which was 155 in 1972.

By 1982 NAR's affordability index had plummeted to 70, reflecting a 154 percent increase in home prices and a doubling of mortgage rates over the decade. That is, qualifying income rose by nearly 400 percent, to $33,700, while median family income barely doubled, to $23,400. With so many families priced out of the market, single-family mortgage originations amounted to only $97 billion in 1982.

Declining interest rates and the moderation of inflation in home prices have led to a dramatic turnaround in housing affordability in the last decade and a half. Remarkably, qualifying income was $27,700 in 1993—$6,000 less than it had been in 1982. Median family income reached $37,000 in 1993, thus the NAR's housing affordability index reached 133. Housing affordability remained at about 130 for 1994–97, with home price increases and somewhat higher mortgage rates being offset by gains in median family income.[64] Falling interest rates and higher income led to an increase in affordability to 143 in 1998, reflecting the most affordable housing in 25 years. Affordability remained high in 1999, despite the increase in mortgage rates.

The high affordability of housing, low unemployment, and high consumer confidence meant that home purchase mortgages reached a record level in 1997. However, this record was surpassed in 1998, as a July 1998 survey by Fannie Mae found that "every single previously cited barrier to homeownership—from not having enough money for a down payment, to not having sufficient information about how to buy a home, to the confidence one has in his job, to discrimination or social barriers—has collapsed to the lowest level recorded in the seven years Fannie Mae has sponsored its annual National Housing Survey."[65] Specifically, the Mortgage Bankers Association estimates that home purchase mortgages rose to about $754 billion in 1998, well above the previous record of $574 billion established in 1997. The boom continued in 1999, with home purchase mortgage volume increasing further, to $824 billion.

First-time Homebuyers. First-time homebuyers have been the driving force in the recovery of the nation's housing market over the past several years. First-time homebuyers are typically people in the 25–34 year-old age group that purchase modestly priced houses. As the post-World War II baby boom generation ages, the percentage of Americans in this age group decreased from 28.3 percent in 1980 to 25.4 percent in 1992.[66] Even though this cohort is smaller, first-time homebuyers increased their share of home sales. First-time buyers accounted for about 45 percent of home sales in 1999. Participation rates for first-time homebuyers so far this decade are all greater than or equal to 45 percent. This follows participation rates that averaged 40 percent in the 1980s, including a low of 36 percent in 1985. The highest first-time homebuyer participation rate was achieved in 1977, when it was 48 percent.[67]

The Chicago Title and Trust Company reports that the average first-time buyer in 1999 was 32 years old and spent 5 months looking at 12 homes before making a purchase decision. Most such buyers are married couples, but in 1999 29 percent had never been married, 9 percent were divorced or separated, and 1 percent were widowed.

First-time buyers paid an average of 34 percent of after-tax income, or $1,090 per month, on their mortgage payments in 1999, and saved for 2.2 years to accumulate a down payment. The National Association of Realtors reports that the median mortgage amount for first-time buyers was $104,000 in 1999, corresponding to an LTV of 97 percent, compared with a median mortgage amount of $150,000 and an average LTV of 81 percent for repeat buyers.

GSEs' Acquisitions as a Share of the Primary Single-Family Mortgage Market. The GSEs' single-family mortgage acquisitions have generally followed the volume of originations in the primary market for conventional mortgages, falling from 5.3 million mortgages in the record year of 1993 to 2.2 million mortgages in 1995, but rebounding to 2.9 million mortgages in 1996. In 1997, however, single-family originations were essentially unchanged, but the GSEs' acquisitions declined to 2.7 million mortgages.[68] This pattern was reversed in 1998, when originations rose by 73 percent, but the GSEs' purchases jumped to 5.8 million mortgages. In 1999 the GSEs' acquired 4.8 million single-family mortgages, a decline of 17 percent, which approximated the 15 percent decline in single-family originations.

Reflecting these trends, the Office of Federal Housing Enterprise Oversight (OFHEO) estimates that the GSEs' share of total originations in the single-family mortgage market, measured in dollars, declined from 37 percent in 1996 to 32 percent in 1997—well below the peak of 51 percent attained in 1993. OFHEO attributes the 1997 downturn in the GSEs' role to increased holdings of mortgages in portfolio by depository institutions and to increased competition with Fannie Mae and Freddie Mac by private label issuers. However, OFHEO estimates that the GSEs' share of the market rebounded sharply in 1998–99, to 43–42 percent.

Mortgage Market Prospects. The Mortgage Bankers Association (MBA) reports that mortgage originations in 1999 were $1.3 trillion. This followed the record-breaking year of 1998, with $1.5 trillion in mortgage originations. Refinancing of existing mortgages was down from 1998's 50 percent share of total mortgage originations to 34 percent in 1999, still higher than an average year. Meanwhile, the ARM share in 1999 increased from 12 percent in 1998 to 22 percent of originations, reflecting the rise in overall interest rates. The MBA predicts that mortgage originations will amount to $962 billion and $912 billion, with refinancings representing 16 and 12 percent of originations, during 2000 and 2001, which is more in line with a normal pace. ARMs are expected to account for a larger share, 32 percent in 2000 and 34 percent in 2001, of total mortgage originations.[69] Fannie Mae projects that mortgage originations will fall to $967 billion for 2000, with 19 percent coming from refinancings, while 30 percent of originations will be in the form of ARMs.[70]

b. Affordable Lending in the Mortgage Market

In the past few years, conventional lenders, private mortgage insurers and the GSEs have begun implementing changes to extend homeownership opportunities to lower-income and historically underserved households. The industry has started offering more customized products, more flexible underwriting, and expanded outreach so that the benefits of the mortgage market can be extended to those who have not been adequately served through traditional products, underwriting, and marketing. This section summarizes recent initiatives undertaken by the industry to expand affordable housing. The section also discusses the significant role FHA plays in making affordable housing available to historically underserved groups.

Down Payments. GE Capital's 1989 Community Homebuyer Program first allowed homebuyers who completed a program of homeownership counseling to have higher than normal payment-to-income qualifying ratios, while providing less than the full 5-percent down payment from their own funds. Thus the program allowed borrowers to qualify for larger loans than would have been permitted under standard underwriting rules. Fannie Mae made this Community Homebuyer Program a part of its own offerings in 1990. Affordable Gold is a similar program introduced by Freddie Mac in 1992. Many of these programs allowed 2 percentage points of the 5-percent down payment to come from gifts from relatives or grants and unsecured loans from local governments or nonprofit organizations.

In 1994, the industry (including lenders, private mortgage insurers and the GSEs) began offering mortgage products that required down payments of only 3 percent, plus points and closing costs. Other industry efforts to reduce borrowers' up front costs have included zero-point-interest-rate mortgages and monthly insurance premiums with no up front component. These new plans eliminated large up front points and premiums normally required at closing.

During 1998, Fannie Mae introduced its ''Flexible 97'' and Freddie Mac introduced its ''Alt 97'' low down payment lending programs. Under these programs borrowers are required to put down only 3 percent of the purchase price. The down payment, as well as closing costs, can be obtained from a variety of sources, including gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets. While these programs started out slowly, by November 1998 both GSEs' programs reached volumes of $200 million per month.

In early 1999, Fannie Mae announced that it would introduce several changes to its mortgage insurance requirements. The planned result is to provide options for low downpayment borrowers to reduce their mortgage insurance costs. Franklin D. Raines, Fannie Mae chairman and chief executive officer stated, ''Now, thanks to our underwriting technology, our success in reducing credit losses, and innovative new arrangements with mortgage insurance companies, we can increase mortgage insurance options and pass the savings directly on to consumers.'' [71]

Partnerships. In addition to developing new affordable products, lenders and the GSEs have been entering into partnerships with local governments and nonprofit organizations to increase mortgage access to underserved borrowers. Fannie Mae's partnership offices in more than 40 central cities, serving to coordinate Fannie Mae's programs with local lenders and affordable housing groups, are an example of this initiative. Another example is the partnership Fannie Mae and the National Association for the Advancement of Colored People (NAACP) announced in January 1999.[72] Under this partnership, Fannie Mae will provide funding for technical assistance to expand the NAACP's capacity to provide homeownership information and counseling. It will also invest in NAACP-affiliated affordable housing development efforts and explore structures to assist the organization in leveraging its assets to secure downpayment funds for eligible borrowers. Furthermore, Fannie Mae will provide up to $110 million in special financing products, including a new $50 million underwriting experiment specifically tailored to NAACP clientele.

Freddie Mac does not have a partnership office structure similar to Fannie Mae's, but it has undertaken a number of initiatives in specific metropolitan areas. Freddie Mac also announced on January 15, 1999 that it entered into a broad initiative with the NAACP to increase minority homeownership. Through this alliance, Freddie Mac and the NAACP seek to expand community-based outreach, credit counseling and marketing efforts, and the availability of low-downpayment mortgage products with flexible underwriting guidelines. As part of the initiative, Freddie Mac has committed to purchase $500 million in mortgage loans.[73]

The programs mentioned above are examples of the partnership efforts undertaken by the GSEs. There are more partnership programs than can be adequately described here. Fuller descriptions of these programs are provided in their Annual Housing Activity Reports.

Underwriting Flexibility. Lenders, mortgage insurers, and the GSEs have also been modifying their underwriting standards to attempt to address the needs of families who find qualifying under traditional guidelines difficult. The goal of these underwriting changes is not to loosen underwriting standards, but rather to identify creditworthiness by alternative means that more appropriately measure the circumstances of lower-income households. The changes to underwriting standards include, for example:

- Using a stable income standard rather than a stable job standard. This particularly benefits low-skilled applicants who have successfully remained employed, even with frequent job changes.
- Using an applicant's history of rent and utility payments as a measure of creditworthiness. This measure benefits lower-income applicants who have not established a credit history.
- Allowing pooling of funds for qualification purposes. This change benefits applicants with extended family members.
- Making exceptions to the ''declining market'' rule and clarifying the treatment of mixed-use properties.[74] These changes benefit applicants from inner-city underserved neighborhoods.

These underwriting changes have been accompanied by homeownership counseling to ensure homeowners are ready for the responsibilities of homeownership. In addition, the industry has engaged in intensive loss mitigation to control risks.

Increase in Affordable Lending During the 1990s.[75] Home Mortgage Disclosure Act (HMDA) data suggest that the new industry initiatives may be increasing the flow of credit to underserved borrowers. Between 1993 and 1997 (prior to the heavy refinancing during 1998), conventional loans to low-income and minority families increased at much faster rates than loans to higher income and non-minority families. As shown below, over this period home purchase originations to African Americans and Hispanics grew by almost 60 percent, and purchase loans to low-income borrowers (those with incomes less than 80 percent of area median income) increased by 45 percent.

	1993–97 (in percent)	1995–97 (in percent)
All Borrowers	28.1	11.1
African Americans/Hispanics.	57.7	−0.2
Whites	21.9	8.9
Income Less Than 80% AMI	45.1	15.4
Income Greater Than 120% AMI	31.5	24.5

However, as also shown, in the latter part of this period conventional lending for some groups slowed significantly. Between 1995 and 1997, the slowing of the growth of home purchase originations was much greater for low-income borrowers than for higher-income borrowers. Moreover, even though remaining at near-peak levels in 1997, conventional home purchase originations to African Americans and Hispanics actually decreased by two-tenths of a percent over the past three years. It should be noted, however, that total loans (conventional plus government) originated to African-American and Hispanic borrowers increased between 1995 and 1997, but this was mainly the result of a 40.0 percent increase in FHA-insured loans originated for African-American and Hispanic borrowers.

Affordable Lending Shares by Major Market Sector. The focus of the different sectors of the mortgage market on affordable lending can be seen by examining Tables A.1a, A.1b, and A.1c. Tables A.1a and A.1b present affordable lending percentages for FHA, the GSEs, depositories (banks and thrift institutions), the conventional conforming sector, and the overall market.[76] The discussion below will center on Table A.1a, which provides information on home purchase loans and thus, homeownership opportunities. Table A.1b, which provides information on total (both home purchase and refinance) loans, is included to give a complete picture of mortgage activity. Both 1997 and 1998 HMDA data are included in these tables; the year 1997 represents a more typical year of mortgage activity than 1998, which was characterized by heavy refinance activity. The tables also include GSE data for 1999; the 1999 HMDA data will be incorporated when it is made available.

The affordable market shares reported in parentheses for the conventional conforming market in Tables A.1a and A.1b were derived by excluding the estimated number of B&C loans from the HMDA data. HUD's method for excluding B&C loans is explained in

Section F.3a of Appendix D. Because B&C lenders operate mainly in the refinance sector, excluding these loans from the market totals has little impact on the home purchase percentages reported in Table A.1a. The reductions in the market shares are more significant for total loans (reported in Table A.1b) which include refinance as well as home purchase loans.

The interpretation of the "distribution of business" percentages, reported in Table A.1a for several borrower and neighborhood characteristics, can be illustrated using the FHA percentage for low-income borrowers: during 1997, 47.5 percent of all FHA-insured home purchase loans in metropolitan areas were originated for borrowers with an income less than 80 percent of the local area median income. Table A.1c, on the other hand, presents "market share" percentages that measure the portion of all home purchase loans for a specific affordable lending category (such as low-income borrowers) accounted for by a particular sector of the mortgage market (FHA or the GSEs). In this case, the FHA market share of 33 percent for low-income borrowers is interpreted as follows: of all home purchase loans originated in metropolitan areas during 1997, 33 percent were FHA-insured loans. Thus, this "market share" percentage measures the importance of FHA to the market's overall funding of loans for low-income borrowers.

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Table A.1a

Affordable Lending Shares for Major Sectors of the Home Purchase Mortgage Market in Metropolitan Areas, 1997-1999*

			Conventional Conforming Market					
Borrower Characteristics	Total Market	FHA	Freddie Mac	Fannie Mae	Both GSEs	Depositories	Total Conforming Market	
Low-Income: 1997	32.0 %	47.5 %[1]	19.2 %	22.6 %	21.2 %	29.4 %	27.3	(27.3) %**
1998	32.3	49.1	22.3	25.0	23.9	29.9	27.8	(27.7)
1999			24.5	24.3	24.4			
African American: 1997	7.8	14.4	3.2	4.5	4.0	4.7	5.1	(5.0)
1998	7.4	14.2	3.2	3.8	3.6	4.8	4.9	(4.7)
1999			3.5	3.4	3.4			
Hispanic: 1997	8.7	17.8	5.1	6.3	5.8	5.1	5.9	(5.9)
1998	8.6	18.6	4.7	6.0	5.5	5.5	6.1	(6.0)
1999			5.5	6.0	5.8			
Minority: 1997	21.4	35.8	14.0	17.7	16.2	14.6	16.5	(16.3)
1998	21.0	36.5	13.1	16.3	15.0	15.2	16.6	(16.2)
1999			14.9	17.3	16.3			
Neighborhood Characteristics								
Low-Income Tract: 1997	12.8 %	19.1 %	7.9 %	9.5 %	8.9 %	12.0 %	10.9	(10.8) %
1998	12.3	18.7	7.9	9.4	8.8	12.1	10.7	(10.5)
1999			8.4	8.1	8.2			
High-Minority Tract: 1997	17.3	27.1	11.4	15.3	13.8	12.2	14.1	(13.9)
1998	16.9	27.0	10.8	14.0	12.7	12.6	14.1	(13.7)
1999			12.3	12.7	12.5			
High African-American Tract: 1997	5.8	9.6	3.0	4.8	4.1	4.7	4.6	(4.5)
1998	5.5	9.2	3.2	3.8	3.6	4.7	4.5	(4.3)
1999			3.4	3.0	3.2			
Underserved Areas: 1997	29.1	41.3	19.9	23.5	22.1	26.3	25.2	(25.0)
1998	28.2	41.2	20.0	22.5	21.7	26.1	24.6	(24.2)
1999			21.2	20.6	20.9			

Notes: All the data are for home purchase mortgages. The FHA, depositories, and the two market percentages are derived from 1997 and 1998 HMDA data. The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include conventional home loans home loans purchased during 1997, 1998, and 1999; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998 or 1999) as well as their purchases of mortgages originated during 1997, 1998, and 1999. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the 1997 (1998) conforming loan limit of $214,600 ($227,150). The "Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-1998 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six. 1999 HMDA data were not available for the various non-GSE categories.

[1] Each percentage represents the share of a sector's portfolio accounted for by the borrower or neighborhood characteristic. For example, 47.5 percent of FHA-insured home loans were loans for low-income borrowers.

* It should be noted that Table A.1a includes only the GSEs' purchases of conventional loans; the same table in the proposed rule also included the GSEs' purchases of government (particularly FHA-insured) loans.

** The percentgages in parenthesis are HMDA-based market shares that have been adjusted to exclude the B&C portion of the subprime market. It should be recognized that there exists some uncertainty regarding the number of B&C loans in the HMDA data. The adjustment assumes that the B&C loans represent one-half of the subprime market. The adjustment for home purchase loans is small because subprime (B&C) loans are mainly refinance loans.

Table A.1b

Affordable Lending Shares for Major Sectors of the Home Purchase and Refinance Mortgage Market in Metropolitan Areas, 1997-1999*

			Conventional Conforming Market					
Borrower Characteristics	Total Market	FHA	Freddie Mac	Fannie Mae	Both GSEs	Depositories	Total Conforming Market	
Low-Income: 1997	31.1 %	47.1 %[1]	20.5 %	22.3 %	21.6 %	28.0 %	28.1	(27.3) %**
1998	28.1	48.2	21.6	22.2	21.9	26.2	25.8	(24.9)
1999			25.2	23.9	24.4			
African American: 1997	8.0	14.2	3.2	4.1	3.7	4.8	6.3	(5.6)
1998	6.5	13.7	3.0	3.1	3.0	4.4	5.0	(4.4)
1999			3.7	3.4	3.5			
Hispanic: 1997	7.4	17.8	4.8	5.7	5.3	4.6	5.4	(5.3)
1998	6.7	17.2	4.4	4.8	4.6	4.5	5.2	(5.1)
1998			5.6	5.6	5.6			
Minority: 1997	20.1	35.6	13.1	16.2	14.9	13.4	16.7	(15.9)
1998	18.0	34.8	12.2	13.8	13.1	13.1	15.3	(14.6)
1999			15.1	16.3	15.8			
Neighborhood Characteristics								
Low-Income Tract: 1997	13.6 %	18.9 %	8.6 %	9.5 %	9.1 %	11.9 %	12.7	(11.9) %
1998	11.5	17.4	8.1	8.2	8.1	10.9	10.7	(10.0)
1999			9.2	8.5	8.8			
High-Minority Tract: 1997	17.8	27.5	11.8	14.9	13.7	12.2	15.9	(14.9)
1998	16.2	27.2	11.5	12.9	12.3	12.2	14.5	(13.6)
1999			14.2	13.6	13.8			
High African-American Tract: 1997	7.1	9.7	3.5	4.5	4.1	5.1	6.6	(5.8)
1998	5.8	9.1	3.6	3.3	3.4	4.7	5.3	(4.6)
1999			4.0	3.5	3.7			
Underserved Areas: 1997	30.0	41.1	21.5	23.6	22.8	26.5	27.8	(26.7)
1998	26.8	39.9	20.9	21.2	21.1	25.0	24.8	(23.7)
1999			23.5	21.8	22.5			

Notes: All the data are for home purchase and refinance mortgages. The FHA, depositories, and the two market percentages are derived from 1997 and 1998 HMDA data. The GSE percentages are derived from the loan-level data that Fannie Mae and Freddie Mac provide to HUD. The GSE data include conventional loans purchased during 1997, 1998, and 1999; thus, these data include their purchases of seasoned loans (i.e., mortgages originated prior to 1997 or 1998 or 1999) as well as their purchases of mortgages originated during 1997, 1998, and 1999. The "Total Market" combines the government sector (FHA and VA loans) and the conventional conforming market. Thus, it includes all loans except "jumbo" loans above the 1997 (1998) conforming loan limit of $214,600 ($227,150). The "Depositories" data refer to new originations that are not sold by banks and thrift institutions during 1997-1998 and thus are retained in depository portfolios. The HMDA data for low-income borrowers exclude mortgages with a loan-to-borrower-income ratio greater than six. 1999 HMDA data were not available for the various non-GSE categories.

[1] Each percentage represents the share of a sector's portfolio accounted for by the borrower or neighborhood characteristic. For example, 47.1 percent of FHA-insured home loans were loans for low-income borrowers. It should be noted that due to FHA's streamline refinance program, borrower income data were not available for almost 70 percent of FHA's refinance loans.

* It should be noted that Table A.1b includes only the GSEs' purchases of conventional loans; the same table in the proposed rule also included the GSEs' purchases of government (particularly FHA-insured) loans.

** The percentgages in parenthesis are HMDA-based market shares that have been adjusted to exclude the B&C portion of the subprime market. It should be recognized that there exists some uncertainty regarding the number of B&C loans in the HMDA data. The adjustment assumes that the B&C loans represent one-half of the subprime market.

Table A.1c

FHA-Insured Loans and GSE Purchases As Shares of Home Purchase Mortgages Originated in Metropolitan Areas During 1997

	FHA-Insured	GSE Purchases
Low-Income Borrowers	33% [1]	28-30%
African-American and Hispanic Borrowers	44%	24-27%
Low-Income Tracts	35%	31%
High Minority Tracts	37%	35%
Underserved Areas[2]	33%	33%
All Loans	23%	44%

Source: 1997 HMDA data and 1997 GSE data.

Notes: The FHA figures (first column) refer to percentages of all newly-mortgaged home purchase mortgage loans (except jumbo loans above the conforming loan limit of $214,600) in metropolitan areas that were FHA insured during 1997. The GSE figures (second column) are defined differently-- they include GSE purchases in metropolitan areas during 1997 of both 1997 and prior-year conventional mortgage originations. (About one-fourth of the GSEs' 1997 purchases were mortgages originated prior to 1997.) See Table A.7a for an analyis that focuses only on the GSEs' purchases of 1997 mortgage originations. The second GSE figure for the borrower income and race variables is calculated by reallocating missing GSE data for the variables. As with the FHA data, the GSE purchases are expressed as a percentage of the total market in metropolitan areas. In this table, the "total market" includes all (government and conventional) home purchase mortgages originated in metropolitan areas during 1997 that were below the conforming loan limit of $214,600. The market data reported in HMDA are adjusted upward by 10 percent, which assumes that HMDA covers 90 percent of the metropolitan mortgage market. A lower coverage assumption would increase the market totals and thus reduce the GSE and FHA market shares. Assumptions about HMDA's coverage of FHA loans were based on a comparison of FHA loans as reported by 1996 HMDA data with FHA loans as reported by FHA for 1996. Thus, an updating of this FHA coverage analysis could change the FHA market shares reported here.

[1] That is, it is estimated that FHA insured for 33 percent of all home purchase loans that were originated during 1997 and were for low-income borrowers in metropolitan areas.

[2] Metropolitan census tracts with (1) median income less than or equal to 90 percent of AMI or (2) minority concentration greater than or equal to 30 percent and tract median income less than or equal to 120 percent of AMI.

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Four main conclusions may be drawn from the data presented in Tables A.1a and A.1c. First, FHA places much more emphasis on affordable lending than the other market sectors. Low-income borrowers accounted for 47.5 percent of FHA-insured loans during 1997, compared with 21.2 percent of the home loans purchased by the GSEs, 29.4 percent of home loans retained by depositories, and 27.3 percent of conventional conforming loans.[77] Likewise, 41.3 percent of FHA-insured loans were originated in underserved census tracts, while only 22.1 percent of the GSE-purchased loans and 25.2 percent of conventional conforming loans were originated in these tracts.[78] As shown in Table A.1c, while FHA insured only 23 percent of all home purchase mortgages originated in metropolitan areas during 1997, it insured 33 percent of all mortgages originated in underserved areas.[79]

Second, the affordable lending shares for the conventional conforming sector are low for minority borrowers, particularly African-American borrowers. For example, African-American borrowers accounted for only 5.0 percent of all conventional conforming home purchase loans originated during 1997 and 1998, compared with over 14 percent of FHA-insured loans and over 7.5 percent of all home purchase loans originated in the market. The African-American share of the GSEs' purchases is even lower than the corresponding share for the conventional conforming market. In 1998, home purchase loans to African-Americans accounted for 3.2 percent of Freddie Mac's purchases, 3.8 percent of Fannie Mae's purchases, and 4.9 percent of loans originated in the conventional conforming market (or 4.7 percent if B&C loans are excluded from the market definition).[80] As shown in Table A.1a, the results change when other minority borrowers are considered. Fannie Mae purchased mortgages for minority borrowers and their neighborhoods at higher rates than these loans were originated by primary lenders in the conventional conforming market. During 1997, 17.7 percent of Fannie Mae's purchases were mortgages for minority borrowers, compared with 16.5 percent of conventional conforming loans. During 1998, 14.0 percent of Fannie Mae's purchases financed homes in high-minority census tracts, compared with 14.1 percent of conventional conforming loans (or 13.7 percent without B&C loans). However, as suggested by the data presented above, the minority lending performance of conventional lenders has been subject to much criticism in recent studies. These studies contend that primary lenders in the conventional market are not doing their fair

share of minority lending which forces minorities, particularly African-American and Hispanic borrowers, to the more costly FHA and subprime markets.[81]

Third, the GSEs, but particularly Freddie Mac, lagged the conventional conforming market in funding affordable loans for low-income families and their neighborhoods during 1997 and 1998—in 1998, for example, low-income census tracts accounted for 7.9 percent of Freddie Mac's purchases, 9.4 percent of Fannie Mae's purchases, 12.1 percent of loans retained by depositories, and 10.7 percent of all home loans originated by conventional conforming lenders. This pattern of Freddie Mac lagging all market participants during 1997 and 1998 holds up for all of the borrower and neighborhood categories examined in Table A.1a. One encouraging trend for Freddie Mac is the significant increases in its purchases of affordable loans between 1997 and 1999—for example, from 19.2 percent to 24.5 percent for low-income borrowers, resulting in Freddie Mac surpassing Fannie Mae in the funding of home loans for low-income families. With respect to the GSEs' total (combined home purchase and refinance) purchases, Freddie Mac matched or out-performed Fannie Mae in 1999 on all categories in Table A.1b except minority borrowers. A more complete analysis of the GSEs' purchases of mortgages qualifying for the housing goals is provided below in Section E.

Finally, within the conventional conforming market, depository institutions stand out as important providers of affordable lending for lower-income families and their neighborhoods (see Table A.1a).[82] Depository lenders have extensive knowledge of their communities and direct interactions with their borrowers, which may enable them to introduce flexibility into their underwriting standards without unduly increasing their credit risk. Another important factor influencing the types of loans held by depository lenders is the Community Reinvestment Act, which is discussed next.

Seasoned CRA Loans. The Community Reinvestment Act (CRA) requires depository institutions to help meet the credit needs of their communities. CRA provides an incentive for lenders to initiate affordable lending programs with underwriting flexibility.[83] CRA loans are typically made to low- and moderate-income borrowers earning less than 80 percent of median income for their area, and in moderate-income neighborhoods. They are usually smaller than typical conventional mortgages and also are likely to have a high LTV, high debt-to-income ratios, no payment reserves, and may not be carrying private mortgage insurance (PMI). Generally, at the time CRA loans are originated, many do not meet the underwriting guidelines required in order for them to be purchased by one of the GSEs. Therefore, many of the CRA loans are held in portfolio by lenders, rather than sold to Fannie Mae or Freddie Mac. On average, CRA loans in a pool have three to four years seasoning.[84]

However, because of the size, LTV and PMI characteristics of CRA loans, they have slower prepayment rates than traditional mortgages, making them attractive for securitization. CRA loan delinquencies also have very high cure rates.[85] For banks, selling CRA pools will free up capital to make new CRA loans. As a result, the CRA market segment may provide an opportunity for Fannie Mae and Freddie Mac to expand their affordable lending programs. In mid-1997, Fannie Mae launched its Community Reinvestment Act Portfolio Initiative. Under this pilot program Fannie Mae purchases seasoned CRA loans in bulk transactions taking into account track record as opposed to relying just on underwriting guidelines. By the end of 1997, Fannie Mae had financed $1 billion in CRA loans through this pilot.[86] With billions of dollars worth of CRA loans in bank portfolios the market for securitization should improve. Section E, below, presents data showing that Fannie Mae's purchases of CRA-type seasoned mortgages have increased recently. Fannie Mae also started another pilot program in 1998 where they purchase CRA loans on a flow basis, as they are originated. Results from this four-year $2 billion nationwide pilot should begin to be reflected in the 1999 production data.[87]

c. Potential Homebuyers

While the growth in affordable lending and homeownership has been strong in recent years, attaining this Nation's housing goals will not be possible without tapping into the vast pool of potential homebuyers. The National Homeownership Strategy has set a goal of achieving a homeownership rate of 67.5 percent by the end of the year 2000. Due to the aging of the baby boomers, this rate reached an annual record of 66.8 percent in 1999, and rose further to 67.1 percent in the first quarter of 2000. This section discusses the potential for further increases beyond those resulting from current demographic trends.

The Urban Institute estimated in 1995 that there was a large group of potential homebuyers among the renter population who were creditworthy enough to qualify for homeownership.[88] Of 20.3 million renter households having low- or moderate-incomes, roughly 16 percent were better qualified for homeownership than half of the renter households who actually did become homeowners over the sample period. When one also considered their likelihood of defaulting relative to the average expected for those who actually moved into homeownership, 10.6 percent, or 2.15 million, low- and moderate-income renters were better qualified for homeownership, assuming the purchase of a home priced at or below median area home price. These results indicate the existence of a significant lower-income population of low-risk potential homebuyer households that might become homeowners with continuing outreach efforts by the mortgage industry.

Other surveys conducted by Fannie Mae indicate that renters desire to become homeowners, with 60 percent of all renters indicating in the July 1998 National Housing Survey that buying a home ranks from being a ''very important priority'' to their ''number-one priority,'' the highest level found in any of the seven National Housing Surveys dating back to 1992. Immigration is expected to be a major source of future homebuyers—Fannie Mae's 1995 National Housing Survey reported that immigrant renter household were 3 times as likely as renter households in general to list home purchase as their ''number-one priority.''

Further increases in the homeownership rate also depend on whether or not recent gains in the homeowning share of specific groups are maintained. Minorities accounted for 18 percent of homeowners in 1999, but the Joint Center for Housing Studies has pointed out that minorities account were responsible for nearly 40 percent of the 6.9 million increase in the number of homeowners between 1994 and 1999. Minority demand for homeownership continues to be high, as reported by the Fannie Mae Foundation's April 1998 Survey of African Americans and Hispanics. For example, 38 percent of African Americans surveyed said it is fairly to very likely that they will buy a home in the next 3 years, compared with 25 percent in 1997.[89] The survey also reports that 67 percent of African Americans and 65 percent of Hispanics cite homeownership as being a ''very important priority'' or ''number-one priority.''[90]

The Joint Center for Housing Studies has stated that if favorable economic and housing market trends continue, and if additional efforts to target mortgage lending to low-income and minority households are made, the homeownership rate could reach 70 percent by 2010.

d. Automated Mortgage Scoring

This, and the following two sections, discuss special topics that have impacted the primary and secondary mortgage markets in recent years. They are automated mortgage scoring, subprime loans and manufactured housing.

Automated mortgage scoring was developed as a high-tech tool with the purpose of identifying credit risks in a more efficient manner. As time and cost are reduced by the automated system, more time can be devoted by underwriters to qualifying marginal loan applicants that are referred by the automated system for more intensive review. Fannie Mae and Freddie Mac are in the forefront of new developments in automated mortgage scoring technology. Both enterprises released automated underwriting systems in 1995—Freddie Mac's Loan Prospector and Fannie Mae's Desktop Underwriter. Each system uses numerical credit scores, such as those developed by Fair, Isaac, and Company, and additional data submitted by the borrower, such as loan-to-value ratios and available assets, to calculate a mortgage score that evaluates the likelihood of a borrower defaulting on the loan. The mortgage score is in essence a recommendation to the lender to accept the application, or to refer it for further review through manual underwriting. Accepted loans benefit from reduced document requirements and expedited processing.

Along with the promise of benefits, however, automated mortgage scoring has raised concerns. These concerns are related to the possibility of disparate impact and the proprietary nature of the mortgage score inputs. The first concern is that low-income

and minority homebuyers will not score well enough to be accepted by the automated underwriting system resulting in fewer getting loans. The second concern relates to the ''black box'' nature of the scoring algorithm. The scoring algorithm is proprietary and therefore it is difficult, if not impossible, for applicants to know the reasons for their scores.

Federal Reserve Study. Four economists at the Board of Governors of the Federal Reserve System conducted a conceptual and empirical study on the use of credit scoring systems in mortgage lending.[91] Their broad assessment of the models was that:

> ''[C]redit scoring is a technological innovation which has increased the speed and consistency of risk assessment while reducing costs. Research has uniformly found that credit history scores are powerful predictors of future loan performance. All of these features suggest that credit scoring is likely to benefit both lenders and consumers.''[92]

The authors evaluated the current state-of-the-art of development of credit scoring models, focusing particularly on the comprehensiveness of statistical information used to develop the scoring equations. They presented a conceptual framework in which statistical predictors of default include regional and local market conditions, individual credit history, and applicants' characteristics other than credit history. The authors observed that the developers of credit scoring models have tended to disregard regional and local market conditions in model construction, and such neglect may tend to reduce the predictive accuracy of scoring equations. To determine the extent of the problem, they analyzed Equifax credit scores together with mortgage payment history data for households living in each of 994 randomly selected counties from across the country. The authors used these data to assess the variability of credit scores relative to county demographic and economic characteristics.

The authors found a variety of pieces of evidence which confirmed their suspicions: Credit scores tended to be relatively lower in counties with relatively high unemployment rates, areas that have experienced recent rises in unemployment rates, areas with high minority population, areas with lower median educational attainment, areas with high percentages of individuals living in poverty, areas with low median incomes and low house values, and areas with relatively high proportions of younger populations and lower proportions of older residents.

This analysis suggests the need for a two-step process of improvement of the equations and their application, in which (a) new statistical analyses would be performed to incorporate the omitted environmental variables, and (b) additional variables bearing on individuals' prospective and prior circumstances will be taken into account in determining their credit scores.

These authors also discussed the relationship between credit scoring and discrimination. They found a significant statistical relationship between credit history scores and minority composition of an area, after controlling for other locational characteristics. From this, they concluded that concerns about potential disparate impact merit future study. However, a disparate impact study must include a business justification analysis to demonstrate the ability of the score card to predict defaults and an analysis of whether any alternative, but equally-predictive, score card has a less disproportionate effect.

Urban Institute Study. The Urban Institute submitted a report to HUD in 1999 on a four-city reconnaissance study of issues related to the single-family underwriting guidelines and practices of Fannie Mae and Freddie Mac.[93] The study included interviews with informants knowledgeable about mortgage markets and GSE business practices on the national level and in the four cities.

The study observed, as did the Fed study summarized above, that minorities are more likely than whites to fail underwriting guidelines. Therefore, as a general matter the GSEs' underwriting guidelines—as well as the underwriting guidelines of others in the industry—do have disproportionate adverse effects on minority loan applicants.[94]

Based on the field reconnaissance in four metropolitan housing markets, the study made several observations about the operation of credit scoring systems in practice, as follows:[95]

- Credit scores are used in mortgage underwriting to separate loans that must be referred to loan underwriters from loans that may be forwarded directly to loan officers; for example, a 620 score was mentioned by some respondents as the line below which the loan officer must refer the loan for manual underwriting. It is very difficult for applicants with low credit scores to be approved for a mortgage, according to the lenders interviewed by the Urban Institute.
- Some respondents believe the GSEs are applying cutoffs inflexibly, while others believe that lenders are not taking advantage of flexibility allowed by the GSEs.
- Some respondents believe that credit scores may not be accurate predictors of loan performance, despite the claims of users of these scores. Respondents who voiced this opinion tended to base these observations on their personal knowledge of low-income borrowers who are able to keep current on payments, rather than on an understanding of statistical validation studies of the models.
- Respondents indicate that the ''black box'' nature of the credit scoring process creates uncertainty among loan applicants and enhances the intimidating nature of the process for them.

Based on these findings, the authors concluded that ''the use of automated underwriting systems and credit scores may place lower-income borrowers at a disadvantage when applying for a loan, even though they are acceptable credit risks.''

The Urban Institute report included several recommendations for ongoing HUD monitoring of the GSEs' underwriting including their use of credit scoring models. One suggestion was to develop a data base on the GSEs' lending activities relevant for analysis of fair lending issues. The data would include credit scores to reveal the GSEs' patterns of loan purchase by credit score. A second suggestion was to conduct analyses of the effects of credit scoring systems using a set of ''fictitious borrower profiles'' that would reveal how the systems reflect borrower differences in income, work history, credit history, and other relevant factors. HUD has begun following up on the Urban Institute's recommendations. For instance, in February 1999, HUD requested the information and data needed to analyze the GSEs' automated underwriting systems.

Concluding Observations. It is important to note that both of the studies reviewed above comment on the problem of correlation of valid predictors of default (income, etc.) with protected factors (race, etc.). Both studies suggest that, ultimately, the question whether mortgage credit scoring models raise any problems of legal discrimination based on disparate effects would hinge on a business necessity analysis and analysis of whether any alternative underwriting procedures with less adverse disproportionate effect exist.

It should be noted that the GSEs have taken steps to make their automated underwriting systems more transparent. Both Fannie Mae and Freddie Mac have published the factors used to make loan purchase decisions in Desktop Underwriter and Loan Prospector, respectively. The three most predictive factors are down payment, credit performance or bureau score, and financial cushion.

In response to criticisms aimed at using FICO scores in mortgage underwriting, Fannie Mae's new version of Desktop Underwriter (DU) 5.0 replaces credit scores with specific credit characteristics and provides expanded approval product offerings for borrowers who have blemished credit. The specific credit characteristics include variables such as past delinquencies; credit records, foreclosures, and accounts in collection; credit card line and use; age of accounts; and number of credit inquiries.

e. Subprime Loans

Another major development in housing finance has been the recent growth in subprime loans. In the past borrowers traditionally obtained an ''A'' quality (or ''investment grade'') mortgage or no mortgage. However, an increasing share of recent borrowers have obtained ''subprime'' mortgages, with their quality denoted as ''A-minus,'' ''B,'' ''C,'' or even ''D.'' The subprime borrower typically is someone who has experienced credit problems in the past or has a high debt-to-income ratio.[96] Through the first nine months of 1998, ''A-minus'' loans accounted for 63 percent of the subprime market, with ''B'' loans representing 24 percent and ''C'' and ''D'' loans making up the remaining 13 percent.[97]

Because of the perceived higher risk of default, subprime loans typically carry mortgage rates that in some cases are substantially higher than the rates on prime mortgages. While in many cases these perceptions about risk are accurate, some housing advocates have expressed concern that there are a number of cases in which the perceptions are actually not accurate. The Community Reinvestment Association of North Carolina (CRA–NC), conducted a study based on HMDA data, records of deeds, and personal contacts with affected borrowers in Durham County, NC. They found that

subprime lenders make proportionally more loans to minority borrowers and in minority neighborhoods than to whites and white neighborhoods at the same income level. African-American borrowers represented 20 percent of subprime mortgages in Durham County, but only 10 percent of the prime market.[98] As a result, these borrowers can end up paying very high mortgage rates that more than compensate for the additional risks to lenders. High subprime mortgage rates make homeownership more expensive or force subprime borrowers to buy less desirable homes than they would be able to purchase if they paid lower prime rates on their mortgages.

The HMDA database does not provide information on interest rates, points, or other loan terms that would enable researchers to separate more expensive subprime loans from other loans. However, the Department has identified 200 lenders that specialize in such loans, providing some information on the growth of this market.[99] This data shows that mortgages originated by subprime lenders, and reported in the HMDA data, has increased from 104,000 subprime loans in 1993 to 210,000 in 1995 and 997,000 in 1998. Most of the subprime loans reported in the HMDA data are refinance loans; for example, refinance loans accounted for 80 percent of the subprime loans reported by the specialized subprime lenders in 1997.

An important question is whether borrowers in the subprime market are sufficiently creditworthy to qualify for more traditional loans. Freddie Mac has said that one of the promises of automated underwriting is that it might be better able to identify borrowers who are unnecessarily assigned to the high-cost subprime market. It has estimated that 10–30 percent of borrowers who obtain mortgages in the subprime market could qualify for a conventional prime loan through Loan Prospector, its automated underwriting system.[100]

Most of the subprime loans that were purchased by the GSEs in past years were purchased through structured transactions. Under this form of transaction, whole groups of loans are purchased, and not all loans necessarily meet the GSEs' traditional underwriting guidelines. The GSEs typically guarantee the so-called ''A'' tranche, which is supported by a ''B'' tranche that covers default costs.

An expanded GSE presence in the subprime market could be of significant benefit to lower-income families, minorities, and families living in underserved areas. HUD's research shows that in 1998: African-Americans comprised 5.0 percent of market borrowers, but 19.4 percent of subprime borrowers; Hispanics made up 5.2 percent of market borrowers, but 7.8 percent of subprime borrowers; very low-income borrowers accounted for 12.1 percent of market borrowers, but 23.3 percent of subprime borrowers; and borrowers in underserved areas amounted to 24.8 percent of market borrowers, but 44.7 percent of subprime borrowers.[101]

The GSEs. Fannie Mae and Freddie Mac have shown increasing interest in the subprime market throughout the latter half of the 1990s. Both GSEs now purchase A-minus and Alt-A mortgages on a flow basis.[102] The GSEs' interest in the subprime market has coincided with a maturation of their traditional market (the conforming conventional mortgage market), and their development of mortgage scoring systems, which they believe allows them to accurately model credit risk.

Freddie Mac has been the more aggressive GSE in the subprime market. In early 1996, Freddie Mac stated that its interest in subprime loans was for the development of a subprime module for Loan Prospector (Freddie Mac's automated underwriting system), a joint project with Standard & Poor's to score subprime mortgages.[103] Freddie Mac increased its subprime business through structured transactions, with Freddie Mac guaranteeing the senior classes of senior/subordinated securities backed by home equity loans. Between 1997 and 1999, Freddie Mac was involved in 16 transactions totaling $8.1 billion, with Freddie Mac's 1999 business accounting for over $5 billion of this total.[104] During 1999, Freddie Mac did four transactions with Option One Mortgage, including its largest subprime deal to date, $930.4 million, in November of that year.

Freddie Mac also offers a product for A-minus borrowers through its Loan Prospector system and it recently announced a product similar to the ''Timely Payment Rewards'' mortgage offered by Fannie Mae. In total, Freddie Mac purchased approximately $12 billion in subprime loans during 1999—$7 billion of A-minus and alternative-A loans through its standard flow programs and $5 billion through structured transactions.[105] Freddie Mac is projecting to increase its subprime purchases to $17.5 billion in the year 2000, consisting of $9.5 billion in subprime flow purchases and $8.0 billion in security purchases.[106]

Fannie Mae has not focused on structured transactions as Freddie Mac has. However, Fannie Mae initiated its Timely Payments product in September 1999, under which borrowers with slightly damaged credit can qualify for a mortgage with a higher interest rate than prime borrowers. Under this product, a borrower's interest rate will be reduced by 100 basis points if the borrower makes 24 consecutive monthly payments without a delinquency. Fannie Mae has revamped its automated underwriting system (Desktop Underwriter) so loans that were traditionally referred for manual underwriting are now given four risk classifications, three of which identify potential A-minus loans.[107]

Because the GSEs have a funding advantage over other market participants, they have the ability to underprice their competitors and increase their market share.[108] This advantage, as has been the case in the prime market, could allow the GSEs to eventually play a significant role in the subprime market. As the GSEs become more comfortable with subprime lending, the line between what today is considered a subprime loan versus a prime loan will likely deteriorate, making expansion by the GSEs look more like an increase in the prime market. Since, as explained earlier in this chapter, one could define a prime loan as one that the GSEs will purchase, the difference between the prime and subprime markets will become less clear. This melding of markets could occur even if many of the underlying characteristics of subprime borrowers and the market's (*i.e.,* non-GSE participants) evaluation of the risks posed by these borrowers remain unchanged.

Increased involvement by the GSEs in the subprime market might result in more standardized underwriting guidelines. As the subprime market becomes more standardized, market efficiencies might possibly reduce borrowing costs. Lending to credit-impaired borrowers will, in turn, increasingly make good business sense for the mortgage market.

f. Loans on Manufactured Housing

Manufactured housing provides low-cost, basic-quality housing for millions of American households, especially younger, lower-income families in the South, West, and rural areas of the nation. Many households live in manufactured housing because they simply cannot afford site-built homes, for which the construction cost per square foot is much higher. Because of its affordability to lower-income families, manufactured housing is one of the fastest-growing parts of the American housing market.[109]

The American Housing Survey found that 16.3 million people lived in 6.5 million manufactured homes in the United States in 1997, and that such units accounted for 6.6 percent of the occupied housing stock, an increase from 5.4 percent in 1985. Shipments of manufactured homes rose steadily from 171,000 units in 1991 to 373,000 units in 1998, before tailing off to 348,000 units in 1999. The industry grew much faster over this period in sales volume, from $4.7 billion in 1991 to $15.3 billion in 1999, reflecting both higher sales prices and a major shift from single-section homes to multisection homes, which contain two or three units which are joined together on site.[110]

Despite their eligibility for mortgage financing, only about 10–20 percent of manufactured homes [111] are financed with mortgages secured by the property, even though half of owners hold title to the land on which the home is sited. Most purchasers of manufactured homes take out a personal property loan on the home and, if they buy the land, a separate loan to finance the purchase of the land.

In 1995, the average loan size for a manufactured home was $24,500, with a 15 percent down payment and term of 13 years. Rates averaged about 3 percentage points higher than those paid on 15-year fixed rate mortgages, but borrowers benefit from very rapid loan-processing and underwriting standards that allow high debt payment-to-income (''back-end'') ratios.

Traditionally loans on manufactured homes have been held in portfolio, but a secondary market has emerged since trading of asset-backed securities collateralized by manufactured home loans was initiated in 1987. Investor interest has been reported as strong due to reduced loan losses, low prepayments, and eligibility for packaging of such loans into real estate mortgage investment conduits (REMICs). The GSEs'

underwriting standards allow them to buy loans on manufactured homes that meet the HUD construction code, if they are owned, titled, and taxed as real estate.

The GSEs are beginning to expand their roles in the manufactured home loan market.[112] A representative of the Manufactured Housing Institute has stated that ''Clearly, manufactured housing loans would fit nicely into Fannie Mae's and Freddie Mac's affordable housing goals.'' [113] Given that manufactured housing loans often carry relatively high interest rates, an enhanced GSE role could also improve the affordability of such loans to lower-income families.

D. Factor 2: Economic, Housing, and Demographic Conditions: Multifamily Mortgage Market

Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, approaching the same degree as the single-family mortgage market by the end of the decade. In 1999, 58.8 percent of multifamily mortgage originations were securitized, compared with 60.8 percent of single-family originations.[114]

Loans on multifamily properties are typically viewed as riskier than their single-family counterparts. Property values, vacancy rates, and market rents in multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced in the single-family market.

Within much of the single-family mortgage market, the GSEs occupy an undisputed position of industrywide dominance, holding loans or guarantees with an unpaid principal comprising 39.0 percent of outstanding single-family mortgage debt and guarantees as of the end of 1999. In multifamily, the overall market presence of the GSEs is more modest. At the end of 1999, the GSEs' direct holdings and guarantees represented 17.3 percent of outstanding multifamily mortgage debt.[115] It is estimated that GSE acquisitions of multifamily loans originated during 1997 represented 24 percent of the conventional multifamily origination market.[116]

1. Special Issues and Unmet Needs

Recent studies have documented a pressing unmet need for affordable housing. For example, the Harvard University Joint Center for Housing Studies, in its report *State of the Nation's Housing 2000,* points out that:

- Despite recent job and income growth, renters in the bottom quarter of the income distribution experienced a decline in real income from 1996–1998, at a time when real rents increased by 2.3 percent.
- Between 1993 and 1995, the number of unsubsidized units affordable to very low-income households decreased by nearly 900,000 units, or 8.6 percent.
- One-quarter of very low-income working households paid 30 percent or more of their incomes for housing.
- Rising home prices and interest rates are raising the cost of homeownership.
- Reductions in federal subsidies may contribute to further losses in the affordable stock.

The affordable housing issues go beyond the need for greater efficiency in delivering capital to the rental housing market. In many cases, subsidies are needed in order for low-income families to afford housing that meets adequate occupancy and quality standards. Nevertheless, greater access to reasonably priced capital can reduce the rate of losses to the stock, and can help finance the development of new or rehabilitated affordable housing when combined with locally funded subsidies. Development of a secondary market for affordable housing is one of many tools needed to address these issues.

Recent scholarly research suggests that more needs to be done to develop the secondary market for affordable multifamily housing.[117] Cummings and DiPasquale (1998) point to the numerous underwriting, pricing, and capacity building issues that impede the development of this market. They suggest the impediments can be addressed through the establishment of affordable lending standards, better information, and industry leadership.

- More consistent standards are especially needed for properties with multiple layers of subordinated financing (as is often the case with affordable properties allocated Low Income Housing Tax Credits and/or local subsidies).
- More comprehensive and accurate information, particularly with regard to the determinants of default, can help in setting standards for affordable lending.
- Leadership from the government or from a GSE is needed to develop consensus standards; it would be unprofitable for any single purely private lender to provide because costs would be borne privately but competitors would benefit.

2. Underserved Market Segments

There is evidence that segments of the multifamily housing stock have been affected by costly, difficult, or inconsistent availability of mortgage financing. Small properties with 5–50 units represent an example. The fixed-rate financing that is available is typically structured with a 5–10 year term, with interest rates as much as 150 basis points higher than those on standard multifamily loans, which may have adverse implications for affordability.[118] This market segment appears to be dominated by thrifts and other depositories who keep these loans in portfolio. In part to hedge interest rate risk, loans on small properties are often structured as adjustable-rate mortgages.

Multifamily properties with significant rehabilitation needs have experienced difficulty in obtaining mortgage financing. Properties that are more than 10 years old are typically classified as ''C'' or ''D'' properties, and are considered less attractive than newer properties by many lenders and investors.[119] Multifamily rehabilitation loans accounted for only 0.5 percent of units backing Fannie Mae's 1998 purchases and for 1.6 percent in 1999. These loans accounted for 1.9 percent of Freddie Mac's 1998 multifamily total (with none indicated in 1999).

Historically, the flow of capital into housing for seniors has been characterized by a great deal of volatility. A continuing lack of long-term, fixed-rate financing jeopardizes the viability of a number of some properties. There is evidence that financing for new construction remains scarce.[120] Both Fannie Mae and Freddie Mac offer Senior Housing pilot programs.

Under circumstances where mortgage financing is difficult, costly, or inconsistent, GSE intervention may be desirable. Follain and Szymanoski (1995) say that ''a [market] failure occurs when the market does not provide the quantity of a particular good or service at which the marginal social benefits of another unit equal the marginal social costs of producing that unit. In such a situation, the benefits to society of having one more unit exceeds the costs of producing one more unit; thus, a rationale exists for some level of government to intervene in the market and expand the output of this good.''[121] It can be argued that the GSEs have the potential to contribute to the mitigation of difficult, costly, or inconsistent availability of mortgage financing to segments of the multifamily market because of their funding cost advantage, and even a responsibility to do so as a consequence of their public missions, especially in light of the limitations on direct government resources available to multifamily housing in today's budgetary environment.

3. Recent History and Future Prospects in Multifamily

The expansion phase of the real estate cycle been well underway for several years now, at least insofar as it pertains to multifamily. Rental rates have been rising, and vacancy rates have been relatively stable, contributing to a favorable environment for multifamily construction and lending activity.[122] Delinquencies on commercial mortgages reached an 18-year low in 1997.[123] Some analysts have warned that recent prosperity may have contributed to overbuilding in some markets and deterioration in underwriting standards.[124] A September 1998, report by the Office of the Comptroller of the Currency anticipates continued decline in credit standards at the 77 largest national banks as a consequence of heightened competition between lenders, and the Federal Deposit Insurance Corporation has expressed similar concerns regarding 1,212 banks it examined.[125]

Growth in the multifamily mortgage market has been fueled by investor appetites for Commercial Mortgage Backed Securities (CMBS). Nonagency securitization of multifamily and commercial mortgages received an initial impetus from the sale of nearly $20 billion in mortgages acquired by the Resolution Trust Corporation (RTC) from insolvent depositories in 1992–1993. Nonagency issuers typically enhance the credit-worthiness of their offerings through the use of senior-subordinated structures, combining investment-grade senior tranches with high-yield, below investment-grade junior tranches designed to absorb any credit losses.[126]

Because of their relatively low default risk in comparison with loans on other types of income property, multifamily mortgages are often included in mixed-collateral financing structures including other commercial

property such as office buildings, shopping centers, and storage warehouses. CMBS volume reached $30 billion in 1996; $44 billion in 1997; $78 billion in 1998; and $67 billion in 1999. Approximately 25 percent of each year's total is comprised of multifamily loans.[127]

During the financial markets turmoil in the fall of 1998, investors expressed reluctance to purchase the subordinated tranches in CMBS transactions, jeopardizing the ability of issuers to provide a cost-effective means of credit-enhancing the senior tranches as well.[128] When investor perceptions regarding credit risk on subordinated debt escalated rapidly in August and September, the GSEs, which do not typically use subordination as a credit enhancement, benefited from a ''flight to quality.'' [129]

Depository institutions and life insurance companies, formerly among the largest holders of multifamily debt, have experienced a decline in their share of the market at the expense of CMBS conduits.[130] Increasingly, depositories and life insurance companies are participating in multifamily markets by holding CMBS rather than whole loans, which are often less liquid, more expensive, and subject to more stringent risk-based capital standards.[131] In recent years a rising proportion of multifamily mortgages have been originated to secondary market standards, a consequence of a combination of factors including the establishment of a smoothly functioning securitization ''infrastructure;'' the greater liquidity of mortgage-related securities as compared with whole loans; and the desire for an ''exit strategy'' on the part of investors.[132]

Because of their limited use of mortgage debt, increased equity ownership of multifamily properties by REITs may have contributed to increased competition among mortgage originators, servicers and investors for a smaller mortgage market than would otherwise exist. During the first quarter of 1997, REITs accounted for 45 percent of all commercial real estate transactions, and the market capitalization of REITs at the end of January 1998 exceeded that of outstanding CMBS.[133]

Demographic factors will contribute to continued steady growth in the new construction segment of the multifamily mortgage market. The number of apartment households is expected to grow approximately 1.1 percent per year over 2000–2005. Taking into consideration losses from the housing stock, it has been projected that approximately 250,000–275,000 additional multifamily units will be needed in order to meet anticipated demand.[134] This flow is approximately half that of the mid-1980s, but twice that of the depressed early 1990s. In 1999, 291,800 apartment units were completed. [135]

The high degree of volatility of multifamily new construction experienced historically is consistent with a view that this sector of the housing market is driven more by fluctuations in the availability of financing than by demographic fundamentals. The stability and liquidity of the housing finance system is therefore a significant determinant of whether the volume of new construction remains consistent with demand.

Past experience suggests that the availability of financing for all forms of commercial real estate is highly sensitive to the state of the economy. In periods of economic uncertainty, lenders and investors sometimes raise underwriting and credit standards to a degree that properties that would be deemed creditworthy under normal circumstances are suddenly unable to obtain financing. Ironically, difficulty in obtaining financing may contribute to a fall in property values that can exacerbate a credit crunch.[136] The sensitivity of commercial real estate markets to investor perceptions regarding global volatility was demonstrated by the rise in CMBS spreads in September, 1998.[137] Thus, market disruptions could have adverse implications on U.S. commercial and residential mortgage markets.

4. Recent Performance and Effort of the GSEs Toward Achieving the Low- and Moderate-Income Housing Goal: Role of Multifamily Mortgages

The GSEs have rapidly expanded their presence in the multifamily mortgage market in the period since the housing goals were established in 1993. Fannie Mae has played a larger role in the multifamily market, with a portfolio of $47.4 billion in retained loans and outstanding guarantees, compared with $16.8 billion for Freddie Mac.[138] Freddie Mac has successfully rebuilt its multifamily program after a three-year hiatus during 1991–1993 precipitated by widespread defaults.

Multifamily loans represent a relatively small portion of the GSEs' business activities. For example, multifamily loans held in portfolio or guaranteed by the GSEs at the end of 1999 represented less than three percent of their combined single- and multi-family holdings and guarantees. In comparison, multifamily mortgages *not* held or guaranteed by the GSEs represent approximately ten percent of the overall non-GSE stock of mortgage debt.

However, the multifamily market contributes disproportionately to GSE purchases meeting both the Low- and Moderate-Income and Special Affordable Housing goals. In 1999, Fannie Mae's multifamily purchases represented 9.5 percent of their total acquisition volume, measured in terms of dwelling units. Yet these multifamily purchases comprised 20.4 percent of units qualifying for the Low- and Moderate-Income Housing Goal, and 31.3 percent of units meeting the Special Affordable goal. Multifamily purchases were 8.2 percent of units backing Freddie Mac's 1999 acquisitions, 16.8 percent of units meeting the Low- and Moderate-Income Housing Goal, and 21.6 percent of units qualifying for the Special Affordable Housing Goal.[139] The multifamily market therefore comprises a significant share of units meeting the Low- and Moderate-Income and Special Affordable Housing Goals for both GSEs, and the goals may have contributed to increased emphasis by both GSEs on multifamily in the period since the previous final rule took effect in 1996.[140]

The majority of units backing GSE multifamily transactions meet the Low- and Moderate-Income Housing Goal because the great majority of rental units are affordable to families at 100 percent of median income, the standard upon which the Low- and Moderate-Income Housing Goal is defined. For example, 38.5 percent of units securing Freddie Mac's 1999 single-family, one-unit owner-occupied mortgage purchases met the Low- and Moderate-Income Housing Goal, compared with 90.0 percent of its multifamily transactions. Corresponding figures for Fannie Mae were 37.9 percent and 94.8 percent. [141] For this reason, multifamily purchases represent a crucial component of the GSEs' efforts in meeting the Low- and Moderate-Income Housing Goal.

Because such a large proportion of multifamily units qualify for the Low- and Moderate-Income Housing Goal and for the Special Affordable Housing Goal, Freddie Mac's weaker multifamily performance adversely affects its overall performance on these two housing goals relative to Fannie Mae. Units in multifamily properties accounted for 7.2 percent of Freddie Mac's mortgage purchases during 1994–1999, compared with 11.8 percent for Fannie Mae. Fannie Mae's greater emphasis on multifamily is a major factor contributing to the strength of its housing goals performance relative to Freddie Mac.

5. A Role for the GSEs in Multifamily Housing

By sustaining a secondary market for multifamily mortgages, the GSEs can extend the benefits that come from increased mortgage liquidity to many more lower-income families while helping private owners to maintain the quality of the existing affordable housing stock. In addition, standardization of underwriting terms and loan documents by the GSEs has the potential to reduce transactions costs. As the GSEs gain experience in areas of the multifamily mortgage market affected by costly, difficult, or inconsistent access to secondary markets, they gain experience that enables them to better measure and price default risk, yielding greater efficiency and further cost savings.

Ultimately, greater liquidity, stability, and efficiency in the secondary market due to a significant presence by the GSEs will benefit lower-income renters by enhancing the availability of mortgage financing for affordable rental units—in a manner analogous to the benefits the GSEs provide homebuyers. Providing liquidity and stability is the main role for the GSEs in the multifamily market, just as in the single-family market.

Recent volatility in the CMBS market underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by virtue of the fact that an increasing proportion of multifamily mortgages are originated to secondary market standards, as noted previously. While the GSEs have also been affected by the widening of yield spreads affecting CMBS, historical experience suggests that agency spreads will converge to historical magnitudes as a consequence of the perceived benefits of federal sponsorship.[142] When this occurs, the capability of the GSEs to serve and compete

in the multifamily secondary market will be enhanced.[143]

6. Multifamily Mortgage Market: GSEs' Ability To Lead the Industry

Holding 12.8 percent of the outstanding stock of multifamily mortgage debt and guarantees as of the end of 1999, Fannie Mae is regarded as an influential force within the multifamily market. Its Delegated Underwriting and Servicing (DUS) program, in which Fannie Mae delegates underwriting responsibilities to originators in return for a commitment to share in any default risk, now accounts for more than half its multifamily acquisitions, and has been regarded as highly successful.

Freddie Mac's presence in the multifamily market is not as large as that of Fannie Mae. Freddie Mac's direct holdings of multifamily mortgages and guarantees outstanding as of the end of 1999, $16.8 billion, are much smaller than that Fannie Mae's $47.4 billion, not only in absolute terms, but also a percentage of all mortgage holdings and guarantees. Freddie Mac's multifamily holdings and guarantees are 2.1 percent of its total, compared with 4.3 percent for Fannie Mae.[144] However, Freddie Mac is credited with rapidly rebuilding its multifamily operations since 1993. The GSEs' ability to lead the multifamily industry is discussed further below.

7. GSEs' Performance in the Multifamily Mortgage Market

GSE activity in the multifamily mortgage market has expanded rapidly since 1993, as noted previously. However, it is not clear that the potential of the GSEs to lead the multifamily mortgage industry has been fully exploited. In particular, the GSEs' multifamily purchases do not appear to be consistently contributing to mitigation of excessive cost of mortgage financing facing small properties with 5–50 units. Based on data from the Survey of Residential Finance showing that 39.4 percent of units in recently mortgaged multifamily properties were in properties with 5–49 units, it appears reasonable to assume that loans backed by small properties account for 39.4 percent of multifamily units financed each year. As a share of units backing their multifamily transactions, however, GSE purchases of loans on small multifamily properties are typically less than 5 percent, and have never approached the estimated 39.4 percent market share, as shown in Table A.2.

TABLE A.2.—GSE MULTIFAMILY TRANSACTIONS BY SIZE OF PROPERTY, 1994–1999 ACQUISITION YEAR

	1994	1995	1996	1997	1998	1999
Fannie Mae:						
Small (5–50 units)	8,717	45,488	5,838	8,111	64,753	12,351
As % Fannie Mae Multifamily Total	3.9	19.3	2.1	3.2	16.5	4.2
Freddie Mac:						
Small (5–50 units)	1,165	5,461	4,100	3,963	10,244	4,068
As % Freddie Mac Multifamily Total	2.6	3.6	4.2	4.0	4.6	2.1

Source: GSE loan-level data.

In order to more usefully compare the GSEs with the market, it is desirable to supplement the data presented in Table A.2 by acquisition year with findings organized by year of origination. Based on HUD's analysis of loans originated in 1997 and acquired by the GSEs in 1997, 1998, and 1999, the GSEs have purchased loans backed by 24 percent of units financed in the overall conventional multifamily mortgage market in 1997, but their acquisitions of loans on small multifamily properties have been only 2.3 percent of such properties financed that year.[145]

GSE multifamily acquisitions tend to involve larger properties than are typical for the market as a whole.[146] For example, the average number of units in Fannie Mae's 1997 multifamily transactions was 163, with a corresponding figure of 158 for Freddie Mac. Both of these averages are significantly higher than the overall market average of 33.4 units per property on 1995 originations estimated from the HUD Property Owners and Managers (POMS) survey.[147] A factor possibly contributing to the GSEs' emphasis on larger properties is the relatively high fixed multifamily origination costs, including appraisal, environmental review, and legal fees typically required under GSE underwriting guidelines.[148]

A recent noteworthy development is Fannie Mae's announcement of a new product through its Delegated Underwriting and Servicing (DUS) program for multifamily properties with 5–50 units. Features include a streamlined underwriting process designed, in part, to reduce borrower costs for third-party reports; use of FICO scores to evaluate borrower creditworthiness; and recourse to the borrower in the event of default.[149]

Another area underserved by mortgage markets, in which the GSEs have not demonstrated market leadership is rehabilitation loans. Both GSEs' relatively weak performance in the multifamily rehabilitation market segment is related to the fact that, since the inception of the interim housing goals in 1993, the great majority of units backing GSE multifamily mortgage purchases have been in properties securing refinance loans with an established payment history, in a proportion exceeding 80 percent in some years.[150]

The GSEs have been conservative in their approach to multifamily credit risk.[151] HUD's analysis of prospectus data indicates that the average loan-to-value (LTV) ratio on pools of seasoned multifamily mortgages securitized by Freddie Mac during 1995 through 1996 was 55 percent. In comparison, the average LTV on private-label multifamily conduit transactions over 1995–1996 was 73 percent based on HUD's analysis of Commercial Mortgage Backed Security data. Fannie Mae utilizes a variety of credit enhancements to further mitigate default risk on multifamily acquisitions, including loss sharing, recourse agreements, and the use of senior/subordinated debt structures.[152] Freddie Mac is less reliant on credit enhancements than is Fannie Mae, possibly because of a more conservative underwriting approach.[153]

The GSEs' ambivalence historically regarding the perception of credit risk in lending on affordable multifamily properties is evident with regard to pilot programs established in 1991 between Freddie Mac and the Local Initiatives Managed Assets Corporation (LIMAC), a subsidiary of the Local Initiatives Support Corporation (LISC), and in 1994 between Fannie Mae and Enterprise Mortgage Investments (EMI), a subsidiary of the Enterprise Foundation. Cummings and DiPasquale (1998) conclude that both initiatives had mixed results, although the Fannie Mae/EMI pilot was more successful in a number of regards. The Freddie Mac/LIMAC initiative was suspended after two years with only one completed transaction, involving eight loans with an aggregate loan amount of $4.6 million. As of June, 1997, 15 transactions comprising $20.5 million had been completed under the Fannie Mae/EMI pilot, which is ongoing.

Both programs suffered initially from documentation requirements that borrowers perceived as burdensome. Cummings and DiPasquale observe that ''The smaller, nonprofit, and CDC developers that these programs intended to bring to the market were unprepared, and perhaps unwilling or unable, to meet the high costs of Freddie Mac's and Fannie Mae's due diligence requirements.''

E. Factor 3: Performance and Effort of the GSEs Toward Achieving the Low- and Moderate-Income Housing Goal in Previous Years

This section first discusses each GSE's performance under the Low- and Moderate-Income Housing Goal over the 1993–99 period. The data presented are ''official results''—*i.e.,* they are based on HUD's in-depth analysis of the loan-level data submitted to the Department and the counting provisions contained in HUD's regulations in 24 CFR part 81, subpart B. As explained below, in some cases these ''official results'' differ from goal performance reported to the Department by the GSEs in their Annual Housing Activities Reports.

Following this analysis, the GSEs' past performance in funding low- and moderate-income borrowers in the single-family mortgage market is provided. Performance indicators for the Geographically-Targeted and Special Affordable Housing Goals are also included in order to present a complete picture in Appendix A of the GSEs' funding of single-family mortgages that qualify for the three housing goals. In addition, the findings from a wide range of studies—employing both quantitative and qualitative techniques to analyze several performance indicators and conducted by HUD, academics, and major research organizations—are summarized below.

Organization and Main Findings. Section E.1 reports the performance of Fannie Mae and Freddie Mac on the Low- and Moderate-Income Housing Goal. Section E.2 uses HMDA data and the loan-level data that the GSEs provide to HUD on their mortgage purchases to compare the characteristics of GSE purchases of single-family loans with the characteristics of all loans in the primary mortgage market and of newly-originated loans held in portfolio by depositories. Section E.3 summarizes the findings from several studies that have examined the role of the GSEs in supporting affordable lending. Section E.4 discusses the findings from a recent HUD-sponsored study of the GSEs' underwriting guidelines.[154] Finally, Section E.5 reviews the GSEs' support of the single-family rental market.

The Section's main findings with respect to the GSEs' single-family mortgage purchases are as follows:

- Both Fannie Mae and Freddie Mac surpassed the Low- and Moderate-Income Housing Goals of 40 percent in 1996 and 42 percent in 1997–99.
- Both Fannie Mae and Freddie Mac have improved their affordable lending [155] performance over the past seven years but, on average, they have lagged the primary market in providing mortgage funds for lower-income borrowers and underserved neighborhoods. This finding is based both on HUD's analysis of GSE and HMDA data as well as on numerous studies by academics and research organizations.
- The GSEs show very different patterns of home loan lending.[156] Through 1998, Freddie Mac was less likely than Fannie Mae to fund single-family home mortgages for low-income families and their communities. However, this pattern did not continue in 1999. The percentages of Freddie Mac's purchases through 1998 benefiting historically underserved families and their neighborhoods were also substantially less than the corresponding shares of total market originations. Through 1998 Freddie Mac had not made much progress closing the gap between its performance and that of the overall home loan market. HMDA data to analyze the affordable lending shares of the primary market in 1999 were not available at the time this appendix was prepared. But since the GSEs are such major participants in the mortgage market, the fact that Freddie Mac surpassed Fannie Mae last year in many dimensions of affordable lending suggests that they may well have narrowed the gap between their performance and that of the primary market.
- Through 1998 Fannie Mae's purchases more nearly matched the patterns of originations in the primary market than did Freddie Mac's. However, during the 1993–98 period as a whole and the 1996–98 period during which the new goals were in effect, Fannie Mae lagged depositories and others in the conforming market in providing funding for the lower-income borrowers and neighborhoods covered by the three housing goals. HMDA data are not currently available to compare Fannie Mae's performance relative to the primary market for 1999.
- A large percentage of the lower-income loans purchased by the GSEs have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of lower-income families who have little cash for making large down payments.
- A study by The Urban Institute of lender experience with the GSEs' underwriting standards finds that the enterprises have stepped up their outreach efforts and have increased the flexibility in their underwriting standards, to better accommodate the special circumstances of lower-income borrowers. However, this study concludes that the GSEs' guidelines remain somewhat inflexible and that they are often hesitant to purchase affordable loans. Lenders also told the Urban Institute that Fannie Mae has been more aggressive than Freddie Mac in market outreach to underserved groups, in offering new affordable products, and in adjusting their underwriting standards.
- While single-family rental properties are an important source of low-income rental housing, they represent only a small portion of the GSEs' business. In addition, many of the single-family rental properties funded by the GSEs are one-unit detached units in suburban areas rather than the older, 2–4 units commonly located in urban areas.

1. Past Performance on the Low- and Moderate-Income Housing Goal

HUD's goals specified that in 1996 at least 40 percent of the number of units eligible to count toward the Low- and Moderate-Income Goal should qualify as low-or moderate-income, and at least 42 percent should qualify in 1997–99. Actual performance, based on HUD's analysis, was as follows:

	1996	1997	1998	1999
Fannie Mae:				
Units Eligible to Count Toward Goal	1,831,690	1,710,530	3,468,428	2,925,347
Low- and Moderate-Income Units	834,393	782,265	1,530,308	1,530,308
Percent Low- and Moderate-Income	45.6	45.7	44.1	45.9
Freddie Mac:				
Units Eligible to Count Toward Goal	1,293,424	1,173,915	2,654,850	2,224,849
Low- and Moderate-Income Units	532,219	499,590	1,137,660	1,024,660
Percent Low- and Moderate-Income	41.1	42.6	42.9	46.1

Thus, Fannie Mae surpassed the goals by 5.6 percentage points and 3.7 percentage points in 1996 in 1997, respectively, while Freddie Mac surpassed the goals by 1.1 and 0.6 percentage points. In 1998 Fannie Mae's performance fell by 1.6 percentage points, while Freddie Mac's reported performance continued to rise, by 0.3 percentage point. Freddie Mac showed a sharp gain in performance to 46.1 percent in 1999, exceeding its previous high by 3.2 percentage points. Fannie Mae's performance was also at a record level of 45.9 percent, which, for the first time, slightly lagged Freddie Mac's performance.

The figures for goal performance presented above differ from the corresponding figures presented by Fannie Mae and Freddie Mac in their Annual Housing Activity Reports to HUD by 0.2–0.3 percentage points in both 1996 and 1997, reflecting minor differences in application of counting rules. These differences also persisted for Freddie Mac for 1998–99, but the goal percentages shown above for Fannie Mae for these two years are the same as the results reported by Fannie Mae to the Department.

Fannie Mae's performance on the Low- and Moderate-Income Goal jumped sharply in just one year, from 34.1 percent in 1993 to 45.1 percent in 1994, before tailing off to 42.8 percent in 1995. As indicated, it then stabilized at the 1994 level, just over 45 percent, in 1996 and 1997, before tailing off to 44.1 percent in 1998, but rose to 45.9 percent last year. Freddie Mac has shown more steady gains in performance on the Low- and Moderate-Income Goal, from 30.0 percent in 1993 to 38.0 percent in 1994 and 39.6 percent in 1995, before surpassing 41 percent in 1996 and 42 percent 1997, and rising to nearly 43 percent in 1998 and to 46 percent last year.

Fannie Mae's performance on the Low- and Moderate-Income Goal surpassed Freddie Mac's in every year through 1998. This pattern was reversed last year, as Freddie Mac surpassed Fannie Mae in goal performance for the first time, though by only 0.2 percentage point. This improved relative performance of Freddie Mac is due to its increased purchases of multifamily loans, as it re-entered that market, and to increases in

the goal-qualifying shares of its single-family mortgage purchases.

2. Comparisons With the Primary Mortgage Market

This section summarizes several analyses conducted by HUD on the extent to which the GSEs' loan purchases through 1998 mirror or depart from the patterns found in the primary mortgage market. The GSEs' affordable lending performance is also compared with the performance of major portfolio lenders such as commercial banks and thrift institutions. Dimensions of lending considered include the borrower income and underserved area dimensions covered by the three housing goals. In addition, this section also analyzes Fannie Mae and Freddie Mac purchases during 1999; however, market data from HMDA were not available for 1999 at the time this analysis was prepared. Subsection *a* defines the primary mortgage market, subsection *b* addresses some questions that have recently arisen about HMDA's measurement of GSE activity, and subsections *c–e* present the findings.[157]

The market analysis in this section is based mainly on HMDA data for home purchase loans originated in metropolitan areas during the years 1992 to 1998. The discussion below will often focus on the year 1997, as that year represents more typical mortgage market activity than the heavy refinancing year of 1998. Still, important shifts in mortgage funding that occurred during 1998 will be highlighted in order to offer a complete analysis.

a. Definition of Primary Market

First it is necessary to define what is meant by ''primary market'' in making these comparisons. In this section this term includes all mortgages on single-family owner-occupied properties that are originated in the conventional conforming market.[158] The source of this market information is the data provided by loan originators to the Federal Financial Institutions Examination Council (FFIEC) in accordance with the Home Mortgage Disclosure Act (HMDA).

There is a consensus that the following loans should be excluded from the HMDA data in defining the ''primary market'' for the sake of comparison with the GSEs' purchases of goal-qualifying mortgages:

- Loans with a principal balance in excess of the loan limit for purchases by the GSEs—$240,000 for a 1-unit property in most parts of the United States in 1999.[159] Loans not in excess of this limit are referred to as ''conforming mortgages'' and larger loans are referred to as ''jumbo mortgages.''[160]
- Loans which are backed by the Federal government, including those insured by the Federal Housing Administration and those guaranteed by the Department of Veterans Affairs, which are generally securitized by the Government National Mortgage Association (''Ginnie Mae''), as well as Rural Housing Loans, guaranteed by the Farmers Home Administration.[161] Generally, the GSEs do not receive credit on the housing goals for purchasing loans with Federal government backing. Loans without Federal government backing are referred to as ''conventional mortgages.''

Questions have arisen about whether loans on manufactured housing should be excluded when comparing the primary market with the GSEs. As discussed elsewhere in this Appendix, the GSEs have not played a significant role in the manufactured housing mortgage market in the past. However, the manufactured home mortgage market is changing in ways that make a higher percentage of such loans eligible for purchase by the GSEs, and the GSEs are looking for ways to increase their purchases of these loans. But more importantly, the manufactured housing sector is one of the most important providers of affordable housing, which makes it appropriate to include this sector in the market definition. As discussed earlier in Section A.3c, HUD believes that excluding important low-income sectors such as manufactured housing from the market definition would render the resulting market benchmark useless for evaluating the GSEs' performance. For comparison purposes, data are presented for the primary market defined both to include and exclude mortgages originated by manufactured housing lenders. This issue of the market definition is discussed further in Appendix D, which calculates the market shares for each housing goal.

Questions have also arisen about whether subprime loans should be excluded when comparing the primary market with the GSEs. Appendix D, which examines this issue in some detail, reports the effects of excluding the B&C portion of the subprime market from HUD's estimates of the goal-qualifying shares of the overall (combined owner and rental) mortgage market. As explained Section C.3.e of this appendix, the low-income and minority borrowers in the A-minus portion of the subprime market could benefit from the standardization and lower interest rates that typically accompany an active secondary market effort by the GSEs. A-minus loans are not nearly as risky as B&C loans and Freddie Mac has been purchasing A-minus loans, both on a flow basis and through negotiated transactions. Fannie Mae recently introduced a new program targeted at A-minus borrowers. Thus, HUD does not believe that A-minus loans should be excluded from the market definition.

Unfortunately, HMDA does not identify subprime loans, much less separating them into their A-minus and B&C components. There is some evidence that many subprime loans are not reported to HMDA but there is nothing conclusive on this issue.[162] Thus, it is not possible to exclude B&C loans from the comparisons reported below. However, HUD staff has identified HMDA reporters that primarily originate subprime loans.[163] The text below will report the effects of excluding data for these lenders from the primary market. The effects are minor mostly because the analysis below focuses on home purchase loans, which accounted for only twenty percent of the mortgages originated by the subprime lenders. During 1997 and 1998, the subprime market was primarily a refinance market.

b. Methods and Data for Measuring GSE Performance

Several issues have arisen about the methods and the data used to measure the GSEs' performance relative to the characteristics of the mortgages being originated in the primary market. While most of these issues will be discussed throughout the appendices, one issue, the reliability of HMDA data in measuring GSE performance, needs to be addressed before presenting the market comparisons, which utilize the HMDA data. Fannie Mae, in particular, has raised questions about HUD's reliance on HMDA data for measuring its performance.

There are two sources of loan-level information on the characteristics of mortgages purchased by the GSEs—the GSEs themselves and HMDA data. The GSEs provide detailed data on their mortgage purchases to HUD on an annual basis. As part of their annual HMDA reporting responsibilities, lenders are required to indicate whether their new mortgage originations or purchased loans are sold to Fannie Mae, Freddie Mac or some other entity. As discussed later, there have been numerous studies by HUD staff and other researchers that use the HMDA data to compare the borrower and neighborhood characteristics of loans sold to the GSEs with the characteristics of all loans originated in the market. One question is whether the HMDA data, which is widely available to the public, provides an accurate measure of GSE performance, as compared with the GSEs' own data.[164] Fannie Mae has argued that HMDA data have understated its past performance, where performance is defined as the percentage of Fannie Mae's mortgage purchases accounted for by one of the goal-qualifying categories such as underserved areas. As explained below, HMDA provided reliable national-level information through 1997 on the goals-qualifying percentages for the GSEs' purchases of newly-originated loans but not for their purchases of prior-year loans. In 1998, HMDA data differed from data that the GSEs reported to HUD on their purchases of newly-originated loans.

In any given calendar year, the GSEs can purchase mortgages originated in that calendar year or mortgages originated in a prior calendar year. In 1997, purchases of prior-year mortgages accounted for 30 percent of the single-family units financed by Fannie Mae's mortgage purchases and 20 percent of the single-family units financed by Freddie Mac's mortgage purchases.[165] HMDA data provides information mainly on newly-originated mortgages that are sold to the GSEs—that is, HMDA data on loans sold to the GSEs will not include many of their purchases of prior-year loans.[166] The implications of this for measuring GSE performance can be seen in Tables A.3 and A.4a.[167]

Table A.3 summarizes affordable lending by the GSEs, depositories and the conforming market for the six-year period between 1993 and 1998 and for the borrower and census tract characteristics covered by the housing goals. The GSE percentages presented in Table A.3 are derived from the GSEs' own data that they provide to HUD, while the depository and market percentages are taken

from HMDA data. Annual data on the borrower and census tract characteristics of GSE purchases are provided in Table A.4a. According to Fannie Mae's own data, 9.9 percent of its purchases during 1997 were loans for very low-income borrowers (see Table A.4a). According to HMDA data (also reported in Table A.4a), only 8.8 percent of Fannie Mae's purchases were loans for very low-income borrowers.[168] Thus, in this case the HMDA data underestimate the share of Fannie Mae's mortgage purchases for very low-income borrowers. Similarly, Fannie Mae reports a very low-income percentage of 11.4 percent for its 1998 purchases while HMDA reports only 9.2 percent.

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Table A.3

GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1993-1998

Borrower and Tract Characteristics	Fannie Mae	Freddie Mac	Depository Portfolio	Conforming Market Total	Conforming Market W/O Mfg Homes
Very Low-Income					
1993-1998	9.2 %	7.6 %	14.5 %	12.4 %	10.7 %
1993-1995	8.1	6.6	14.5	11.6	10.3
1996-1998	10.1	8.4	14.5	13.0 (13.0)	11.1
Special Affordable					
1993-1998	11.0	9.0	17.0	14.6	12.7
1993-1995	9.9	7.9	17.1	13.8	12.3
1996-1998	11.9	9.8	16.7	15.3 (15.2)	13.1
Less than Area Median Income					
1993-1998	37.4	33.8	43.6	41.8	39.4
1993-1995	36.3	32.4	44.1	40.8	39.0
1996-1998	38.4	34.9	43.1	42.6 (42.4)	39.6
Underserved Area					
1993-1998	22.9	19.7	26.3	24.5	23.4
1993-1995	22.9	19.4	26.8	24.0	23.2
1996-1998	22.9	19.9	25.8	24.9 (24.4)	23.5

Source: The Fannie Mae and Freddie Mac data include information on all their purchases of home loans and are from the loan-level data that they provide to HUD. All mortgages are conventional conforming mortgages. The Depository Portfolio and Conforming Market data are from HMDA; loans with a loan-to-income ratio greater than six are excluded from the borrower income calculations. The numbers in parenthesis for the 1996-98 "Total Conforming Market" are the average market percentages after deducting loans adjusted by subprime lenders (see text for explanation). The "Conforming Market W/O Mfg Homes" data for borrower income exclude loans less than $15,000 and loans from lenders that primarily originate manufactured housing loans. Special affordable includes very low-income borrowers and low-income borrowers in low-income census tracts. Data with missing values are excluded.

Table A.4a

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-1999

	Fannie Mae Data			HMDA Data	Freddie Mac Data			HMDA Data	Conforming Market	
Very Low-Income	Prior Yr	Current Yr	All	for Fannie Mae	Prior Yr	Current Yr	All	for Freddie Mac	All	W/O Mfg Homes
1992				5.2 %				5.3 %	8.7 %	7.6 %
1993	6.5 %	6.7 %	6.7 %	7.4	4.2 %	6.2 %	6.0 %	6.6	10.8	9.6
1994	7.9	8.9	8.7	9.4	6.4	6.8	6.7	7.8	11.9	10.7
1995	11.2	8.9	9.3	8.5	7.7	6.8	7.0	7.5	12.0	10.5
1996	8.8	8.4	8.5	8.7	7.2	7.4	7.4	8.0	12.7	10.8
1997	13.4	8.7	9.9	8.8	7.5	7.6	7.6	8.0	13.0	11.0
1998	15.1	10.5	11.4	9.2	10.1	9.8	9.9	8.4	13.3	11.4
1999	10.4	10.9	10.8		11.3	10.9	11.0			
Special Affordable										
1992				6.3				6.5	10.4	9.3
1993	8.2	8.1	8.1	8.8	5.1	7.4	7.2	7.8	12.6	11.3
1994	9.5	10.8	10.6	11.4	7.6	8.1	8.0	9.2	14.1	12.8
1995	13.2	10.8	11.2	10.5	9.1	8.2	8.3	8.9	14.4	12.7
1996	10.6	10.2	10.3	10.5	8.4	8.7	8.7	9.4	15.0	12.8
1997	16.0	10.2	11.7	10.5	9.2	9.0	9.0	9.4	15.3	13.0
1998	17.9	12.1	13.2	10.7	11.8	11.2	11.3	9.7	15.5	13.4
1999	12.1	12.4	12.3		12.9	12.5	12.5			
Less Than Area Median Income										
1992				29.2				28.7	34.4	33.0
1993	30.4	33.5	33.2	35.0	24.9	32.1	31.6	32.3	38.9	37.4
1994	35.6	38.9	38.3	40.1	31.5	33.6	33.2	35.6	41.8	40.3
1995	38.6	37.7	37.8	37.1	33.6	32.1	32.4	33.9	41.4	39.2
1996	35.5	36.8	36.5	37.7	31.8	33.5	33.2	35.3	42.2	39.4
1997	41.1	36.4	37.6	37.5	33.7	34.2	34.1	35.4	42.5	39.6
1998	45.3	39.2	40.4	38.1	36.1	37.0	36.9	36.2	43.0	40.4
1999	37.5	39.9	39.3		38.7	40.3	40.0			
Underserved Areas										
1992				18.3				18.6	22.2	21.5
1993	23.8	19.4	20.3	18.2	19.5	18.2	18.4	17.6	21.9	21.1
1994	26.6	23.6	24.3	22.5	21.0	19.4	19.7	19.2	24.4	23.5
1995	27.4	23.9	24.7	22.8	22.6	19.4	20.1	19.1	25.5	24.2
1996	23.4	21.9	22.3	21.6	22.3	19.1	19.7	19.0	25.0	23.1
1997	30.1	20.8	23.5	21.0	22.2	19.3	19.9	18.6	25.2	23.3
1998	28.4	21.0	22.9	19.6	22.0	19.5	20.0	17.4	24.6	22.8
1999	22.0	20.2	20.6		23.4	20.6	21.2			

Source: The Fannie Mae and Freddie Mac data for their purchases of "Prior Year" mortgages, "Current Year" mortgages, and "All" mortgages are from the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The "HMDA Data" are those mortgages that HMDA identifies as being sold to the GSEs.The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from the borrower income calculations. The "Conforming Market W/O Mfg Homes" data exclude loans less than $15,000 and loans from lenders that primarily originate manufactured housing loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

Table A.4b

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas
Goal-Qualifying Home Purchase Mortgages, 1992-1999
Various Market Definitions

			Conventional Conforming Market Originations					
Very Low-Income	Fannie Mae Purchases	Freddie Mac Purchases	Total Market	W/O Mfg Loans Only	W/O Loans Less Than $15K	W/O Mfg and Less Than $15K Loans	W/O Subprime Loans	W/O Subprime and Less Than $15K Loans
1992	5.2 %	5.3 %	8.7 %	8.3 %	7.9 %	7.6 %	8.7% %	7.9 %
1993	6.7	6.0	10.8	10.2	10.0	9.6	10.8%	10.0
1994	8.7	6.7	11.9	11.2	11.2	10.7	11.9%	11.2
1995	9.3	7.0	12.0	11.0	11.3	10.5	12.0%	11.2
1996	8.5	7.4	12.7	11.2	12.0	10.8	12.7%	12.0
1997	9.9	7.6	13.0	11.4	12.4	11.0	13.0%	12.3
1998	11.4	9.9	13.3	11.7	12.8	11.4	13.1%	12.6
1999	10.8	11.0						
Special Affordable								
1992	6.3	6.5	10.4	10.0	9.5	9.3	10.4	9.5
1993	8.1	7.2	12.6	12.0	11.8	11.3	12.6	11.8
1994	10.6	8.0	14.1	13.4	13.4	12.8	14.1	13.3
1995	11.2	8.3	14.4	13.3	13.6	12.7	14.4	13.6
1996	10.3	8.7	15.0	13.3	14.2	12.8	15.0	14.2
1997	11.7	9.0	15.3	13.5	14.6	13.0	15.2	14.5
1998	13.2	11.3	15.5	13.7	15.0	13.4	15.2	14.7
1999	12.3	12.5						
Less Than Area Median Income								
1992	29.2	28.7	34.4	33.8	33.4	33.0	34.4	33.4
1993	33.2	31.6	38.9	38.0	38.1	37.4	38.9	38.0
1994	38.3	33.2	41.8	40.8	41.1	40.3	41.8	41.1
1995	37.8	32.4	41.4	39.8	40.5	39.2	41.3	40.3
1996	36.5	33.2	42.2	39.9	41.1	39.4	42.2	41.4
1997	37.6	34.1	42.5	40.1	41.8	39.6	42.4	41.6
1998	40.4	36.9	43.0	40.7	42.5	40.4	42.6	42.1
1999	39.3	40.0						
Underserved Areas								
1992	18.3	18.6	22.2	21.9	21.7	21.5	22.1	21.6
1993	20.3	18.4	21.9	21.5	21.5	21.1	21.8	21.3
1994	24.3	19.7	24.4	23.9	24.0	23.5	24.3	23.8
1995	24.7	20.1	25.5	24.6	25.0	24.2	25.3	24.9
1996	22.3	19.7	25.0	23.5	24.5	23.1	24.8	24.4
1997	23.5	19.9	25.2	23.7	24.8	23.3	24.7	24.3
1998	22.9	20.0	24.6	23.1	24.3	22.8	23.7	23.4
1999	20.6	21.2						

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase mortgages. The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from all borrower income calculations. See the text for an explanation of the adjustments for manufactured housing (mfg) and subprime loans. Given that there is little differential between the "Total Market" and "W/O Subprime Loans" columns, an intermediate column adjusting for B&C loans is not included in the table (see text). Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

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Table A.4c

Annual Trends in GSE Purchases and Single-Family Lending in Metropolitan Areas Goal-Qualifying Home Purchase and Refinance Mortgages, 1996-1999 Various Market Definitions

				Conventional Conforming Market Originations			
	Fannie Mae Purchases	Freddie Mac Purchases	Ratio of Fannie Mae to Freddie Mac	Total Market	W/O Mfg and Less Than $15K Loans	W/O Subprime Loans	W/O B&C Loans (Estimated)
Special Affordable							
1996	10.4	9.3	1.12	15.3	13.7	14.4	14.9
1997	11.5	9.9	1.16	16.4	14.9	14.8	15.6
1998	11.1	10.9	1.02	14.2	13.3	12.7	13.5
1999	12.3	13.3	0.93	NA	NA	NA	NA
Less Than Area Median Income							
1996	36.6	34.5	1.06	42.4	40.5	41.4	41.9
1997	33.2	35.7	1.06	43.7	41.8	41.9	42.8
1998	37.1	36.4	1.02	40.9	39.7	39.0	40.0
1999	38.8	40.7	0.95	NA	NA	NA	NA
Underserved Areas							
1996	23.0	20.9	1.10	26.7	25.3	25.3	26.0
1997	23.6	21.5	1.10	27.8	26.6	25.5	26.7
1998	21.2	20.9	1.01	24.8	23.9	22.6	23.7
1999	21.8	23.5	0.93	NA	NA	NA	NA

Source: The Fannie Mae and Freddie Mac percentages are based on the loan-level data that they provide to HUD. All mortgages are conventional conforming home purchase and refinance mortgages. The Conforming Market data are from HMDA; loans with a loan-to-income-ratio greater than six are excluded from all borrower income calculations. See the text for an explanation of the adjustments for manufactured housing (Mfg), subprime, and B&C loans. Special affordable includes very low-income borrowers and low-income borrowers living in low-income census tracts. Data with missing values are excluded.

The reason that HMDA data underestimate those purchases can be seen by disaggregating Fannie Mae's purchases during 1997 into their ''Prior Year'' and ''Current Year'' components. Table A.4a shows that the overall figure of 9.9 percent for very low-income borrowers is a weighted average of 13.4 percent for Fannie Mae's purchases during 1997 of ''Prior Year'' mortgages and 8.7 percent for its purchases of ''Current Year'' purchases. HMDA data report that 8.8 percent of Fannie Mae's 1997 purchases consisted of loans to very low-income borrowers is based mainly on newly-mortgaged (current-year originations) loans that lenders report they sold to Fannie Mae. Therefore, the HMDA data figure is similar in concept to the ''Current Year'' percentage from the GSEs'' own data. As Table A.4a shows, HMDA data and ''Current Year'' figures are practically the same in this case (about nine percent). Thus, the relatively large share of very low-income mortgages in Fannie Mae's 1997 purchases of ''Prior Year'' mortgages is the primary reason why Fannie Mae's own data show an overall (both prior-year and current-year) percentage of very low-income loans that is higher than that reported in HMDA data.

A review of the data in Table A.4a yields the following insights about the reliability of HMDA data at the national level for metropolitan areas. First, comparing the HMDA data on GSE purchases with the GSE ''Current Year'' data suggests that HMDA data provided reasonable estimates of the GSEs' current year purchases through 1997.[169] Second, the HMDA data percentages through 1997 are actually rather close to Freddie Mac's *overall* percentages because Freddie Mac's prior-year purchases often resembled their current-year originations. Fannie Mae, on the other hand, was more apt to purchase seasoned loans with a relatively high percentage of low-income loans, which means that HMDA data was more likely to underestimate its overall performance. However, this underestimation of the share of Fannie Mae's goal-qualifying loans in the HMDA data first arose in 1997, when Fannie Mae's purchases of prior-year loans were particularly targeted to affordable lending groups. For the years 1993 to 1996, Fannie Mae's prior-year loan purchases more closely resembled their current-year originations.[170]

Third, the 1998 data show that even the GSEs' ''Current Year'' data differ from the HMDA-reported data on GSE purchases. For example, special affordable loans accounted for 12.1 percent of Fannie Mae's current-year purchases in 1998 compared with only 10.7 percent of Fannie Mae's special affordable purchases as reported by HMDA. Similarly, underserved areas accounted for 21.0 percent of Fannie Mae's current-year purchases compared with only 19.6 percent of Fannie Mae's underserved area purchases as reported by HMDA. The same patterns exist for Freddie Mac's 1998 data for the special affordable and underserved area categories. Thus, 1998 HMDA data do not provide a reliable estimate at the national level of the goals-qualifying percentages for the GSEs' purchases of current-year (newly-mortgaged) loans. More research on this issue is needed.[171]

The next section compares the GSE performance with that of the overall market. The fact that the GSE data includes prior-year as well as current-year loans, while the market data includes only current-year originations, means that the GSE-versus-market comparisons are defined somewhat inconsistently for any particular calendar year. Each year, the GSEs have newly-originated affordable loans available for purchase, but they can also purchase loans from a large stock of seasoned loans currently being held in the portfolios of depository lenders. Depository lenders have originated a large number of CRA-type loans over the past six years and many of them remain on their books. In fact, HUD has encouraged the GSEs to purchase seasoned, CRA-type loans that have demonstrated their creditworthiness. One method for making the data more consistent is to aggregate the data over several years, instead of focusing on annual data. This provides a clearer picture of the types of loans that have been originated and are available for purchase by the GSEs. This approach is taken in Table A.3.

c. Affordable Lending by the GSEs and the Primary Market

Table A.3 summarizes goal-qualifying lending by the GSEs, depositories and the conforming market for the six-year period between 1993 and 1998 and for the more recent 1996–98 period, which covers the period since the most recent housing goals have been in effect. As noted above, the data are aggregated over time to provide a clearer picture of how the GSEs' purchases of both current-year and prior-year loans compare with the types of mortgages that have been originated during the past few years. All of the data are for home purchase mortgages in metropolitan areas. Several points stand out concerning the affordable lending performance of Freddie Mac and Fannie Mae through 1998.

Freddie Mac—1993–98 Performance Relative to Market. The data in Table A.3 show that Freddie Mac substantially lagged both Fannie Mae and the primary market in funding affordable home loans between 1993 and 1998. During that period, 7.6 percent of Freddie Mac's mortgage purchases were for very low-income borrowers, compared with 9.2 percent of Fannie Mae's purchases, 14.5 percent of loans originated and retained by depositories, and 12.4 percent of loans originated in the conforming market (or 10.7 percent if manufactured home loans are excluded from the conforming market definition).[172] As shown by the annual data reported in Table A.4a, Freddie Mac did improve its funding of very low-income borrowers during this period, from 6.0 percent in 1993 to 7.6 percent in 1997, and then to 9.9 percent in 1998. However, Freddie Mac did not make as much progress as Fannie Mae (discussed below) in closing the gap between its performance and that of the overall market. During the 1996–98 period in which the new goals have been in effect, the ratio of Freddie Mac's average performance (8.4 percent) to that of the overall market (13.0 percent) was only 0.65; this ''Freddie-Mac-to-market'' ratio remained at only 0.76 even when manufactured homes are excluded from the market definition.

A similar conclusion about Freddie Mac's performance can be drawn for the other goal-qualifying categories presented in Tables A.3 and A.4a: Freddie Mac's performance was well below the market between 1993 and 1998. For example, during the recent 1996–98 period, mortgages financing properties in underserved areas accounted for only 19.9 percent of Freddie Mac's purchases, compared with 22.9 percent of the loans purchased by Fannie Mae and 24.9 percent of the mortgages originated in the conforming market. Similarly, mortgages originated for low- and moderate-income borrowers represented 34.9 percent of Freddie Mac's purchases during that period, compared with 42.6 percent of all mortgages originated in the conforming market.

One encouraging sign for Freddie Mac is that the borrower-income categories showed a rather large increase between 1997 and 1998, followed by another significant increase between 1998 and 1999. Special affordable (low-mod) loans increased from 9.0 (34.1) percent in 1997 to 11.3 (36.9) percent in 1998 to 12.3 (40.0) percent in 1999. The reasons for this increase require further study, but certainly, an interesting question going forward is whether Freddie Mac can continue this 1997–99 pattern and thus further close its performance gap relative to the overall market. It is somewhat surprising that Freddie Mac's purchases of home loans in underserved areas did not increase (in percentage terms) between 1997 and 1998; as shown in Table A.4a, the underserved areas share of Freddie Mac's home loan purchases remained constant at approximately 20 percent between 1994 and 1998 before rising to 21.2 percent in 1999.

Fannie Mae—1993–98 Performance Relative to the Market. The data in Table A.3 show that Fannie Mae has also lagged depositories and the primary market in the funding of homes for lower-income borrowers and underserved neighborhoods. Between 1993 and 1998, 37.4 percent of Fannie Mae's purchases were for low- and moderate-income borrowers, compared with 43.6 percent of loans originated and retained by depositories and with 41.8 percent of loans originated in the primary market. Over the more recent 1996–98 period, 22.9 percent of Fannie Mae's purchases financed properties in underserved neighborhoods, compared with 25.8 percent of loans originated by depositories and 24.9 percent of loans originated in the conventional conforming market.

However, Fannie Mae's affordable lending performance between 1993 and 1998 can be distinguished from Freddie Mac's. First, Fannie Mae performed much better than Freddie Mac on every goal-category examined here. For example, home loans for special affordable loans accounted for 13.2 percent of Fannie Mae's purchases in 1998, compared with only 11.3 percent of Freddie Mac's purchases (see Table A.4a). In that same year, 22.9 percent of Fannie Mae's purchases were in underserved census tracts, compared with only 20.0 percent of Freddie Mac's purchases.

Second, Fannie Mae improved its performance between 1993 and 1998 and made more progress than Freddie Mac in

closing the gap between its performance and the market's performance on the goal-qualifying categories examined here. In fact, by 1998, Fannie Mae's performance was close to that of the primary market for some important components of affordable lending. For example, in 1992, very low-income loans accounted for 5.2 percent of Fannie Mae's purchases and 8.7 percent of all loans originated in the conforming market, giving a ''Fannie Mae-to-market'' ratio of 0.60. By 1998, this ratio had risen to 0.86, as very low-income loans had increased to 11.4 percent of Fannie Mae's purchases and to 13.3 percent of market originations.

A similar trend in market ratios can be observed for Fannie Mae on the underserved areas category. Fannie Mae improved its performance relative to the market; for example, the ''Fannie-Mae-to-market'' ratio for underserved areas increased from 0.82 in 1992 to 0.93 in 1998. This improved performance relative to the overall market by Fannie Mae is in sharp contrast to Freddie Mac's record during the same 1992 to 1998 period—the ''Freddie-Mac-to-market'' ratio for underserved areas actually declined, from 0.84 in 1992 to 0.81 in 1998. As a result, Fannie Mae approached the home loan market in underserved areas while Freddie Mac lost ground relative to overall primary market.

B&C Home Purchase Loan. As explained earlier, HMDA does not identify subprime loans, much less separate them into their A-minus and B&C components. Randall Scheessele at HUD has identified 200 HMDA reporters that primarily originate subprime loans and probably accounted for at least half of the subprime market during 1998.[173] As shown in Table A.4b, excluding the home purchase loans originated by these lenders from the primary market data has only minor effects on the goal-qualifying shares of the market. The average market percentages for 1998 are reduced as follows: low- and moderate-income (43.0 to 42.6 percent); special affordable (15.5 to 15.2 percent); and underserved areas (24.6 to 23.7 percent). As explained earlier, the effects are minor mostly because this analysis focuses on home purchase loans, which accounted for only 20 percent of the mortgages originated by these 200 subprime lenders—the subprime market has been mainly a refinance market.

GSEs' Purchases of Home Loans in 1999. Although market data are not yet available for 1999, the GSEs have reported their purchase data to HUD for that year. As shown in Table A.4a, the 1993–98 pattern discussed above of Freddie Mac lagging behind Fannie Mae in funding affordable loans changed in 1999, as Freddie Mac matched or slightly out-performed Fannie Mae on all three goals-qualifying categories. For example, special affordable loans accounted for similar percentages of Freddie Mac's (12.5 percent) and Fannie Mae's (12.3 percent) purchases of home loans during 1999. Low-mod (underserved areas) loans accounted for 40.0 (21.2) percent of Freddie Mac's 1999 purchases, compared with 39.3 (20.6) percent of Fannie Mae's 1999 purchases. Between 1998 and 1999, Fannie Mae's shares of goals-qualifying home loans declined in every case while Freddie Mac's goals-qualifying shares increased. For example, the low-mod share of Freddie Mac's purchases of home loans increased by 3.1 percentage points from 36.9 percent to 40.0 percent between 1998 and 1999; this compares to a decrease of 1.1 percentage point for Fannie Mae, from 40.4 percent to 39.3 percent. Data from 1999 HMDA will enable HUD to examine the extent to which Freddie Mac has closed its performance gap relative to the overall conventional conforming market.

d. Prior-Year Loans

An important source of the past differential in affordable lending between Fannie Mae and Freddie Mac concerns the purchase of prior-year loans. As shown in Table A.4a, the prior-year mortgages that Fannie Mae was purchasing through 1998 were much more likely to be loans for lower-income families and underserved areas than the newly-originated mortgages that they were purchasing. For example, 30.1 percent of Fannie Mae's 1997 purchases of prior-year mortgages were loans financing properties in underserved areas, compared with 20.8 percent of its purchases of newly-originated mortgages. These purchases of prior-year mortgages were one reason Fannie Mae improved its performance relative to the primary market, which includes only newly-originated mortgages, in 1997. Sixteen percent of its prior-year mortgages qualified for the Special Affordable Goal, compared with only 10.2 percent of its purchases of newly-originated loans. The same patterns are exhibited by the 1998 data. For example, 17.9 percent of Fannie Mae's prior-year purchases during 1998 qualified for the Special Affordable Goal, compared with only 12.1 percent of its 1998 purchases of newly-originated loans. Through 1998, Fannie Mae seem to be purchasing affordable loans that were originated by portfolio lenders in previous years.

Freddie Mac, on the other hand, does not seem to be pursuing such a strategy, or at least not to the same degree as Fannie Mae. In 1997, 1998, and 1999, Freddie Mac's purchases of prior-year mortgages and its purchases of newly-originated mortgages had similar percentages of special affordable and low-and moderate-income borrowers. As Table A.4a shows, there is a small differential between Freddie Mac's prior-year and newly-originated mortgages for the underserved areas category but it is much smaller than the differential for Fannie Mae. Thus, during 1997 and 1998, Freddie Mac's purchases of prior-year mortgages were less likely to qualify for the housing goals, and this was one reason Freddie Mac's overall affordable lending performance was below Fannie Mae's during those years. In 1999, on the other hand, there was surprisingly little difference between the goals-qualifying percentages for Fannie Mae's prior-year and its current-year purchases.

e. GSE Purchases of Total (Home Purchase and Refinance) Loans

The above sections have examined the GSEs' acquisitions of home purchase loans, which is appropriate given the importance of the GSEs for expanding homeownership opportunities. To provide a complete picture of the GSEs' mortgage purchases in metropolitan areas, this section briefly considers the GSEs' purchases of all single-family-owner mortgages, including both home purchase loans and refinance loans.[174] As shown in Table A.4c, shifting the analysis to consider all (home purchase and refinance) mortgages does not change the basic finding that both GSEs lag the primary market in serving low-income borrowers and underserved neighborhoods. For example, in 1998 underserved areas accounted for 21.2 (20.9) percent of Fannie Mae's (Freddie Mac's) purchases, compared to approximately 25 percent for both depository institutions and the overall primary market. Similarly, special affordable loans accounted for 11.1 (10.9) percent of Fannie Mae's (Freddie Mac's) purchases of single-family-owner loans, compared to 14.9 percent for depository institutions and 14.2 percent for the overall primary market.

There are two changes when one shifts the analysis from only home purchase loans to include all mortgages—one concerning the relative performance of Fannie Mae and Freddie Mac and one concerning the impact of subprime mortgages on the goals-qualifying percentages. These are discussed next.

Fannie Mae versus Freddie Mac Performance—1997 to 1998. As indicated by the above percentages for 1998, the borrower-income and underserved area comparisons between Fannie Mae and Freddie Mac change when the analysis switches from their acquisitions of only home purchase loans to their acquisitions of total (both home purchase and refinance) loans—in the case of total loans, Freddie Mac's performance resembles Fannie Mae's performance in 1998 and surpasses Fannie Mae's performance in 1999 (see Table A.4c). These important shifts in the relative performance of Fannie Mae and Freddie Mac are best described by analyzing the 1997 to 1998 changes that led to Freddie Mac catching up with Fannie Mae in overall affordable lending, and then examining the 1998 to 1999 changes that led to Freddie Mac surpassing Fannie Mae in overall affordable lending.

Consider the special affordable income category for 1997 and 1998. As shown earlier in Table A.4a, special affordable loans accounted for a much higher percentage of Fannie Mae's acquisitions of home purchase loans than of Freddie Mac's in each of these two years. Similarly, in 1997, special affordable loans accounted for 11.5 percent of Fannie Mae's total (both home purchase and refinance) purchases, compared with 9.9 percent of Freddie Mac's total purchases. However, between 1997 and 1998, the special affordable percentage of Freddie Mac's total purchases increased from 9.9 percent to 10.9 percent, while the corresponding percentage for Fannie Mae actually declined from 11.5 percent to 11.1 percent. Thus, in 1998, Freddie Mac's overall special affordable percentage (10.9 percent) was approximately the same as Fannie Mae's (11.1 percent). This is reflected in Table A.4c by the ''Fannie-Mae-to-Freddie-Mac'' ratio of 1.02 for the special affordable category.

Further analysis shows that this improvement of Freddie Mac relative to

Fannie Mae was due to Freddie Mac's better performance on refinance loans during 1998. The special affordable percentage of Fannie Mae's refinance loans fell from 11.1 percent in 1997 to 9.7 percent in 1998, which is not surprising given that middle-and upper-income borrowers typically dominate heavy refinance markets such as 1998. But the special affordable percentage of Freddie Mac's refinance loans did not drop very much, falling from 11.3 percent in 1997 to 10.7 percent in 1998.[175] Thus, Freddie Mac's higher special affordable percentage (10.7 percent versus 9.7 percent for Fannie Mae) on refinance loans in 1998 enabled Freddie Mac to close the gap between its overall single-family performance and that of Fannie Mae.

The GSEs' low-mod and underserved areas percentages followed a somewhat similar pattern as their special affordable percentages between 1997 and 1998. In 1997, Freddie Mac's underserved area percentage (21.6 percent) for total purchases was significantly less than Fannie Mae's (23.6), but in 1998, Freddie Mac's underserved areas percentage (20.9) was about the same as Fannie Mae's (21.2 percent), as indicated by a ''Fannie Mae to Freddie Mac'' ratio of 1.01. This convergence was mainly due to a sharper decline in Fannie Mae's underserved area percentage for refinance loans between 1997 and 1998.

Fannie Mae versus Freddie Mac Performance—1998 to 1999. In 1998, the ''Fannie-Mae-to-Freddie-Mac'' ratios for all three goals-qualifying categories were approximately one, indicating similar performance for the two GSEs. As shown in Table A.4c, the 1999 ratios were 0.93 for special affordable loans, 0.95 for low-mod loans, and 0.93 for underserved areas loans—indicating that Freddie Mac, for the first time, had significantly surpassed Fannie Mae in overall performance. For instance, in 1999, underserved areas accounted for 21.8 percent of Fannie Mae's purchases, compared with 23.5 percent of Freddie Mac's purchases. For each of the three housing goal categories, Fannie Mae's performance increased between 1998 and 1999, but Freddie Mac's increased even more. For example, Fannie Mae's special affordable performance increased by 1.2 percentage points (from 11.1 percent to 12.3 percent) between 1998 and 1999 while Freddie Mac's performance increased 2.4 percentage points (from 10.9 percent to 13.3 percent).

B&C Loans. Table A.4b shows that the estimates for the home purchase market do not change much when loans for subprime lenders were excluded from the HMDA analysis; the reason was that these lenders operate primarily in the refinance market. Therefore, in this section's analysis of the total market (including refinance loans), one would expect the treatment of subprime lenders to significantly affect the market estimates. As indicated in Table A.4c, excluding 200 subprime lenders reduced the goal-qualifying shares of the total market in 1998 as follows: special affordable (from 14.2 to 12.7 percent); low-mod (from 40.9 to 39.0 percent); and underserved areas (from 24.8 to 22.6 percent). As discussed earlier, the GSEs have been entering the subprime market over the past two years, particularly the A-minus portion of that market. Industry observers estimate that A-minus loans account for 50–70 percent of all subprime loans while the more risky B&C loans account for the remaining 30–50 percent. Thus, one proxy for excluding B&C loans originated by the 200 specialized lenders from the overall market benchmark might be to reduce the goal-qualifying percentages from the HMDA data by half the above differentials; accounting for B&C loans in this manner would reduce the 1998 HMDA-reported goal-qualifying shares of the total conforming market as follows: special affordable (from 14.2 to 13.5 percent); low-mod (from 40.9 to 40.0 percent); and underserved areas (from 24.8 to 23.7 percent). However, as discussed in Appendix D, much uncertainty exists about the size of the subprime market and its different components. More data and research are obviously needed on this growing sector of the mortgage market.[176]

f. GSE Mortgage Purchases in Individual Metropolitan Areas

While the above analyses, as well as earlier studies,[177] concentrate on national-level data, it is also instructive to compare the GSEs' purchases of mortgages in individual metropolitan areas (*e.g.* MSAs). In this section, the GSEs' purchases of single-family owner-occupied home purchase loans are compared to the market in individual MSAs.[178] To do so, total primary market mortgage originations from three years, 1995, 1996 and 1997, are summed up by year, by MSA, and for GSE purchases of these loans. The GSEs' purchases of 1995 originations include all 1995 originations purchased by each GSE between 1995 and 1998 from 324 MSAs. For their purchases of 1996 originations, all 1996 originations purchased between 1996 and 1999 from 326 MSAs are included. All 1997 originations purchased between 1997 and 1999 from 328 MSAs are included for 1997 originations. This should cover 90 to 95 percent of the 1995 through 1997 originated loans that will be purchased by the GSEs, thus making the GSE data comparable to HMDA market data. The loans are then grouped by the GSE housing goal categories for which they qualify and the ratio of the housing goal category originations to total originations in each MSA is calculated for each GSE and the market. The GSE-to-market ratio is then calculated by dividing each GSE ratio by the corresponding market ratio. For example, if it is calculated that one of the GSEs' purchases of Low- and Moderate-Income loans in a particular MSA is 47 percent of their overall purchases in that MSA, while 49 percent of all originations in that MSA are Low-Mod, then that GSE-to-market ratio is 47/49 (or 0.96).

Table A.5 shows the performance of the GSEs by MSA for 1995, 1996 and 1997 originations of home purchase loans. A GSE's performance is determined to be lagging the market if the ratio of the GSE housing goal loan purchases to their overall purchases is less than 99 percent of that same ratio for the market.[179] For the above example, that GSE is considered to be lagging the market. These results are then summarized in Table A.5, which reports the number of MSAs in which each GSE under-performs the market with respect to the housing goal categories.

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Table A.5

Analysis of GSEs' Purchases Across MSAs by Housing Goal Category

1995 Originations

	Underserved Areas		Low-Mod Income		Special Affordable	
Number of MSAs Analyzed	324	100.0%	324	100.0%	324	100.0%
Fannie Mae lags the Market	243	75.0%	264	81.5%	291	89.8%
Freddie Mac lags the Market	300	92.6%	319	98.5%	321	99.1%
Fannie Mae lags Freddie Mac	65	20.1%	26	8.0%	37	11.4%
Freddie Mac lags Fannie Mae	246	75.9%	295	91.0%	281	86.7%

1996 Originations

	Underserved Areas		Low-Mod Income		Special Affordable	
Number of MSAs Analyzed	326	100.0%	326	100.0%	326	100.0%
Fannie Mae lags the Market	268	82.2%	288	88.3%	295	90.5%
Freddie Mac lags the Market	296	90.8%	322	98.8%	323	99.1%
Fannie Mae lags Freddie Mac	106	32.5%	54	16.6%	63	19.3%
Freddie Mac lags Fannie Mae	210	64.4%	255	78.2%	256	78.5%

1997 Originations

	Underserved Areas		Low-Mod Income		Special Affordable	
Number of MSAs Analyzed	328	100.6%	328	100.6%	328	100.6%
Fannie Mae lags the Market	286	87.7%	301	92.3%	311	95.4%
Freddie Mac lags the Market	288	88.3%	319	97.9%	317	97.2%
Fannie Mae lags Freddie Mac	165	50.6%	101	31.0%	129	39.6%
Freddie Mac lags Fannie Mae	152	46.6%	209	64.1%	185	56.7%

Source: Fannie Mae and Freddie Mac data include information on all of their purchases for the years 1995 through 1999 and are from the loan-level data they provide to HUD. The conforming market data are originations as reported by HMDA; loans with a loan-to-income ratio greater than six are excluded from Low-Mod Income and Special Affordable categories.

Notes: The GSE loans in this analysis include all single-family owner-occupied conventional conforming home purchase mortgages in metropolitan areas (as defined by OMB in 1995, 1996 or 1997) purchased by the GSEs between 1995 and 1998 for loans originated during 1995, between 1996 and 1999 for loans originated during 1996 and between 1997 and 1999 for loans originated during 1997.

A GSE is determined to lag the market (other GSE) if the ratio of its category share to the market (other GSE) category share is less than 99%.

Exceptions to the "lag" determination:

When there are less than 5 reported category loans in the HMDA data and less than 5 category loans from only one of the GSEs, that GSE will count as approximating the market regardless of calculated ratio.

When there are more than 5 reported category loans in the HMDA data and less than 5 category loans from each of the GSEs, it will count as Fannie Mae approximating Freddie Mac regardless of calculated ratio.

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For 1996 originations, Fannie Mae:

- Lagged the market in 268 (83 percent) of the MSAs in the purchase of Underserved Area loans,
- Lagged the market in 288 (88 percent) of the MSAs in the purchase of Low- and Moderate-Income loans, and
- Lagged the market in 295 (90 percent) of the MSAs in the purchase of Special Affordable loans.

Freddie Mac lagged the market to an even greater extent in 1996. Specifically, the market outperformed Freddie Mac in:

- 296 (91 percent) of the MSAs in the purchase of Underserved Area loans,
- 322 (99 percent) of the MSAs in the purchase of Low- and Moderate-Income loans, and
- 323 (99 percent) of the MSAs in the purchase of Special Affordable loans.

Thus Freddie Mac was behind Fannie Mae in at least three-quarters of the MSAs for all three goal categories. As shown in Table A.5, the results for loans originated in 1995 and 1997 are similar.

g. High Down Payments on GSEs' Lower-Income Loans

Recent studies have raised questions about whether the lower-income loans purchased by the GSEs are adequately meeting the needs of some lower-income families. In particular, the lack of funds for down payments is one of the main impediments to homeownership, particularly for many lower-income families who find it difficult to accumulate enough cash for a down payment. As this section explains, a noticeable pattern among lower-income loans purchased by the GSEs is the predominance of loans with high down payments.

HUD's 1996 report to Congress on the possible privatization of Fannie Mae and Freddie Mac [180] found, rather surprisingly, that the mortgages taken out by lower-income borrowers and purchased by the GSEs were as likely to have high down payments as the mortgages taken out by higher-income borrowers and purchased by the GSEs. For example, considering the GSEs' purchases of home purchase loans in 1995, 58 percent of very low-income borrowers made a down payment of at least 20 percent, compared with less than 50 percent of borrowers from other groups. In addition, a surprisingly large percentage of the GSEs' first-time homebuyer loans had high down payments. In 1995, 35 percent of Fannie Mae's and 41 percent of Freddie Mac's first-time homebuyer loans had down payments of 20 percent or more.

Table A.6 presents similar data for the GSEs' purchases of total loans during 1999. Over three-fourths (75.1 percent) of the GSEs' very low-income loans had a down payment more than 20 percent, compared with 72.1 percent of their remaining purchases. Essentially, the GSEs have been purchasing lower-income loans with large down payments. [181]

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Table A.6

Down Payment Characteristics of GSE Purchases, 1999

GSE Purchases	Size of Down Payment: Less Than 5 Percent Down	5 to 10 Percent Down	10 to 20 Percent Down	20 Percent or More Down	Total [1]
All Loans	118,425	486,288	632,894	3,274,965	4,512,572
Very- Low-Income Loans	17,457	43,336	55,514	350,576	466,883
Less- Than-Median Income Loans	61,612	183,933	231,896	1,196,870	1,674,311
Percentage Distribution					
All Loans	2.6%	10.8%	14.0%	72.6%	100.0%
Very- Low-Income Loans	3.7%	9.3%	11.9%	75.1%	100.0%
Less- Than-Median Income Loans	3.7%	11.0%	13.9%	71.5%	100.0%

Source: Data include all owner-occupied one-unit mortgages (home purchase, refinance, and second loans) purchased by the GSEs in 1999.

[1] Loans with missing down payments are excluded.

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These results are consistent with previous studies that show that the proportion of large down payment loans purchased by the GSEs from lower-income borrowers is greater than that for all loan purchases.[182]

As discussed in Section C, both Fannie Mae and Freddie Mac have introduced high-LTV products: "Flexible 97" and "Alt 97" respectively. By lowering the required down payment to three percent and adding flexibility to the source of the down payment, these loans should be more affordable. The down payment, as well as closing costs, can come from, gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets.

However, in order to control default risk, these loans also have stricter credit history requirements.

Fed Study. An important study by three economists—Glenn Canner, Wayne Passmore and Brian Surette [183]—at the Federal Reserve Board showed the implications of the GSEs' focus on high down payment loans. Canner, Passmore, and Surette examined the degree to which different mortgage market institutions—the GSEs, FHA, depositories and private mortgage insurers—are taking on the credit risk associated with funding affordable mortgages. The authors combined market share and down payment data with data on projected foreclosure losses to arrive at an estimate of the credit risk assumed by each institution for each borrower group. This study found that Fannie Mae and Freddie Mac together provided only 4 to 5 percent of the credit support for lower-income and minority borrowers and their neighborhoods. The relatively small role of the GSEs providing credit support is due to their low level of funding for these groups and to the fact that they purchase mainly high down payment loans. FHA, on the other hand, provided about two-thirds of the credit support for lower-income and minority borrowers, reflecting FHA's large market shares for these groups and the fact that most FHA-insured loans have less-than-five-percent down payments.

3. Other Studies of the GSEs Performance Relative to the Market

This section summarizes briefly the main findings from other studies of the GSEs' affordable housing performance. These include studies by the HUD and the GSEs as well as studies by academics and research organizations.

a. Studies by Bunce and Scheessele

Harold Bunce and Randall Scheessele of the Department have published two studies of affordable lending. In December 1996, they published a study titled *The GSEs' Funding of Affordable Loans.*[184] This report analyzed HMDA data for 1992–95, including a detailed comparison of the GSEs' purchases with originations in the primary market. In July 1998, they updated their earlier study to analyze the mortgage market and the GSEs' activities in 1996.[185] The findings were largely similar in both studies: [186]

- Both GSEs lagged the primary conventional market, depositories, and (particularly) FHA in funding mortgages for lower-income and historically underserved borrowers. FHA stands out as the major funder of affordable loans. In 1996, approximately 30 percent of FHA-insured loans were for African-American and Hispanic borrowers, compared with only 10 percent of the loans purchased by the GSEs or originated in the conventional market.
- The two GSEs show very different patterns of lending—Fannie Mae is much more likely than Freddie Mac to serve underserved borrowers and their neighborhoods. Since 1992, Fannie Mae has narrowed the gap between its affordable lending performance and that of the other lenders in the conforming market. Freddie Mac's improvement has been more mixed—in some cases it has improved slightly relative to the market but in other cases it has actually declined relative to the market. The findings with respect to Freddie Mac are similar to those discussed earlier in Section E.2.c.

b. Studies by Freddie Mac

In 1995 Freddie Mac published *Financing Homes for A Diverse America*, which contained a wide variety of statistics and charts on the mortgage market. Several of the exhibits contained comparisons between the primary mortgage market and Freddie Mac's purchases in 1993 and 1994:

- While not asserting strict parity, this report presented comparable frequency distributions of primary market originations and Freddie Mac's purchases by borrower and census tract income, concluding that Freddie Mac ''finances housing for Americans of all incomes'' and it ''buys mortgages from neighborhoods of all incomes.''
- With regard to minority share of census tracts, the report stated that Freddie Mac's ''share of minority neighborhoods matches the primary market.''
- The report acknowledged that Freddie Mac's purchases did not match the primary market in terms of borrower race. It found that in 1994 African-Americans and Hispanics each accounted for 4.9 percent of the primary market but only 2.7 percent and 4.0 percent respectively of Freddie Mac's purchases. On the other hand, Whites and Asian Americans accounted for 83.7 percent and 3.2 percent of the primary market, but 86.3 percent and 3.9 percent respectively of Freddie Mac's acquisitions.

In its March 1998 Annual Housing Activities Report (AHAR) submitted to the Department and Congress, Freddie Mac presented data on this issue for 1996 and 1997. This report stated that its purchases ''essentially mirror[ed] the overall distribution of mortgage originations in terms of borrower income.'' However, the data underlying Exhibit 4 of the AHAR indicated that the share of Freddie Mac's 1997 purchases for borrowers with income (in 1996 dollars) less than $40,000 was more than 4 percentage points below the corresponding share for the primary market in 1996. A similar pattern prevailed in terms of census tract income—the data underlying Exhibit 5 of the AHAR indicated that the share of Freddie Mac's 1997 purchases in tracts with income in excess of 120 percent of area median income exceeded the corresponding share for the primary market in 1996 by about 4 percentage points.

In its March 1998 AHAR, Freddie Mac found a much closer match between the distributions of home purchase mortgages by down payment for Freddie Mac's 1997 acquisitions and the primary market in 1997, as the latter was reported by the Federal Housing Finance Board. Specifically, Exhibit 6 of the AHAR reported that 42 percent of borrowers in each category made down payments of less than 20 percent.[187]

c. Studies by Fannie Mae

Fannie Mae has not published any studies on the comparability of its mortgage purchases with the primary market. However, in an October 1998 briefing for HUD staff, Fannie Mae presented the results of several comparisons of its purchases, based on the data supplied to the Department by Fannie Mae, with loans originated in the conventional conforming market, based on the HMDA data. In these analyses, Fannie Mae stated that:

- The percentage of Fannie Mae's home purchase loans serving minorities exceeded the corresponding percentage in the conventional conforming market by 2.6 percentage points in 1995, 2.0 percentage points in 1996, and 2.7 percentage points (18.6 percent vs. 15.9 percent) in 1997;
- The percentage of Fannie Mae's home purchase loans for low-and moderate-income households exceeded the corresponding percentage in the conventional conforming market by 0.2 percentage point in 1995, fell 0.1 percentage point short of the market in 1996, but exceeded it again, by 1.2 percentage points (38.5 percent vs. 37.3 percent), in 1997;
- The percentage of Fannie Mae's home purchase loans for households in underserved areas fell 0.04 percentage point short of the conventional conforming market in 1996, but exceeded the corresponding percentage in the conventional conforming market by 1.4 percentage points (25.5 percent vs. 24.1 percent) in 1997;
- The percentage of Fannie Mae's home purchase loans for very low-income households and low-income households in low-income areas fell 1.0 percentage point short of the conventional conforming market in 1995 and 0.9 percentage point short in 1996, but exceeded the corresponding percentage in the conventional conforming market by 2.2 percentage points (12.7 percent vs. 10.5 percent) in 1997.

Some of these findings by Fannie Mae differ from those of other researchers. This is due in part to the fact that most other studies have utilized HMDA data for both the primary market and sales to the GSEs, but Fannie Mae compared the primary market, based on HMDA data, with the patterns in the GSE loan-level data submitted to the Department.[188] [189]

d. Other Studies

Lind. John Lind examines HMDA data in order to compare the GSEs' loan purchase activity to mortgage originations in the primary conventional conforming market.[190] Like other studies, Lind presents an aggregate comparison of GSE/primary market correspondence for Black, Hispanic, low-income borrowers, and low- and moderate-income Census tracts. Unlike other studies, however, Lind also examines market correspondence at the individual metropolitan area and regional levels.

Lind finds that the GSEs are not leading the market, but that Fannie Mae, in particular, improved its performance between 1993 and 1994. In 1994, Lind finds that the shares of Fannie Mae's home purchase loans to minority and low-income borrowers were comparable to the industry's shares. But the share of its home purchase loans for low- and moderate-income census tracts and the shares of Freddie Mac's home purchase loans for all categories examined trailed those for the industry as a whole. For refinance mortgages, on the other hand, both

GSEs trailed the industry in terms of the shares of their loans for the groups analyzed. In a subsequent study, Lind found that the difference between the affordable lending performance of Fannie Mae and Freddie Mac was caused by differences in policy and operating procedures of the GSEs, and not differences in the make-up of their suppliers of loans.[191]

Ambrose and Pennington-Cross. There exists a wide variation in the market shares of the GSEs, FHA and portfolio lenders across geographic mortgage markets. Brent Ambrose and Anthony Pennington-Cross analyze FHA, GSE and portfolio lender market shares to find insights into what factors affect the market shares for FHA eligible (under the FHA loan limit) loans.[192] They hypothesize that the GSEs try to mitigate higher perceived risks at the MSA level by tightening lending standards, generating a prediction of higher FHA market share in locations with characteristically higher or dynamically worsening risk. A second hypothesis is that market share of portfolio lenders increases in areas with higher risk due to ''reputation effects'' and GSE repurchase requirements. In their model, they account for cyclical risk, permanent risk, demographic, lender and regional differences.

Ambrose and Pennington-Cross found that the GSEs exhibit risk averse behavior as evidenced by lower GSE market presence in MSAs experiencing increasing risk and in MSAs that historically exhibit high-risk tendencies. FHA market shares, in contrast, are associated with high or deteriorating risk conditions. Portfolio lenders increase their mortgage portfolios during periods of economic distress, but increase the sale of originations out of portfolio during periods of increasing house prices. Lenders in MSAs with historically high delinquency hold more loans in portfolio. MSA risk is therefore concentrated among portfolio lenders and in FHA, with the GSEs bearing relatively little credit risk of this kind. The study does find that, other things being equal, the GSEs do have a higher presence in underserved areas and in areas where the minority population is highly segregated.

MacDonald (1998). Heather MacDonald [193] examined the impact of the central city housing goal from HUD's 1993–1995 interim housing goals. Census tracts were clustered according to five variables (median house value, median house age, proportion of renters, percent minority and proportion of 2 to 4 units) argued to impede secondary market purchases of homes in some neighborhoods. Borrower characteristics and lending patterns were compared across the clusters of tracts, and across central city and suburban tracts. Clustered tracts were found to be more strongly related to a set of key lending variables than are tracts divided according to central city/suburban boundaries. MacDonald concludes that targeting affirmative lending requirements on the basis of neighborhood characteristics rather than political or statistical divisions may provide a more appropriate framework for efforts to expand access to credit.

MacDonald (1999). In a 1999 study, Heather MacDonald investigated variations in GSE market share among a sample of 426 nonmetropolitan counties in eight census divisions.[194] Conventional conforming mortgage originations were estimated using residential sales data, adjusted to exclude government-insured and nonconforming loans. Multivariate analysis was used to investigate whether GSE market shares differed significantly by location, after controlling for the economic, demographic, housing stock and credit market differences among counties that could affect use of the secondary markets. The study also investigated whether there were significant differences between the nonmetropolitan borrowers served by Fannie Mae and those served by Freddie Mac.

MacDonald found that space contributes significantly to explaining variations in GSE market shares among nonmetropolitan counties, but its effects are quite specific. One region—non-adjacent West North Central counties—had significantly lower GSE market shares than all others. The disparity persisted when analysis was restricted to underserved counties only. The study also suggested significant disparities between the income levels of the borrowers served by each agency, with Freddie Mac buying loans from borrowers with higher incomes than the incomes of borrowers served by Fannie Mae. An important limitation on any study of nonmetropolitan mortgages was found to be the lack of Home Mortgage Disclosure Act data. This meant that more precise conclusions about the extent to which the GSEs mirror primary mortgage originations in nometropolitan areas could not be reached.

McClure. Kirk McClure examined the twin mandates of FHEFSSA: to direct mortgage credit to neighborhoods that have been underserved by mortgage lenders; and to direct mortgage credit to low-income and minority households.[195] Using the Kansas City metropolitan area as a case study, mortgages purchased by the GSEs in 1993–96 were compared with mortgages held by portfolio lenders in order to determine the performance of the GSEs in serving these two objectives. Kansas City provides a useful case study area for this analysis, because it includes a range of weak and strong housing market areas where homebuyers have been able to move easily to serve their housing, employment, and neighborhood needs.

McClure found that borrowers are better served if credit is directed to them independent of location. Very low-income and minority borrowers fared better, in terms of the demographic, housing, and employment opportunities of the neighborhoods into which they located, than borrowers in underserved neighborhoods, suggesting that directing credit to low-income and minority households has had the desired effect of helping these households purchase homes in areas where they would find good homes and good employment prospects. According to McClure, HUD's 1996–99 housing goals defined underserved tracts very broadly, such that nearly one-half of the tracts in the Kansas City area are categorized as underserved. Because the definition of underserved is so broad, directing credit to these tracts means only increasing the flow of mortgage credit to the lesser one-half of all tracts, which includes many areas with stable housing stocks and viable job markets.

The alternative approach of directing credit to underserved areas was found to be helpful only insofar as it has helped direct credit to neighborhoods with slightly lower household income levels and higher incidence of minorities than found elsewhere in the metropolitan area. McClure concluded that neighborhoods that receive very low levels of mortgage credit seemed to provide insufficient housing or employment opportunities to justify the effort that would be required to direct additional mortgage credit to them.

McClure concluded that whatever the approach, the GSEs have not been performing as well as the primary credit lenders in the Kansas City metropolitan area. In terms of helping underserved areas, the GSEs lagged behind the industry in the proportion of loans found in these areas. In terms of helping low-income and minority borrowers, the GSEs also lagged behind the industry. However, to the extent that the GSEs served these targeted populations, these households used this credit to move to neighborhoods with better housing and employment opportunities than were generally present in the underserved areas.

Williams.[196] This study looks at mortgage lending in underserved markets in the primary and secondary mortgage markets for the MSAs in Indiana. A more extensive analysis is provided for South Bend/St. Joseph County, Indiana that looks at the GSE purchases in underserved markets by type of primary market lender in both 1992 and 1996. It shows the percentage of loans bought by the GSEs and the loan they did not buy. This study found that the GSEs were more aggressive in closing the gap in St. Joseph County than in other MSAs in Indiana. It also found that Fannie Mae's underserved market performance was slightly better than Freddie Mac's performance.

Williams compared the GSEs performance in underserved markets and CRA institutions between 1992 and 1995. It shows that the GSEs have narrowed the gap between themselves and lenders while CRA institutions have lost ground relative to non-CRA lenders. A pattern observed across all Indiana MSAs is that the GSEs do not appear to lead the market but rather almost perfectly mirrored the performance of mortgage companies.

Williams looked at the impact of size and location of lenders on the home mortgage market. Large lenders were more likely to finance mortgages for very low-income and African American borrowers than smaller lenders. Lenders headquartered in Indiana were more likely to purchase mortgages in underserved areas than lenders who only had branches or no apparent physical presence in Indiana. This suggest that served markets might benefit more than underserved areas from increased competition from non-local lenders.

Gyourko and Hu. This study focuses on the GSEs' housing goals looking at the intra-metropolitan distribution of mortgage acquisitions by Fannie Mae and Freddie Mac

and the spatial distribution of households within 22 MSAs.[197] The data on the GSEs' mortgage purchases is provided by the Census Tract File of Public Use Data Base and data on households is provided by the 1990 census. The study found that the distribution of goal-qualifying loan purchases by the GSEs does not match the distribution of goal-qualifying households. On average 44 percent of Low- and Moderate-Income Goal and 46 percent of Special Affordable Goal qualifying households are located in central cities. This compares to the GSEs' mortgage purchases where 26 percent of Low- and Moderate-Income Goal and 36 percent of Special Affordable Goal were located in central cities.

This study develops criteria for evaluating the GSEs' mortgage purchasing performance in census tracts. The first measure is a ratio. The numerator of the ratio is the share of the GSEs' mortgage purchases that qualify for the Special Affordable Housing Goal in the census tract. The denominator is the share of households that are targeted by the Special Affordable Housing Goal in the census tract. A ratio is also computed for the Low- and Moderate-Income Housing Goal. If the ratio is less than 0.80 then the census tract is called under-represented, meaning that the share of the GSEs' mortgage purchases which qualify for the housing goal is less than 80 percent of the share of the households that the goal targets. The analysis of these ratios shows that: (1) Central cities are more likely to be under-represented in terms of the share of affordable loans purchased by the GSEs, (2) in suburbs, the larger the census tracts' percent minority the greater the probability that affordable loan purchases are under-represented, and (3) the higher the tract's median income, the greater the likelihood that census tract is over-represented.

Gyourko and Hu's results are broadly consistent across the 22 MSAs analyzed; however, some noteworthy exceptions are made. In a few MSAs, particularly Miami and New York, the mismatch of affordable GSE purchases to affordable households is much less severe. In Boston, Los Angeles and New York, census tracts with higher relative median incomes are more likely to be under-represented.

Case and Gillen. This study provides a descriptive analysis of market share and logistic regression analysis of the GSEs' mortgage purchase patterns in 44 metropolitan areas over the period from 1993 to 1996.[198] The study compares the GSEs and the market along several borrower and neighborhood characteristics.

This descriptive analysis of market shares finds that, compared with mortgages originated in the market, the GSEs' are less likely to purchase loans made to lower-income borrowers, minority borrowers, borrowers in lower-income neighborhoods, and borrowers in central city neighborhoods. The GSEs are more likely to purchase loans made to higher income borrowers, white borrowers, borrowers in higher income neighborhoods, and suburban borrowers than the non-GSEs. Case and Gillen find that Fannie Mae provides a higher proportion of total GSE funding for mortgage lending to lower-income and minority borrowers and to borrowers living in lower income, predominantly minority, central city, and geographically targeted areas than Freddie Mac.

A logistic regression analysis was conducted to look at the influence of specific borrower and neighborhood characteristics on the probability that a loan is purchased by one the GSEs. The results support the findings of the descriptive analysis with some exceptions. In contrast to the descriptive analysis, the impact of geographically targeted census tracts and neighborhood minority composition on the GSEs' purchasing behavior was inconsistent over the 44 areas. [199, 200]

The logistic regression analysis was extended to test for changes in the GSEs' purchasing behavior over time (1993–1996). Changes in the GSEs' purchasing activity are observed, but no systematic time trend was found. One explanation that was given for this result was that changes in the GSEs' purchases over time might be related to changes in overall market activity rather than changes in purchasing behavior by either of the GSEs.

Myers. Earlier studies have shown that racial minority groups—particularly African Americans and Latinos—are less likely to be approved for home mortgage loans than members of majority populations. It has been suggested that primary lenders may use the difficulty of selling loans to the GSEs on the secondary market as a pretext for not approving loans to racial minority group members. This study uses the residual difference approach to measure racial discrimination in mortgage lending and estimates differential treatment by the GSEs of minority and nonminority first-time homeowner loans in the 23 largest metropolitan statistical areas (MSAs).[201]

The residual difference approach decomposes racial gaps in HMDA-reported loan-rejection rates between the component that can be explained and that which cannot be explained by racial differences in characteristics. Characteristics Myers uses to explain poor credit history and denial rates include borrower, neighborhood, and loan variables from HMDA, the GSE Public Use Data Base, and Census 1990.[202] Myers interprets the unexplained gap as being ''discrimination''. The residual difference method permits the estimation of minority loan rejection rates when minorities are treated like equally qualified white borrowers (*i.e.* equal treatment values).

There are three main findings of this study. First, there are unexplained disparities in loan-rejection rates between black and white applicants for home mortgage loans in HMDA data; that is, blacks have higher denial rates than whites even after controlling for variables such as income. Second, the probability that a loan won't sell on the secondary market systematically increases the probability that a loan will be rejected by the lender.[203] Third, African American and Hispanic loans are often less likely to sell on the secondary market than white loans.

The study also looks at whether the GSEs' purchasing behavior explains racial gaps in loan rejection rates. It compares the residual difference on racial disparities in loan rejection rates with and without controlling for GSE decisions. If the equal-treatment rejection rate is higher than the equal-treatment rejection rate that accounts for the GSE effect, then the purchase policies of the GSEs ''explains part of the lending gap''. If the equal-treatment value without accounting for racial difference in GSE effects is equal to or lower than the corresponding value than accounts for racial difference in GSE effect, then GSEs effect does not explain racial lending gaps.

Myers concludes that there are no consistent patterns for the GSE effect, either across racial groups or across MSAs—that is, the GSE discussions do not systematically explain the observed racial disparities in loan rejection rates. In many MSAs, the GSE effect can account for some of the high rejection rates of blacks and ''others''. Among other racial groups, however, there are as many MSAs where there is no such finding as there are ones where the effect seems to hold. But even in those cases where the effect seems to hold the amount explained is small. Myers finds that the impact is so small that even large differences in actual probabilities that loans are not sold to GSEs cannot explain the substantial racial difference in loan-rejection rates.

Bradford. In a case study comparison of the Chicago and Washington D.C. mortgage markets, Bradford found that minority areas received considerably lower levels of GSE purchases than white areas in the Chicago market, but about equal and sometimes higher levels of GSE purchases in the D.C. study area.[204] Bradford's interprets this finding as partially the result of the exceptionally large minority population in the D.C. area living in new development and suburban areas when compared to the minority population distribution in the Chicago market. In his view, the fact that many minority homeowners in the D.C. area reside in suburban and new growth areas provides for increasing housing values and high levels of demand that help mitigate the effects of mortgage default by providing borrowers with more options to refinance or sell their homes to escape from foreclosure. This makes the minority market in the D.C. area generally more attractive to lenders and secondary market investors.

Bradford argues that the role of individual lenders is an important factor in explaining the disparate racial patterns between the Chicago and D.C. study areas. The large GSE lenders and the large lenders serving minority markets tend to be the same lenders in the D.C. market. He contends that the parity in the racial markets in the D.C. area would disappear and would be replaced by levels of disparity comparable to those in the Chicago market if just a handful of large GSE lenders in the minority areas reduced their GSE levels to the norm for the entire market.

Bradford also examines differences between Fannie Mae and Freddie Mac in the two study areas. Both Fannie Mae and Freddie Mac showed lower levels of purchases in minority areas than in white areas in the Chicago market, based on his research. While there were some instances where Freddie Mac made improvements

relative to Fannie Mae (notably in the Chicago market in 1996), Fannie Mae's relative performance in different racial markets was better than that of Freddie Mac. In the Chicago market, for example, Fannie Mae had higher levels of market shares in the racially changing areas than in the white areas while Freddie Mac always had lower market shares in the racially changing areas compared to the white areas. In the D.C. market, Bradford found that while the GSEs as a whole showed relative parity in the different racial markets, this was largely due to Fannie Mae's performance that countered the systematic disparities in the Freddie Mac purchases.

Harrison, et. al. Theories of ''information externalities,'' supported by recent empirical evidence, suggest that property transactions in a particular market area generate information making similar future transactions in that same market area less risky for prospective lenders. Specifically, home sales generate information useful to independent appraisers in generating more precise value estimates. This increased precision, in turn, reduces the uncertainty (risk) faced by lenders, and hence, may increase acceptance rates and the flow of funds to the given market area.

Using a sample of GSE purchasing activities across twelve Florida counties, Harrison *et al.* find some evidence that both Fannie Mae and Freddie Mac are more active in neighborhoods with historically low transaction volume than they are in other neighborhoods.[205] In addition, the results of their investigation are generally consistent with the previous literature suggesting Fannie Mae outperformed Freddie Mac in historically underserved market segments in 1993–95.

4. GSEs' Underwriting Guidelines

Most studies on affordability of mortgage loans are quantitative using HMDA data, HUD's GSE Public Use Database or some other related database. To complement these studies, HUD commissioned a study by the Urban Institute (UI) to examine recent trends in the GSEs' underwriting criteria and to seek attitudes and opinions of informed players in four local mortgage market markets (Boston, Detroit, Miami and Seattle).[206] Interviews were conducted with mortgage lenders, community advocates and local government officials—all local actors who would be knowledgeable about the impact of the GSEs' underwriting policies on their ability to fund affordable loans for lower-income borrowers.[207]

The UI report reveals three major trends in the GSEs' underwriting that affects affordable lending. These include increased flexibility in standard [208] underwriting and appraisal guidelines, the introduction of affordable lending products, and the introduction of automated underwriting and credit scores in the loan application process. Through these trends, Fannie Mae and Freddie Mac have attempted to increase their capacity to serve low- and moderate-income homebuyers. They are also eliminating practices that could potentially have had disparate impacts on minority homebuyers. While both GSEs have made progress, ''most [of those interviewed] thought Fannie Mae has been more aggressive than Freddie Mac in outreach efforts, implementing underwriting changes and developing new products.'' [209]

While the GSEs improved their ability to serve low- and moderate-income borrowers, it does not appear that they have gone as far as some primary lenders to serve these borrowers and to minimize the disproportionate effects on minority borrowers. From previous published analyses of the GSEs' mortgage purchases, differences between the income characteristics and racial composition of borrowers served by the primary mortgage market and the purchase activity of the GSEs were found. ''This means that the GSEs are not serving lower-income and minority borrowers to the extent these families receive mortgages from primary lenders.'' [210] From UI's discussions with lenders, it was revealed that primary lenders are originating mortgages to lower-income borrowers using underwriting guidelines that allow lower down payments, higher debt-to-income ratios and poorer credit histories than allowed by the GSEs' guidelines. These mortgages are originated to a greater extent to minority borrowers who have lower incomes and wealth. From this evidence, UI concludes that the GSEs appear to be lagging the market in servicing low- and moderate-income and minority borrowers.

Furthermore, UI found ''that the GSEs' efforts to increase underwriting flexibility and outreach has been noticed and is applauded by lenders and community advocates. Despite the GSEs' efforts in recent years to review and revise their underwriting criteria, however, they could do more to serve low- and moderate-income borrowers and to minimize disproportionate effects on minorities. Moreover, the use of automated underwriting systems and credit scores may place lower-income borrowers at a disadvantage when applying for a loan, even though they are acceptable credit risks.'' [211]

5. The GSEs' Support of the Mortgage Market for Single-family Rental Properties

Single-family rental housing is an important part of the housing stock because it is an important source of housing for lower-income households. Based on the 1996 Property Owners and Managers Survey, 49 percent of all rental units are in properties with fewer than five units and the 1997 American Housing Survey found that approximately 59 percent of the stock of single-family rental units are affordable to very-low income families (*i.e.,* families earning 60 percent or less of the area median income). Of the GSEs' mortgage purchases in 1999, around 30 percent of the single-family rental units financed were affordable to very-low income households.

While single-family rental properties are a large segment of the rental stock for low-income families, they make up a small portion of the GSEs' overall business. In 1999, Fannie Mae and Freddie Mac purchased more than $26 billion in mortgages for these properties. These purchases represented less than 5 percent of the total dollar amount of their overall 1999 business.

It follows that since single-family rentals make up such a small part of the GSEs business, they have not penetrated the single-family rental market to the same degree that they have penetrated the owner-occupant market. Table A.7b in Section G shows that in 1998 the GSEs financed 68 percent of owner-occupied dwelling units but only 19 percent of single-family rental units.

There are a number of factors that have limited the development of the secondary market for single-family rental property mortgages thus explaining the lack of penetration by the GSEs. Little is collectively known about these properties as a result of the wide spatial dispersion of properties and owners, as well as a wide diversity of characteristics across properties and individuality of owners. This makes it difficult for lenders to properly evaluate the probability of default and severity of loss for these properties.

Single-family rental properties are important for the GSEs housing goals, especially for meeting the needs of lower-income families. In 1999 around 73 percent of single-family rental units qualified for the Low- and Moderate-Income Goals, compared with 38 percent of one-family owner-occupied properties. This heavy focus on lower-income families meant that single-family rental properties accounted for 15 percent of the units qualifying for the Low- and Moderate-Income Goal, even though they accounted for 8 percent of the total units (single-family and multifamily) financed by the GSEs. Single-family rental properties account for 16 percent of the geographically-targeted and 23 percent of the special affordable housing goals.

A comparison of the GSEs' single-family rental and one-family owner-occupied mortgage purchases reveals the following broad patterns of borrower and neighborhood characteristics. Borrowers for single-family rental properties are more likely to be minorities than borrowers for one-family owner-occupied properties. Mortgages purchased by the GSEs for single-family rental properties compared with one-family owner-occupied properties are more likely to be located in lower-income and higher minority neighborhoods. More single-family rental than one-family owner-occupied mortgages were refinance or prior-year loans.

A closer look at borrower characteristics for single-family rental properties shows the following. First, based on ethnic/racial characteristics, borrowers for investor-owned properties are similar to borrowers for one-family owner-occupied properties. Second, borrowers for single-family rental properties, especially owner-occupied 2- to 4-unit properties, are more likely to be nonwhite than are borrowers for one-family owner-occupied and investor-owned properties. About 35 percent of the borrowers for owner-occupied 2- to 4-unit properties are non-white compared with around 17 percent for both one-family and investor-owned properties. For one-family owner-occupied and investor-owned properties about 5 percent of borrowers are African American, compared with 9 percent for owner-occupied 2- to 4-unit properties. A similar comparison applies for Hispanic borrowers, 6 percent and 15 percent respectively.

With regard to neighborhood characteristics, a comparison of different

types of rental properties purchased by the GSEs shows that investor 1-unit properties were more likely to be located in higher-income neighborhoods than were units in 2- to 4-unit rental properties. For units in investor 1-unit properties, about 18 percent were in low-income neighborhoods, compared with 31 percent from units in 2- to 4-unit rental properties. About 40 percent of the units in investor properties were in high-minority neighborhoods, compared to only a slightly lower 37 percent for owner-occupied 2- to 4-unit properties.

The GSEs can mitigate risk by purchasing mortgages which are seasoned or refinanced. The data show that mortgages on properties with additional risk components such as being investor-owned, in low- income neighborhoods, and/or in high-minority neighborhoods are more likely to be seasoned or refinanced. For the GSEs' mortgage purchases, in general, mortgages on investor-owned properties are more likely to be prior-year than mortgages on owner-occupied 2- to 4-unit properties (based on unit counts). These patterns are consistent with the notion that investor properties are more risky than owner-occupied 2- to 4-unit properties.

F. Factor 4: Size of the Conventional Conforming Mortgage Market Serving Low- and Moderate-Income Families Relative to the Overall Conventional Conforming Market

The Department estimates that dwelling units serving low- and moderate-income families will account for 50–55 percent of total units financed in the overall conventional conforming mortgage market during 2001–2003, the period for which the Low- and Moderate-Income Housing Goal is established. The market estimates exclude B&C loans and allow for much more adverse economic conditions than have existed recently. The detailed analyses underlying these estimates are presented in Appendix D.

G. Factor 5: GSEs' Ability To Lead the Industry

FHEFSSA requires the Secretary, in determining the Low- and Moderate-Income Housing Goal, to consider the GSEs' ability to ''lead the industry in making mortgage credit available for low- and moderate-income families.'' Congress indicated that this goal should ''steer the enterprises toward the development of an increased capacity and commitment to serve this segment of the housing market'' and that it ''fully expect[ed] [that] the enterprises will need to stretch their efforts to achieve [these goals].'' [212]

The Department and independent researchers have published numerous studies examining whether or not the GSEs have been leading the single-family market in terms of their affordable lending performance. This research, which is summarized in Section E, concludes that the GSEs have generally lagged behind other lenders in funding lower-income borrowers and their communities. As required by FHEFSSA, the Department has produced estimates of the portion of the total (single-family and multifamily) mortgage market that qualifies for each of the three housing goals (see Appendix D). Congress intended that the Department use these market estimates as one factor in setting the percentage target for each of the housing goals. The Department's estimate for the size of the Low- and Moderate-Income market is 50–55 percent, which is substantially higher than the GSEs' performance on that goal.

This section provides another perspective on the GSEs' performance by examining the share of the total mortgage market and the share of the goal-qualifying markets (low-mod, special affordable, and underserved areas) accounted for by the GSEs' purchases. This analysis, which is conducted by product type (single-family owner, single-family rental, and multifamily), shows the relative importance of the GSEs in each of the goal-qualifying markets.

1. GSEs' Role in Major Sectors of the Mortgage Market

Table A.7 compares GSE mortgage purchases with HUD's estimates of the numbers of units financed in the conventional conforming market during 1997(A.7a) and 1998 (A.76).[213] Because 1997 was a more typical year then the heavy refinance year of 1998, the following discussion will focus on 1997. HUD estimates that there were 7,306,950 owner and rental units financed by new mortgages in 1997. Fannie Mae's and Freddie Mac's mortgage purchases financed 2,948,112 dwelling units, or 40 percent of all dwelling units financed. As shown in Table A.7a, the GSEs play a much smaller role in the goals-qualifying markets than they do in the overall market. During 1997, new mortgages were originated for 4,201,287 dwelling units that qualified for the Low- and Moderate-Income Goal; the GSEs low-mod purchases financed 1,330,516 dwelling units, or only 32 percent of the low-mod market. Similarly, the GSEs' purchases accounted for only 25 percent of the special affordable market and 34 percent of the underserved areas market.[214] Obviously, the GSEs are not leading the industry in financing units that qualify for the three housing goals.

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Table A.7a

Number of Units by Type in the 1997 Conventional Conforming Market Compared To Fannie Mae and Freddie Mac Purchases

	Single-Family Owner	Single-Family Rental	Multifamily	Total Rental	Total
Total Units					
Market	4,910,185	1,003,088	1,393,677	2,396,765	7,306,950
Fannie Mae	1,387,232	84,055	229,924	313,979	1,701,211
Freddie Mac	1,085,784	51,826	109,291	161,117	1,246,901
GSE Total	2,473,016	135,881	339,215	475,096	2,948,112
GSE % of Market	50%	14%	24%	20%	40%
Low-Mod Units					
Market	2,044,199	902,779	1,254,309	2,157,088	4,201,287
Fannie Mae	504,555	75,018	219,370	294,388	798,943
Freddie Mac	381,767	45,603	104,202	149,806	531,573
GSE Total	886,323	120,621	323,572	444,193	1,330,516
GSE % of Market	43%	13%	26%	21%	32%
Underserved Area Units*					
Market	1,351,825	456,267	668,965	1,125,232	2,477,057
Fannie Mae	335,602	40,508	96,733	137,241	472,842
Freddie Mac	261,520	23,983	53,330	77,314	338,834
GSE Total	597,121	64,491	150,063	214,554	811,676
GSE % of Market	44%	14%	22%	19%	33%
Special Affordable Units					
Market	715,385	581,790	808,333	1,390,123	2,105,508
Fannie Mae	146,699	37,982	136,781	174,763	321,463
Freddie Mac	107,904	22,960	67,044	90,004	197,908
GSE Total	254,603	60,943	203,825	264,767	519,371
GSE % of Market	36%	10%	25%	19%	25%

Source: The market data are the estimated number of newly mortgaged units during 1997. The Single-Family Owner market data exclude B&C loans; including the B&C loans in the owner market would have reduced the GSE share of the owner market from 50 percent to 44 percent. See Appendix D for an explanation of the market methodology and various caveats (such as excluding manufactured housing in non-metropolitan areas). The GSE data include units from conventional mortgages originated during 1997 and purchased by one of the GSEs during 1997, 1998 or 1999. GSE data with missing affordability or geocode fields are reallocated based the distribution of existing data.

*The Single-Family Owner market data for underserved areas should be considered a minimal estimate. The goal-qualifying percentages that were used to derive the Single-Family Owner market estimates were based mainly on HMDA data for metropolitan areas; as discussed in Appendix D, this underestimates the underserved area market in non-metropolitan areas.

Table A.7b

Number of Units by Type in the 1998 Conventional Conforming Market Compared To Fannie Mae and Freddie Mac Purchases

	Single-Family Owner	Single-Family Rental	Multifamily	Total Rental	Total
Total Units					
Market	8,372,289	1,632,880	1,739,635	3,372,515	11,744,804
Fannie Mae	3,188,332	189,902	282,363	472,265	3,660,597
Freddie Mac	2,515,100	117,995	213,481	331,476	2,846,576
GSE Total	5,703,432	307,897	495,844	803,741	6,507,173
GSE % of Market	68%	19%	29%	24%	55%
Low-Mod Units					
Market	3,284,199	1,469,592	1,565,671	3,035,263	6,319,462
Fannie Mae	1,144,382	169,142	264,061	433,204	1,577,585
Freddie Mac	905,292	105,014	202,911	307,925	1,213,217
GSE Total	2,049,673	274,156	466,972	741,129	2,790,802
GSE % of Market	62%	19%	30%	24%	44%
Underserved Area Units*					
Market	2,088,672	722,844	817,628	1,540,472	3,629,144
Fannie Mae	729,938	86,579	115,165	201,744	931,682
Freddie Mac	603,341	54,068	90,372	144,440	747,782
GSE Total	1,333,280	140,647	205,538	346,184	1,679,464
GSE % of Market	64%	19%	25%	22%	46%
Special Affordable Units					
Market	1,074,491	947,071	1,008,988	1,956,059	3,030,550
Fannie Mae	333,778	85,117	141,244	226,361	560,139
Freddie Mac	271,527	56,465	116,141	172,606	444,134
GSE Total	605,306	141,582	257,385	398,967	1,004,273
GSE % of Market	56%	15%	26%	20%	33%

Source: The market data are the estimated number of newly mortgaged units during 1998. The Single-Family Owner market data exclude B & C loans; including B&C loans in the owner market would have reduced the GSE share of the owner market from 68 percent to 62 percent. See Appendix D for an explanation of the market methodology. The GSE data include units from mortgages originated during 1998 and purchased by one of the GSEs during 1998 or 1999. GSE data with missing affordability or geocode fields are reallocated based the distribution of existing data.

*The Single-Family Owner market data for underserved areas should be considered a minimal estimate. The goal-qualifying percentages that were used to derive the Single-Family Owner market estimates were based mainly on HMDA data for metropolitan areas; as discussed in Appendix D, this underestimates the underserved area market in non-metropolitan areas.

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While the GSEs are free to meet the Department's goals in any manner that they deem appropriate, it is useful to consider their performance relative to the industry by property type. As shown in Table A.7a, the GSEs accounted for 50 percent of the single-family owner market in 1997 but only 24 percent of the multifamily market and 14 percent of the single-family rental market (or a combined share of 20 percent of the rental market).

Single-family Owner Market. This market is the bread-and-butter of the GSEs' business, and based on the financial and other factors discussed below, they clearly have the ability to lead the primary market in providing credit for low- and moderate-income owners of single-family properties. However, the GSEs have been lagging behind the market in their funding of single-family owner loans that qualify for the housing goals, as discussed in Section E.2.c. Between 1996 and 1998, low- and moderate-income borrowers accounted for 34.9 percent of Freddie Mac's mortgage purchases and 38.4 percent of Fannie Mae's mortgage purchases, but 42.6 percent of primary market originations in metropolitan areas. The market share data reported in Table A.7. for the single-family owner market tell the same story. The GSEs' purchases of single-family owner loans represented 50 percent of all newly-originated owner loans in 1997, but only 43 percent of the low-mod loans that were originated, 35 percent of the special affordable loans, and 48 percent of the underserved area loans. Thus, the GSEs need to improve their performance and it appears that there is ample room in the non-GSE portions of the goals-qualifying markets for them to do so. For instance, the GSEs are not involved in almost two-thirds of special affordable owner market.

Single-family Rental Market. Single-family rental housing is a major source of low- and moderate-income housing. As discussed in Appendix D, data on the size of the primary market for mortgages on these properties is limited, but information from the American Housing Survey on the stock of such units

and plausible rates of refinancing indicate that the GSEs are much less active in this market than in the single-family owner market. As shown in Table A.7a, HUD estimates that the GSEs' purchases have totaled only 14 percent of newly-mortgaged single-family rental units that were affordable to low- and moderate-income families.

Many of these properties are ''mom-and-pop'' operations, which may not follow financing procedures consistent with the GSEs' guidelines. Much of the financing needed in this area is for rehabilitation loans on 2–4 unit properties in older areas, a market in which the GSEs' have not played a major role. However, this sector could certainly benefit from an enhanced role by the GSEs, and the Department believes that there is room for such an enhanced role.

Multifamily Market. Fannie Mae is the largest single source of multifamily finance in the United States, and Freddie Mac has made a solid reentry into this market over the last five years. However, there are a number of measures by which the GSEs lag the multifamily market. For example, the share of GSE resources committed to the multifamily purchases falls short of the multifamily proportion prevailing in the overall mortgage market. HUD estimates that newly-mortgaged units in multifamily properties represented 17 percent all (single-family and multifamily) dwelling units financed during 1997.[215] By comparison, multifamily acquisitions represented 13.5 percent all units backing Fannie Mae's purchases of mortgages originated in 1997, with a corresponding figure of only 8.8 percent for Freddie Mac.[216] In other words, the GSEs place more emphasis on single-family mortgages than they do on multifamily mortgages.

The GSEs role in the multifamily market is significantly smaller than in single-family. As shown in Table A.7a, the GSEs' purchases have accounted for only 24 percent of newly financed multifamily units during 1997—a market share much lower than their 50 percent share of the single-family owner market. Thus, these data suggest that a further enlargement of the GSEs' role in the multifamily market seems feasible and appropriate in the future.

There are a number of submarkets, such as the market for mortgages on 5–50 unit multifamily properties, where the GSEs have particularly lagged the market. As mentioned above, the GSEs acquired loans representing 24 percent units multifamily units receiving conventional financing in 1997, but their acquisitions of loans on small multifamily properties represented only about 2 percent of such properties financed that year. Certainly the GSEs face a number of challenges in better meeting the needs of the multifamily secondary market. For example, thrifts and other depository institutions may sometimes retain their best loans in portfolio, and the resulting information asymmetries may act as an impediment to expanded secondary market transaction volume.[217] However, the GSEs have demonstrated that they have the depth of expertise and the financial resources to devise innovative solutions to problems in the multifamily market.

2. Qualitative Dimensions of the GSEs' Ability to Lead the Industry

This section discusses several qualitative factors that are indicators of the GSEs' ability to lead the industry in affordable lending. It discusses the GSEs' role in the mortgage market; their ability, through their underwriting standards, new programs, and innovative products, to influence the types of loans made by private lenders; their development and utilization of state-of-the-art technology; the competence, expertise and training of their staffs; and their financial resources.

a. Role in the Mortgage Market

As discussed in Section C of this Appendix, the GSEs' single-family mortgage acquisitions have generally followed the volume of originations in the primary market for conventional mortgages. However, in 1997, single-family originations rose by nearly 10 percent, while the GSEs' acquisitions declined by 7 percent. As a result, the Office of Federal Housing Enterprise Oversight (OFHEO) estimates that the GSEs' share of single-family mortgage originations declined from 37 percent in 1996 to 32 percent in 1997. The GSEs' single-family mortgage share jumped to an estimated 43 percent in 1998 and 42 percent in 1999, but that is still well below the peak of 51 percent attained in 1993.

The GSEs' high shares of originations during the 1990s led to a rise in their share of total conventional single-family mortgages outstanding, including both conforming mortgages and jumbo mortgages.[218] OFHEO estimates that the GSEs' share of such mortgages outstanding jumped from 34 percent at the end of 1991 to 40 percent at the end of 1994 and an estimated 45 percent at the end of 1998.[219] All of the increase in the GSEs' relative role between 1991 and 1998 was due to the growth in their portfolio holdings as a share of mortgages outstanding, from 5 percent at the end of 1991 to 17 percent at the end of 1998; relative holdings of the GSEs' mortgage-backed securities by others actually declined as a share of mortgages outstanding, from 29 percent at the end of 1991 to 28 percent at the end of 1998.

The dominant position of the GSEs in the mortgage market is reinforced by their relationships with other market institutions. Commercial banks, mutual savings banks, and savings and loans are their competitors as well as their customers—they compete to the extent they hold mortgages in portfolio, but at the same time they sell mortgages to the GSEs. They also buy mortgage-backed securities, as well as the debt securities used to finance the GSEs' portfolios. Mortgage bankers, who accounted for 58 percent of all single-family loans in 1997, sell virtually all of their conventional conforming loans to the GSEs.[220] Private mortgage insurers are closely linked to the GSEs, because mortgages purchased by the enterprises that have loan-to-value ratios in excess of 80 percent are normally required to be covered by private mortgage insurance, in accordance with the GSEs' charter acts.

b. Underwriting Standards for the Primary Mortgage Market

The GSEs' underwriting guidelines are followed by virtually all originators of prime mortgages, including lenders who do not sell many of their mortgages to Fannie Mae or Freddie Mac.[221] The guidelines are also commonly followed in underwriting ''jumbo'' mortgages, which exceed the maximum principal amount which can be purchased by the GSEs (the conforming loan limit)—such mortgages eventually might be sold to the GSEs, as the principal balance is amortized or when the conforming loan limit is otherwise increased. The GSEs, through their automated underwriting systems, have started adapting their underwriting for subprime loans and other loans that have not met their traditional underwriting standards.

Because the GSEs' guidelines set the credit standards against which the mortgage applications of lower-income families are judged, the enterprises have a profound influence on the rate at which mortgage funds flow to low- and moderate-income borrowers and underserved neighborhoods. Congress realized the crucial role played by the GSEs' underwriting guidelines when it required each enterprise to submit a study on its guidelines to the Secretary and to Congress in 1993, and when it called for the Secretary to ''periodically review and comment on the underwriting and appraisal guidelines of each enterprise.'' Some of the conclusions from a study of the GSEs' single-family underwriting guidelines prepared for the Department by the Urban Institute have been discussed in Section E.

c. State-of-the-Art Technology

Both GSEs are in the forefront of new developments in mortgage industry technology. Each enterprise released an automated underwriting system in 1995—Freddie Mac's ''Loan Prospector'' and Fannie Mae's ''Desktop Underwriter.'' Both systems rely on numerical credit scores, such as those developed by Fair, Isaac, and Company, and additional data submitted by the borrower, to obtain a mortgage score. The mortgage score indicates to the lender either that the GSE will accept the mortgage, based on the application submitted, or that more detailed manual underwriting is required to make the loan eligible for GSE purchase.

It is estimated that 25–40 percent of the GSEs' purchases were based on automated underwriting in 1999. These systems have also been adapted for FHA and jumbo loans. They have the potential to reduce the cost of loan origination, particularly for low-risk loans, but the systems are so new that no comprehensive studies of their effects have been conducted. As discussed earlier, concerns about the use of automated underwriting include the impact on minorities and the ''black box'' nature of the score algorithm.

The GSEs are using their state-of -the-art technology in certain ways to help expand homeownership opportunities. For example, Fannie Mae has developed FannieMaps, a computerized mapping service offered to lenders, nonprofit organizations, and state and local governments to help them implement community lending programs.

d. Staff Resources

Both Fannie Mae and Freddie Mac are well-known throughout the mortgage industry for the expertise of their staffs in carrying out their current programs, conducting basic and applied research regarding mortgage markets, developing innovative new programs, and undertaking sophisticated analyses that may lead to new programs in the future. The leaders of these corporations frequently testify before Congressional committees on a wide range of housing issues, and both GSEs have developed extensive working relationships with a broad spectrum of mortgage market participants, including various nonprofit groups, academics, and government housing authorities. They also contract with outside leaders in the finance industry for technical expertise not available in-house and for advice on a wide variety of issues.

e. Financial Strength

Fannie Mae. The benefits that accrue to the GSEs because of their GSE status, as well as their solid management, have made them two of the nation's most profitable businesses. Fannie Mae's net income has increased from $376 million in 1987 to $1.6 billion in 1992, $3.1 billion in 1997, $3.4 billion in 1998 and $3.9 billion in 1999—an average annual rate of increase of 22 percent. Through the fourth quarter of 1998, Fannie Mae has recorded 48 consecutive quarters of increased net income per share of common equity. Fannie Mae's return on equity averaged 24.0 percent over the 1995–99 period—far above the rates achieved by most financial corporations.

Investors in Fannie Mae's common stock have seen their annual dividends per share more than double since 1993, rising from $1.84 to $4.32 in 1999. If dividends were fully reinvested, an investment of $1000 in Fannie Mae common stock on December 31, 1987 would have appreciated to $27,983.98 by December 31, 1997. This annualized total rate of return of 39.5 percent over the decade exceeded that of many leading U. S. corporations, including Intel (35.9 percent), Coca-Cola (32.4 percent), and General Electric (24.3 percent).

Freddie Mac. Freddie Mac has shown similar trends. Freddie Mac's net income has increased from $301 million in 1987 to $622 million in 1992, $1.4 billion in 1997, $1.7 billion in 1998 and $2.2 billion in 1999—an average annual rate of increase of 18 percent. Freddie Mac's return on equity averaged 23.4 percent over the 1995–99 period—also well above the rates achieved by most financial corporations.

Investors in Freddie Mac's common stock have also seen their annual dividends per share more than double since 1993, rising from $0.88 to $2.40 in 1999. If dividends were fully reinvested, an investment of $1000 in Freddie Mac common stock on December 29, 1989 would have appreciated to $8,670.20 by December 31, 1997, for an annualized total rate of return of 31.0 percent over this period. This was slightly higher than the annual return on Fannie Mae common stock (29.9 percent) and substantially higher than the average gain in the S&P Financial-Miscellaneous index (24.1 percent) over the 1990–97 period.[222]

Other indicators. Additional indicators of the strength of the GSEs are provided by various rankings of American corporations. One survey found that at the end of 1999 Fannie Mae was third of all companies in total assets and Freddie Mac ranked 14th.[223] *Business Week* has reported that among Standard & Poor's 500 companies in 1999, Fannie Mae and Freddie Mac respectively ranked 49th and 88th in market value, and 24th and 43rd in total profits.[224]

f. Conclusion About Leading the Industry

In light of these considerations, the Secretary has determined that the GSEs have the ability to lead the industry in making mortgage credit available for low- and moderate-income families.

H. Factor 6: The Need To Maintain the Sound Financial Condition of the GSEs

HUD has undertaken a separate, detailed economic analysis of this final rule, which includes consideration of (a) the financial returns that the GSEs earn on low- and moderate-income loans and (b) the financial safety and soundness implications of the housing goals. Based on this economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the goals raise minimal, if any, safety and soundness concerns.

I. Determination of the Low- and Moderate-Income Housing Goals

The annual goal for each GSE's purchases of mortgages financing housing for low- and moderate-income families is established at 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003. This goal will remain in effect for 2004 and thereafter, unless changed by the Secretary prior to that time. The goal represents an increase over the 1996 goal of 40 percent and the 1997–99 goal of 42 percent. These goals are in the lower portion of the range of market share estimates of 50–55 percent, presented in Appendix D. The Secretary's consideration of the six statutory factors that led to the choice of these goals is summarized in this section.

1. Housing Needs and Demographic Conditions

Data from the 1990 Census and the American Housing Surveys demonstrate that there are substantial housing needs among low- and moderate-income families, especially among lower-income and minority families in this group. Many of these households are burdened by high homeownership costs or rent payments and will likely continue to face serious housing problems, given the dim prospects for earnings growth in entry-level occupations. According to HUD's ''Worst Case Housing Needs'' report, 21 percent of owner households faced a moderate or severe cost burden in 1997. Affordability problems were even more common among renters, with 40 percent paying more than 30 percent of their income for rent in 1997.[225]

Single-family Mortgage Market. Many younger, minority and lower-income families did not become homeowners during the 1980s due to the slow growth of earnings, high real interest rates, and continued house price increases. Over the past seven years, economic expansion, accompanied by low interest rates and increased outreach on the part of the mortgage industry, has improved affordability conditions for these families. Between 1993 and 1999, record numbers of lower-income and minority families purchased homes. First-time homeowners have become a major driving force in the home purchase market over the past five years. Thus, the 1990s have seen the development of a strong affordable lending market. Despite this growth in affordable lending to minorities, disparities in the mortgage market remain. For example, African-American applicants are still twice as likely to be denied a loan as white applicants, even after controlling for income.

Several demographic changes will affect the housing finance system over the next few years. First, the U.S. population is expected to grow by an average of 2.4 million per year over the next 20 years, resulting in 1.1 to 1.2 million new households per year. The aging of the baby-boom generation and the entry of the baby-bust generation into prime home buying age will have a dampening effect on housing demand. However, the continued influx of immigrants will increase the demand for rental housing, while those who immigrated during the 1980's will be in the market for owner-occupied housing. Non-traditional households have become more important, as overall household formation rates have slowed. With later marriages, divorce, and non-traditional living arrangements, the fastest growing household groups have been single-parent and single-person households. With continued house price appreciation and favorable mortgage terms, ''trade-up buyers'' will increase their role in the housing market. These demographic trends will lead to greater diversity in the homebuying market, which will require adaptation by the primary and secondary mortgage markets.

As a result of the above demographic forces, housing starts are expected to average 1.5 million units between 2000 and 2004, essentially the same as in 1996–99.[226] Refinancing of existing mortgages, which accounted for 50 percent of originations in 1998 and 34 percent in 1999 are returning to lower levels during 2000 and 2001 (16 and 12 percent respectively).

Multifamily Mortgage Market. Since the early 1990s, the multifamily mortgage market has become more closely integrated with global capital markets, although not to the same degree as the single-family mortgage market. Loans on multifamily properties remain viewed as riskier than their single-family counterparts. Property values, vacancy rates, and market rents in multifamily properties appear to be highly correlated with local job market conditions, creating greater sensitivity of loan performance to economic conditions than may be experienced for single-family mortgages.

Volatility during 1998 in the market for Commercial Mortgage Backed Securities (CMBS), an important source of financing for multifamily properties, underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced

by virtue of the fact that an increasing proportion of multifamily mortgages is now originated in accordance with secondary market standards.

The GSEs have the capability to increase the availability of long-term, fixed rate financing, thereby contributing greater liquidity in market segments where increased GSE presence can provide lenders with a more viable ''exit strategy'' than what is presently available. It appears that the cost of mortgage financing on properties with 5–50 units, where much of the nation's affordable housing stock is concentrated, may be higher than warranted by the degree of inherent credit risk.[227] Presently, however, the GSEs purchase only about 5 percent of units in 5–50 unit properties financed annually. Borrowers have also experienced difficulty obtaining mortgage financing for multifamily properties with significant rehabilitation needs. Historically the flow of capital into multifamily housing for seniors has, moreover, been characterized by a great deal of volatility.

2. Past Performance and Ability To Lead the Industry

The GSEs have played a major role in the conventional single-family mortgage market in the 1990s. The GSEs' purchases of single-family-owner mortgages accounted for 42 percent of mortgages originated in the single-family market during 1999. Many industry observers believe that the role of the GSEs in the late-1980s and 1990s is a major reason why the decline of the thrift industry had only minor effects on the nation's housing finance system. Additionally, the American mortgage market was not impacted adversely in any way by the volatility in world financial markets in late 1998.

The enterprises' role in the mortgage market is also reflected in their use of cutting edge technology, such as the development of Loan Prospector and Desktop Underwriter, the automated underwriting systems developed by Freddie Mac and Fannie Mae, respectively. Both GSEs are also entering new and challenging fields of mortgage finance, including activities involving subprime mortgages and mortgages on manufactured housing.

The GSEs' performance on the Low- and Moderate-Income Housing Goal has also improved significantly in recent years, as shown in Figure A.1. Fannie Mae's performance increased from 34.2 percent in 1993 to 42.3 percent in 1995, 45.6 percent in 1996, and 45.7 percent in 1997, then falling slightly to 44.1 percent in 1998, but rising to 45.9 percent in 1999. Freddie Mac's performance also increased, from 29.7 percent in 1993 to 38.9 percent in 1995, 41.1 percent in 1996, 42.6 percent in 1997, 42.9 percent in 1998, and 46.1 percent in 1999. Freddie Mac's low- and moderate-income shares were below Fannie Mae's shares in every year through 1998, but its goal performance slightly exceeded Fannie Mae's performance in 1999. This increase in Freddie Mac's relative performance on the Low- and Moderate-Income Housing Goal resulted from its increased role in the multifamily mortgage market and the increase in the goal-qualifying share of its single-family mortgages.

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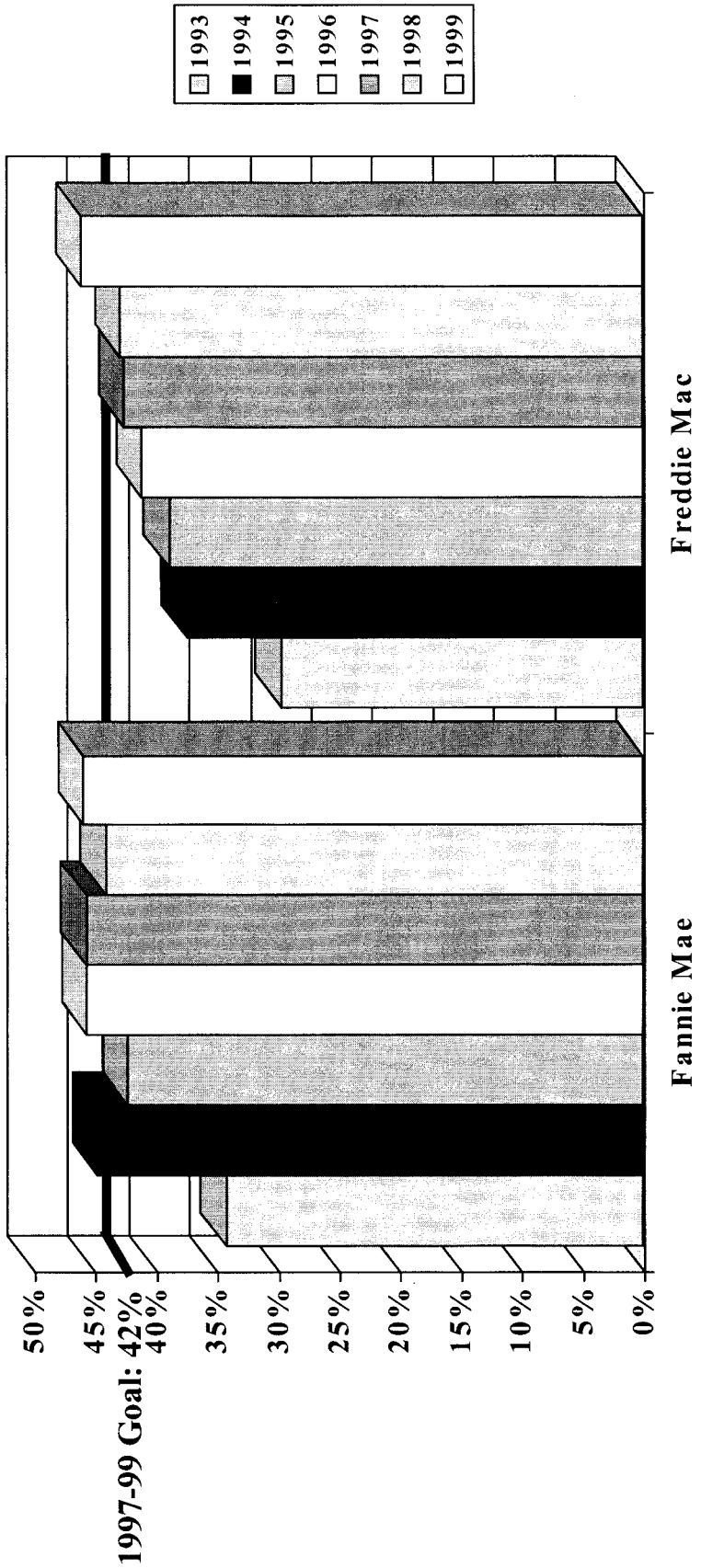
Figure A.1

Low- and Moderate-Income Mortgage Purchases

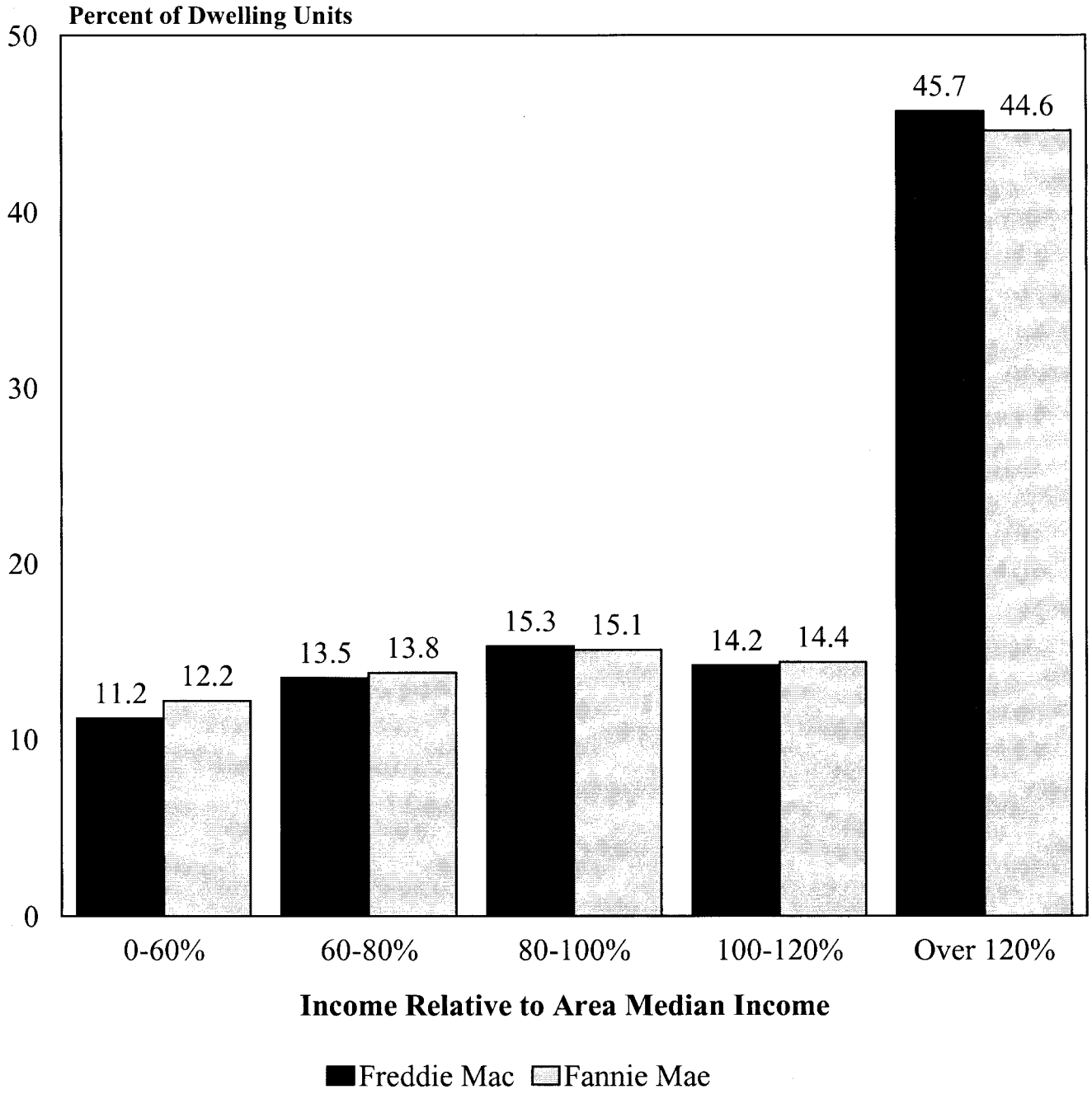


Low- and Moderate-Income Goal was 42% of units financed for 1997-99 (40% for 1996).

Source: HUD analysis of GSEs' loan-level data.

Figure A.2

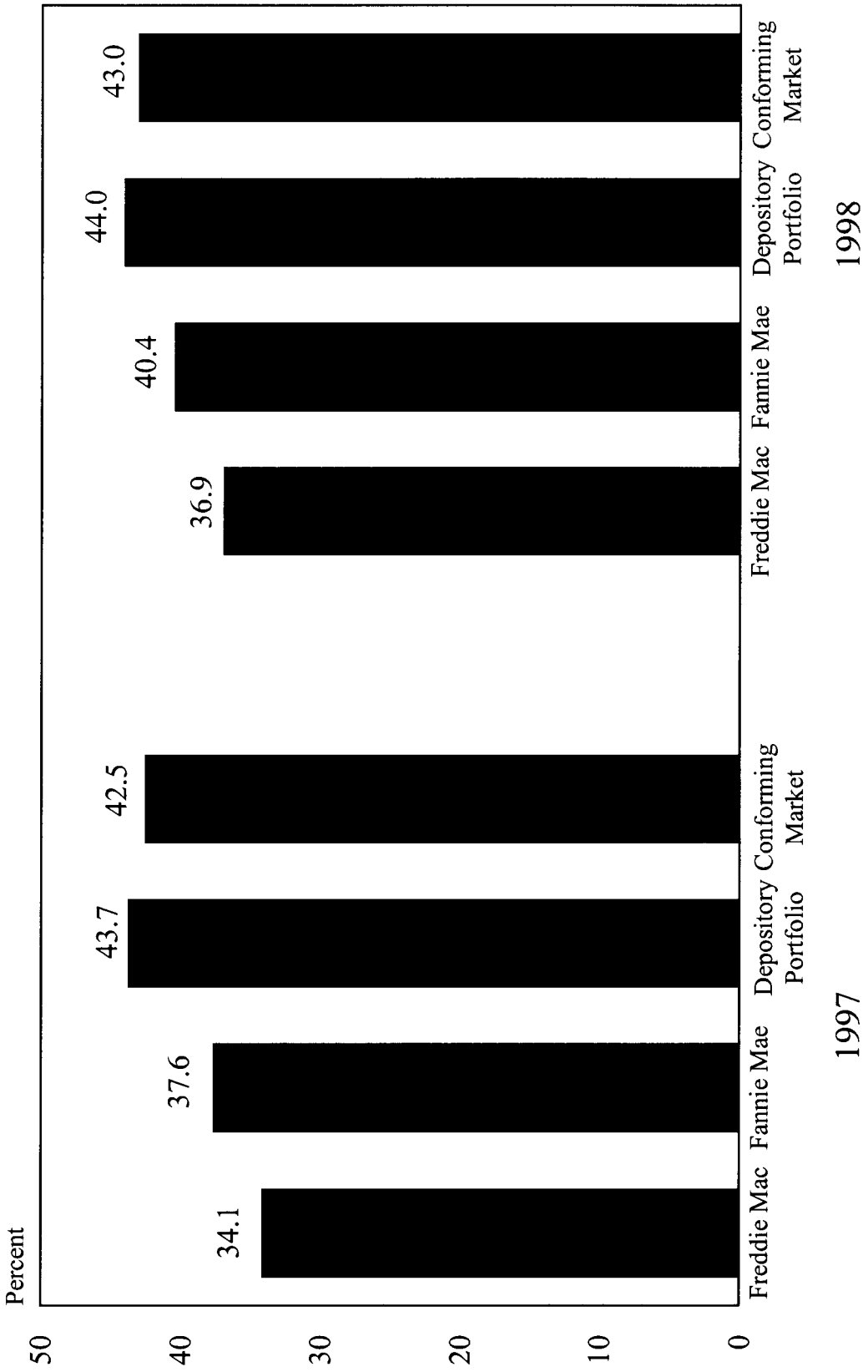
Distribution of GSE Purchases of Single-Family Owner-Occupied Home Loans by Income Class of Mortgagor for 1999



Source: GSE loan-level data on purchases of home purchase loans in both metropolitan and non-metropolitan areas, excluding loans with missing borrower income ratio.

Figure A.3

The Share Of GSE And Conventional Conforming Mortgages for Low- and Moderate-Income Borrowers, 1997 and 1998



Source: Conforming market and depository data are from 1997 and 1998 HMDA; GSE data are from loan-level data reported to HUD. Data are for single-family home purchase loans in metropolitan areas. See Table A.4a for further explanation.

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Single-family Affordable Lending Market. Despite these gains in goal performance, the Department remains concerned about the GSEs' support of lending for the lower-income end of the market. As shown in Figures A.2 and A.3, the lower-income shares of the GSEs' purchases are too low, particularly when compared with the corresponding shares for portfolio lenders and the primary market.

This appendix has reached the following findings with respect to the GSEs' purchases of affordable loans for low- and moderate-income families and their communities.

• While Fannie Mae and Freddie Mac have both improved their support for the single-family affordable lending market over the past seven years, they have generally lagged the overall single-family market in providing affordable loans to lower-income borrowers. This finding is based on HUD's analysis of GSE and HMDA data and on numerous studies by academics and research organizations.

• The GSEs show somewhat different patterns of mortgage purchases—through 1998, Freddie Mac was less likely than Fannie Mae to fund mortgages for lower-income families. As a result, the percentage of Freddie Mac's purchases benefiting historically underserved families and their neighborhoods was less than the corresponding shares of total market originations, while Fannie Mae's purchases were closer to the patterns of originations in the primary market (see Figure A.3). However, in 1999, Freddie Mac's purchases of home loans included a higher percentage of low-mod loans than Fannie Mae's purchases (40.0 percent and 39.3 percent, respectively). It remains to be seen whether this represents a new trend for Freddie Mac, or a temporary reversal of the pattern for the 1996–98 period.

• A study by The Urban Institute of lender experience with the GSEs' underwriting guidelines finds that the enterprises had stepped up their outreach efforts and increased the flexibility in their standards to better accommodate the special circumstances of lower-income borrowers. However, this study concluded that the GSEs' guidelines remain somewhat inflexible and that the enterprises are often hesitant to purchase affordable loans. Lenders also told The Urban Institute that Fannie Mae has been more aggressive than Freddie Mac in market outreach to underserved groups, in offering new affordable products, and in adjusting its underwriting standards.

• A large percentage of the lower-income loans purchased by the enterprises have relatively high down payments, which raises questions about whether the GSEs are adequately meeting the needs of lower-income families have difficulty raising enough cash for a large down payment.

• There are important parts of the single-family market where the GSEs have played a minimal role. For example, single-family rental properties are an important source of low-income housing, but they represent only a small portion of the GSEs' business. GSE purchases have accounted for only 14 percent of the single-family rental units that received financing in 1997. An increased presence by Fannie Mae and Freddie Mac would bring lower interest rates and liquidity to this market, as well as improve their goals performance.

• The above points can be summarized by examining the GSEs' share of the single-family mortgage market. The GSEs' total purchases have accounted for 44 percent of all single-family (both owner and rental) units financed during 1997; however, their low-mod purchases have accounted for only 34 percent of the low- and moderate-income single-family units that were financed during that year.

In conclusion, the Department's analysis suggests that the GSEs are not leading the single-family market in purchasing loans that qualify for the Low- and Moderate-Income Goal. There is room for Fannie Mae and Freddie Mac to improve their performance in purchasing affordable loans at the lower-income end of the market. Moreover, evidence suggests that there is a significant population of potential homebuyers who might respond well to aggressive outreach by the GSEs. Specifically, both Fannie Mae and the Joint Center for Housing Studies expect immigration to be a major source of future homebuyers. Furthermore, studies indicate the existence of a large untapped pool of potential homeowners among the rental population. Indeed, the GSEs' recent experience with new outreach and affordable housing initiatives is important confirmation of this potential.

Multifamily Market. Fannie Mae and, especially, Freddie Mac have rapidly expanded their presence in the multifamily mortgage market in the period since the passage of FHEFSSA. The Senate report on this legislation in 1992 referred to the GSEs' activities in the multifamily arena as ''troubling,'' citing Freddie Mac's September 1990 suspension of its purchases of new multifamily mortgages and criticism of Fannie Mae for ''creaming'' the market.[228]

Freddie Mac has successfully rebuilt its multifamily acquisition program, as shown by the increase in its purchases of multifamily mortgages from $27 million in 1992 to $7.6 billion in 1999. As a result, concerns regarding Freddie Mac's multifamily capabilities no longer constrain their performance with regard to low- and moderate-income families in the manner that prevailed at the time of the December 1995 rule.

Fannie Mae never withdrew from the multifamily market, but it has also stepped up its activities in this area substantially, with multifamily purchases rising from $3.0 billion in 1992 to $9.4 billion in 1999. Holding 12.8 percent of the outstanding stock of multifamily mortgage debt and guarantees as of the end of 1999, Fannie Mae is regarded as an influential force within the multifamily market. Fannie Mae's multifamily underwriting standards have been widely emulated throughout the multifamily mortgage market.

The increased role of Fannie Mae and Freddie Mac in the multifamily market has major implications for the Low- and Moderate-Income Housing Goal, since a very high percentage of multifamily units have rents which are affordable to low- and moderate-income families. However, the potential of the GSEs to lead the multifamily mortgage industry has not been fully developed. As reported earlier in Table A.7a, the GSEs' purchases (through 1999) have accounted for only 24 percent of the multifamily units that received financing during 1997. Standard & Poor's recently described both GSEs' multifamily lending as ''extremely conservative.''[229] In particular, their multifamily purchases to date do not appear to be contributing to mitigation of the excessive cost of mortgage financing for small multifamily properties, nor have the GSEs demonstrated market leadership with regard to rehabilitation loans, a segment where financing has sometimes been difficult to obtain. In conclusion, it appears that both GSEs can make improvements in their underwriting policies and procedures and introduce new products that will enable them to more effectively serve segments of the multifamily market that can benefit from greater liquidity.

3. Size of the Mortgage Market for Low- and Moderate-Income Families

As detailed in Appendix D, the low- and moderate-income mortgage market accounts for 50 to 55 percent of dwelling units financed by conventional conforming mortgages. In estimating the size of the market, HUD excluded the effects of the B&C market. HUD also used alternative assumptions about future economic and market conditions that were less favorable than those that existed over the last five years. HUD is well aware of the volatility of mortgage markets and the possible impacts of changes in economic conditions on the GSEs' ability to meet the housing goals. Should conditions change such that the goals are no longer reasonable or feasible, the Department has the authority to revise the goals.

4. The Low- and Moderate-Income Housing Goals for 2001–03

There are several reasons why the Secretary is increasing the Low- and Moderate-Income Housing Goal from 42 percent in 1997–99 to 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003.

First, when the 1996–99 goals were established in December 1995, Freddie Mac had only recently reentered the multifamily mortgage market, after its absence in the early 1990s. Freddie Mac has rebuilt its multifamily acquisition program over the past several years, with its 1999 purchases at a level more than eight times what they were in 1994 (in dollar terms). The limited role of Freddie Mac in the multifamily market was a significant constraint in setting the Low- and Moderate-Income Housing Goals for 1996–99. Freddie Mac's return as a major participant in the multifamily market was an important factor in the improvement in its performance on the Low- and Moderate-Income Housing Goal, as shown in Figure A.1, and it removes an impediment to higher goals for both GSEs. These goals will create new opportunities for the GSEs to further step up their support of mortgages on properties with rents affordable to low- and moderate-income families. However, as discussed in the Preamble, to encourage Freddie Mac to further step up its role in the multifamily market, the Secretary is proposing a ''temporary adjustment factor'' for its purchases of loans on properties with more than 50 units. Specifically, each unit in such properties would be weighted as 1.2 units in the numerator of the housing goal percentage for both the Low and Moderate Income Goal and the Special Affordable Housing Goal for the years 2001–2003.

Second, the single-family affordable market had only recently begun to grow in 1993 and 1994, the latest period for which data was available when the 1996–99 goals were established in December 1995. But the historically high low-and moderate-income share of the primary mortgage market attained in 1994 has been maintained over the 1995–98 period. The three-year average estimate of the low- and moderate-income share of the single-family owner mortgage market was 38 percent for 1992–94, but 42 percent for 1995–98 and 41 percent for the 1992–98 period as a whole. The continued high affordability of housing suggests that a strong low-income market continued for a sixth straight year in 1999. Current economic forecasts suggest that housing affordability could be maintained in the post-2000 period, leading to additional opportunities for the GSEs to support mortgage lending benefiting low- and moderate-income families.[230] And various surveys indicate that the demand for homeownership by minorities, immigrants, and younger households will remain strong for the foreseeable future.

Although single-family owner 1-unit properties comprise the ''bread-and-butter'' of the GSEs' business, evidence presented above demonstrates that the shares of their loans for low- and moderate-income families taking out loans on such properties lag the corresponding shares for the primary market. For example, in 1997 the Department finds that these shares amounted to 34.1 percent for Freddie Mac, 37.6 percent for Fannie Mae, and 42.5 percent for the primary market; as shown in Figure A.3, a similar pattern holds for 1998. Thus the Secretary believes that the GSEs can do more to raise the low- and moderate-income shares of their mortgages on these properties. This can be accomplished by building on various programs that the enterprises have already started, including (1) their outreach efforts, (2) their incorporation of greater flexibility into their underwriting guidelines, (3) their purchases of seasoned CRA loans, (4) their entry into new single-family mortgage markets such as loans on manufactured housing, (5) their increased purchases of loans on small multifamily properties, and (6) their increased presence in other rental markets where they have had only a limited presence in the past.

Third, one particular area where the GSEs could play a greater role is in the mortgage market for single-family rental dwellings. These properties, containing 1–4 rental units, are an important source of housing for low- and moderate-income families, but the GSEs have not played a major role in this mortgage market—they accounted for only 6.5 percent of units financed by Fannie Mae and 6.4 percent of units financed by Freddie Mac in 1997. The Department believes that the GSEs' role in financing loans on such properties, which are generally owned by ''mom and pop'' businesses, can and should be enhanced, though it recognizes that single-family rental properties are very heterogeneous, making it more difficult to develop standardized underwriting standards for the secondary market. But the Secretary believes that the GSEs can do more to play a leadership role in providing financing for such properties.[231]

Finally, a wide variety of quantitative and qualitative indicators indicate that the GSEs' have the financial strength to improve their affordable lending performance. For example, combined net income has risen steadily over the last decade, from $1.244 billion in 1989 to $6.135 billion in 1999, an average annual growth rate of 17 percent per year. This financial strength provides the GSEs with the resources to lead the industry in supporting mortgage lending for units affordable to low- and moderate-income families.

Summary. Figure A.7a summarizes many of the points made in this section regarding opportunities for Fannie Mae and Freddie Mac to improve their overall performance on the Low- and Moderate-Income Goal. The GSEs' purchases have provided financing for 2,948,712 (or 40 percent) of the 7,306,950 single-family and multifamily units that were financed in the conventional conforming market during 1997. However, in the low- and moderate-income part of the market, the 1,330,516 units that were financed by GSE purchases represented only 32 percent of the 4,201,287 dwelling units that were financed in the market. Thus, there appears to ample room for the GSEs to increase their purchases of loans that qualify for the Low- and Moderate-Income Goal. Examples of specific market segments that would particularly benefit from a more active secondary market have been provided throughout this appendix.

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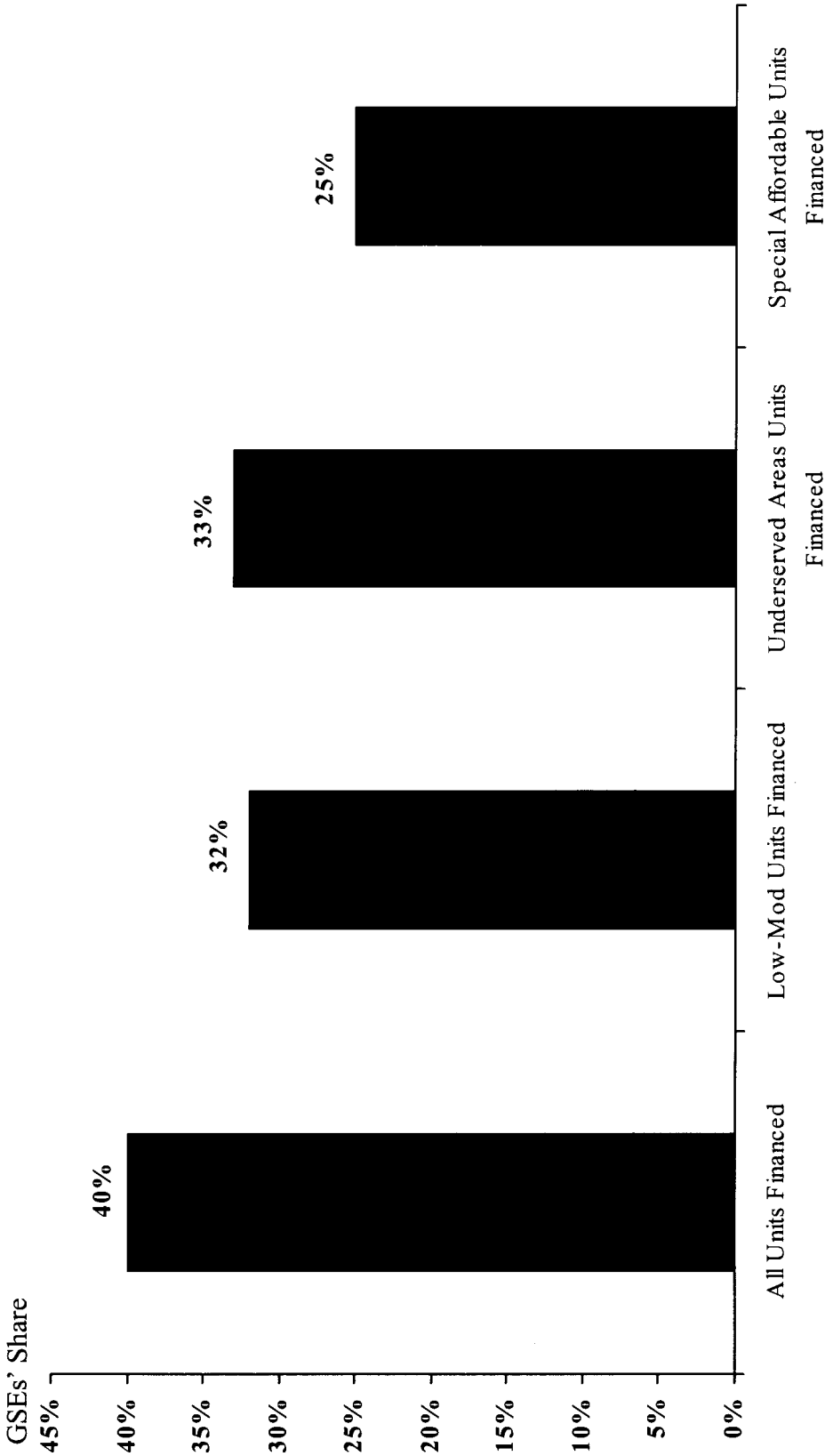
Figure A.4

GSEs' Share of the 1997 Conventional Conforming Market by Housing Goal Category



Note: The conventional conforming market, as estimated by HUD, includes single-family owner, single-family rental, and multifamily units financed during 1997. See notes for Table A.7a.

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5. Conclusions

Having considered the projected mortgage market serving low- and moderate-income families, economic, housing and demographic conditions for 2001–03, and the GSEs' recent performance in purchasing mortgages for low- and moderate-income families, the Secretary has determined that the annual goal of 50 percent of eligible units financed in each of calendar years 2001, 2002 and 2003 is feasible. Moreover, the Secretary has considered the GSEs' ability to lead the industry as well as the GSEs' financial condition. The Secretary has determined that the goal is necessary and appropriate.

Endnotes to Appendix A

[1] See ''Freddie's Subprime Wrap Business Blooms in 1999'', *Inside B&C Lending,* December 27, 1999, pages 8–9.

[2] See Jim Berkovec and Peter Zorn, ''How Complete is HMDA? HMDA Coverage of Freddie Mac Purchases,'' *The Journal of Real Estate Research,* Vol. II, No. 1, Nov. 1, 1996.

[3] U.S. Department of Housing and Urban Development, Office of Federal Housing Enterprise Oversight, ''Risk-Based Capital'' (Notice of Proposed Rulemaking), **Federal Register**, April 13, 1999, p. 18116.

[4] Fannie Mae (2000), p. 102.

[5] OFHEO NPR, *Ibid.*

[6] Mortgage denial rates are based on 1998 HMDA data; manufactured housing lenders are excluded from these comparisons.

[7] U.S. Department of Housing and Urban Development. *Rental Housing Assistance—The Worsening Crisis: A Report to Congress on Worst Case Housing Needs.* (March *2000*).

[8] ''Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight,'' February 3, 1997; Freddie Mac, *1998 Annual Report to Shareholders,* p. 6.

[9] Freddie Mac reported delinquency rates of 0.14% for multifamily and 0.39% for single-family in 1999 (*1999 Annual Report to Shareholders,* p. 23.) Fannie Mae reported ''serious delinquency rates'' of 0.12% for multifamily and 0.48% for single-family in 1999 (*1999 Annual Report to Shareholders,* p. 27).

[10] According to the National Association of Realtors, *Housing Market Will Change in New Millennium as Population Shifts,* (November 7, 1998), 45 percent of U.S. household wealth is in the form of home equity in 1998. Since 1968, home prices have increased each year, on average, at the rate of inflation plus up to two percentage points.

[11] Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 2000.* (2000), p. 9.

[12] Joint Center for Housing Studies of Harvard University. (2000), p. 33.

[13] Michelle J. White, and Richard K. Green. ''Measuring the Benefits of Homeowning: Effects on Children,'' *Journal of Urban Economics.* 41 (May 1997), pp. 441–61. Also see ''The Social Benefits and Costs of Homeownership: A Critical Assessment of the Research,'' Working Paper No. 00–01, Research Institute for Housing America, May 2000.

[14] Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998* (1998).

[15] Howard Savage and Peter Fronczek, *Who Can Afford to Buy A House in 1991?,* U.S. Bureau of the Census, Current Housing Reports H121/93–3, (July 1993), p. ix.

[16] Donald S. Bradley and Peter Zorn. ''Fear of Homebuying: Why Financially Able Households May Avoid Ownership,'' *Secondary Mortgage Markets* (1996).

[17] Munnell, Alicia H., Geoffrey M. B. Tootell, Lynn E. Browne, and James McEneaney, ''Mortgage Lending in Boston: Interpreting HMDA Data,'' *American Economic Review.* 86 (March 1996).

[18] William C. Hunter. ''The Cultural Affinity Hypothesis and Mortgage Lending Decisions,'' WP–95–8, Federal Reserve Bank of Chicago, (1995). In addition, a study undertaken for HUD also found higher denial rates among FHA borrowers for minorities after controlling for credit risk. See Ann B. Schnare and Stuart A. Gabriel. ''The Role of FHA in the Provision of Credit to Minorities,'' ICF Incorporated, Prepared for the U.S. Department of Housing and Urban Development, (April 25, 1994).

[19] See Charles W. Calomiris, Charles M. Kahn and Stanley D. Longhofer. ''Housing Finance Intervention and Private Incentives: Helping Minorities and the Poor,'' *Journal of Money, Credit and Banking.* 26 (August 1994), pp. 634–74, for more discussion of this phenomenon, which is called ''statistical discrimination.''

[20] The FICO score, developed by Fair, Isaac and Company, is summary index of an individual's credit history. The FICO score is based on elements from the applicant's credit report, such as number of delinquencies in the past year, number of trade lines, and the amount owed on trade lines as compared to the available maximum credit limits. The FICO score is said to reflect the credit risk of the applicant and a score of 620 is often cited as a threshold between being an acceptable and an unacceptable credit risk.

[21] Section 3.b of this appendix provides a further discussion of automated underwriting.

[22] Robert B. Avery, Patricia E. Beeson and Mark E. Sniderman. *Understanding Mortgage Markets: Evidence from HMDA,* Working Paper Series 94–21. Federal Reserve Bank of Cleveland (December 1994).

[23] *Rental Housing Assistance—The Worsening Crisis: A Report to Congress on Worst Case Housing Needs,* Department of Housing and Urban Development, (March 2000), p. i. All statistics in this subsection are taken from this report, except as noted.

[24] Very low-income households are defined in the report as those whose income, adjusted for family size, is less than 50 percent of area median income. This differs from the definition adopted by Congress in the GSE Act of 1992, which uses a cutoff of 60 percent and which does not adjust income for family size for owner-occupied dwelling units.

[25] Edward N. Wolff, ''Recent Trends in the Size Distribution of Household Wealth,'' *The Journal of Economic Perspectives,* 12(3), (Summer 1998), p. 137.

[26] Joint Center for Housing Studies, *The State of the Nation's Housing: 2000,* June 2000, p. 24.

[27] Rent is measured in this report as gross rent, defined as contract rent plus the cost of any utilities which are not included in contract rent.

[28] A detailed discussion of the GSEs' activities in this area is contained in Theresa R. Diventi, *The GSEs' Purchases of Single-Family Rental Property Mortgages,* Housing Finance Working Paper No. HF–004, Office of Policy Development and Research, Department of Housing and Urban Development, (March 1998).

[29] One program that shows promise is Fannie Mae's HomeStyle Home Improvement Mortgage Loan Product. Under this program, Fannie Mae will purchase mortgages that finance the purchase and rehabilitation of 1- to 4-unit properties in ''as-is'' condition. The mortgage amount is limited to 90 percent of the appraised ''as-completed'' value, with the rehab amount not to exceed 50 percent of this value.

[30] See Drew Schneider and James Follain, ''A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing,'' *Cityscape: A Journal of Policy Development and Research* 4 (1), (1998), pp. 43–58; and William Segal and Christopher Herbert, *Segmentation of the Multifamily Mortgage Market: The Case of Small Properties,* paper presented to annual meetings of the American Real Estate and Urban Economics Association, (January 2000).

[31] These costs have been estimated at $30,000 for a typical transaction. Presentation by Jeff Stern, Vice President, Enterprise Mortgage Investments, HUD GSE Working Group, July 23, 1998. The most comprehensive account of the multifamily housing finance system as it relates to small properties is contained in Schneider and Follain (see above reference).

[32] This measure is discussed in Paul B. Manchester, ''A New Measure of Labor Market Distress,'' *Challenge,* (November/December 1982).

[33] Homeownership rates prior to 1993 are not strictly comparable with those beginning in 1993 because of a change in weights from the 1980 Census to the 1990 Census.

[34] All of the home sales data in this section are obtained from *U.S. Housing Market Conditions, 1st Quarter 2000,* U.S. Department of Housing and Urban Development, (May 2000).

[35] Existing home sales, housing starts, housing affordability and 30-year fixed rate mortgage rate forecasts are obtained from Standard & Poor's DRI, *The U.S. Economy.* (June 2000), pp. 55–7. While DRI provides forecasts through 2004, one should obviously interpret them with care.

[36] Real GDP, unemployment, inflation, and treasury note interest rate projections are obtained for fiscal years 2000–2009 from *The Economic and Budget Outlook: An Update,* Washington DC: Congressional Budget Office, (July 2000).

[37] Standard & Poor's DRI, *The U.S. Economy.* (June 2000), pp. 31 and 56.

[38] Standard & Poor's DRI, *The U.S. Economy.* (June 2000), p. 56.

[39] Mortgage Bankers Association of America. *MBA Mortgage Finance Forecast*, (July 14, 2000).

[40] Fannie Mae. *Berson's Housing and Economic Report*, (June 2000).

[41] National Association of Realtors. *Housing Market Will Change in New*

Millennium as Population Shifts. (November 7, 1998).

[42] Homeownership rates do not peek until population groups reach 65 to 74 years of age. Since the baby-boom population is such a large cohort, even though they will be past their homebuying peak, it is possible they will still have an impact.

[43] Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 2000.* (2000), p. 11.

[44] Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998.* (1998), p. 14.

[45] Joint Center for Housing Studies of Harvard University. (1998), p. 15.

[46] National Association of Realtors. *Housing Market Will Change in New Millennium As population Shifts.* (November 7, 1998).

[47] Joint Center for Housing Studies of Harvard University. (1998).

[48] John R. Pitkin and Patrick A. Simmons. ''The Foreign-Born Population to 2010: A Prospective Analysis by Country of Birth, Age, and Duration of U.S. Residence,'' *Journal of Housing Research.* 7(1) (1996), pp. 1–31.

[49] Fred Flick and Kate Anderson. ''Future of Housing Demand: Special Markets,'' *Real Estate Outlook.* (1998), p. 6.

[50] Mark A. Calabria. ''The Changing Picture of Homebuyers,'' *Real Estate Outlook.* (May 1999), p. 10.

[51] Chicago Title and Trust Family of Insurers, *Who's Buying Homes in America.* (2000).

[52] Chicago Title and Trust Family of Insurers, *Who's Buying Homes in America.* (1998 and 2000).

[53] Calabria. (May 1999), p. 11.

[54] U.S. Census Bureau, Current Population Reports, P60–206, *Money Income in the United States: 1998*, U.S. Government Printing Office, Washington, DC, (1999).

[55] Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing 1998.* (1998).

[56] Data for 1990–97 from *U.S. Housing Market Conditions, 1st Quarter 1999*, U.S. Department of Housing and Urban Development, (May 1999), Table 17; data for 1998–99 from the Mortgage Bankers Association.

[57] Interest rates in this section are effective rates paid on conventional home purchase mortgages on new homes, based on the Monthly Interest Rate Survey (MIRS) conducted by the Federal Housing Finance Board and published by the Council of Economic Advisers annually in the *Economic Report of the President* and monthly in *Economic Indicators.* These are average rates for all loan types, encompassing 30-year and 15-year fixed-rate mortgages and adjustable rate mortgages.

[58] *U.S. Housing Market Conditions, 1st Quarter 2000*, (May 2000), Table 14.

[59] All statistics in this section are taken from the Federal Housing Finance Board's MIRS.

[60] This is discussed in more detail in Paul Bennett, Richard Peach, and Stavros Peristani, *Structural Change in the Mortgage Market and the Propensity to Refinance*, Staff Report Number 45, Federal Reserve Bank of New York, (September 1998).

[61] Other sources of data on loan-to-value ratios such as the American Housing Survey and the Chicago Title and Trust Company indicate that high-LTV mortgages are somewhat more common in the primary market than the Finance Board's survey. However, the Chicago Title survey does not separate FHA-insured loans from conventional mortgages.

[62] Refinancing data is taken from Freddie Mac's monthly *Primary Mortgage Market Survey.*

[63] There is some evidence that lower-income borrowers did not participate in the 1993 refinance boom as much as higher-income borrowers—see Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996–97 Update*, Housing Finance Working Paper No. HF–006, Office of Policy Development and Research, Department of Housing and Urban Development, (August 1998), pp. 30–32.

[64] Housing affordability varies markedly between regions, ranging in May 2000 from 147 in the Midwest to 93 in the West, with the South and Northeast falling in between.

[65] Fannie Mae, http://www.fanniemae.com/news/housingsurvey/1998, (July 16, 1998).

[66] U.S. Department of Commerce, Bureau of the Census, *Money Income of Households, Families, and Persons in the United States: 1992*, Special Studies Series P–60, No. 184, Table B–25, (October 1993).

[67] Chicago Title and Trust Family of Insurers, *Who's Buying Homes in America,* (1998).

[68] Single-family originations rose by 10 percent in dollar terms in 1997, but the Mortgage Bankers Association estimates that they fell by 0.6 percent in terms of the number of loans.

[69] Mortgage market projections obtained from the MBA's *MBA Mortgage Finance Forecast,* (July 14, 2000).

[70] Fannie Mae. *Berson's Housing and Economic Report,* (June 2000).

[71] Speech before the annual convention of the National Association of Home Builders in Dallas TX, (January 1999).

[72] Fannie Mae News Release (January 1999).

[73] Freddie Mac News Release (January 15, 1999).

[74] Standard underwriting procedures characterize a property in a declining neighborhood as one at high risk of losing value. Implicitly, these underwriting standards presume that the real estate market is inefficient in economic terms, that is, prices do not reflect all available information.

[75] For an update of this analysis to include 1998, see Randall M. Scheessele, *1998 HMDA Highlights,* Housing Finance Working Paper HF–009, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (October 1999).

[76] The ''overall'' market is defined as all loans (including both government and conventional) below the 1997 conforming loan limit of $214,600 and the 1998 conforming loan limit of $227,150.

[77] The percentages reported in Table A.1a for the year 1998 are similar; in that year, low-income borrowers accounted for 49.1 percent of FHA-insured loans, 23.9 percent of GSE purchases, and 27.8 percent of home purchase mortgages originated in the conventional conforming market.

[78] FHA, which focuses on first-time homebuyers and low down payment loans, experiences higher mortgage defaults than conventional lenders and the GSEs. Still, the FHA system is actuarially sound because it charges an insurance premium that covers the higher default costs.

[79] FHA's role in the market is particularly important for African-American and Hispanic borrowers. As shown in Table A.1c, FHA insured 44 percent of all 1997 home loan originations for these borrowers.

[80] It should be noted that Tables A.1a and A.1b include only the GSEs' purchases of conventional loans; the same tables in the proposed rule also included the GSEs' purchases of government (particularly FHA-insured) loans.

[81] See Green and Associates. *Fair Lending in Montgomery County: A Home Mortgage Lending Study,* a report prepared for the Montgomery County Human Relations Commission, (March 1998).

[82] However, as shown in Table A.1a, depository institutions resemble other conventional lenders in their relatively low level of originating loans for African-American, Hispanic and minority borrowers.

[83] For an analysis of the impact of CRA agreements signed by lending institutions, see Alex Schwartz, ''From Confrontation to Collaboration? Banks, Community Groups, and the Implementation of Community Reinvestment Agreements'', *Housing Policy Debate,* 9(3), (1998), pp. 631–662. Also see the Department of Treasury CRA study by Litan *et al., op cit.*

[84] ''With Securities Market Back on Track, Analysts Expect Surge in CRA Loan Securitization in 1999,'' Inside *MBS & ABS.* (February 19, 1999), pp. 11–12.

[85] *Inside MBS & ABS.* (February 19, 1999), p. 12.

[86] Fannie Mae. *1997 Annual Housing Activities Report,* (1998), p. 28.

[87] For an analysis of the GSEs' CRA purchases, see the HUD-sponsored study by the Urban Institute, *An Assessment of Recent Innovations in the Secondary Market for Low- and Moderate-Income Lending,* by Kenneth Temkin, Jennifer E.H. Johnson, and Charles Calhoun, March 2000.

[88] George Galster, Laudan Y. Aron, Peter Tatain and Keith Watson. *Estimating the Size, Characteristics, and Risk Profile of Potential Homebuyers.* Washington: The Urban Institute, (1995). Report Prepared for the Department of Housing and Urban Development.

[89] Fannie Mae Foundation. *African American and Hispanic Attitudes on Homeownership: A Guide for Mortgage Industry Leaders,* (1998), p. 3.

[90] Fannie Mae Foundation. (1998), p. 14.

[91] Robert B. Avery, Raphael W. Bostic, Paul S. Calem, and Glenn B. Canner, *Credit Scoring: Issues and Evidence from Credit Bureau Files*, mimeo., (1998).

[92] Avery *et al.* (1998), p. 24.

[93] Kenneth Temkin, Roberto Quercia, George Galster, and Sheila O'Leary, *A Study of the GSEs' Single Family Underwriting Guidelines: Final Report.* Washington DC:

U.S. Department of Housing and Urban Development, (April 1999). This study involves an analysis of the GSEs' underwriting guidelines in general. This section reviews only the aspects of the study related to mortgage scoring. A broader review of this paper is provided below in section E.4.

[94] Temkin, *et al.* (1999), p. 2.

[95] Temkin, *et al.* (1999), p. 5; pp. 26–27.

[96] Standard & Poor's B and C mortgage guidelines can be used to illustrate that underwriting criteria in the subprime market becomes more flexible as the grade of borrower moves from the most creditworthy A-borrowers to the riskier D borrowers. For Example, the A-grade borrower is allowed to be delinquent 30 days on his mortgage twice in the last year whereas the D grade borrower is allowed to be delinquent 30 days on his mortgage credit five times in the last year. Moreover, the A-borrower is permitted to have a 45 percent debt-to-income ratio compared to the D grade borrower's 60 percent.

[97] ''Subprime Product Mix, Strategies Changed During a Turbulent 1998,'' *Inside B&C Lending.* (December 21, 1998), p. 2.

[98] ''Renewed Attack on 'Predatory' Subprime Lenders.'' *Fair Lending/CRA Compass,* (June 1999) and *http://cra-cn.home.mindspring.com.*

[99] See Randall M. Scheessele. *1998 HMDA Highlights,* Housing Finance Working Paper HF–009, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (October 1999). Nonspecialized lenders such as banks and thrifts also make subprime loans, but no data is available to estimate the number of these loans.

[100] Freddie Mac, *We Open Doors for America's Families,* Freddie Mac's Annual Housing Activities Report for 1997, (March 16, 1998), p. 23.

[101] The statistics cited for the ''market'' refer to all conforming conventional mortgages (both home purchase and refinance). The data for the subprime market are for 200 lenders that specialize in such loans; see Scheessele, *op. cit.*

[102] Alternative—A (or Alt—A) mortgages are made to prime borrowers who desire low down payments or do not want to provide full documentation for loans.

[103] Freddie Mac and Standard & Poor's tested the new module in a pilot during early 1996 and marketed it to lenders at the end of that year.

[104] See ''Freddie's Subprime Wrap Business Blooms in 1999'', *Inside B&C Lending,* December 27, 1999, pages 8–9.

[105] David A. Andrukonis, ''Entering the Subprime Arena,'' *Mortgage Banking,* May 2000, pages 57–60.

[106] The figures include their purchases of Alt A mortgages. *Inside B&C Lending,* May 22, 2000, page 12.

[107] See Lederman, *et al., op cit.*

[108] For an explanation of the GSEs funding advantage see ''Government Sponsorship of FNMA and FHLMC,'' United States Department of the Treasury, July 11, 1996.

[109] A detailed discussion of manufactured housing is contained in Kimberly Vermeer and Josephine Louie, *The Future of Manufactured Housing,* Joint Center for Housing Studies, Harvard University, (January 1997).

[110] Data on industry shipments and sales has been obtained from ''U.S. Housing Market Conditions,'' U.S. Department of Housing and Urban Development (May, 2000), p. 49.

[111] Although the terms are sometimes used interchangeably, manufactured housing and mobile homes differ in significant ways relative to construction standards, mobility, permanence, and financing (These distinctions are spelled out in detail in Donald S. Bradley, ''Will Manufactured Housing Become Home of First Choice?'' *Secondary Mortgage Markets,* (July 1997)). Mobile homes are not covered by national construction standards, though they may be subject to State or local siting requirements. Manufactured homes must be built according to the National Manufactured Housing Construction Safety and Standards Act of 1974. In accordance with this act, HUD developed minimum building standards in 1976 and upgraded them in 1994. Manufactured homes, like mobile homes, are constructed on a permanent chassis and include both axles and wheels. However, with manufactured housing, the axles and wheels are intended to be removed at the time the unit is permanently affixed to a foundation. Manufactured homes, unlike mobile homes, are seldom, if ever, moved. Mobile homes are financed with personal property loans, but manufactured homes are eligible for conventional-mortgage financing if they are located on land owned by or under long-term lease to the borrower. Other types of factory-built housing, such as modular and panelized homes, are not included in this definition of ''manufactured housing.'' These housing types are often treated as ''site built'' for purposes of eligibility for mortgage financing.

[112] Freddie Mac, the Manufactured Housing Institute and the Low Income Housing Fund have formed an alliance to utilize manufactured housing along with permanent financing and secondary market involvement to bring affordable, attractive housing to underserved, low- and moderate-income urban neighborhoods. *Origination News.* (December 1998), p. 18.

[113] *Mortgage-Backed Securities Letter.* (September 7, 1998), p. 3.

[114] *The Mortgage Market Statistical Annual for 2000* (Washington, DC: Inside Mortgage Finance Publications), 1, 286. A conventional multifamily mortgage market of $46 billion is assumed in this calculation. B and C mortgages are excluded from the calculation.

[115] *The Mortgage Market Statistical Annual for 2000* (Washington, DC: Inside Mortgage Finance Publications), 1, 286. A conventional multifamily mortgage market of $46 billion is assumed in this calculation. B and C mortgages are excluded from the calculation.

[116] This calculation incorporates GSE multifamily transactions involving loans originated during 1997 and acquired during 1997–1999. A multifamily conventional origination market of $38 billion and a per-unit loan amount of $27,266 is assumed per Appendix D.

[117] Jean L. Cummings and Denise DiPasquale, ''Developing a Secondary Market for Affordable Rental Housing: Lessons From the LIMAC/Freddie Mac and EMI/Fannie Mae Programs,'' *Cityscape: A Journal of Policy Development and Research,* 4(1), (1998), pp. 19–41.

[118] Drew Schneider and James Follain assert that interest rates on small property mortgages are as high as 300 basis points over comparable maturity Treasuries in ''A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing,'' *Cityscape: A Journal of Policy Development and Research* 4(1): 43–58, 1998. Berkshire Realty, a Fannie Mae Delegated Underwriting and Servicing (DUS) lender based in Boston, was quoting spreads of 135 to 150 basis points in ''Loans Smorgasbord,'' Multi-Housing News, August–September 1996. Additional information on the interest rate differential between large and small multifamily properties is contained in William Segal and Christopher Herbert, *Segmentation of the Multifamily Mortgage Market: The Case of Small Properties,* paper presented to annual meetings of the American Real Estate and Urban Economics Association, (January 2000).

[119] On the relation between age of property and quality classification see Jack Goodman and Brook Scott, ''Rating the Quality of Multifamily Housing,'' *Real Estate Finance,* (Summer, 1997).

[120] W. Donald Campbell. *Seniors Housing Finance,* prepared for American Association of Retired Persons White House Conference on Aging Mini-Conference on Expanding Housing Choices for Older People, (January 26–27, 1995).

[121] James R. Follain and Edward J. Szymanoski. ''A Framework for Evaluating Government's Evolving Role in Multifamily Mortgage Markets,'' *Cityscape: A Journal of Policy Development and Research* 1(2), (1995), p. 154.

[122] Despite sustained economic expansion, however, the rise in homeownership, has not fallen below 9 percent in recent years. (Regis J. Sheehan, ''Steady Growth,'' *Units,* (November/December 1998), pp. 40–43). Regarding rents and vacancy rates see also Ted Cornwell. ''Multifamily Lending Approaches Record Level,'' *National Mortgage News,* (September 23, 1996); and David Berson, Monthly Economic and Mortgage Market Report, Fannie Mae, (November 1998).

[123] American Council of Life Insurance data reported in *Inside MBS & ABS,* (March 20, 1998).

[124] A November, 1998 ''Review of the Short-Term Supply/Demand Conditions for Apartments'' by Peter P. Kozel of Standard and Poor's concludes that ''in some markets, the supply of units exceeds the likely level of demand, and in only a few MSAs should the pace of development accelerate.'' See also ''Apartment Projects Find Lenders Are Ready with Financing,'' Lew Sichelman, *National Mortgage News,* (April 14, 1997); *Commercial Lenders Warned That They Could Spur Overbuilding, National Mortgage News,* (March 30, 1998); ''Multifamily, Commercial Markets Grow Up,'' Neil Morse, *Secondary Marketing Executive,* (February 1998);''

''Recipe for Disaster,'' *National Mortgage News* editorial, (July 6, 1998).

[125] *1998 Survey of Credit Underwriting Practices,* Comptroller of the Currency, National Credit Committee. ''For the fourth consecutive year, underwriting standards for commercial loans have eased,'' states the OCC report. ''Examiners again cite competitive pressure as the primary reason for easing underwriting standards.'' The weakening of underwriting practices is especially concentrated in commercial real estate lending according to a the Federal Deposit Insurance Corporation's Report on *Underwriting Practices,* (October 1997–March 1998). See also Donna Tanoue, ''Underwriting Concerns Grow,'' *National Mortgage News,* (September 21, 1998), and ''Making the Risk-Takers Pay,'' *National Mortgage News,* (October 12, 1998).

[126] On the effects of multifamily mortgage securitization see ''Financing Multifamily Properties: A Play With new Actors and New Lines,'' Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Cityscape, A Journal of Policy Development and Research,* vol. 4, No. 1 (1998); and ''Financing Multifamily Properties,'' Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Urban Land* (November 1998).

[127] CMBS Database, Commercial Mortgage Alert, Harrison-Scott Publications, Hoboken, NJ.

[128] ''New CMBS Headache: B-Piece Market Softens,'' *Commercial Mortgage Alert,* (September 21, 1998); ''Criimi Bankruptcy Accelerates CMBS Freefall,'' *Commercial Mortgage Alert,* (October 12, 1998); ''Capital America Halts Lending Amid Woes,'' *Commercial Mortgage Alert,* (October 12, 1998).

[129] On CMBS spreads see ''Turmoil Hikes Loan Rates'' in *Wall Street Mortgage Report,* (September 14, 1998). Regarding implications for the GSEs of the conduit pullback see ''No Credit Crunch for First Mortgages'' in *Commercial Mortgage Alert,* (October 12, 1998).

[130] ''Financing Multifamily Properties: A Play With New Actors and New Lines,'' Donald S. Bradley, Frank E. Nothaft, and James L. Freund, *Cityscape: A Journal of Policy Development and Research,* 4(1), (1998).

[131] *The Impact of Public Capital Markets on Urban Real Estate,* Clement Dinsmore, discussion paper, Brookings Institution Center on Urban and Metropolitan Policy, July 1998; ''Capital Availability Fuels Commercial Market Growth,'' Marshall Taylor, *Real Estate Finance Today,* (February 17, 1997).

[132] Board of Governors of the Federal Reserve System and U.S. Securities and Exchange Commission, *Report to the Congress on Markets for Small-Business-and Commercial-Mortgage-Backed Securities,* (September 1998).

[133] ''REITs Tally Nearly Half of All Big CRE Deals in First Quarter,'' *National Mortgage News,* (July 7, 1997); ''Will REITs, Mortgage-Backeds Make Difference in Downturn,'' Jennifer Goldblatt, *American Banker,* (February 18, 1998).

[134] ''Apartment Demographics: Good for the Long Haul?'' Jack Goodman, *Real Estate Finance,* (Winter 1997); ''The Multifamily Outlook,'' Jack Goodman, *Urban Land,* (November 1998).

[135] *U.S. Housing Market Conditions,* U.S. Department of Housing and Urban Development (May 2000), Table 4.

[136] Howard Esaki, a principal in CMBS Research at Morgan Stanley Dean Witter stated at a recent conference that volatility in global markets contributed to a 10–20 percent decline in commercial real estate values in late 1998. John Hackett, ''CRE Seen Down 10% to 20%,'' *National Mortgage News,* (November 23, 1998), p. 1.

[137] John Holusha, ''As Financing Pool Dries Up, Some See Opportunity,'' *New York Times,* November 1, 1998.

[138] *Federal Reserve Bulletin,* June 2000, A 35.

[139] 1997 Annual Housing Activity Reports, Table 1.

[140] William Segal and Edward J. Szymanoski. *The Multifamily Secondary Mortgage Market: The Role of Government-Sponsored Enterprises.* Housing Finance Working Paper No. HF–002, Office of Policy Development and Research, Department of Housing and Urban Development, (March 1997).

[141] HUD analysis of GSE loan-level data.

[142] *Fundingnotes,* Vol. 3, Issue 9; (September 1998), Eric Avidon, ''PaineWebber Lauds Fannie DUS Paper,'' *National Mortgage News,* (September 14, 1998),p. 21.

[143] There is evidence that the GSEs have benefited from recent widening in CMBS spreads because of their funding cost advantage. See ''No Credit Crunch for First Mortgages,'' *Commercial Mortgage Alert,* (October 12, 1998); and ''Turmoil a Bonanza for Freddie,'' *Commercial Mortgage Alert,* (November 2, 1998).

[144] *Federal Reserve Bulletin,* June 2000, A 35.

[145] See Table A.7a for details. It is assumed that units in small multifamily properties represented approximately 39.4 percent of multifamily units financed in 1997, per the 1991 Residential Finance Survey, as discussed above. Additionally, it is assumed that 1997 multifamily conventional origination volume was $38 billion, as discussed in Appendix D. An average loan amount per unit of $27,266 is used, the GSE average for 1997 acquisitions.

[146] Larger properties may be perceived as less subject to income volatility caused by vacancy losses. Scale economies in securitization may also favor purchase of larger multifamily mortgages by the GSEs. Scale economies refer to the fixed costs in creating a mortgage backed security, and the smaller reduction in yield (higher security price) if these costs can be spread over larger unpaid principal balances.

[147] 1995 POMS data are used because 1995 represents the year with the most complete mortgage origination information in the Survey. 1996 GSE data are used because of number of units of property exhibited atypical behavior during 1995.

[148] These costs have been estimated at $30,000 for a typical transaction. Presentation by Jeff Stern, Vice President, Enterprise Mortgage Investments, HUD GSE Working Group, (July 23, 1998).

[149] ''Fannie Mae Announces New 5–50(SM) Streamlined Mortgage for Small Multifamily Properties is Now Available Through DUS Lenders; 10-Year Volume Goal is $18 Billion,'' Fannie Mae press release, May 10, 2000.

[150] Data from the HUD Property Owners and Managers Survey (POMS) suggests that, in and of itself, the GSEs' emphasis on refinance loans may roughly track that of the overall market.

[151] Standard & Poor's described Fannie Mae's multifamily lending as ''extremely conservative'' in ''Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight (OFHEO),'' (February 3, 1997), p. 10.

[152] See William Segal and Edward J. Szymanoski. ''Fannie Mae, Freddie Mac, and the Multifamily Mortgage Market,'' *Cityscape: A Journal of Policy Development and Research,* vol. 4, no. 1 (1998), pp. 59–91.

[153] Freddie Mac's policy of re-underwriting each multifamily acquisition is a response to widespread defaults affecting its multifamily portfolio during the late 1980s according to Follain and Szymanoski (1995).

[154] A more detailed discussion of underwriting guidelines is contained in the analysis below regarding Factor 5, ''The GSEs'' Ability to Lead the Industry.''

[155] The term ''affordable lending'' is used generically here to refer to lending for lower-income families and neighborhoods that have historically been underserved by the mortgage market.

[156] Throughout these appendices, the terms ''home loan'' or ''home mortgage'' will refer to a ''home purchase loan,'' as opposed to a ''refinance loan.''

[157] Subsections *b–d* of this section focus on the single-family mortgage market for home purchase loans, which is the relevant market for analysis of homeownership opportunities. Subsection *e* extends the analysis to include single-family refinance loans. For a discussion of past performance in the multifamily mortgage market, see Section D of this Appendix.

[158] Thus, the market definition in this section is narrower than the data presented earlier in Section C and Tables A.1a and A.1b, which covered all loans (both government and conventional) less than or equal to the conforming loan limit. As in that section, only the GSEs' purchases of conventional conforming loans are considered; their purchases of FHA-insured, VA-guaranteed, and Rural Housing Service loans are excluded from this analysis.

[159] Higher limits apply for loans on 2-, 3-, and 4-unit properties and for properties in Alaska, Hawaii, Guam, and the Virgin Islands.

[160] ''Jumbo mortgages'' in any given year might become eligible for purchase by the GSEs in later years as the loan limits rise and the outstanding principal balance is reduced.

[161] However, in analyzing the provision of mortgage finance more generally, it is often appropriate to include government loans; see Tables A.1a, A.1b and A.2 in Section C.3.b.

[162] *Fair Lending/CRA Compass,* (June 1999), p. 3.

[163] Randall M. Scheessele developed a list of 42 subprime lenders that was used by

HUD and others in analyzing HMDA data through 1997. In 1998, Scheessele updated the list to 200 subprime lenders. For analysis comparing various lists of subprime lenders, see Appendix D of Scheessele (1999), *op. cit.* That paper also discusses Scheessele's lists of manufactured housing lenders.

[164] See Randall M. Scheessele, *HMDA Coverage of the Mortgage Market,* Housing Finance Working Paper HF–007, Office of Policy Development and Research, Department of Housing and Urban Development, July 1998. Scheessele reports that HMDA data covered 81.6 percent of the loans acquired by Fannie Mae and Freddie Mac in 1996. The main reason for the under-reporting of GSE acquisitions is a few large lenders failed to report the sale of a significant portion of their loan originations to the GSEs. Also see the analysis of HMDA coverage by Jim Berkovec and Peter Zorn. ''Measuring the Market: Easier Said than Done,'' *Secondary Mortgage Markets.* McLean VA: Freddie Mac (Winter 1996), pp. 18–21. Section A.4 of this appendix also discusses several issues regarding HMDA data that were raised by the GSEs in their comments on the proposed rule.

[165] Since 1993, the GSEs have increased their purchases of seasoned loans. See Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996–1997 Update,* Housing Finance Working Paper HF–006, Office of Policy Development and Research, Department of Housing and Urban Development, (August 1998), p.17.

[166] For a discussion of the impact of the GSEs' seasoned mortgage purchases on HMDA data coverage, see Scheessele (1998), *op. cit.*

[167] Table A.4b, which reports similar GSE information as Table A.4a, provides several alternative estimates of the conventional conforming market depending on the treatment of small loans, manufactured housing loans, and subprime loans. The data in Table A.4b will be referenced throughout the discussion.

[168] Any HMDA data reported in the appendices on borrower incomes excludes loans where the loan-to-borrower-income ratio is greater than six.

[169] For example, in 1997 Fannie Mae reported that 20.8 percent of the loans they purchased, that were originated during 1997, were for properties in underserved areas. HMDA reports that 21.0 percent of the loans sold to Fannie Mae during 1997 were for properties in underserved areas. The corresponding numbers for Freddie Mac, in 1997, are 19.3 percent reported by them and 18.6 percent reported by HMDA. During 1997, both Fannie Mae and HMDA reported that approximately 37 percent of the ''current year'' loans purchased by Fannie Mae were for low- and moderate-income borrowers. Freddie Mac reported that 34.2 percent of the current year loans they purchased were for low-mod borrowers, compared to the 35.4 low-mod percent that HMDA reported as sold to Freddie Mac.

[170] Notice that while Fannie Mae's 1998 purchases resembled their 1997 purchases with prior-year loans having higher goals-qualifying percentages than current-year loans, the pattern for 1999 was similar to that for 1993 to 1996 when there were smaller differentials between the goals-qualifying percentages of prior-year and current-year mortgages.

[171] Referencing the study by Peter Zorn and Jim Berkovec, *op cit.,* the GSEs argued in their comments on the proposed rule that HMDA overstates goals-qualifying loans. See Section A.3d for HUD's response which questions the findings of the Zorn-Berkovec study.

[172] The borrower income distributions in Tables A.3 and A.4a for the ''market without manufactured housing'' exclude loans less than $15,000 as well as all loans originated by lenders that primarily originate manufactured housing loans. See Table A.4b for market definitions that show the separate effects of excluding small loans and manufactured housing loans. Also, Table A.4b shows that excluding subprime loans has only a minor effect on the goals-qualifying percentages in the mortgage market.

[173] See Scheessele (1999), *op. cit.* As explained in Appendix D of Scheessele's paper, the number of subprime lenders varies by year; the 200 figure cited in the text applies to 1998. The number of loans identified as subprime in these appendices is the same as reported by Scheessele in Table D.2b of his paper.

[174] Table A.1b in Section C.3.b provides several comparisons of the GSEs' total purchases with primary market originations. As shown there, many of the same patterns described above for home purchase loans can be seen in the data for the GSEs' total purchases.

[175] In general, the HMDA-reported affordability percentages for GSE purchases of refinance loans have matched the corresponding GSE-reported percentages. For example, in 1997, both GSEs reported to HUD that special affordable loans accounted for about 11 percent of their purchases of refinance loans in metropolitan areas; HMDA reported the same percentage for each GSE. Similarly, in 1998, both HMDA and Fannie Mae reported that special affordable loans accounted for 9.7 percent of Fannie Mae's refinance purchases. However, in 1998, the Freddie-Mac-reported special affordable percentage (10.7 percent) for its refinance loans was significantly higher than the corresponding percentage (9.5 percent) reported in the HMDA data. The reasons for this discrepancy require further study.

[176] The Mortgage Information Corporation (MIC) has recently started publishing origination and default performance data for the subprime market. For an explanation of their data and some early findings, see Dan Feshbach and Michael Simpson, ''Tools for Boosting Portfolio Performance'', *Mortgage Banking: The Magazine of Real Estate Finance,* (October 1999), pp. 137–150.

[177] For example, see Bunce and Scheessele (1996 and 1998), *op. cit.*

[178] This analysis is limited to the conventional conforming market.

[179] To test the robustness of these statistics, this analysis was conducted where the ''lag'' determination is made at 95 percent instead of 99 percent. The results are consistent with those shown in Table A.5. For example, at the 95 percent cutoff, Fannie Mae lagged the market in 286 MSAs (88 percent) in the purchase of 1996 originated Special Affordable category loans. Likewise, Freddie Mac lagged the market in 322 MSAs (99 percent).

[180] *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility.* Office of Policy Development and Research, Department of Housing and Urban Development, (July 1996).

[181] The Treasury Department reached similar conclusions in its 1996 report on the privatization of the GSEs, *Government Sponsorship of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation,* U.S. Department of the Treasury (July 11, 1996). Based on data such as the above, the Treasury Department questioned whether the GSEs were influencing the availability of affordable mortgages and suggested that the lower-income loans purchased by the GSEs would have been funded by private market entities if the GSEs had not purchased them.

[182] See Glenn B. Canner, and Wayne Passmore. ''Credit Risk and the Provision of Mortgages to Lower-Income and Minority Homebuyers,'' *Federal Reserve Bulletin.* 81 (November 1995), pp. 989–1016; Glenn B. Canner, Wayne Passmore and Brian J. Surette. ''Distribution of Credit Risk among Providers of Mortgages to Lower-Income and Minority Homebuyers.'' *Federal Reserve Bulletin.* 82 (December 1996), pp. 1077–1102; Harold L. Bunce, and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans: A 1996 Update,* Housing Finance Working Paper HF–005, Office of Policy Development and Research, Department of Housing and Urban Development, (July 1998); and Manchester, (1998), p. 24.

[183] Canner, *et al.* (1996).

[184] Harold L. Bunce and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans,* Housing Finance Working Paper HF–001, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (December 1996).

[185] Harold L. Bunce and Randall M. Scheessele, *The GSEs' Funding of Affordable Loans: A 1996 Update,* Housing Finance Working Paper HF–005, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, (July 1998), pp. 15–16.

[186] Statistics cited are from Table B.1 of Bunce and Scheessele, (1998) and are based on sales to the GSEs as reported by lenders in accordance with the HMDA. ''Lagging the market'' means, for example, that the percentage of the GSEs' loans for very low- and low-income borrowers is less than the corresponding percentage for the primary market, depositories, and the FHA.

[187] Under their charter acts, loans purchased by the GSEs with down payments of less than 20 percent must carry private mortgage insurance or a comparable form of credit enhancement.

[188] It is generally agreed that HMDA does not capture all loans originated in the primary market—for example, small lenders need not report under HMDA. But Fannie Mae believes that the undercount is not

spread uniformly across all borrower classes—in particular, it argues that the HMDA data exclude relatively more loans made to minorities and lower-income families.

[189] Bunce and Scheessele (1998) contained a comparison (Table A.1) of HMDA-reported and GSE-reported data on the characteristics of GSE mortgage purchases in 1996. In most cases the differences between the results utilizing the two different data sources were minimal, but in some cases (such as lending in underserved areas) the evidence lent some support to Fannie Mae's assertion that the HMDA data underreports their level of activity. The discrepancies between HMDA data and GSE data at the national level are also due to the seasoned loan effect (see Section E.2.e above and Table A.4a).

[190] John E. Lind. *Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac from the 1994 HMDA Data.* San Francisco: Caniccor. Report, (February 1996).

[191] John E. Lind. *A Comparison of the Community Reinvestment and Equal Credit Opportunity Performance of Fannie Mae and Freddie Mac Portfolios by Supplier from the 1994 HMDA Data.* San Francisco: Cannicor. Report, (April 1996).

[192] Brent W. Ambrose and Anthony Pennington-Cross, *Spatial Variation in Lender Market Shares*, Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[193] Heather MacDonald. ''Expanding Access to the Secondary Mortgage Markets: The Role of Central City Lending Goals,'' *Growth and Change.* (27), (1998), pp. 298–312.

[194] Heather MacDonald, *Fannie Mae and Freddie Mac in Non-metropolitan Housing Markets: Does Space Matter*, Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[195] Kirk McClure, *The Twin Mandates Given to the GSEs: Which Works Best, Helping Low-Income Homebuyers or Helping Underserved Areas in the Kansas City Metropolitan Area?* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[196] Richard Williams, *The Effect of GSEs, CRA, and Institutional Characteristics on Home Mortgage Lending to Underserved Markets,*'' Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[197] Joseph Gyourko and Dapeng Hu. *The Spatial Distribution of Secondary Market Purchases in Support of Affordable Lending,* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[198] Bradford Case and Kevin Gillen. *Studies of Mortgage Purchases by Fannie Mae and Freddie Mac: Spatial Variation in GSE Mortgage Purchase Activity.* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[199] The coefficient for geographic targeting was significant and negative in 19 MSAs, significant and positive in another eight, and not significant in the remaining 17 MSAs.

[200] The coefficient for the highest minority-concentration category (census tracts with greater than 50% minority population) was significantly negative in 21 MSAs, but significantly positive in 10 MSAs and not significantly different from zero in the remaining 13.

[201] Samuel L. Myers, Jr. *The Effects of Government-Sponsored Enterprise Secondary Market Decisions on Racial Disparities in Loan Rejection Rates.* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development, (1999).

[202] Variables from the GSE Public Use Data Base include the income and gender of the borrower, the gender and race of the coborrower, first-time homebuyer, and loan amount. Variables from Census 1990 include the following information for the census tract in which the property is located: percent of owner-occupied houses, average size of household, average number of persons per owner-occupied house, average number of persons per renter-occupied unit, percentage of white, black, Asian, American Indian, and other minority households, average poverty rate, median monthly rent, median house value, percent of persons 65 or older, percent of persons under 18, and percent of female-headed households. Variables from HMDA include reason for denial, whether or not loan is sold to GSE, type of loan (conventional), type of agency, and origination year.

[203] The unconditional probability that a loan will not be sold, P(NS), to a GSE is computed using Bayes' rule. It is based on the conditional probability that a loan is sold to GSEs given that it was originated, P(SO), and the probability that a loan is originated which are obtained using HMDA data. The unconditional probability that a loan will be sold to a GSE can not be obtained from either the HMDA data which does not include details of which loans were sent for review and which were declined by the secondary purchaser—or from the HUD-GSE data, which only includes approved loans. However, we know from Bayes' rule that

$$P(S \mid O) = \frac{P(S)\,P(O \mid S)}{P(O)}$$

where S mean that the loan was sold and O means that the loan was originated and where all loan sold by the lender must have been originated such that P(OS)=1. We can obtain a measure of the unconditional probability that a loan will not be sold from

$$P(NS) = 1 - P(S) = 1 - P(S \mid O)\,P(O).$$

[204] Calvin Bradford, *The Patterns of GSE Participation in Minority and Racially Changing Markets Reviewed from the Context of the Levels of distress Associated with High Levels of FHA Lending,* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development (2000).

[205] David M. Harrison, Wayne R. Archer, David C. Ling, and Marc T. Smith, *Mitigating Information Externalities in Mortgage Markets: The Role of Government Sponsored Enterprises,* Research Study submitted to the Office of Policy Development and Research, Department of Housing and Urban Development (2000).

[206] Kenneth Temkin, Roberto Quercia, George Galster and Sheila O'Leary. *A Study of the GSEs' Single Family Underwriting Guidelines: Final Report.* Washington DC: U.S. Department of Housing and Urban Development, (April 1999).

[207] In following up on the Urban Institute study, HUD began in February 2000 a review of Fannie Mae's and Freddie Mac's automated underwriting systems.

[208] Standard guidelines refer to guidelines not associated with affordable lending programs.

[209] Temkin, *et al.* (1999), p. 4.

[210] Temkin, *et al.* (1999), p. 5.

[211] Temkin, *et al.* (1999), p. 28.

[212] Senate Report 102–282, (May 15, 1992), p. 35.

[213] Table A.7a(A.7b) considers GSE purchases during 1997, 1998, and 1999 (1998 and 1999) of conventional mortgages that were originated during 1997 (1998). HUD's methodology for deriving the market estimates is explained in Appendix D. B&C loans have been excluded from the market estimates in Table A.7.

[214] Two caveats about the data in Table A.7 should be mentioned here. First, the various market totals for underserved areas are probably understated due to the model's underestimation of mortgage activity in non-metropolitan underserved counties and of manufactured housing originations in non-metropolitan areas. Second, as discussed in Appendix D, some uncertainty exists around the adjustment for B&C single-family owner loans.

[215] Table A.7a shows that multifamily represented 19 percent of total units financed during 1997 (obtained by dividing 1,393,677 multifamily units by 7,306,950 ''Total Market'' units). Increasing the single-family-owner number in Table A.7 by 732,182 to account for excluded B&C mortgages increases the ''Total Market'' number to 8,039,132 which is consistent with the percent multifamily share reported in the text. See Appendix D for discussion of the B&C market.

[216] A similar imbalance is evident with regard to figures on the stock of mortgage debt published by the Federal Reserve Board. Within the single-family mortgage market the GSEs held loans or guarantees with an unpaid principal balance (UPB) of $1.5 trillion, comprising 36 percent of $4.0 trillion in outstanding single-family mortgage debt as of the end of 1997. At the end of 1997, the GSEs direct holdings and guarantees of $41.4 billion represented 13.7 percent of $301 billion in multifamily mortgage debt outstanding. (*Federal Reserve Bulletin*, June 1998, A 35.)

[217] The problem of secondary market ''adverse selection'' is described in James R. Follain and Edward J. Szymanoski. ''A Framework for Evaluating Government's Evolving Role in Multifamily Mortgage Markets,'' *Cityscape: A Journal of Policy Development and Research* 1(2), (1995).

[218] A jumbo mortgage is one for which the loan amount exceeds the maximum principal amount for mortgages purchased by the enterprises—$240,000 for mortgages on 1-unit properties in 1999, with limits that are 50 percent higher in Alaska, Hawaii, Guam, and the Virgin Islands.

[219] Office of Federal Housing Enterprise Oversight, *1998 Report to Congress*, (June 15, 1998), Figure 9, p. 32; and unpublished OFHEO estimates for 1998.

[220] Mortgage originations for 1997 were reported in the Department of Housing and Urban Development, *HUD Survey of Mortgage Lending Activity: Fourth Quarter/ Annual 1997*, (September 24, 1998).

[221] The underwriting guidelines published by the two GSEs are similar in most aspects. And since November 30, 1992, Fannie Mae and Freddie Mac have provided lenders the same *Uniform Underwriting and Transmittal Summary* (Fannie Mae Form 1008/Freddie Mac Form 1077), which is used by originators to collect certain mortgage information that they need for data entry when mortgages are sold to either GSE.

[222] Freddie Mac stock was not publicly traded until after the passage of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), thus it is not possible to calculate a 10-year annualized rate of return.

[223] *Fortune*, (April 17, 2000), pp. F–1, F–2.

[224] *Business Week*, (March 27, 2000), p. 197.

[225] U.S. Department of Housing and Urban Development. *Rental Housing Assistance—The Worsening Crisis: A Report to Congress on Worst Case Housing Needs*. (March 2000).

[226] Standard & Poor's DRI, *The U.S. Economy*. (June 2000), p. 56.

[227] See Drew Schneider and James Follain, ''A New Initiative in the Federal Housing Administration's Office of Multifamily Housing Programs: An Assessment of Small Projects Processing,'' *Cityscape: A Journal of Policy Development and Research* 4(1), (1998), pp. 43–58.

[228] Senate Report 102–282, (May 15, 1992), p. 36.

[229] ''Final Report of Standard & Poor's to the Office of Federal Housing Enterprise Oversight (OFHEO),'' (February 3, 1997), p. 10.

[230] However, the Department's goals for the GSEs have been set so that they will be feasible even under less favorable conditions in the housing market.

[231] Another area where stepped-up GSE involvement could benefit low- and moderate-income families is lending for the rehabilitation of properties, which is especially needed in our urban areas. The GSEs have made some efforts in this complex area, but the benefits of stepped-up roles by the GSE could be sizable.

Appendix B—Departmental Considerations to Establish the Central Cities, Rural Areas, and Other Underserved Areas Goal

A. Introduction and Response to Comments

1. Establishment of Goal

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA) requires the Secretary to establish an annual goal for the purchase of mortgages on housing located in central cities, rural areas, and other underserved areas (the ''Geographically Targeted Goal'').

In establishing this annual housing goal, Section 1334 of FHEFSSA requires the Secretary to consider:

1. Urban and rural housing needs and the housing needs of underserved areas;
2. Economic, housing, and demographic conditions;
3. The performance and effort of the enterprises toward achieving the Geographically Targeted Goal in previous years;
4. The size of the conventional mortgage market for central cities, rural areas, and other underserved areas relative to the size of the overall conventional mortgage market;
5. The ability of the enterprises to lead the industry in making mortgage credit available throughout the United States, including central cities, rural areas, and other underserved areas; and
6. The need to maintain the sound financial condition of the enterprises.

Organization of Appendix. The remainder of Section A first defines the Geographically Targeted Goal for both metropolitan areas and nonmetropolitan areas and then discusses HUD's response to the public comments raised in this appendix. Sections B and C address the first two factors listed above, focusing on findings from the literature on access to mortgage credit in metropolitan areas (Section B) and in nonmetropolitan areas (Section C). Separate discussions are provided for metropolitan and nonmetropolitan (rural) areas because of differences in the underlying markets and the data available to measure them. Section D discusses the past performance of the GSEs on the Geographically Targeted Goal (the third factor) and Sections E–G report the Secretary's findings for the remaining factors. Section H summarizes the Secretary's rationale for setting the level for the Geographically Targeted Goal.

2. HUD's Geographically Targeted Goal

HUD's definition of the geographic areas targeted by this goal is basically the same as that used during 1996–99. It is divided into a metropolitan component and a nonmetropolitan component.

Metropolitan Areas. This rule provides that within metropolitan areas, mortgage purchases will count toward the goal when those mortgages finance properties that are located in census tracts where (1) median income of families in the tract does not exceed 90 percent of area (MSA) median income or (2) minorities comprise 30 percent or more of the residents and median income of families in the tract does not exceed 120 percent of area median income.

The definition includes 20,326 of the 43,232 census tracts (47 percent) in metropolitan areas, which include 44 percent of the metropolitan population.[1] The tracts included in this definition suffer from poor mortgage access and distressed socioeconomic conditions. The average mortgage denial rate in these tracts is 19.4 percent, almost twice the denial rate in excluded tracts. The tracts include 73 percent of the number of poor persons in metropolitan areas.

This definition is based on studies of mortgage lending and mortgage credit flows conducted by academic researchers, community groups, the GSEs, HUD and other government agencies. While more research must be done before mortgage access for different types of people and neighborhoods is fully understood, one finding from the existing research literature stands out—high-minority and low-income neighborhoods continue to have higher mortgage denial rates and lower mortgage origination rates than other neighborhoods. A neighborhood's minority composition and its level of income are highly correlated with measuring access to mortgage credit.

Nonmetropolitan Areas. This rule provides that in nonmetropolitan areas mortgage purchases that finance properties that are located in counties will count toward the Geographically Targeted Goal where (1) median income of families in the county does not exceed 95 percent of the greater of (a) state nonmetropolitan median income or (b) nationwide nonmetropolitan median income, or (2) minorities comprise 30 percent or more of the residents and median income of families in the county does not exceed 120 percent of the greater of (a) state nonmetropolitan median income or (b) nationwide nonmetropolitan median income. The nonmetropolitan definition has been expanded slightly by adding criterion (b) under part (2) of this definition—as a result, 14 counties in Texas, Mississippi, Arizona, Arkansas, Georgia, and Louisiana that were previously classified as served areas have now been reclassified as underserved counties.

Two important factors influenced HUD's definition of nonmetropolitan underserved areas—lack of available data for measuring mortgage availability in rural areas and lenders' difficulty in operating mortgage programs at the census tract level in rural areas. Because of these factors, this rule uses a more inclusive, county-based definition of underservedness in rural areas. HUD's definition includes 1,511 of the 2,305 counties (66 percent) in nonmetropolitan areas and accounts for 54 percent of the nonmetropolitan population and 67 percent of the nonmetropolitan poverty population.

Goal Levels. The Geographically Targeted Goal is 31 percent of eligible units financed for calendar years 2001–03. HUD estimates that the mortgage market in areas included in the Geographically Targeted Goal accounts for 29–32 percent of the total number of newly-mortgaged dwelling units. HUD's analysis indicates that 27.0 percent of Fannie Mae's 1998 purchases and 26.8 percent of its 1999 purchases financed dwelling units located in these areas. The corresponding performance for Freddie Mac was 26.1 percent in 1998 and 27.5 percent in 1999.

3. Response to Comments

This section briefly reviews the main comments on the analyses reported in this appendix. First, both GSEs, but particularly Freddie Mac, were concerned that the Underserved Areas Goal was set too high.

Second, HUD received varying responses on changing the underserved areas definition to adopt an ''enhanced'' definition that would lower the income threshold for the census tract definition to 80 percent and raise the minority threshold to 50 percent. Finally, HUD received a range of comments on switching the non-metropolitan underserved areas definition from a county-based to a tract-based approach. With respect to the latter two issues, HUD has decided to wait until year 2000 Census data are available, which will allow for an up-to-date comprehensive analysis of these issues.

a. The Level of the Underserved Areas Goal

Fannie Mae supported the increase in affordable housing goals, which includes raising the underserved areas goal from its current level of 24 percent to 31 percent. Freddie Mac stated that ''the Underserved Areas Goal proposed by the Department is unreasonably high'' and recommended that the goal level be reduced from 31 percent to 30 percent. Freddie Mac stated further that ''setting the Underserved Areas Goal at 31 percent for those three years [2001–03] amounts to a significantly larger stretch than for the other two goals and makes it significantly less feasible under a variety of economic conditions''. Freddie Mac based its conclusion on a number of factors, such as the fact that this goal is set closer to the upper end of HUD's market range (29–32 percent), as compared with the Low-Mod and Special Affordable Goals; Freddie Mac concluded that consistency with the other two goals would call for a 30 percent Underserved Areas Goal. In addition, Freddie Mac stated that HUD's market range is overestimated and does not fully account for adverse economic changes. According to Freddie Mac, HUD's overestimation of the underserved areas market is due to HUD's overestimation of the rental property share of the mortgage market; to a bias in HMDA data that leads to the underserved areas portion of the owner market being overstated; and to HUD's underestimation of the subprime portion of the single-family market.

HUD's Response. HUD does not agree with Freddie Mac's recommendation that the Underserved Areas Goal should be lowered below the proposed level. Several factors must be considered when evaluating Freddie Mac's analysis and recommendations. First, HUD disagrees with Freddie Mac's conclusion that the Department's methodology overstates the rental portion of the market. HUD's analysis of this issue is discussed in Sections B and C of Appendix D. By relying on HMDA data, Freddie Mac (as well as the Freddie Mac-funded study by PriceWaterhouseCoopers) significantly underestimates the multifamily share of the mortgage market, which leads to its erroneous conclusions about the size of the underserved areas market.

Second, HUD has set its range of market estimates for this goal at a rather conservative level. As discussed in Section G of Appendix D, the underserved areas portion of the market (without B&C loans) averaged 33 percent between 1995 and 1998—somewhat higher than the top end of HUD's 29–32 percent market range. As shown in Table D.19 of Appendix D, the underserved areas share of the owner market could fall from its 1995–98 average of 33 percent to 24 percent before the overall market estimate would fall to 30 percent, and to below 22 percent before the overall market estimate would fall below 29 percent. As mentioned in HUD's response to the ''volatility'' issue (see Section B of Appendix D), the Secretary can re-examine the feasibility of the housing goals if a recession or other economic conditions cause a substantial decline in the mortgage market in underserved areas.

Third, HUD excluded the B&C portion of the subprime market when determining its market range (29–32 percent) for underserved areas. As explained in Section G of Appendix D, the estimated increase in the market share due to the county-based definition in non-metropolitan areas more than offsets the estimated reduction in market share due to the exclusion of B&C loans. (This offsetting pattern can be seen in Table D.15 of Appendix D for the years 1995–98.) But due to inadequate mortgage market data for non-metropolitan areas, HUD was unable to fully include the effects of underserved counties in its market range for the Underserved Areas Goal. Thus, the 29–32 percent range is a conservative market estimate. HUD continues to explore other data bases to improve its estimates of the mortgage market in rural underserved counties.

Finally, it should be noted that the rental sectors that the GSEs have traditionally experienced the most difficulty penetrating are less important for the Underserved Areas Goal than for the Low-Mod and Special Affordable Goals. The latter two goals rely more heavily on the GSEs' single-family rental and multifamily purchases than the Underserved Areas Goal. For example, special affordable loans amounted to one half of the rental units financed by the GSEs during 1998, versus only 10.6 percent of the owner units, yielding a rental-to-owner ratio of 4.7. On the other hand, units in underserved areas amounted to 43.1 percent of the rental units financed, versus 23.4 percent of the owner units, yielding a much lower rental-to-owner ratio of 1.8.

b. Changes in the Underserved Areas Definition for Metropolitan Areas

Neither Fannie Mae nor Freddie Mac supported changing the underserved areas definition in metropolitan areas. With regard to the enhanced option, the GSEs advocated against reducing the number of census tracts that qualified for goal based on 1990 Census data, since these tracts might qualify under the updated 2000 Census data. Both GSEs believe that HUD should not change the current definition until the updated information for demographics and housing stock composition of census tracts is available from the 2000 census data.

In addition to the GSEs' views, a number of comments both supporting and opposing the enhanced definition were received. Advocates for the enhanced definition supported changing the tract income ratio from 90 percent to 80 percent to coincide with the definition under the Community Reinvestment Act (CRA). This change would make the GSEs' housing goals and CRA mutually supportive and would use a standard already employed by banks. Comments against the enhanced definition fell into two categories: some commenters did not support decreasing the number of census tracts that qualify as underserved areas, while others did not support using the greater of local or national median income in computing the tract income ratio.

No general support from the GSEs or other commenters was found for increasing the minimum minority composition of underserved census tracts from 30 percent to 50 percent. One commenter indicated that this change would disproportionately impact the Hispanic population, though no data was presented to support this claim.

HUD's Response. HUD is not changing the definition of underserved metropolitan areas in this final rule, but the Department reserves the right to reexamine this definition following the release of the 2000 Census data. The Department acknowledges that the 2000 Census will impact the designation of census tracts that are currently targeted as underserved areas. Many changes have occurred in the last decade that impact the various factors which make up the underserved areas definition. Any changes in the underserved area definition based on the 1990 Census data would not provide a complete assessment of outcomes.

c. Changes to the Underserved Areas Definition for Non-metropolitan Areas

Fannie Mae and Freddie Mac agreed that the current county-based definition for non-metropolitan areas should be retained. Both GSEs believe, as also indicated in their comments on the 1995 rule, that rural lenders' business is centered around counties, rather than census tracts. They cite the lack of data for rural areas as sufficient cause to maintain the status quo, since the information void makes it difficult to judge the impact of any change in the definition.

Some commenters agreed with the GSEs, while others did not. One set of commenters including America's Community Bankers and the Independent Community Bankers of America agreed with the GSEs regarding retention of the county-based definition. The Housing Assistance Council supported changing the underserved areas definition to a more targeted, census tract-based definition.

Other recommendations for defining rural underserved areas were received. The Wisconsin Rural Development Center and the Fair Lending Coalition of Milwaukee proposed looking at the minimum income ratio based on county, tract, or block group. A few commenters proposed using poverty levels as a criteria for targeting underserved counties.

HUD's Response. HUD recognizes the broad nature of the current definition of rural underserved areas. As explained in the proposed rule, one shortcoming of this goal in non metropolitan counties is that it does not target the GSEs' purchases very well—for example, the GSEs' mortgage purchases in rural underserved areas have a higher share of borrowers with income above county median income than their purchases in urban underserved areas. However, due to the lack of data on mortgage originations in non-metropolitan areas, it is difficult to precisely identify rural underserved areas. The

Department acknowledges that the 2000 Census will impact the designation of counties that are currently targeted as underserved. Before changing the definition for underserved non-metropolitan areas, it would be prudent to wait for new data on area demographics. HUD will re-examine this issue when data from the 2000 Census are available.

B. Consideration of Factors 1 and 2 in Metropolitan Areas: The Housing Needs of Underserved Urban Areas and Housing, Economic, and Demographic Conditions in Underserved Urban Areas

This section discusses differential access to mortgage funding in urban areas and summarizes available evidence on identifying those neighborhoods that have historically experienced problems gaining access to mortgage funding. Section B.1 provides an overview of the problem of unequal access to mortgage funding in the nation's housing finance system, focusing on discrimination and other housing problems faced by minority families and the communities where they live. Section B.2 examines mortgage access at the neighborhood level and discusses in some detail the rationale for the Geographically Targeted Goal in metropolitan areas. The most thorough studies available provide strong evidence that in metropolitan areas low income and high minority census tracts are underserved by the mortgage market.

Three main points are made in this section:

- There is evidence of racial disparities in both the housing and mortgage markets. Partly as a result of this, the homeownership rate for minorities is substantially below that for whites.
- The existence of substantial neighborhood disparities in mortgage credit is well documented for metropolitan areas. Research has demonstrated that census tracts with lower incomes and higher shares of minority population consistently have poorer access to mortgage credit, with higher mortgage denial rates and lower origination rates for mortgages. Thus, the income and minority composition of an area is a good measure of whether that area is being underserved by the mortgage market.
- Research supports a targeted definition. Studies conclude that characteristics of the applicant and the neighborhood where the property is located are the major determinants of mortgage denials and origination rates. Once these characteristics are accounted for, other influences, such as location in an OMB-designated central city, play only a minor role in explaining disparities in mortgage lending.[2]

1. Discrimination in the Mortgage and Housing Markets—An Overview

The nation's housing and mortgage markets are highly efficient systems, where most homebuyers can put down relatively small amounts of cash and obtain long-term funding at relatively small spreads above the lender's borrowing costs. Unfortunately, this highly efficient financing system does not work everywhere or for everyone. Studies have shown that access to credit often depends on improper evaluation of characteristics of the mortgage applicant and the neighborhood in which the applicant wishes to buy. In addition, though racial discrimination has become less blatant in the home purchase market, studies have shown that it is still widespread in more subtle forms. Partly as a result of these factors, the homeownership rate for minorities is substantially below that of whites.

Appendix A provided an overview of the homeownership gaps and lending disparities faced by minorities. A quick look at mortgage denial rates reported by the 1998 HMDA data reveals that minority denial rates were higher than those for white loan applicants. For lower-income borrowers, the conventional denial rate for African Americans was 1.9 times the denial rate for white borrowers, while for higher-income borrowers, the denial rate for African Americans was 2.5 times the rate for white borrowers. Similarly, the FHA denial rate for lower-income African Americans was 1.7 times the denial rates for lower-income white borrowers and twice as high for higher-income African Americans as for whites with similar incomes.

Several analytical studies, some of which are reviewed later in this section, show that these differentials in denial rates are not fully accounted for by differences in credit risk. Perhaps the most publicized example is a study by the Federal Reserve Bank of Boston, described in more detail below, which found that differential denial rates were most prevalent among marginal applicants.[3] Highly qualified borrowers of all races seemed to be treated equally, but in cases where there was some flaw in the application, white applicants seemed to be given the benefit of the doubt more frequently than minority applicants.

The Urban Institute conducted a case study of lenders' origination processes.[4] The research team and lenders believed origination processes to be race-blind. A review of the HMDA data revealed that origination outcomes were different for whites, black, and Hispanics—where lenders denied a small proportion of minority applicants, they denied an even smaller proportion of white applications. This may result from the lender's staff making greater efforts to qualify marginal white applicants compared with marginal black and Hispanic applicants.

In addition to discrimination in the lending market, substantial evidence exists of discrimination in the housing market. The 1991 Housing Discrimination Study sponsored by HUD found that minority home buyers encounter some form of discrimination about half the time when they visit a rental or sales agent to ask about advertised housing.[5] The incidence of discrimination was higher for African Americans than for Hispanics and for homebuyers than for renters. For renters, the incidence of discrimination was 46 percent for Hispanics and 53 percent for African Americans. The incidence among buyers was 56 percent for Hispanics and 59 percent for African Americans.

While discrimination is rarely overt, minorities are more often told the unit of interest is unavailable, shown fewer properties, offered less attractive terms, offered less financing assistance, or provided less information than similarly situated non-minority homeseekers. Some evidence indicates that properties in minority and racially-diverse neighborhoods are marketed differently from those in White neighborhoods. Houses for sale in non-White neighborhoods are rarely advertised in metropolitan newspapers, open houses are rarely held, and listing real estate agents are less often associated with a multiple listing service.[6]

Discrimination, while not the only cause, contributes to the pervasive level of segregation that persists between African Americans and Whites in our urban areas. Because minorities tend to live in segregated neighborhoods, their difficulty in obtaining mortgage credit has a concentrated effect on the viability of their neighborhoods. In addition, there is evidence that denial rates are higher in minority neighborhoods regardless of the race of the applicant. The next section explores the issue of credit availability in neighborhoods in more detail.

2. Evidence About Access to Credit in Urban Neighborhoods

The viability of neighborhoods—whether urban, rural, or suburban—depends on the access of their residents to mortgage capital to purchase and improve their homes. While neighborhood problems are caused by a wide range of factors, including substantial inequalities in the distribution of the nation's income and wealth, there is increasing agreement that imperfections in the nation's housing and mortgage markets are hastening the decline of distressed neighborhoods. Disparate denial of credit based on geographic criteria can lead to disinvestment and neighborhood decline. Discrimination and other factors, such as inflexible and restrictive underwriting guidelines, limit access to mortgage credit and leave potential borrowers in certain areas underserved.

Data on mortgage credit flows are far from perfect, and issues regarding the identification of areas with inadequate access to credit are both complex and controversial. For this reason, it is essential to define ''underserved areas'' as accurately as possible from existing data. To provide the reasoning behind the Department's definition of underserved areas, this section first uses 1998 HMDA data to examine geographic variation in mortgage denial rates, and then it reviews three sets of studies that support HUD's definition. These include (1) studies examining racial discrimination against individual mortgage applicants, (2) studies that test whether mortgage redlining exists at the neighborhood level, and (3) studies that support HUD's targeted approach to measuring areas that are underserved by the mortgage market. In combination, these studies provide strong support for the definition of underserved areas chosen by HUD. The review of the economics literature draws from Appendix B of the 1995 GSE Rule; readers are referred there for a more detailed treatment of earlier studies of the issues discussed below.

a. HMDA Data on Mortgage Originations and Denial Rates

Home Mortgage Disclosure Act (HMDA) data provide information on the disposition of mortgage loan applications (originated, approved but not accepted by the borrower, denied, withdrawn, or not completed) in metropolitan areas. HMDA data include the census tract location of the property being financed and the race and income of the loan applicant(s). Therefore, it is a rich data base for analyzing mortgage activity in urban neighborhoods. HUD's analysis using HMDA data for 1998 shows that high-minority and low-income census tracts have both relatively high loan application denial rates and relatively low loan origination rates.

Table B.1 presents mortgage denial and origination rates by the minority composition and median income of census tracts in metropolitan areas. Two patterns are clear:

• Census tracts with higher percentages of minority residents have higher mortgage denial rates and lower mortgage origination rates than all-white or substantially-white tracts. For example, in 1998 the denial rate for census tracts that are over 90 percent minority (26.6 percent) was 2.5 times that for census tracts with less than 10 percent minority (10.4 percent).

• Census tracts with lower incomes have higher denial rates and lower origination rates than higher income tracts. For example, in 1998 mortgage denial rates declined from 26.8 percent to 7.4 percent as tract income increased from less than 20 percent of area median income to more than 150 percent of area median income.[7] Similar patterns arose in HUD's analysis of 1993 and 1994 HMDA data (see Appendix B of the 1995 rule).

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Table B.1

Origination and Denial Rates for Conventional Mortgages

	Originations Per 100 Owner-Occupied Units (Purchases and Refinances)			Denial Rates (Home Purchases)		
Minority Percentage	1996	1997	1998	1996	1997	1998
Less than 10%	8.8	8.8	16.8	10.3 %	10.6 %	10.4 %
10-20	8.1	8.5	16.3	12.4	12.5	12.3
20-30	7.3	7.8	14.7	14.9	14.9	14.6
30-40	6.5	7.0	12.9	17.3	16.5	16.6
40-50	6.1	6.6	11.9	18.9	18.6	18.2
50-60	6.0	6.4	11.2	20.1	19.1	18.8
60-70	5.9	6.3	10.8	21.3	20.0	20.6
70-80	5.8	6.4	10.4	22.4	20.6	20.6
80-90	5.4	5.8	9.1	23.2	22.4	22.7
90-100	4.3	5.0	7.3	27.4	25.8	26.6
All Tracts	7.9	8.2	15.2	12.7	12.8	12.7

	Originations Per 100 Owner-Occupied Units (Purchases and Refinances)			Denial Rates (Home Purchases)		
Tract Income Relative to MSA Median	1996	1997	1998	1996	1997	1998
Less than 20%	7.0	8.4	11.6	30.1 %	23.9 %	26.8 %
20-30	5.0	6.0	8.5	31.5	24.2	25.2
30-40	4.4	5.2	7.6	27.4	25.3	26.0
40-50	5.0	5.8	8.4	24.8	23.6	24.8
50-60	4.9	5.6	8.4	25.1	22.7	23.0
60-70	5.3	6.0	9.4	22.4	21.9	21.5
70-80	5.9	6.5	10.7	20.4	19.9	19.9
80-90	6.7	7.1	12.1	17.4	17.9	17.7
90-100	7.3	7.6	13.7	15.0	15.0	15.2
100-110	8.1	8.3	15.5	12.5	13.0	12.8
110-120	9.0	9.0	17.6	10.6	11.0	11.0
120-150	9.7	9.8	19.6	8.9	9.0	8.8
150+	9.1	9.1	18.5	7.7	7.9	7.4
All Tracts	7.9	8.2	15.2	12.7	12.8	12.7

Source: HUD analysis of 1996,1997 and 1998 HMDA Data. Denial rate data exclude loans of lenders, respectively, that primarily originate manufactured housing loans.

Table B.2

Mortgage Denial and Origination Rates By Minority and Income Characteristics of the Census Tract

Denial Rates (Purchase Mortgages Only)				
	Minority Composition			
Tract Income	< 30%	30-50%	50-100%	Total
Less Than 90%	17.8%	20.4%	24.0%	19.8%
90-120%	12.4%	16.6%	19.2%	13.0%
120+	7.9%	12.5%	14.8%	8.3%
Total	11.4%	17.2%	21.9%	12.7%
Origination Rates per 100 Owner Occupants (Purchase and Refinance Mortgages)				
	Minority Composition			
Tract Income	< 30%	30-50%	50-100%	Total
Less Than 90%	11.8	10.9	8.5	10.7
90-120%	16.1	12.5	10.8	15.5
120+	19.6	16.1	13.6	19.2
Total	16.4	12.5	9.4	15.2

Source: HUD analysis of 1998 HMDA Data. Data on denial rates exclude loans of lenders that primarily originate manufactured housing loans.

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Table B.2 illustrates the interaction between tract minority composition and tract income by aggregating the data in Table B.1 into nine minority and income combinations. The low-minority (less than 30 percent minority), high-income (over 120 percent of area median) group had a denial rate of 7.9 percent and an origination rate of 19.6 loans per 100 owner occupants in 1998. The high-minority (over 50 percent), low-income (under 90 percent of area median) group had a denial rate of 24.0 percent and an origination rate of only 8.5 loans per 100 owner occupants. The other groupings fall between these two extremes.

The advantages of HUD's underserved area definition can be seen by examining the minority-income combinations highlighted in Table B.2. The sharp differences in denial rates and origination rates between the underserved and remaining served categories illustrate that HUD's definition delineates areas that have significantly less success in receiving mortgage credit. In 1998 underserved areas had almost twice the average denial rate of served areas (19.4 percent versus 10.3 percent) and less than two-thirds the average origination rate per 100 owner occupants (10.8 versus 17.5). HUD's definition does not include high-income (over 120 percent of area median) census tracts even if they meet the minority threshold. The mortgage denial rate (13.3 percent) for high-income tracts with a minority share of population over 30 percent is much less than the denial rate (19.4 percent) in underserved areas as defined by HUD, and only slightly above the average (10.3 percent) for all served areas.

b. Federal Reserve Bank Studies

The analysis of denial rates in the above section suggests that HUD's definition is a good proxy for identifying areas experiencing credit problems. However, an important question is the degree to which variations in denial rates reflect lender bias against certain kinds of neighborhoods and borrowers versus the degree to which they reflect the credit quality of potential borrowers (as indicated by applicants' available assets, credit rating, employment history, etc.). Some studies of credit disparities have attempted to control for credit risk factors that might influence a lender's decision to approve a loan. Without fully accounting for the creditworthiness of the borrower, racial differences in denial rates cannot be attributed to lender bias.

The best example of accounting for credit risk is the study by researchers at the Federal Reserve Bank of Boston, which analyzed mortgage denial rates.[8] To control for credit risk, the Boston Fed researchers included 38 borrower and loan variables indicated by lenders to be critical to loan decisions. For example, the Boston Fed study included a measure of the borrower's credit history, which is a variable not included in other studies. The Boston Fed study found that minorities' higher denial rates could not be explained fully by income and credit risk factors. African Americans and Hispanics were about 60 percent more likely to be denied credit than Whites, even after controlling for credit risk characteristics such as credit history, employment stability, liquid assets, self-employment, age, and family status and composition. Although almost all highly-qualified applicants of all races were approved, differential treatment was observed among borrowers with more marginal qualifications.[9]

A subsequent reassessment and refinement of the data used by the Federal Reserve Bank of Boston confirmed the findings of that study.[10] William C. Hunter of the Federal Reserve Bank of Chicago confirmed that race was a factor in denial rates of marginal applicants. While denial rates were comparable for borrowers of all races with ''good'' credit ratings, among those with ''bad'' credit ratings or high debt ratios, minorities were significantly more likely to be denied than similarly-situated whites. The study concluded that the racial differences in denial rates were consistent with a cultural gap between white loan officers and minority applicants, and conversely, a cultural affinity with white applicants.

The two Fed studies concluded that the effect of borrower race on mortgage rejections persists even after controlling for legitimate determinants of lenders' credit decisions. Thus, they imply that variations in mortgage denial rates, such as those given in Table B.2, are not determined entirely by borrower risk, but reflect discrimination in the housing finance system. However, the independent race effect identified in these studies is still difficult to interpret. In addition to lender bias, access to credit can be limited by loan characteristics that reduce profitability [11] and by underwriting standards that have disparate effects on minority and lower-income borrowers and their neighborhoods.[12]

c. Controlling for Neighborhood Risk and Tests of the Redlining Hypothesis

In its deliberations leading up to FHEFSSA, Congress was concerned about geographic redlining—the refusal of lenders to make loans in certain neighborhoods regardless of the creditworthiness of individual applicants. During the 1980's and early 1990's, a number of studies using HMDA data (such as that reported in Tables B.1 and B.2) attempted to test for the existence of mortgage redlining. Consistent with the redlining hypothesis, these studies found lower volumes of loans going to low-income and high-minority neighborhoods.[13] However, such analyses were criticized because they did not distinguish between demand, risk, and supply effects [14]—that is, they did not determine whether loan volume was low because families in high-minority and low-income areas were unable to afford home ownership and therefore were not applying for mortgage loans, *or* because borrowers in these areas were more likely to default on their mortgage obligations, *or* because lenders refused to make loans to creditworthy borrowers in these areas.[15] [16]

Recent statistical studies have sought to test the redlining hypothesis by more completely controlling for differences in neighborhood risk and demand. The first two studies reviewed below are good examples of the more recent literature. In these studies, the explanatory power of neighborhood race is reduced to the extent that the effects of neighborhood risk and demand are accounted for; thus, they do not support claims of racially induced mortgage redlining. However, as explained below, these studies cannot reach definitive conclusions about redlining because segregation in our inner cities makes it difficult to distinguish the impacts of geographic redlining from the effects of individual discrimination.

Additional studies related to redlining and the credit problems facing low- income and minority neighborhoods are also summarized. Particularly important are studies that focus on the ''thin'' mortgage markets in these neighborhoods and the implications of lenders not having enough information about the collateral and other characteristics of these neighborhoods. The low numbers of house sales and mortgages originated in low-income and high-minority neighborhoods result in individual lenders perceiving these neighborhoods to be more risky. It is argued that lenders do not have enough historical information to project the expected default performance of loans in low-income and high-minority neighborhoods, which increases their uncertainty about investing in these areas.

Holmes and Horvitz Study. Andrew Holmes and Paul Horvitz used 1988–1991 HMDA data to examine variations in conventional mortgage originations across census tracts in Houston. Their single-equation regression model included as explanatory variables the economic viability of the loan, characteristics of properties in and residents of the tract (*e.g.,* house value, income, age distribution and education level), measures of demand (*e.g.,* recent movers into the tract and change in owner-occupied units between 1980 and 1990), and measures of credit risk (defaults on government-insured loans and change in tract house values between 1980 and 1990). To test the existence of racial redlining, the model also included as explanatory variables the percentages of African American and Hispanic residents in the tract and the increase in the tract's minority percentage between 1980 and 1990. Most of the neighborhood risk and demand variables were significant determinants of the flow of conventional loans in Houston. The coefficients of the racial composition variables were insignificant, which led Holmes and Horvitz to conclude that allegations of redlining in the Houston market could not be supported.

Schill and Wachter Study. Michael Schill and Susan Wachter posited that the probability that a lender will accept a specific mortgage application depends on characteristics of the individual loan application [17] and characteristics of the neighborhood where the property collateralizing the loan is located. Schill and Wachter included neighborhood risk proxies that are likely to affect the future value of the properties,[18] and they included the percentage of the tract population comprised of African Americans and Hispanics in order to test for the existence of racial discrepancies in lending patterns across census tracts.

Testing their model for conventional mortgages in Philadelphia and Boston, Schill and Wachter found that the applicant race variables—whether the applicant was African

American or Hispanic—showed significant negative effects on the probability that a loan would be accepted. Schill and Wachter stated that this finding does not provide evidence of individual race discrimination because applicant race is most likely serving as a proxy for credit risk variables omitted from their model (*e.g.,* credit history, wealth and liquid assets). In an initial analysis that excluded the neighborhood risk variables from the model, the percentage of the census tract that was African American also showed a significant and negative coefficient, a result that is consistent with redlining. However, when the neighborhood risk proxies were included in the model along with the individual loan variables, the percentage of the census tract that was African American became insignificant. Thus, similar to Holmes and Horvitz, Schill and Wachter stated that ''once the set of independent variables is expanded to include measures that act as proxies for neighborhood risk, the results do not reveal a pattern of redlining.'' [19]

Other Redlining Studies. To highlight the methodological problems of single-equation studies of mortgage redlining, Fred Phillips-Patrick and Clifford Rossi developed a simultaneous equation model of the demand and supply of mortgages, which they estimated for the Washington, DC metropolitan area.[20] Phillips-Patrick and Rossi found that the supply of mortgages is negatively associated with the racial composition of the neighborhood, which led them to conclude that the results of single-equation models (such as the one estimated by Holmes and Horvitz) are not reliable indicators of redlining or its absence. However, Phillips-Patrick and Rossi noted that even their simultaneous equations model does not provide definitive evidence of redlining because important underwriting variables (such as credit history), which are omitted from their model, may be correlated with neighborhood race.

A few studies of neighborhood redlining have attempted to control for the credit history of the borrower, which is the main omitted variable in the redlining studies reviewed so far. Samuel Myers, Jr. and Tsze Chan, who studied mortgage rejections in the state of New Jersey in 1990, developed a proxy for bad credit based on the reasons that lenders give in their HMDA reports for denying a loan.[21] They found that 70 percent of the gap in rejection rates could not be explained by differences in Black and white borrower characteristics, loan characteristics, neighborhoods or bad credit. Myers and Chan concluded that the unexplained Black-white gap in rejection rates is a result of discrimination. With respect to the racial composition of the census tract, they found that Blacks are more likely to be denied loans in racially integrated or predominantly-white neighborhoods than in predominantly-Black neighborhoods. They concluded that middle-class Blacks seeking to move out of the inner city would face problems of discrimination in the suburbs.[22]

Geoffrey Tootell has authored two papers on neighborhood redlining based on the mortgage rejection data from the Boston Fed study.[23] Tootell's studies are important because they include a direct measure of borrower credit history, as well as the other underwriting, borrower, and neighborhood characteristics that are included in the Boston Fed data base; thus, his work does not have the problem of omitted variables to the same extent as previous redlining studies.[24] Tootell found that lenders in the Boston area did not appear to be redlining neighborhoods based on the racial composition of the census tract or the average income in the tract. Consistent with the Boston Fed and Schill and Wachter studies, Tootell found that it is the race of the applicant that mostly affects the mortgage lending decision; the location of the applicant's property appears to be far less relevant. However, he did find that the decision to require private mortgage insurance (PMI) depends on the racial composition of the neighborhood. Tootell suggested that, rather than redline themselves, mortgage lenders may rely on private mortgage insurers to screen applications from minority neighborhoods. Tootell also noted that this indirect form of redlining would increase the price paid by applicants from minority areas that are approved by private mortgage insurers.

In a 1999 paper, Stephen Ross and Geoffrey Tootell used the Boston Fed data base to take a closer at both lender redlining and the role of private mortgage insurance (PMI) in neighborhood lending.[25] They had two main findings. First, mortgage applications for properties in low-income neighborhoods were more likely to be denied if the applicant did not apply for PMI. Ross and Tootell concluded that their study provides the first direct evidence based on complete underwriting data that some mortgage applications may have been denied based on neighborhood characteristics that legally should not be considered in the underwriting process. Second, mortgage applicants were often forced to apply for PMI when the housing units were in low-income neighborhoods. Ross and Tootell concluded that lenders appeared to be responding to CRA by favoring low-income tracts once PMI has been received, and this effect counteracts the high denial rates for applications without PMI in low-income tracts.

Studies of Information Externalities. A recent group of studies that focus on economies of scale in the collection of information about neighborhood characteristics has implications for the identification of underserved areas and understanding the problems of mortgage access in low-income and minority neighborhoods. William Lang and Leonard Nakamura argue that individual home sale transactions generate information which reduce lenders' uncertainty about property values, resulting in greater availability of mortgage financing.[26] Conversely, appraisals in neighborhoods where transactions occur infrequently will tend to be more imprecise, resulting in greater uncertainty to lenders regarding collateral quality, and more reluctance by them in approving mortgage loans in neighborhoods with thin markets. As a consequence, ''prejudicial practices of the past may lead to continued differentials in lending behavior.''

If low-income or minority tracts have experienced relatively few recent transactions, the resulting lack of information available to lenders will result in higher denial rates and more difficulty in obtaining mortgage financing, independently of the level of credit risk in these neighborhoods.

A number of empirical studies have found evidence consistent with the notion that mortgage credit is more difficult to obtain in areas with relatively few recent sales transactions. Some of these studies have also found that low transactions volume may contribute to disparities in the availability of mortgage credit by neighborhood income and minority composition.

Paul Calem found that, in low-minority tracts, higher mortgage loan approval rates were associated with recent sales transactions volume, consistent with the Lang and Nakamura hypothesis.[27] While this effect was not found in high-minority tracts, he concludes that ''informational returns to scale'' contribute to disparities in the availability of mortgage credit between low-minority and high-minority areas. Empirical research by David Ling and Susan Wachter found that recent tract-level sales transaction volume does significantly contribute to mortgage loan acceptance rates in Dade County, Florida, also consistent with the Lang and Nakamura hypothesis.[28]

Robert Avery, Patricia Beeson, and Mark Sniderman found significant evidence of economies associated with the scale of operation of individual lenders in a neighborhood.[29] They concluded that ''The inability to exploit these economies of scale is found to explain a substantial portion of the higher denial rates observed in low-income and minority neighborhoods, where the markets are generally thin.'' Low-income and minority neighborhoods often suffer from low transactions volume, and low transactions volume represents a barrier to the availability of mortgage credit by making mortgage lenders more reluctant to approve and originate mortgage loans in these areas.

d. Geographic Dimensions of Underserved Areas—Targeted versus Broad Approaches

HUD's definition of metropolitan underserved areas is a targeted neighborhood definition, rather than a broad definition that would encompass entire cities. It also focuses on those neighborhoods experiencing the most severe credit problems, rather than neighborhoods experiencing only moderate difficulty obtaining credit. During the regulatory process leading to the 1995 rule, some argued that underserved areas under this goal should be defined to include all parts of all central cities, as defined by OMB. HUD concluded that such broad definitions were not a good proxy for mortgage credit problems—to use them would allow the GSEs to focus on wealthier parts of cities, rather than on neighborhoods experiencing credit problems. This section reports findings from several analyses by HUD and academic researchers that support defining underserved areas in terms of the minority and/or income characteristics of census tracts, rather than in terms of a broad definition such as all parts of all central cities.

Socioeconomic Characteristics. The targeted nature of HUD's definition can be seen from the data presented in Table B.3,

which show that families living in underserved areas experience much more economic and social distress than families living in served areas. For example, the poverty rate in underserved census tracts is 20.1 percent, or almost four times the poverty rate (5.8 percent) in served census tracts. The unemployment rate and the high-school dropout rate are also higher in underserved areas. In addition, there are nearly three times more female-headed households in underserved areas (11.5 percent) than in served areas (4.3 percent).

The majority of units in served areas are owner-occupied, while the majority of units in underserved areas are renter-occupied.

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Table B.3

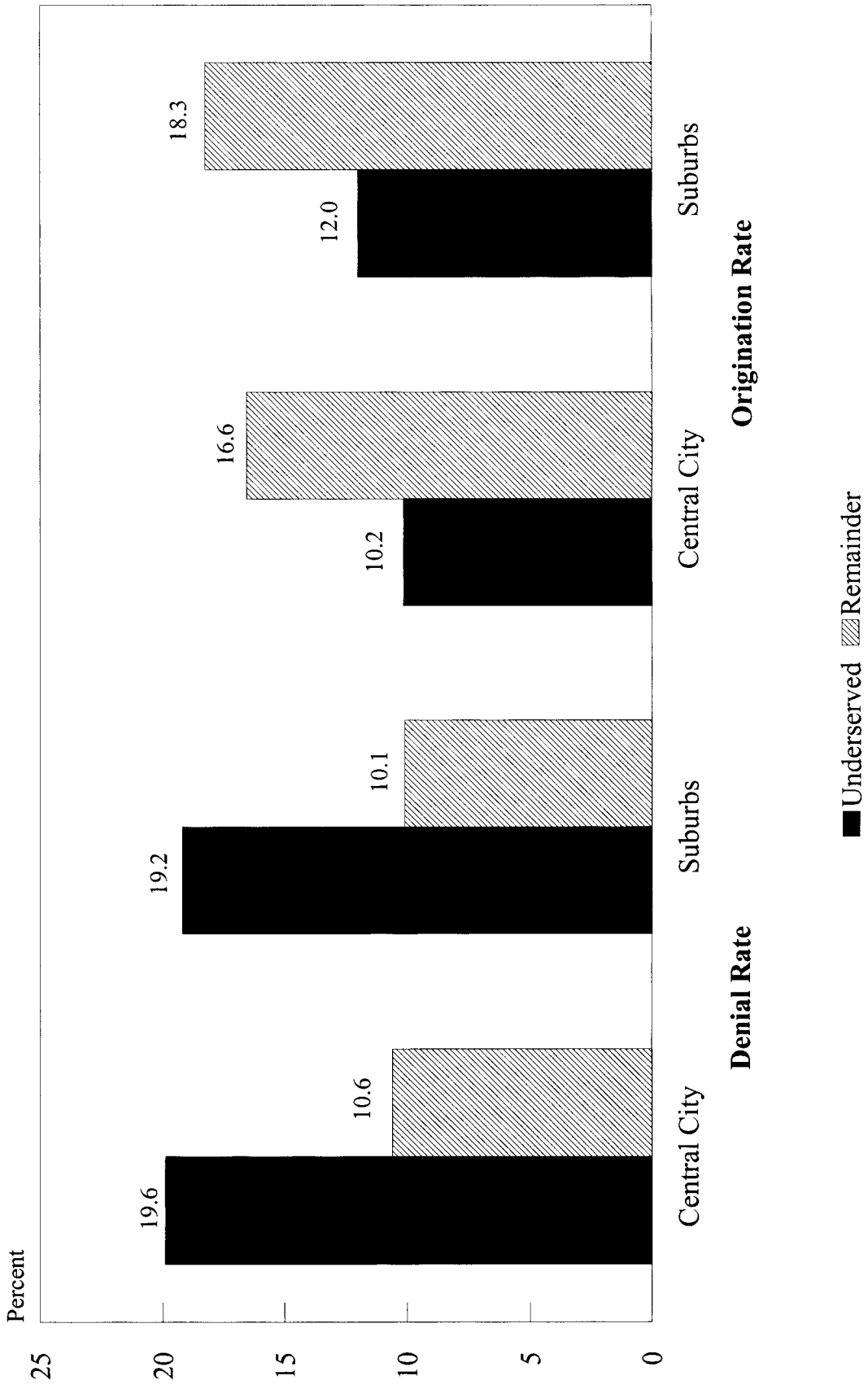
Socioeconomic Characteristics of Underserved Areas in Metropolitan Areas

	Served Tracts	Underserved Tracts	Total
Census Tracts	23,819	21,587	45,406
Households	41,379,104	31,839,636	73,218,740
Population	110,037,735	87,578,825	197,616,560
Unemployment Rate	4.2%	9.0%	6.2%
Poverty Rate	5.8%	20.1%	12.1%
Dropout Rate	10.3%	20.4%	14.8%
Percent Female Household With Children	12.1%	28.3%	19.7%
Percent African-American	3.8%	23.6%	12.6%
Percent Minority	11.1%	46.6%	26.8%
Percent Owner-Occupied	71.3%	47.6%	61.0%
Percent Renter	28.6%	52.4%	38.9%

Source: 1990 Census.

Figure B.1

1998 Denial And Origination Rates Underserved Areas And Remainder By Central Cities And Suburbs



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Credit Characteristics. Tables B.1 and B.2 documented the relatively high denial rates and low mortgage origination rates in underserved areas as defined by HUD. This section extends that analysis by comparing underserved and served areas within central cities and suburbs. Figure B.1 shows that HUD's definition targets central city neighborhoods that are experiencing problems obtaining mortgage credit. The 19.6 percent denial rate in these neighborhoods in 1998 was nearly twice the 10.6 percent denial rate in the remaining areas of central cities. A broad, inclusive definition of ''central city'' that includes all areas of all OMB-designated central cities would include these ''remaining'' portions of cities. Figure B.1 shows that these areas, which account for approximately 43 percent of the population in OMB-designated central cities, appear to be well served by the mortgage market. As a whole, they are not experiencing problems obtaining mortgage credit.[30]

HUD's definition also targets underserved census tracts in the suburbs as well as in central cities—for example, the average denial rate in underserved suburban areas (19.2 percent) is more than twice that in the remaining served areas of the suburbs (10.1 percent). Low-income and high-minority suburban tracts appear to have credit problems similar to their central city counterparts. These suburban tracts, which account for 40 percent of the suburban population, are encompassed by the definition of other underserved areas.

As explained in the Preamble, HUD asked for public comment on two options that would tighten the targeting of the underserved areas definition and reduce the number of qualifying census tracts. After examining the comments the Department has decided to wait until the release of the 2000 Census Bureau data. In addition to providing updated information on neighborhoods, the 2000 Census Bureau will incorporate changes adopted by the Metropolitan Area Standards Review Committee that will impact the boundaries of current metropolitan areas.[31]

Shear, Berkovec, Dougherty, and Nothaft Study. William Shear, James Berkovec, Ann Dougherty, and Frank Nothaft conducted an analysis of mortgage flows and application acceptance rates in 32 metropolitan areas that supports a targeted definition of underserved areas.[32] They found: (a) Low-income census tracts and tracts with high concentrations of African American and Hispanic families had lower rates of mortgage applications, originations, and acceptance rates; [33] and (b) once census tract influences were accounted for, central city location had only a minimal effect on credit flows. Shear, Berkovec, Dougherty, and Nothaft recognized that it is difficult to interpret their estimated minority effects—the effects may indicate lender discrimination, supply and demand effects not included in their model but correlated with minority status, or some combination of these factors. They explain the implications of their results for measuring underserved areas as follows:

While it is not at all clear how we might rigorously define, let alone measure, what it means to be underserved, it is clear that there are important housing-related problems associated with certain location characteristics, and it is possible that, in the second or third best world in which we live, mortgage markets might be useful in helping to solve some of these problems. We then might use these data to help single out important areas or at least eliminate some bad choices. * * * The regression results indicate that income and minority status are better indicators of areas with special needs than central city location.[34]

Avery, Beeson, and Sniderman Study. Robert Avery, Patricia Beeson, and Mark Sniderman of the Federal Reserve Bank of Cleveland presented a paper specifically addressing the issue of underserved areas in the context of the GSE legislation.[35] Their study examined variations in application rates and denial rates for all individuals and census tracts included in the 1990 and 1991 HMDA data base. They sought to isolate the differences that stem from the characteristics of the neighborhood itself rather than the characteristics of the individuals that apply for loans in the neighborhood or lenders that happen to serve them. Similar to the studies of redlining reviewed in the previous section, Avery, Beeson and Sniderman hypothesized that variations in mortgage application and denial rates would be a function of several risk variables such as the income of the applicant and changes in neighborhood house values; they tested for independent racial effects by adding to their model the applicant's race and the racial composition of the census tract. Econometric techniques were used to separate individual applicant effects from neighborhood effects.

Based on their empirical work, Avery, Beeson and Sniderman reached the following conclusions:

- The individual applicant's race exerts a strong influence on mortgage application and denial rates. African American applicants, in particular, had unexplainably high denial rates.
- Once individual applicant and other neighborhood characteristics were controlled for, overall denial rates for purchase and refinance loans were only slightly higher in minority census tracts than non-minority census tracts.[36] For white applicants, on the other hand, denial rates were significantly higher in minority tracts.[37] That is, minorities had higher denial rates wherever they attempted to borrow, but whites faced higher denials when they attempt to borrow in minority neighborhoods. In addition, Avery *et al.* found that home improvement loans had significantly higher denial rates in minority neighborhoods. Given the very strong effect of the individual applicant's race on denial rates, Avery *et al.* noted that since minorities tend to live in segregated communities, a policy of targeting minority neighborhoods may be warranted.

Other findings were:

- The median income of the census tract had strong effects on both application and denial rates for purchase and refinance loans, even after other variables were accounted for.
- There was little difference in overall denial rates between central cities and suburbs, once individual applicant and census tract characteristics were controlled for.

Avery, Beeson and Sniderman concluded that a tract-level definition is a more effective way to define underserved areas than using the list of OMB-designated central cities as a proxy.

e. Conclusions from HUD's Analysis and the Economics Literature About Urban Underserved Areas

The implications of studies by HUD and others for defining underserved areas can be summarized briefly. First, the existence of large geographic disparities in mortgage credit is well documented. HUD's analysis of HMDA data shows that low-income and high-minority neighborhoods receive substantially less credit than other neighborhoods and fit the definition of being underserved by the nation's credit markets.

Second, researchers are testing models that more fully account for the various risk, demand, and supply factors that determine the flow of credit to urban neighborhoods. The studies by Holmes and Horvitz, Schill and Wachter, and Tootell are examples of this research. Their attempts to test the redlining hypothesis show the analytical insights that can be gained by more rigorous modeling of this issue. However, the fact that our urban areas are highly segregated means that the various loan, applicant, and neighborhood characteristics currently being used to explain credit flows are often highly correlated with each other, which makes it difficult to reach definitive conclusions about the relative importance of any single variable such as neighborhood racial composition. Thus, their results are inconclusive and, thus, the need continues for further research on the underlying determinants of geographic disparities in mortgage lending.[38]

Finally, much research strongly supports a targeted definition of underserved areas. Studies by Shear, *et al.* and Avery, Beeson, and Sniderman conclude that characteristics of both the applicant and the neighborhood where the property is located are the major determinants of mortgage denials and origination rates—once these characteristics are controlled for, other influences such as central city location play only a minor role in explaining disparities in mortgage lending. HUD's analysis shows that both credit and socioeconomic problems are highly concentrated in underserved areas within central cities and suburbs. The remaining, high-income portions of central cities and suburbs appear to be well served by the mortgage market.

HUD recognizes that the mortgage origination and denial rates forming the basis for the research mentioned in the preceding paragraph, as well as for HUD's definition of underserved areas, are the result of the interaction of individual risk, demand and supply factors that analysts have yet to fully disentangle and interpret. The need continues for further research addressing this problem. HUD believes, however, that the economics literature is consistent with a targeted rather than a broad approach for defining underserved areas.

C. Consideration of Factors 1 and 2 in Nonmetropolitan Areas: The Housing Needs of Underserved Rural Areas and the Housing, Economic, and Demographic Conditions in Underserved Rural Areas

Because of the absence of HMDA data for rural areas, the analysis for metropolitan underserved areas cannot be carried over to non-metropolitan areas. Based on discussions with rural lenders in 1995, the definition of underserved rural areas was established at the county level, since such lenders usually do not make distinctions on a census tract basis. But this definition parallels that used in metropolitan areas—specifically, a nonmetro county is classified as an underserved area if median income of families in the county does not exceed 95 percent of the greater of state nonmetro or national nonmetro median income, or minorities comprise 30 percent or more of the residents and the median income of families in the county does not exceed 120 percent of the greater of state nonmetro or national nonmetro median income. For nonmetro areas the median income component of the underserved areas definition is broader than that used for metropolitan areas. While tract income is compared with area income for metropolitan areas, in rural counties income is compared with ''enhanced income''—the greater of state nonmetro income and national nonmetro income. This is based on HUD's analysis of 1990 census data, which indicated that comparing county nonmetro income only to state nonmetro income would lead to the exclusion of many lower-income low-minority counties from the definition, especially in Appalachia. Underserved counties account for 57 percent (8,091 of 14,419) of the census tracts and 54 percent of the population in rural areas. By comparison, the definition of metropolitan underserved areas encompassed 47 percent of metropolitan census tracts and 44 percent of metropolitan residents. The county-wide definition of rural underserved areas could give the GSEs an incentive to purchase mortgages in the ''better served'' portions of underserved counties which may face few, if any, barriers to accessing mortgage credit in rural areas. This issue is discussed in more detail in the proposed Rule.

The demographic characteristics of served and underserved counties are first presented in this section. Next, a literature review of recent studies provides an overview of rural mortgage markets, GSE activity, and the growing demand for manufactured housing in rural housing markets. It also discusses characteristics of rural housing markets that lead to higher interest rates and mortgage access problems and makes some policy recommendations for addressing market inefficiencies.

1. Demographics

As discussed, majorities of rural households and rural counties fall under the definition of underserved areas. As shown in Table B.4, rural underserved counties have higher unemployment, poverty rates, minority shares of households, and homeownership rates than rural served counties. The poverty rate in underserved rural counties (21.2 percent) is nearly twice that in served rural counties (12.2 percent). Joblessness is more common, with average unemployment rates of 8.3 percent in underserved counties and 5.9 percent in served counties. Minorities make up 20.8 percent of the residents in underserved counties and 7.4 percent in served counties. Homeownership is slightly higher in underserved counties (72.4 percent) than in served counties (70.8 percent).

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Table B.4

Socioeconomic Characteristics of Underserved Counties in Non-Metropolitan Areas

	Served Counties	Underserved Counties	Total
Counties	786	1,511	2,297
Households	8,618,519	10,097,825	18,716,344
Population	23,075,383	27,467,972	50,543,355
Unemployment Rate	5.9%	8.3%	7.1%
Poverty Rate	12.2%	21.2%	17.1%
Dropout Rate	16.3%	22.7%	19.8%
Percent Female Household With Children	14.3%	17.5%	16.1%
Percent African-American	3.9%	12.4%	8.5%
Percent Minority	7.4%	20.8%	14.7%
Percent Owner-Occupied	70.8%	72.4%	71.6%
Percent Renter	29.2%	27.6%	28.4%

Source: 1990 Census.

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Some differences exist between metro and nonmetro underserved areas. The definition is somewhat more inclusive in nonmetro areas—the majority of the nonmetro population lives in underserved counties, while the majority of the metropolitan population lives in served areas. The majority of units in underserved metropolitan areas are occupied by renters, while the majority of units in underserved rural counties are occupied by owners. But poverty and unemployment rates are higher in underserved areas than in served areas in both nonmetropolitan and metropolitan areas.

2. Literature Review

Research related to housing and mortgage finance issues in rural areas is reviewed in this section. It finds that lack of competition between rural lenders and lack of participation in secondary mortgage markets may contribute to higher interest rates and lower mortgage availability in rural areas. The mortgages purchased by the GSEs on properties in underserved counties are not particularly focused on lower-income borrowers and first-time homebuyers, which suggests that additional research needs to be conducted to target areas in nonmetropolitan areas which experience difficulty accessing mortgage credit. The role of manufactured housing in providing affordable housing in rural areas is also discussed.

Mikesell Study (1998).[39] A study by Jim Mikesell provides an overview of mortgage lending in rural areas. It finds that home loans in rural areas have higher costs, which can be attributed to at least three factors that characterize rural mortgage markets. First, the fixed cost associated with rural lending may be higher as a result of the smaller loan size and remoteness of many rural areas. Second, there are fewer mortgage lenders in rural areas competing for business, which may account for higher interest rates. Third, the secondary mortgage market is not as well developed as in metropolitan areas.

Higher interest rates for rural mortgages are documented by the Federal Housing Finance Board's monthly survey of conventional home purchase mortgages. On average, relative to rates on mortgages in urban areas, rates on mortgages in rural areas in 1997 were 8 basis points (bp) higher on 30-year fixed rate mortgages (FRMs), 18 bp higher for 15-year FRMs, 38 bp higher for adjustable-rate mortgages (ARMs), and 52 bp higher for nonstandard loans.[40] The higher rates in rural areas translate into differences in monthly payments of $3 to $16 for a $100,000 mortgage.

Mikesell finds that property location and small loan size are two factors that make lending more costly in rural areas. Borrower characteristics, such as income, assets, and credit history, and lender characteristics, such as ownership, size, and location, might influence loan pricing, but the influence of these factors could not be tested due to lack of data.

Rural-based lenders are fewer and originate a smaller volume of loans than their urban counterparts. These factors contribute to less competition between rural lenders and a less efficient housing finance market, which result in higher costs for rural borrowers.

Rural lenders are less likely than urban lenders to participate in the secondary mortgage market. As a result, rural borrowers do not receive the benefits associated with the secondary market—the increased competition between lenders, the greater potential supply of mortgage financing, and the alignment of financing costs more closely with those in urban markets.

Some obstacles for rural lenders participating in the secondary market are that borrower characteristics and remote properties may not conform to the secondary market's underwriting standards. Rural households may have their borrowing capacity reduced by loan qualification standards which discount income that varies widely from year to year and income from self-employment held for less than several years. Rural properties may have one or more of the following characteristics which preclude a mortgage from being purchased by the GSEs: excessive distance to a firehouse, unacceptable water or sewer facilities, location on a less-than-all-weather road, and dated plumbing or electrical systems.

Mikesell concludes that increased participation by rural lenders in the secondary mortgage market would bring down lending costs and offset some of the higher costs characteristic of rural lending, and that HUD's goals for the GSEs could encourage such increased participation.

MacDonald Study.[41] This study investigates variations in GSE market shares among a sample of 426 non-metropolitan counties in eight census divisions. Conventional conforming mortgage originations are estimated using residential sales data, adjusted to exclude non-conforming mortgages. Multivariate analysis is used to investigate whether the GSE market share differs significantly by location, after controlling for the economic, demographic, housing stock, and credit market differences among counties that could affect use of the secondary markets by lenders.[42]

MacDonald has four main findings regarding mortgage financing and the GSEs' purchases in rural mortgage markets. First, smaller, poorer and less rapidly growing non-metro areas have less access to mortgage credit than larger, wealthier and more rapidly growing areas. Second, the mortgages that are originated in the former areas are seldom purchased by the GSEs. Third, higher-income borrowers are more likely, and first-time homebuyers are less likely, to be served by the GSEs in underserved areas than in served areas. This suggests that the GSEs are not reaching out to marginal borrowers in underserved nonmetropolitan areas. Finally, the GSEs serve a smaller proportion of the low-income market in rural areas than do depository institutions. This finding is consistent with studies of the GSEs' affordable lending performance in metropolitan areas.

With regard to the GSEs' underwriting guidelines MacDonald makes two points. First, the GSEs' purchase guidelines may adversely affect non-metro areas where many borrowers are seasonally-or self-employed and where houses pose appraisal problems. Second, MacDonald speculates that mortgage originators in nonmetropolitan areas may interpret guidelines too conservatively, or may not try to qualify non-traditional borrowers for mortgages.

MacDonald also echoes the findings of Mikesell that the existence and extent of mortgage lending problems are difficult to identify in many rural areas because of the lack of comprehensive mortgage lending data. Problems that have been identified include the lack of market competition among small, conservative lending institutions typical in rural and non-metropolitan areas; consolidation and other changes in the financial services industry, which may have different consequences in rural areas than in urban areas; lack of access to government housing finance programs in more rural locations; and weak development of secondary market sources of funds in rural areas, exacerbating liquidity problems.

MacDonald discusses briefly the importance of low-cost homeownership alternatives in rural areas. One alternative is manufactured (mobile) housing. In general, manufactured housing is less costly to construct than site-built housing. Manufactured housing makes up more than 25 percent of the housing stock in rural counties in the South and Mountain states.

MacDonald concludes that the lower participation of the GSEs in underserved areas compared with served areas may result from additional risk components for some borrowers and from lack of sophistication by the lenders that serve small non-metro markets. In smaller and poorer counties, low volumes of loan sales to the GSEs may be a result of lower incomes and smaller populations. These counties may not have sufficient loan-generating activity to justify mortgage originators pursuing secondary market outlets.

The Role of Manufactured Housing.[43] The Joint Center for Housing Studies at Harvard University conducted a comprehensive study of the importance of manufactured housing as an affordable housing choice in rural communities. In all segments of the housing market, but especially in rural areas and among low-income households, manufactured housing is growing. Based on the American Housing Survey, in 1985, 61 percent of the manufactured housing stock was located in rural areas, compared with 70 percent in 1993. Between 1985 and 1993, manufactured housing increased over 2.2 percent annually while all other housing increased 0.7 percent per year. In 1993, 6.0 percent (or 6 million) of households lived in manufactured housing.

Since the 1970's, the face of manufactured housing has changed. Once a highly mobile form of recreational housing in this country, today manufactured housing provides basic quality, year-round housing for millions of American households. Most earlier units were placed in mobile home parks or on leased parcels of land. Today an increasing number of units are owned by households that also own the land on which the manufactured home is located.

Manufactured housing's appeal lies in its affordability. The low purchase price, downpayments, and monthly cash costs of manufactured housing provide households

who are priced out of the conventional housing market a means of becoming homeowners. The occupants of manufactured housing on average are younger, have less income, have less education and are more often white than occupants of single-family detached homes. This type of housing is often found in areas with persistent poverty, retirement destinations, areas for recreation and vacations, and commuting counties.

The manufactured housing industry is well positioned for continued growth. The affordability of manufacturing housing is increasingly attractive to the growing ranks of low-income households. Manufactured housing is becoming more popular among first-time homebuyers and the elderly, both of which are growing segments of the housing market. The migration of people to the South, where manufactured housing is already highly accepted, and to metropolitan fringes will further increase the demand for this type of housing.[44]

D. Factor 3: Previous Performance and Effort of the GSEs in Connection With the Central Cities, Rural Areas and Other Underserved Areas Goal

As discussed in Sections B and C, HUD has structured the Geographically Targeted Goal to increase mortgage credit to areas underserved by the mortgage markets. This section looks at the GSEs' past performance to determine the impact the Geographically Targeted Goal is having on borrowers and neighborhoods, with particular emphasis on underserved areas. Section D.1 reports the past performance of each GSE with regard to the Geographically Targeted Goal. Section D.2 then examines the role that the GSEs are playing in funding single-family mortgages in underserved urban neighborhoods based on HUD's analysis of GSE and HMDA data. Section D.3 concludes this section with an analysis of the GSEs' purchases in rural (nonmetropolitan) areas.

1. GSE Performance on the Geographically Targeted Goal

This section discusses each GSE's performance under the Geographically Targeted Goal over the 1993–99 period. The data presented here are ''official results'' *i.e.,* they are based on HUD's in-depth analysis of the loan-level data submitted annually to the Department, subject and the counting provisions contained in Subpart B of HUD's December 1, 1995 Regulation of Fannie Mae and Freddie Mac. As explained below, in some cases these ''official results'' differ to some degree from goal performance reported by the GSEs in their Annual Housing Activities Reports to the Department.

HUD's goals specified that in 1996 at least 21 percent of the number of each GSE's units eligible to count toward the Geographically Targeted Goal should qualify as geographically targeted, and at least 24 percent should qualify in 1997 and 1998. Actual performance, based on HUD analysis of GSE loan-level data, was as follows:

	1996	1997	1998	1999
Fannie Mae:				
Units Eligible to Count Toward Goal	1,891,896	1,765,347	3,546,302	2,956,155
Geographically Targeted Units	532,434	508,746	958,233	791,593
Percent Geographically Targeted	28.1	28.8	27.0	26.8
Freddie Mac:				
Units Eligible to Count Toward Goal	1,325,900	1,180,517	2,658,556	2,245,087
Geographically Targeted Units	331,495	310,572	693,748	618,385
Percent Geographically Targeted	25.0	26.3	26.1	27.5

Thus, Fannie Mae and Freddie Mac surpassed the goals in 1996 by 7.1 percentage points and 4.0 percentage points, respectively. And both GSEs surpassed the 1997–99 goals by at least 2 percentage points in each of these three years.

Fannie Mae's performance on the Geographically Targeted Goal jumped sharply in just two years, from 23.6 percent in 1993 to 31.9 percent in 1995, before tailing off to 28.1 percent in 1996. As indicated, it then rose slightly to 28.8 percent in 1997, before tailing off to 27.0 percent in 1998 and 26.8 percent in 1999.[45] Freddie Mac has shown more steady gains in performance on the Geographically Targeted Goal, from 21.3 percent in 1993 to 24.2 percent in 1994, 25.0 percent in 1995–96, just over 26 percent in 1997–98, and 27.5 percent in 1999.[46]

Fannie Mae's performance on the Geographically Targeted Goal has surpassed Freddie Mac's in every year from 1993 through 1998. However, Freddie Mac's 1999 performance represented a 26 percent increase over the 1993 level, exceeding the 14 percent increase for Fannie Mae. As a result, Freddie Mac's performance in 1999 (27.5 percent) was 103 percent of Fannie Mae's geographically targeted share last year (26.8 percent)—the only year in which Freddie Mac's performance on this goal has exceeded Fannie Mae's performance. The main reason why Freddie Mac moved past Fannie Mae in performance on the Geographically Targeted Goal last year is that the geographically-targeted share of Freddie Mac's total single-family mortgage purchases rose from 24.5 percent in 1998 to 26.7 percent in 1999, exceeding the corresponding increase for Fannie Mae, from 24.8 percent in 1998 to 25.5 percent in 1999. A second reason why Freddie Mac surpassed Fannie Mae in performance on this goal last year is that multifamily properties are ''goal-rich''- that is, they are more likely to be in underserved areas than single-family units, and the multifamily share of purchases eligible for this goal rose slightly for Freddie Mac, from 8.3 percent in 1998 to 8.5 percent in 1999, but fell somewhat for Fannie Mae, from 10.4 percent in 1998 to 9.8 percent in 1999.

2. GSEs' Mortgage Purchases in Metropolitan Neighborhoods

As shown in Table B.5, metropolitan areas accounted for about 85 percent of total GSE purchases under the Geographically Targeted Goal in 1998 and 1999. This section uses HMDA and GSE data for metropolitan areas to examine the neighborhood characteristics of the GSEs' mortgage purchases. In subsection 2.a, the GSEs' performance in underserved neighborhoods is compared with that of portfolio lenders and the overall market. This section therefore expands on the discussion in Appendix A, which compared the GSEs' funding of affordable loans with the overall conventional conforming market. In subsection 2.b., the characteristics of the GSEs' purchases within underserved areas are compared with those for their purchases in served areas.

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Table B.5

Fannie Mae and Freddie Mac Acquisitions of Single-Family and Multifamily Units in Underserved Metro and Nonmetro Areas in 1998 and 1999

	Fannie Mae		Freddie Mac	
	1998	1999	1998	1999
Metropolitan				
Number of Underserved Units	799,426	670,901	548,510	505,716
Percent of Total Units	25.5%	25.4%	24.2%	26.2%
Total	3,132,066	2,637,508	2,265,333	1,930,976
Nonmetropolitan				
Number of Underserved Units	158,806	120,693	145,237	112,669
Percent of Total Units	38.6%	38.1%	36.9%	37.7%
Total	410,911	316,855	393,120	298,964
Overall				
Number of Underserved Units	958,232	791,594	693,747	618,385
Percent of Total Units	27.0%	26.8%	26.1%	27.5%
Total Eligible*	3,546,302	2,956,155	2,658,556	2,245,087

* Overall totals may exceed the metro/nonmetro sum due to units in unidentified census tracts.

a. Comparisons With the Primary Market

Overview and Main Conclusions. Tables A.3 and A.4a in Appendix A provided information on the GSEs' funding of home purchase loans for properties located in underserved neighborhoods for the years 1993 to 1998. The findings with respect to the GSEs' funding of underserved neighborhoods are similar to those reported in Appendix A regarding the GSEs' overall affordable lending performance. While both GSEs improved their performance over the 1993–1998 period, they lagged the conventional conforming market in providing affordable loans to underserved neighborhoods. As discussed in Appendix A, the two GSEs showed very different patterns of lending—Freddie Mac was much less likely than Fannie Mae to fund home loans in underserved neighborhoods through 1998. The percentage of Freddie Mac's purchases financing properties in underserved census tracts was substantially less than the percentage of total market originations in these tracts; furthermore, by 1998 Freddie Mac had not made progress closing the gap with the primary market. Fannie Mae, on the other hand, was much closer to 1998 market levels in its funding of underserved areas. The GSE data for 1999 show a shift in these patterns—during 1999, Freddie Mac surpassed Fannie Mae in funding mortgages in underserved neighborhoods.

Freddie Mac—1993–1998. While Freddie Mac lagged Fannie Mae, portfolio lenders, and the overall conforming market in providing home loans to underserved neighborhoods during the 1993–1998 period, it pulled ahead of Fannie Mae during 1999 in purchasing mortgages for properties located in urban underserved areas (discussed below). Over the 1993–1998 period, underserved census tracts accounted for 19.7 percent of Freddie Mac's single-family home mortgages, compared with 22.9 percent of Fannie Mae's purchases, 26.3 percent of loans originated and held in portfolio by depository lenders, and 24.5 percent of the overall conforming primary market. If the analysis is restricted to the 1996–98 period during which the current housing goals have been in effect, the data continue to show that Freddie Mac lagged the market in funding underserved neighborhoods (see Table A.3 in Appendix A). In 1998, underserved census tracts accounted for 20.0 percent of Freddie Mac's purchases and 24.6 percent of loans originated in the conforming home purchase market, yielding a ''Freddie Mac-to-market'' ratio of only 0.81 (*i.e.* 20.0 divided by 24.6).

Fannie Mae—1993–1998. Over the longer 1993–98 period and the more recent 1996–98 period, Fannie Mae has lagged the market and portfolio lenders in funding properties in underserved areas, but to a much smaller degree than Freddie Mac. During the 1996–98 period, underserved tracts accounted for 22.9 percent of Fannie Mae's purchases, compared with 25.8 percent of loans retained in portfolio by depositories and with 24.9 percent of home loans originated in the conventional conforming market. Fannie Mae's performance is much closer to the market than Freddie Mac's performance, as can be seen by the ''Fannie Mae-to-market'' ratio of 0.92 for the 1996–98 period (*i.e.* 22.9 divided by 24.9).Fannie Mae's performance improved during 1997, due mainly to Fannie Mae's increased purchases during 1997 of prior-year mortgages in underserved neighborhoods. Overall, Fannie Mae's purchases of home loans in underserved areas increased from 22.3 percent in 1996 to 23.5 percent in 1997. The underserved area percentage for Fannie Mae's purchases of newly-originated mortgages was actually lower in 1997 (20.8 percent) than in 1996 (21.9 percent). This decline was offset by the fact that a particularly high percentage (30.1 percent) of Fannie Mae's 1997 purchases of prior-year mortgages was for properties in underserved areas. Thus, Fannie Mae improved its overall performance in 1997 by supplementing its purchases of newly-originated mortgages with purchases of prior-year mortgages targeted to underserved neighborhoods. As shown in Table A.4a in Appendix A, Fannie Mae continued this strategy in 1998, but not in 1999. The annual data in Table A.4a show the progress that Fannie Mae has made in closing the gap between its performance and that of the overall market. In 1992, underserved areas accounted for 18.3 percent of Fannie Mae's purchases and 22.2 percent of market originations, for a ''Fannie Mae-to-market'' ratio of 0.82. By 1998, underserved areas accounted for 22.9 percent of Fannie Mae's purchases and 24.6 percent of market originations, for a higher ''Fannie Mae-to-market'' ratio of 0.93. Freddie Mac, on the other hand, fell further behind the market during this period. In 1992, Freddie Mac had a slightly higher underserved area percentage (18.6 percent) than Fannie Mae (18.3 percent). However, Freddie Mac's underserved area percentage had only increased to 20.0 percent by 1998 (versus 22.9 percent for Fannie Mae). Thus, the ''Freddie Mac-to-market'' ratio fell from 0.84 in 1992 to 0.81 in 1998.

1999 GSE Purchases. In 1999, Freddie Mac's funding of both home purchase loans and total (combined home purchase and refinance) loans in underserved neighborhoods improved to the point that it surpassed Fannie Mae's performance. In 1999, underserved areas accounted for 21.2 percent of Freddie Mac's purchases of home purchase loans in metropolitan areas—a figure slightly higher than the 20.6 percent for Fannie Mae. With respect to combined home purchase and refinance loans, Freddie Mac's underserved areas percentage in metropolitan areas jumped by 2.6 percentage points, from 20.9 percent in 1998 to 23.5 percent in 1999, while the corresponding percentage for Fannie Mae increased by only 0.6 percentage point, from 21.2 percent in 1998 to 21.8 percent in 1999.

Down Payment Characteristics. Table B.6 reports the down payment and borrower income characteristics of mortgages that the GSEs purchased in underserved areas during 1999. Two points stand out. First, loans on properties in underserved areas were more likely to have a high loan-to-value ratio than loans on properties in served areas. Specifically, about 15.4 percent of loans in underserved areas had a down payment less than ten percent, compared with 13.4 percent of all loans purchased by the GSEs. Second, loans to low-income borrowers in underserved areas were typically high down payment loans. Approximately 70 percent of the GSE-purchased loans to very low-income borrowers living in underserved areas had a down payment more than 20 percent.

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Table B.6

Down Payment Characteristics of GSE Purchases in Underserved Areas, 1999

	Size of Down Payment				
GSE Purchases	Less Than 5 Percent Down	5 to 10 Percent Down	10 to 20 Percent Down	20 Percent or More Down	Total [1]
All Loans	118,425	486,288	632,894	3,274,965	4,512,572
Loans in Underserved Areas	41,361	130,432	174,728	767,420	1,113,941
Very- Low-Income Loans	8,329	19,385	24,675	122,597	174,986
At or Below Median Income Loans	23,824	62,943	79,976	348,325	515,068
Percentage Distribution					
All Loans	2.6%	10.8%	14.0%	72.6%	100.0%
Loans in Underserved Areas	3.7%	11.7%	15.7%	68.9%	100.0%
Very- Low-Income Loans	4.8%	11.1%	14.1%	70.1%	100.0%
Less- Than-Median Income Loans	4.6%	12.2%	15.5%	67.6%	100.0%

Source: Data include all owner-occupied one-unit mortgages (homepurchase, refinance, and second loans) purchased by the GSEs in underserved areas (both metropolitan and non-metropolitan) in 1999.

[1] Loans with missing down payments are excluded.

Table B.7

Loan and Borrower Characteristics of Single-Family Mortgages Purchased by the GSEs In Metropolitan Areas, 1999

Loan and Borrower Characteristics	Fannie Mae		Freddie Mac		Total	
	Served	Underserved	Served	Underserved	Served	Underserved
Number of Loans	1,645,663	437,769	1,227,273	362,704	2,872,936	800,473
Loan Purpose						
Home Purchase	46.8 %	43.7 %	43.6 %	38.2 %	45.4 %	41.2 %
Refinancing	53.2	56.3	56.4	61.8	54.6	58.8
Origination Year						
Current Year	29.7 %	29.0 %	27.2 %	27.7 %	28.7 %	28.4 %
Prior Years	70.3	71.0	72.8	72.3	71.3	71.6
Loan-to-Value Ratio						
Over 95%	1.8 %	3.4 %	1.6 %	2.3 %	1.7 %	2.9 %
91-95%	11.0	12.6	10.2	11.1	10.6	11.9
81-90%	13.6	15.3	13.1	15.0	13.4	15.1
61-80%	54.2	53.2	54.1	54.3	54.1	53.7
60% or Less	19.4	15.5	21.1	17.2	20.1	16.3
Income of Borrower(s)						
60% of Area Median or Below	8.7 %	18.6 %	9.3 %	19.7 %	8.9 %	19.1 %
61-100% of Median	26.6	35.7	27.7	35.6	27.0	35.6
Below Area Median	35.2	54.3	36.9	55.3	35.9	54.7
Over 100% of Median	64.8	45.7	63.1	44.7	64.1	45.3
First-time Home Buyer	11.2 %	13.9 %	9.5 %	9.8 %	10.4 %	12.0 %
Race/National Origin of Borrower						
White	88.1 %	69.0 %	89.3 %	70.9 %	88.6 %	69.9 %
African American	2.2	7.3	2.3	8.2	2.2	7.7
Hispanic	3.3	13.4	3.4	13.0	3.3	13.2
Asian or Pacific Islander	3.7	7.4	3.5	6.1	3.6	6.8
American Indian or Alaskan Native	0.4	0.4	0.3	0.4	0.3	0.4
Other	2.4	2.5	1.2	1.4	1.9	2.0
Age of Borrower						
Under 30	11.0 %	12.5 %	10.6 %	11.7 %	10.9 %	12.2 %
30-39	33.5	31.1	32.7	30.8	33.2	31.0
40 and Over	55.4	56.4	56.7	57.4	56.0	56.8
Gender of Borrower(s)						
All Male	18.1 %	24.0 %	17.5 %	21.9 %	17.9 %	23.1 %
All Female	16.6	21.9	17.4	22.0	16.9	21.9
Male and Female	65.3	54.1	65.0	56.1	65.2	55.0

Source: HUD analysis of GSEs' loan-level data on mortgages on owner-occupied one-unit properties. In computing the percentages, missing data are excluded.

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b. Characteristics of GSEs' Purchases of Mortgages on Properties in Metropolitan Underserved Areas

Several characteristics of loans purchased by the GSEs in metropolitan underserved areas are presented in Table B.7. As shown, borrowers in underserved areas are more likely than borrowers in served areas to be first-time homebuyers, females, and older than 40 or younger than 30. And, as expected, they are more likely to have below-median income and to be members of minority groups. For example, first-time homebuyers make up 12.0 percent of the GSEs' mortgage purchases in underserved areas and 10.4 percent of their business in served areas. In underserved areas, 54.7 percent of borrowers had incomes below the area median, compared with 35.9 percent of borrowers in served areas.

Minorities' share of the GSEs' mortgage purchases in underserved areas (30.1 percent) was nearly three times their share in served areas (11.4 percent). And the pattern was even more pronounced for African Americans and Hispanics, who accounted for 20.9 percent of the GSEs' business in underserved areas, but only 5.5 percent of their purchases in served areas.

3. GSE Mortgage Purchases in Nonmetropolitan Areas

Nonmetropolitan mortgage purchases made up 13 percent of the GSEs' total mortgage purchases in 1999. Mortgages in underserved counties made up 39 percent of the GSEs' business in nonmetropolitan areas.[47]

Unlike the underserved areas definition for metropolitan areas, which is based on census tracts, the rural underserved areas definition is based on counties. Rural lenders argued that they identified mortgages by the counties in which they were located rather than the census tracts; and therefore, census tracts were not an operational concept in rural areas. Market data on trends in mortgage lending for metropolitan areas is provided by the Home Mortgage Disclosure Act (HMDA); however, no comparable data source exists for rural mortgage markets. The absence of rural market data is a constraint for evaluating credit gaps in rural mortgage lending and for defining underserved areas.

One concern is whether the broad definition overlooks differences in borrower characteristics in served and underserved counties that should be included. Table B.8 compares borrower and loan characteristics for the GSEs' mortgage purchases in served and underserved areas.

The GSEs are slightly less likely to purchase loans for first-time homebuyers and more likely to purchases mortgages for high-income borrowers in underserved than in served counties. Mortgages to first-time homebuyers accounted for 8.4 percent of the GSEs' 1999 mortgage purchases in served counties, compared with 7.3 percent of their purchases in underserved counties. Surprisingly, borrowers in served counties were more likely to have incomes below the median than in underserved counties (37.9 percent, compared to 33.6 percent). These findings lend some support to the claim that, in rural underserved counties, the GSEs purchase mortgages for borrowers that probably encounter few obstacles in obtaining mortgage credit.

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Table B.8

Loan and Borrower Characteristics of Single-Family Mortgages Purchased by the GSEs In Non-Metropolitan Counties, 1999

Loan and Borrower Characteristics	Fannie Mae		Freddie Mac		Total	
	Served	Underserved	Served	Underserved	Served	Underserved
Number of Loans	175,983	112,967	169,600	107,850	345,583	220,817
Loan Purpose						
Home Purchase	39.1 %	37.9 %	37.3 %	36.3 %	38.2 %	37.1
Refinancing	60.9	62.1	62.7	63.7	61.8	62.9
Origination Year						
Current Year	27.2 %	26.8 %	25.9 %	26.9 %	26.5 %	26.9
Prior Years	72.8	73.1	74.1	73.1	73.5	73.1
Loan-to-Value Ratio						
Over 95%	2.3 %	2.5 %	1.7 %	1.6 %	2.0 %	2.1
91-95%	10.7	11.6	9.6	10.3	10.2	10.9
81-90%	13.3	14.7	12.3	13.6	12.8	14.1
61-80%	53.9	53.2	55.3	55.0	54.6	54.1
60% or Less	19.8	18.1	21.1	19.4	20.4	18.7
Income of Borrower(s)						
60% of Area Median or Below	9.5 %	8.2 %	10.0 %	9.0 %	9.7 %	8.6
61-100% of Median	27.9	24.2	28.3	25.9	28.1	25.0
Below Area Median	37.4	32.3	38.3	34.9	37.9	33.6
Over 100% of Median	62.6	67.7	61.7	65.1	62.1	66.4
First-time Home Buyer	8.8 %	7.9 %	8.0 %	6.8 %	8.4 %	7.3
Race/National Origin of Borrower						
White	95.7 %	90.9 %	96.4 %	92.9 %	96.0 %	91.9
African American	1.0	2.8	0.9	2.4	0.9	2.6
Hispanic	1.3	3.2	1.3	2.9	1.3	3.0
Asian or Pacific Islander	0.6	1.4	0.5	0.7	0.5	1.0
American Indian or Alaskan Native	0.4	0.7	0.3	0.6	0.3	0.6
Other	1.2	1.1	0.5	0.6	0.9	0.8
Age of Borrower						
Under 30	12.2	12.3	12.1	12.3	12.2	12.3
30-39	31.2	29.3	30.9	28.7	31.1	29.0
40 and Over	56.6	58.4	56.9	59.0	56.8	58.7
Gender of Borrower(s)						
All Male	17.6	17.8	16.5	16.7	17.0	17.3
All Female	13.3	12.7	13.5	13.2	13.4	12.9
Male and Female	69.1	69.5	70.0	70.1	69.6	69.8

Source: HUD analysis of GSEs' loan-level data on mortgages on owner-occupied one-unit properties. In computing the percentages, missing data are excluded.

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There are similarities and differences between the types of loans that Fannie Mae and Freddie Mac purchase in served and underserved counties. The GSEs are similar in that they are more likely to purchase refinance loans in underserved counties than in served counties and that, in general, mortgage purchases with loan-to-value ratios above 80 percent are more likely to be in underserved counties than in served counties. The GSEs differ in that Freddie Mac is more likely to purchase seasoned mortgages in served than in underserved counties, while the reverse is true for Fannie Mae.

E. Factor 4: Size of the Conventional Conforming Mortgage Market for Underserved Areas

HUD estimates that underserved areas account for 29–32 percent of the conventional conforming mortgage market. The analysis underlying this estimate is detailed in Appendix D.

F. Factor 5: Ability To Lead the Industry

This factor is the same as the fifth factor considered under the goal for mortgage purchases on housing for low- and moderate-income families. Accordingly, see Section G of Appendix A for a discussion of this factor.

G. Factor 6: Need to Maintain the Sound Financial Condition of the Enterprises

HUD has undertaken a separate, detailed economic analysis of this rule, which includes consideration of (a) the financial returns that the GSEs earn on loans in underserved areas and (b) the financial safety and soundness implications of the housing goals. Based on this economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the goals raise minimal, if any, safety and soundness concerns.

H. Determination of the Geographically-Targeted Areas Housing Goals

The annual goal for each GSE's purchases of mortgages financing housing for properties located in geographically-targeted areas (central cities, rural areas, and other underserved areas) is established at 31 percent of eligible units financed in each of calendar years 2001–03. The 2001–03 goal will remain in effect in subsequent years, unless changed by the Secretary prior to that time. The goal represents an increase over the 1996 goal of 21 percent and the 1997–2000 goal of 24 percent. However, it is commensurate with the market share estimates of 29–32 percent, presented in Appendix D.

This section summarizes the Secretary's consideration of the six statutory factors that led to the choice of these goals. It discusses the Secretary's rationale for defining these geographically-targeted areas and it compares the characteristics of such areas and untargeted areas. The section draws heavily from earlier sections which have reported findings from HUD's analyses of mortgage credit needs as well as findings from other research studies investigating access to mortgage credit.

1. Credit Needs in Metropolitan Areas

HUD's analysis of HMDA data shows that mortgage credit flows in metropolitan areas are substantially lower in high-minority and low-income neighborhoods and mortgage denial rates are much higher for residents of such neighborhoods. The economics literature discusses the underlying causes of these disparities in access to mortgage credit, particularly as related to the roles of discrimination, ''redlining'' of specific neighborhoods, and the barriers posed by underwriting guidelines to potential minority and low-income borrowers. Studies reviewed in Section B of this Appendix found that the racial and income composition of neighborhoods influence mortgage access even after accounting for demand and risk factors that may influence borrowers' decisions to apply for loans and lenders' decisions to make those loans. Therefore, the Secretary concludes that high-minority and low-income neighborhoods in metropolitan areas are underserved by the mortgage system.

2. Identifying Underserved Portions of Metropolitan Areas

To identify areas underserved by the mortgage market, HUD focused on two traditional measures used in a number of studies based on HMDA data:[48] application denial rates and mortgage origination rates per 100 owner-occupied units.[49] Tables B.1 and B.2 in Section B of this Appendix presented detailed data on denial and origination rates by the racial composition and median income of census tracts for metropolitan areas.[50] Aggregating this data is useful in order to examine denial and origination rates for broader groupings of census tracts:

Minority composition (percent)	Denial rate (percent)	Orig. rate	Tract income (percent)	Denial rate (percent)	Orig. rate
0–30	11.4	16.4	Less than 90	19.8	10.7
30–50	17.2	12.5	90–120	13.0	15.5
50–100	21.9	9.4	Greater than 120	8.3	19.2

Two points stand out from these data. First, high-minority census tracts have higher denial rates and lower origination rates than low-minority tracts. Specifically, tracts that are over 50 percent minority have nearly twice the denial rate and two-thirds the origination rate of tracts that are under 30 percent minority.[51] Second, census tracts with lower incomes have higher denial rates and lower origination rates than higher income tracts. Tracts with income less than or equal to 90 percent of area median income have nearly 2.5 times the denial rate and three-fourths the origination rate for tracts with income over 120 percent of area median income.

In 1995, HUD's research determined that ''underserved areas'' could best be characterized in metropolitan areas as census tracts with minority population of at least 30 percent in 1990 and/or census tract median income no greater than 90 percent of area median income in 1990, excluding high-minority high-income tracts. These cutoffs produced sharp differentials in denial and origination rates between underserved areas and adequately served areas. For example, the mortgage denial rate in underserved areas (19.4 percent) was nearly twice that in adequately served areas (10.3 percent) in 1999.

These minority population and income thresholds apply in the suburbs as well as in OMB-defined central cities. HUD's research has found that the average denial rate in underserved suburban areas is almost twice that in adequately served areas in the suburbs. (See Figure B.1 in Section B of this Appendix.) Thus HUD uses the same definition of underserved areas throughout metropolitan areas—there is no need to define such areas differently in central cities and in the suburbs. And HUD's definition, which covers 57 percent of the central city population and 33 percent of the suburban population, is clearly preferable to a definition which would count 100 percent of central city residents and zero percent of suburban residents as living in underserved areas.

This definition of metropolitan underserved areas includes 21,586 of the 46,904 census tracts in metropolitan areas, covering 44 percent of the metropolitan population. It includes 73 percent of the population living in poverty in metropolitan areas. The unemployment rate in underserved areas is more than twice that in served areas, and rental units comprise 52.4 percent of total units in underserved tracts, versus 28.6 percent of total units in served tracts. As shown in Table B.9, this definition covers most of the population in the nation's most distressed central cities: Newark (99 percent), Detroit (96 percent), Hartford (97 percent), and Cleveland (90 percent). The nation's five largest cities also contain large concentrations of their population in underserved areas: New York (62 percent), Los Angeles (69 percent), Chicago (77 percent), Houston (67 percent), and Philadelphia (80 percent).

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Table B.9

Needy Areas in Central Cities Would be Covered

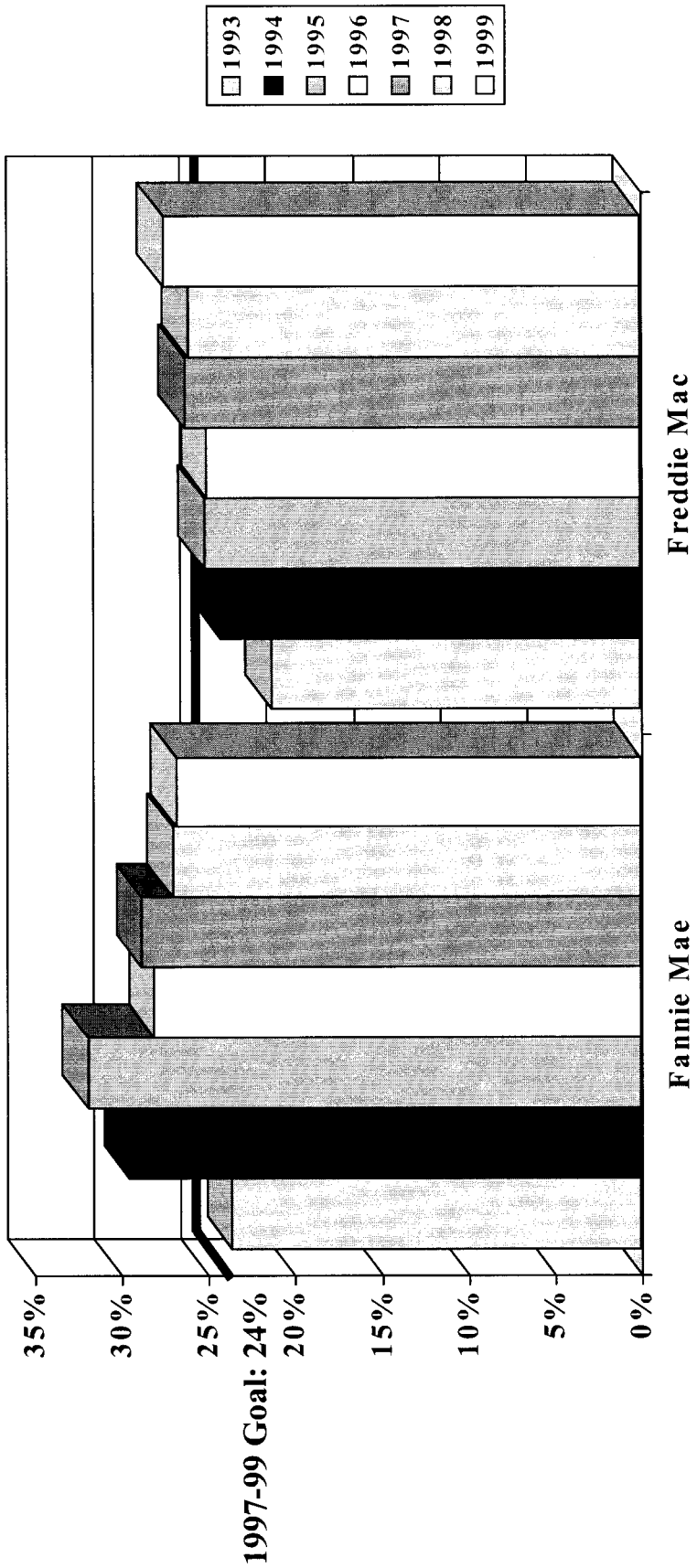
Large Cities with High Concentrations of Tracts Included in the Geographically Targeted Goal (Percent of Population)	
Newark	99%
Hartford	97%
Gary	96%
Detroit	96%
Jersey City	92%
Miami	91%
Baltimore	90%
Cleveland	90%
St. Louis	85%
Five Largest Cities	
New York	62%
Los Angeles	69%
Chicago	77%
Houston	67%
Philadelphia	80%

Central Cities with Small Concentrations

Large Cities		Small Cities	
Raleigh	33%	Appleton, WI	6%
Tulsa	38%	Cedar Falls, IA	8%
Nashville-Davidson	41%	Scottsdale, AZ	11%
Oklahoma City	42%	Naples, FL	13%
Wichita	43%	Orem, UT	14%
Colorado Springs	44%	Wheeling, WV	20%
Columbus	46%	Salem, OR	19%
Phoenix	51%	Elkhart, IN	20%

Figure B.2

Geographically Targeted Mortgage Purchases

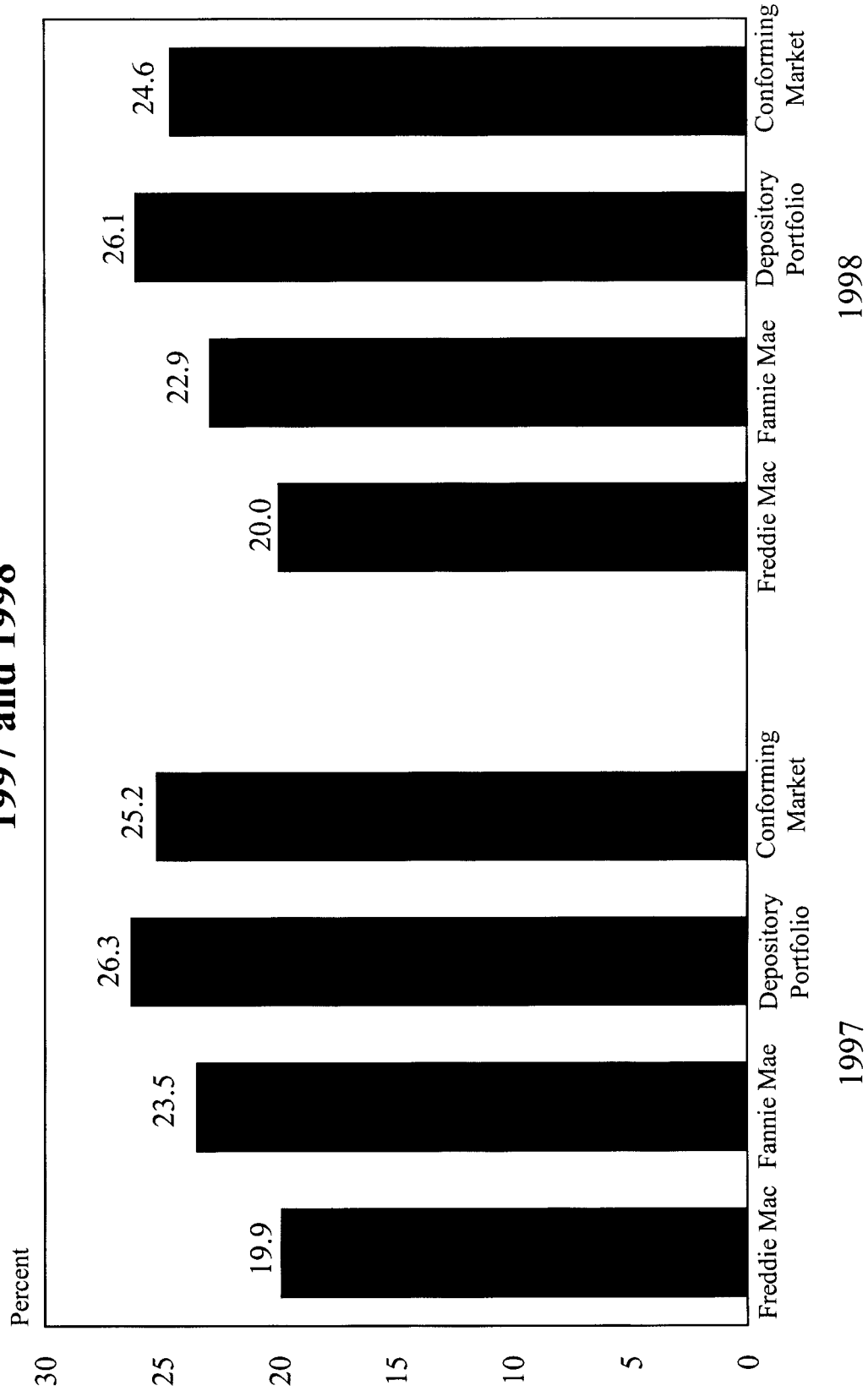


Geographically Targeted Goal was 24% of units financed for 1997-99 (21% for 1996).

Source: HUD analysis of GSEs' loan-level data.

Figure B.3

The Share Of GSE And Conventional Conforming Mortgages in Census Tracts Included in the Geographically Targeted Goal, 1997 and 1998



Source: Conforming market and depository data are from 1997 and 1998 HMDA; GSE data are from loan-level data reported to HUD. Data are for single-family home purchase loans in metropolitan areas. See Table A.4a for further explanation.

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3. Identifying Underserved Portions of Nonmetropolitan Areas

Recognizing the difficulty of defining rural underserved areas and the need to encourage GSE activity in such areas, HUD has chosen a rather broad, county-based definition of underservedness in rural areas. Specifically, a nonmetropolitan county is underserved if in 1990 (1) county median family income was less than or equal to 95 percent of the greater of state or national nonmetropolitan income or (2) county median family income was less than or equal to 120 percent of the greater of state or national nonmetropolitan income and county minority population was at least 30 percent of total county population. This definition includes 1,511 of the 2,305 counties in nonmetropolitan areas and covers 54 percent of the nonmetropolitan population. The definition does target the most disadvantaged rural counties—it includes as underserved areas 67 percent of the nonmetropolitan poor and 75 percent of nonmetropolitan minorities. The average poverty rate in underserved counties in 1990 was 21 percent, significantly greater than the 12 percent poverty rate in counties designated as adequately served. The definition also includes 84 percent of the population that resides in remote counties that are not adjacent to metropolitan areas and have fewer than 2,500 residents in towns.

4. Past Performance of the GSEs

The GSEs' performance on the geographically-targeted goal has improved significantly in recent years, as shown in Figure B.2. Fannie Mae's performance, as measure by HUD, increased sharply from 23.6 percent in 1993 to 31.9 percent in 1995, dropped to 28.1 percent in 1996, rose to 28.8 percent in 1997, and then dropped to 27.0 percent in 1998 and 26.8 percent in 1999. Freddie Mac's performance, as measured by HUD, rose from 21.8 percent in 1993 to 26.4 percent in 1995, followed by 25.0 percent in 1996, 26.3 percent in 1997, 26.1 percent in 1998, and 27.5 percent in 1999. Last year was the only year in which Freddie Mac's performance on this goal has exceeded Fannie Mae's performance.

While both GSEs improved their performance in underserved areas during the past six years, they lagged the conforming primary market in providing single-family home loans to distressed neighborhoods. As discussed in Section D, the GSEs show different patterns of lending—through 1998 Freddie Mac was less likely than Fannie Mae to purchase home loans on properties in low-income and high-minority neighborhoods. During the 1996–98 period, Freddie Mac lagged Fannie Mae, portfolio lenders, and the overall conforming market in providing funds to underserved neighborhoods. As shown in Figure B.3, underserved areas accounted for 20.0 percent of Freddie Mac's 1998 purchases of home loans, compared with 22.9 percent of Fannie Mae's purchases, 26.1 percent of home loans retained in depositories' portfolios, and 24.6 percent of the overall conforming market. While Freddie Mac did not make any progress during the 1993–98 period in reducing the gap between its performance and that of the conventional conforming home purchase market, Fannie Mae improved its funding in underserved areas and closed the gap between its performance and the single-family primary market in funding low-income and high-minority neighborhoods.[52] However, between 1998 and 1999, Freddie Mac improved its purchases in underserved areas so much that its performance surpassed Fannie Mae's performance. In 1999, underserved areas accounted for 21.2 (23.5) percent of Freddie Mac's purchases of home (total) loans, compared with 20.6 (21.8) percent of Fannie Mae's purchases of home (total) loans.

HUD also conducted an analysis of the share of the overall (single-family and multifamily) conventional conforming mortgage market accounted for by the GSEs. As shown in Tables A.7a and A.7b of Appendix A, the GSEs' purchases represented 40/55 percent of total dwelling units financed during 1997/1998, but they represented only 33/46 percent of the dwelling units financed in underserved neighborhoods. In other words, the GSEs accounted for less than half of the single-family and multifamily units financed in underserved areas. This suggests that there is room for the GSEs to increase their purchases in underserved neighborhoods.

5. Size of the Mortgage Market for Geographically-Targeted Areas

As detailed in Appendix D, the market for mortgages in geographically-targeted areas accounts for 29 to 32 percent of dwelling units financed by conventional conforming mortgages. In estimating the size of the market, HUD used alternative assumptions about future economic and market conditions that were less favorable than those that existed over the last five years. HUD is well aware of the volatility of mortgage markets and the possible impacts on the GSEs' ability to meet the housing goals. Should conditions change such that the goals are no longer reasonable or feasible, the Secretary has the authority to revise the goals.

6. The Geographically-Targeted Areas Housing Goal for 2001–03

There are several reasons that the Secretary is increasing the Geographically Targeted Areas Goal. *First,* the present 24 percent goal level for 1997–2000 and the GSEs' recent performance are below the estimated 29–32 percent of the primary mortgage market accounted for by units in properties located in geographically-targeted areas. Raising the goal reflects the Secretary's concern that the GSEs close the remaining gap between their performance and that of the primary mortgage market.

Second, the single-family-owner mortgage market in underserved areas has demonstrated remarkable strength over the past few years relative to the preceding period. This market had only recently begun to grow in 1993 and 1994, the latest period for which data was available when the 1996–99 goals were established in December 1995. But the historically high underserved areas share of the primary single-family mortgage market attained in 1994 has been maintained over the 1995–99 period. The three-average of the underserved areas share of the single-family-owner mortgage market in metropolitan areas was 22.2 percent for 1992–94, but 25.1 percent for 1995–98 and 24.1 percent for the 1992–98 period as a whole.

Third, as discussed in detail in Appendix A, there are several market segments that would benefit from a greater secondary market role by the GSEs; many of these market segments are concentrated in underserved areas. For example, one such area is single-family rental dwellings. These properties, containing 1–4 rental units, are an important source of housing for families in low-income and high-minority neighborhoods. However, the GSEs' purchases accounted for only 14/19 percent of the single-family rental units financed in underserved areas during 1997/1998. The Secretary believes that the GSEs can do more to play a leadership role in providing financing for such properties. Examples of other market segments in need of an enhanced GSE role include small multifamily properties, rehabilitation loans, seasoned CRA loans, and manufactured housing. Additional efforts by the GSEs in these markets would benefit families living in underserved areas.

Finally, a wide variety of quantitative and qualitative indicators indicate that the GSEs' have the financial strength to improve their affordable lending performance. For example, combined net income has risen steadily over the last decade, from $677 million in 1987 to $6.1 billion in 1999, an average growth rate of 20 percent per year. This financial strength provides the GSEs with the resources to lead the industry in supporting mortgage lending for properties located in geographically-targeted areas.

Summary. Figure A.4 of Appendix A summarizes many of the points made in this section regarding opportunities for Fannie Mae and Freddie Mac to improve their overall performance on the Geographically-Targeted Goal. The GSEs' purchases provided financing for 6,507,173 dwelling units, which represented 55 percent of the 11,744,804 single-family and multifamily units that were financed in the conventional conforming market during 1998. However, in the underserved areas part of the market, the 1,679,464 units that were financed by GSE purchases represented only 46 percent of the 3,629,144 dwelling units that were financed in the market in 1998. Thus, there appears to be ample room for the GSEs to increase their purchases in underserved areas. It is hoped that expression of concern in the current rulemaking will foster additional effort by both GSEs to increase their purchases in underserved areas.

7. Conclusions

Having considered the projected mortgage market serving geographically-targeted areas, economic, housing and demographic conditions for 2001–03, and the GSEs' recent performance in purchasing mortgages on properties in geographically-targeted areas, the Secretary has determined that the annual goal of 31 percent in calendar year 2001 and the years following is feasible. Moreover, the Secretary has considered the GSEs' ability to

lead the industry as well as the GSEs' financial condition. The Secretary has determined that these goal levels are necessary and appropriate.

Endnotes to Appendix B

[1] Tracts are excluded from the analysis if median income is suppressed or there are no owner-occupied 1–4 unit properties. There are 2,033 such tracts. When reporting denial, origination, and application rates, tracts are excluded from the analysis if there are no purchase or refinance applications. Tracts are also excluded from the analysis if: (1) Group quarters constitute more than 50 percent of housing units or (2) there are less than 15 home purchase applications in the tract and the tract denial rates equal 0 or 100 percent. Excluded tracts account for a small percentage of mortgage applications (1.4 percent). These tracts are not excluded from HUD's underserved areas if they meet the income and minority thresholds. Rather, the tracts are excluded to remove the effects of outliers from the analysis.

[2] For the sake of brevity, in the remainder of this appendix, the term ''central city'' is used to mean ''OMB-designated central city.''

[3] Alicia H. Munnell, Lynn Browne, James McEneaney, and Geoffrey Tootell. 1996. ''Mortgage Lending in Boston: Interpreting HMDA Data,'' *American Economic Review*, 86(1) March:25–54.

[4] *Mortgage Lending Discrimination: A Review of Existing Evidence* edited by Margery A. Turner and Felicity Skidmore, The Urban Institute: Washington, D.C., June 1999.

[5] Margery A. Turner, Raymond J. Struyk, and John Yinger. *Housing Discrimination Study: Synthesis*, Washington, D.C., U.S. Department of Housing and Urban Development: 1991.

[6] Margery A. Turner, ''Discrimination in Urban Housing Markets: Lessons from Fair Housing Audits,'' *Housing Policy Debate*, Vol. 3, Issue 2, 1992, pp. 185–215.

[7] The denial rates in Table B.1 are for home purchase mortgages. Denial rates are several percentage points lower for refinance loans than for purchase loans, but denial rates follow the same pattern for both types of loans: rising with minority concentration and falling with increasing income.

[8] Alicia H. Munnell, Lynn E. Browne, James McEneaney, and Geoffrey M. B. Tootell, ''Mortgage Lending in Boston: Interpreting HMDA Data,'' *American Economic Review*, March 1996.

[9] A HUD study also found mortgage denial rates for minorities to be higher in ten metropolitan areas, even after controlling for credit risk. In addition, the higher denial rates observed in minority neighborhoods were not purely a reflection of the higher denial rates experienced by minorities. Whites experienced higher denial rates in some minority neighborhoods than in some predominantly white neighborhoods. Ann B. Schnare and Stuart A. Gabriel, ''The Role of FHA in the Provision of Credit to Minorities,'' ICF Incorporated, prepared for the U.S. Department of Housing and Urban Development, April 25, 1994.

[10] William C. Hunter, ''The Cultural Affinity Hypothesis and Mortgage Lending Decisions,'' WP–95–8, Federal Reserve Bank of Chicago, 1995.

[11] Since upfront loan fees are frequently determined as a percentage of the loan amount, lenders are discouraged from making smaller loans in older neighborhoods, because such loans generate lower revenue and are less profitable to lenders.

[12] Traditional underwriting practices may have excluded some lower income families that are, in fact, creditworthy. Such families tend to pay cash, leaving them without a credit history. In addition, the usual front-end and back-end ratios applied to applicants' housing expenditures and other on-going costs may be too stringent for lower income households, who typically pay larger shares of their income for housing (including rent and utilities) than higher income households.

[13] These studies, which were conducted at the census tract level, typically involved regressing the number of mortgage originations (relative to the number of properties in the census tract) on characteristics of the census tract including its minority composition. A negative coefficient estimate for the minority composition variable was often interpreted as suggesting redlining. For a discussion of these models, see Eugene Perle, Kathryn Lynch, and Jeffrey Horner, ''Model Specification and Local Mortgage Market Behavior,'' *Journal of Housing Research*, Volume 4, Issue 2, 1993, pp. 225–243.

[14] For critiques of the early HMDA studies, see Andrew Holmes and Paul Horvitz, ''Mortgage Redlining: Race, Risk, and Demand,'' *The Journal of Finance*, Volume 49, No. 1, March 1994, pp. 81–99; and Michael H. Schill and Susan M. Wachter, ''A Tale of Two Cities: Racial and Ethnic Geographic Disparities in Home Mortgage Lending in Boston and Philadelphia,'' *Journal of Housing Research*, Volume 4, Issue 2, 1993, pp. 245–276.

[15] Like early HMDA studies, an analysis of deed transfer data in Boston found lower rates of mortgage activity in minority neighborhoods. The discrepancies held even after controlling for income, house values and other economic and non-racial factors that might explain differences in demand and housing market activity. The study concluded that ''the housing market and the credit market together are functioning in a way that has hurt African American neighborhoods in the city of Boston.'' Katherine L. Bradbury, Karl E. Case, and Constance R. Dunham, ''Geographic Patterns of Mortgage Lending in Boston, 1982–1987,'' *New England Economic Review*, September/October 1989, pp. 3–30.

[16] Using an analytical approach similar to that of Bradbury, Case, and Dunham, Anne Shlay found evidence of fewer mortgage loans originated in black census tracts in Chicago and Baltimore. See Anne Shlay, ''Not in That Neighborhood: The Effects of Population and Housing on the Distribution of Mortgage Finance within the Chicago SMSA,'' *Social Science Research*, Volume 17, No. 2, 1988, pp. 137–163; and ''Financing Community: Methods for Assessing Residential Credit Disparities, Market Barriers, and Institutional Reinvestment Performance in the Metropolis,'' *Journal of Urban Affairs*, Volume 11, No. 3, 1989, pp. 201–223.

[17] Individual loan characteristics include loan size (economies of scale cause lenders to prefer large loans to small loans) and all individual borrower variables included in the HMDA data (the applicant's income, sex, and race).

[18] Their neighborhood risk proxies include median income and house value (inverse indicators of risk), percent of households receiving welfare, median age of houses, homeownership rate (an inverse indicator), vacancy rate, and the rent-to-value ratio (an inverse indicator). A high rent-to-value ratio suggests lower expectations of capital gains on properties in the neighborhood.

[19] Schill and Wachter, page 271. Munnell, *et al.* reached similar conclusions in their study of Boston. They found that the race of the individual mattered, but that once individual characteristics were controlled, racial composition of the neighborhood was insignificant.

[20] Fred J. Phillips-Patrick and Clifford V. Rossi, ''Statistical Evidence of Mortgage Redlining? A Cautionary Tale'', *The Journal of Real Estate Research*, Volume 11, Number 1 (1996), pp.13–23.

[21] Samuel L. Myers, Jr. and Tsze Chan, ''Racial Discrimination in Housing Markets: Accounting for Credit Risk'', *Social Science Quarterly*, Volume 76, Number 3 (September 1995), pp. 543–561.

[22] For another study that uses HMDA data on reasons for denial to construct a proxy for bad credit, see Steven R. Holloway, ''Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio'', *Annals of the Association of American Geographers*, 88(2), 1998, pp. 252–276. Holloway finds that mortgage denial rates are higher for black applicants (particularly those who are making large loan requests) in all-white neighborhoods than in minority neighborhoods, while the reverse is true for white applicants making small loan requests.

[23] See Geoffrey M. B. Tootell, ''Redlining in Boston: Do Mortgage Lenders Discriminate Against Neighborhoods?'', *Quarterly Journal of Economics,* 111, November, 1996, pp. 1049–1079; and ''Discrimination, Redlining, and Private Mortgage Insurance'', unpublished manuscript, October, 1995.

[24] Tootell notes that both omitted variables and the strong correlation between borrower race and neighborhood racial composition in segregated cities have made it difficult for previous studies to distinguish the impacts of geographic redlining from the effects of individual borrower discrimination. He can unravel these effects because he includes a direct measure of credit history and because over half of minority applicants in the Boston Fed data base applied for mortgages in predominately white areas.

[25] Stephen L. Ross and Geoffrey M. B. Tootell, ''Redlining, the Community Reinvestment Act, and Private Mortgage Insurance'', unpublished manuscript, March, 1999.

[26] Lang, William W. and Leonard I. Nakamura, ''A Model of Redlining,'' *Journal*

of Urban Economics, Volume 33, 1993, pp. 223–234.

[27] Calem, Paul S. ''Mortgage Credit Availability in Low- and Moderate-Income Minority Neighborhoods: Are Information Externalities Critical?'' *Journal of Real Estate Finance and Economics,* Volume 13, 1996, pp. 71–89.

[28] Ling, David C. and Susan M. Wachter, ''Information Externalities and Home Mortgage Underwriting,'' *Journal of Urban Economics,* Volume 44, 1998, pp. 317–332.

[29] Robert B. Avery, Patricia E. Beeson, and Mark S. Sniderman, ''Neighborhood Information and Home Mortgage Lending,'' *Journal of Urban Economics,* Volume 45, 1999, pp. 287–310.

[30] The Preamble to the 1995 Rule provides additional reasons why central city location should not be used as a proxy for underserved areas.

[31] **Federal Register**, October 20, 1999, ''Office of Management and Budget: Recommendations from the Metropolitan Area Standards Review Committee to the Office of Management and Budget Concerning Changes to the Standards for Defining Metropolitan Areas.''

[32] William Shear, James Berkovec, Ann Dougherty, and Frank Nothaft, ''Unmet Housing Needs: The Role of Mortgage Markets,'' *Journal of Housing Economics,* Volume 4 , 1996, pp. 291–306. These researchers regressed the number of mortgage originations per 100 properties in the census tract on several independent variables that were intended to account for some of the demand and supply (*i.e.,* credit risk) influences at the census tract level. The tract's minority composition and central city location were included to test if these characteristics were associated with underserved neighborhoods after controlling for the demand and supply variables. Examples of the demand and supply variables at the census tract level include: tract income relative to the area median income, the increase in house values between 1980 and 1990, the percentage of units boarded up, and the age distributions of households and housing units. See also Susan Wharton Gates, ''Defining the Underserved,'' *Secondary Mortgage Markets,* 1994 Mortgage Market Review Issue, 1995, pp. 34–48.

[33] For example, census tracts at 80 percent of area median income were estimated to have 8.6 originations per 100 owners as compared with 10.8 originations for tracts over 120 percent of area median income.

[34] Shear *et al.,* p. 18.

[35] See Avery, *et al.*

[36] Avery *et al.* find very large unadjusted differences in denial rates between white and minority neighborhoods, and although the gap is greatly reduced by controlling for applicant characteristics (such as race and income) and other census tract characteristics (such as house price and income level), a significant difference between white and minority tracts remains (for purchase loans, the denial rate difference falls from an unadjusted level of 16.7 percent to 4.4 percent after controlling for applicant and other census tract characteristics, and for refinance loans, the denial rate difference falls from 21.3 percent to 6.4 percent). However, when between-MSA differences are removed, the gap drops to 1.5 percent and 1.6 percent for purchase and refinance loans, respectively. See Avery, *et al.,* p. 16.

[37] Avery, *et al.,* page 19, note that, other things equal, a black applicant for a home purchase loan is 3.7 percent more likely to have his/her application denied in an all-minority tract than in an all-white tract, while a white applicant from an all-minority tract would be 11.5 percent more likely to be denied.

[38] Methodological and econometric challenges that researchers will have to deal with are discussed in Mitchell Rachlis and Anthony Yezer, ''Serious Flaws in Statistical Tests for Discrimination in Mortgage Markets,'' *Journal of Housing Research,* Volume 4, 1993, pp. 315–336.

[39] Mikesell, Jim. *Can Federal Policy Changes Improve the Performance of Rural Mortgage Markets,* Economic Research Service, U.S. Department of Agriculture, Issues in Agricultural and Rural Finance. Agriculture Information Bulletin No. 724–12, August 1998.

[40] Standard mortgage types are 30-year fixed-rate mortgages, 15-year FRMs, and 30-year adjustable rate mortgages (ARMs). These are the ones most often traded in the secondary markets. Nonstandard mortgages generally have shorter terms than the standard mortgages.

[41] MacDonald, Heather. *Fannie Mae and Freddie Mac in Rural Housing Markets: Does Space Matter?* Study funded as part of the 1997 GSE Small Grants by HUD's Office of Policy Development and Research.

[42] MacDonald constructs a county-level mortgage market data in rural areas using information collected by the Department of Revenue for counties and states. Annual Sales Ratio Studies conducted by many states' Department of Revenue provide the number of sales for different property types. This is done by using residential sales recorded for property tax purposes. Other county-level variables used to compare rural counties are obtained from the 1990 Census of Population and Housing and Bureaus of labor Statistics. Data obtained from Census included county populations, racial composition, a variety of housing stock characteristics like home ownership rates, vacancy rates, proportion of owner-occupied mobile homes, median housing value in 1990, median age of the housing stock, proportion of units with complete plumbing, and access to infrastructure, e.g., public roads and sewage systems. Data collected from the Bureau of Labor Statistics included unemployment rates and residential building permits.

[43] *The Future of Manufactured Housing,* Harvard University Joint Center for Housing Studies, February 1997.

[44] Though future demand for manufactured housing is promising, the Joint Center notes some continued obstacles to growth. Challenges for the industry to overcome include a lack of standardization of installation procedures and product guarantees, exclusionary zoning laws, and certain provisions of the national building code.

[45] The official figures on goal performance shown above for Fannie Mae are identical with the corresponding figures present by Fannie Mae in its Annual Housing Activity Report to HUD except for 1997 (HUD-reported: 28.8 percent/Fannie Mae-reported: 30.0 percent) and 1999 (26.8 percent/26.7 percent), reflecting minor differences in the application of counting rules.

[46] The official figures on goal performance shown above for Freddie Mac are identical with the corresponding figures presented by Freddie Mac in its Annual Housing Activity Reports to HUD except for 1999 (HUD-reported: 27.5 percent/Freddie Mac-reported: 27.6 percent), reflecting minor differences in the application of counting rules.

[47] Underserved areas make up about 56 percent of the census tracts in nonmetropolitan areas and 47 percent of the census tracts in metropolitan areas. This is one reason why underserved areas comprise a larger portion of the GSEs' single-family mortgages in nonmetropolitan areas (38 percent) than in metropolitan areas (22 percent).

[48] HMDA provides little useful information on rural areas. Therefore, the HMDA data reported here apply only to metropolitan areas.

[49] Analysis of application rates are not reported here. Although application rates are sometimes used as a measure of mortgage demand, they provide no additional information beyond that provided by looking at both denial and origination rates. The patterns observed for application rates are still very similar to those observed for origination rates.

[50] As shown in Table B.1, no sharp breaks occur in the denial and origination rates across the minority and income deciles—mostly, the increments are somewhat similar as one moves across the various deciles that account for the major portions of mortgage activity.

[51] The differentials in denial rates are due, in part, to differing risk characteristics of the prospective borrowers in different areas. However, use of denial rates is supported by the findings in the Boston Fed study which found that denial rate differentials persist, even after controlling for risk of the borrower. See Section B for a review of that study.

[52] Although this goal is targeted to lower-income and high-minority areas, it does not mean that GSE purchase activity in underserved areas derives totally from lower income or minority families. In 1999, above-median income households accounted for 50 percent of the mortgages that the GSEs purchased in underserved areas. This suggests that these areas are quite diverse.

Appendix C—Departmental Considerations To Establish the Special Affordable Housing Goal

A. Introduction

1. Establishment of the Goal

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (FHEFSSA) requires the Secretary to establish a special annual goal designed to adjust the purchase by each GSE of mortgages on rental and owner-occupied housing to

meet the unaddressed needs of, and affordable to, low-income families in low-income areas and very-low-income families (the Special Affordable Housing Goal).

In establishing the Special Affordable Housing Goal, FHEFSSA requires the Secretary to consider:

1. Data submitted to the Secretary in connection with the Special Affordable Housing Goal for previous years;
2. The performance and efforts of the GSEs toward achieving the Special Affordable Housing Goal in previous years;
3. National housing needs of targeted families;
4. The ability of the GSEs to lead the industry in making mortgage credit available for low-income and very-low-income families; and
5. The need to maintain the sound financial condition of the enterprises.

2. The Goal

The final rule provides that the Special Affordable Housing Goal is 20 percent in 2001–2003. Of the total Special Affordable Housing Goal for each year, each GSE must purchase multifamily mortgages in an amount at least equal to one percent of the GSE's combined (single-family and multifamily) annual average mortgage purchases over 1997–1999.

Approximately 23–26 percent of the conventional conforming mortgage market in 2001–03 would qualify under the Special Affordable Housing Goal as defined in the final rule, as projected by HUD.

Units that count toward the goal: Subject to further provisions discussed in the Preamble to this final rule regarding seasoned loans, units that count toward the Special Affordable Housing Goal include units occupied by low-income owners and renters in low-income areas, and very low-income owners and renters. Other low-income rental units in multifamily properties count toward the goal where at least 20 percent of the units in the property are affordable to families whose incomes are 50 percent of area median income or less, or where at least 40 percent of the units are affordable to families whose incomes are 60 percent of area median income or less.

B. Summary and Response to Comments

1. Multifamily Subgoal Level

HUD's proposed rule would have set the multifamily subgoal at 0.9 percent of the dollar volume of combined (single-family and multifamily) 1998 mortgage purchases in calendar year 2000, and 1.0 percent in each of calendar years 2001–2003. This would have implied the following thresholds for the two GSEs:

	2000 (in billions)	2001–2003 (in billions)
Fannie Mae	$3.31	$3.68
Freddie Mac	2.46	2.73

Both GSEs opposed establishing the special affordable multifamily subgoal as a percentage of their 1998 transaction volume, stating that 1998 was in some respects an unusual year in the mortgage markets. Instead, they both recommended that the special affordable multifamily subgoal be established as a percentage of a five-year average of each GSEs' transactions volume. Freddie Mac commented further that HUD's proposed subgoal was ''unreasonably high.''

Many other commenters supported the multifamily subgoal, although they questioned whether 1998 was the appropriate base year upon which to establish the subgoal. Some commenters argued that the proposed subgoal was too high, in light of an expected decline in multifamily origination volume. Others argued that the subgoal was too low, based on the needs of very low- and low-income families and families in rural areas. Comments were received from some who felt the subgoal should be percentage-based and move from year to year. Still other commenters felt that the multifamily subgoal should be eliminated, as it no longer appeared to serve a purpose, particularly since Freddie Mac had re-entered the multifamily market.

From its inception, the multifamily subgoal has been viewed as a means for expanding and maintaining Freddie Mac's presence in the multifamily mortgage market. Both the multifamily mortgage market and Freddie Mac's multifamily transactions volume have grown significantly during the 1990s, indicating both increased opportunity and capacity to grow by Freddie Mac. While Freddie Mac continues to lag behind Fannie Mae somewhat in its multifamily volume, it appears to be within reach of catching up with its larger competitor with regard to the multifamily proportion of total purchases. In 1999, Fannie Mae's multifamily mortgage purchases were 9.5 percent of its total mortgage purchases and Freddie Mac's multifamily mortgage purchases were 8.3 percent of its total mortgage purchases.

Freddie Mac's multifamily special affordable transactions volume was $2.7 billion in 1998 and $2.3 billion in 1999, showing that Freddie Mac does have the capacity to generate significant multifamily special affordable transactions volume in a favorable market environment. At the same time, however, the Department is mindful of the fact that multifamily market conditions experienced during 1998–1999 may not be representative of future years. Because of extensive multifamily refinancing during 1998–1999, in particular, in conjunction with the widespread use of ''lockout'' provisions which place significant limitations on borrower's right to refinance recently originated loans, HUD expects conventional multifamily origination volume in 2001–2003 to be somewhat lower than the levels reached during 1998–1999. Based on partial-year information collected by the Department on GSE and CMBS multifamily transactions volume during 2000, it appears that origination volume will be somewhat lower this year than in 1999. Taking into consideration new information and data not available at the time HUD published its proposed GSE rule in March of 2000, the Department has determined that a modest reduction in multifamily special affordable goal thresholds relative to those in the proposed rule is reasonable and appropriate.

There is merit to the view that 1998 was an unusual year in the mortgage markets. HUD's motivation in setting the subgoal based on 1998 transactions volume was to establish the subgoal in a fair and reasonable manner, given the difference between the two GSEs in size and capacity. HUD selected a subgoal of one percent of 1998 transactions volume in recognition of the increased capacity of the GSEs to conduct multifamily special affordable lending, as well as the need to challenge the GSEs to maintain and expand their commitment to this segment of the market in a manner feasible and consistent with safety and soundness. Now that more recent data are available, it is apparent that establishing the subgoal in a manner taking 1999 mortgage volume into consideration, along with that of 1997 and 1998, more accurately corresponds to the relative size and respective capabilities of the GSEs over the 2001–2003 goals period than would a subgoal established on the basis of 1998 volume alone. Accordingly, the final rule establishes the special affordable multifamily subgoal at the respective average of one percent of each GSEs' combined (single-family and multifamily) mortgage purchases over 1997–1999, resulting in subgoals somewhat lower than those in the proposed rule, but with the advantages of (i) being based on more recent and complete information regarding the differential size and resource capabilities of each GSE, and (ii) taking into consideration new information regarding multifamily conventional origination volume. This implies the following thresholds for the two GSEs: [1]

	2001–2003 (in billions)
Fannie Mae	$2.85
Freddie Mac	$2.11

2. Multifamily Subgoal Alternatives

In the proposed rule, HUD identified three alternative approaches for specifying multifamily subgoals for the GSEs based on a (i) minimum number of units; (ii) minimum percentage of multifamily acquisition volume; and (iii) minimum number of mortgages acquired. While some of these proposals did receive support from commenters, HUD does not see any compelling reason to alter the dollar-based structure of the multifamily subgoal as established in the 1995 rule, which can be updated and adapted to the current market environment by basing it upon recent acquisition volume. It is noteworthy that the Special Affordable Housing Goal, as a percentage-of-business goal based on number of units financed, combines elements of options (i) and (iii). HUD's decision to award bonus points toward the housing goals for GSE transactions involving small multifamily properties with 5–50 units will achieve some of the intended policy objectives associated with option (iii).

3. Temporary Adjustment Factor

In the proposed rule, HUD noted that Freddie Mac's presence in the multifamily market has lagged far behind that in single-

family, in part because Freddie Mac ceased purchasing multifamily mortgages for a period of time in the early 1990s. Freddie Mac's direct holdings of multifamily mortgages and guarantees outstanding as of the end of 1999, $16.8 billion, are much smaller than that Fannie Mae's $47.4 billion, not only in absolute terms, but also a percentage of all mortgage holdings and guarantees. Freddie Mac's multifamily holdings and guarantees are 2.1 percent of its total, compared with 4.3 percent for Fannie Mae.[2] Freddie Mac's smaller multifamily portfolio relative to that of Fannie Mae has meant fewer refinance opportunities from within its portfolio, reducing anticipated multifamily transactions volume.

Because of the importance of multifamily mortgages to GSE performance on the Special Affordable Housing Goal, Fannie Mae's larger multifamily portfolio confers a significant advantage with regard to goals performance. For example, in 1999, 56.0 percent of units backing Fannie Mae's multifamily transactions met the special affordable goal, representing 31.3 percent of units meeting the special affordable goal, when multifamily units represented only 9.5 percent of total purchase volume. In contrast, only 13.4 percent of Fannie Mae's single-family owner-occupied units met the special affordable goal.[3]

In recognition of the implications for housing goals performance of differences in the relative size of multifamily portfolios between the two GSEs, the Conference Report on HUD's appropriations for 2000 provides the following guidance: ''* * * the stretch affordable housing efforts required of each of Freddie Mac and Fannie Mae should be equal, so that both enterprises are similarly challenged in attaining the goals. This will require the Secretary to recognize the present composition of each enterprise's overall portfolio in order to ensure regulatory parity in the application of regulatory guidelines measuring goal compliance.'' [4]

In order to overcome any lingering effects of Freddie Mac's decision to leave the multifamily market in the early 1990s, and to provide an incentive to continue the rapid expansion of its multifamily presence since then, the Department proposed a ''Temporary Adjustment Factor'' for Freddie Mac's multifamily mortgage purchases for purposes of calculating performance on the Low- and Moderate-Income Housing Goal and the Special Affordable Housing Goal. In determining Freddie Mac's performance for each of these two goals, each unit in a property with more than 50 units meeting one or both of these two housing goals would be counted as 1.2 units in calculating the numerator of the respective housing goal percentage. The Temporary Adjustment Factor will be limited to properties with more than 50 units because of separate provisions regarding multifamily properties with 5–50 units.

In its comments, Freddie Mac supported the idea of a temporary adjustment factor; however, Freddie Mac recommended that it be set at 1.35 instead of the 1.2 level proposed by HUD. According to Freddie Mac, the difference in size and age between Freddie Mac's and Fannie Mae's multifamily portfolios makes goal achievement easier for Fannie Mae. Freddie Mac also recommended that the temporary adjustment factor apply to all three goals and opposed any phasing out of the factor over the three-year goals period.

In the period since HUD's interim housing goals took effect in January 1993, Freddie Mac's multifamily transactions volume has expanded rapidly, as noted above. Freddie Mac's 1999 multifamily transactions volume was $7.6 billion, compared with only $191 million in 1993. HUD's analysis indicates that a Temporary Adjustment Factor of 1.2 is sufficient to provide ''regulatory parity'' consistent with the direction provided by the Conference Report addressing this issue. The Department has, therefore, decided to implement the temporary adjustment factor as proposed in the proposed rule. The Adjustment Factor of 1.2 will be applied to the Low- and Moderate-Income and Special Affordable Goals. The Temporary Adjustment Factor would terminate December 31, 2003. The Temporary Adjustment Factor will not apply to Fannie Mae.

4. Seasoned Mortgage Loan Purchases ''Recycling'' Requirement

Comments submitted in response to HUD's proposed rule regarding ''recycling requirements'' pertaining to seasoned loans are discussed in the Preamble, as are the Department's determinations regarding this matter.

C. Consideration of the Factors

In considering the factors under FHEFSSA to establish the Special Affordable Housing Goal, HUD relied upon data gathered from the American Housing Survey through 1997, the Census Bureau's 1991 Residential Finance Survey, the 1990 Census of Population and Housing, Home Mortgage Disclosure Act (HMDA) data for 1992 through 1998, and annual loan-level data from the GSEs on their mortgage purchases through 1999. Appendix D discusses in detail how these data resources were used and how the size of the conventional conforming market for this goal was estimated.

The remainder of Section C discusses the factors listed above, and Section D provides the Secretary's rationale for establishing the special affordable goal.

1 and 2. Data Submitted to the Secretary in Connection With the Special Affordable Housing Goal for Previous Years, and the Performance and Efforts of the Enterprises Toward Achieving the Special Affordable Housing Goal in Previous Years

The discussions of these two factors have been combined because they overlap to a significant degree.

a. GSE Performance Relative to the 1996–99 Goals

This section discusses each GSE's performance under the Special Affordable Housing Goal over the 1993–99 period. The data presented here are ''official results''—*i.e.,* they are based on HUD's in-depth analysis of the loan-level data submitted annually to the Department and the counting provisions contained in HUD's regulations in 24 CFR part 81, subpart B. As explained below, in some cases these ''official results'' differ from goal performance reported to the Department by the GSEs in their Annual Housing Activities Reports.

HUD's goals specified that in 1996 at least 12 percent of the number of units eligible to count toward the Special Affordable goal should qualify as Special Affordable, and at least 14 percent annually beginning in 1997. The actual performance in 1996 through 1999, based on HUD's analysis of loan-level data submitted by the GSEs, is shown in Table C.1 and Figure C.1. Fannie Mae surpassed the goal by 3.4 percentage points and 3.0 percentage points, respectively, in 1996 and 1997, while Freddie Mac surpassed the goal by 2.0 and 1.2 percentage points. In 1998, Fannie Mae exceeded the goal by 0.3 percentage point, while Freddie Mac exceeded the goal by 1.9 percentage points.

Both GSEs stepped up their performance and attained their highest performance to date in 1999, with Fannie Mae surpassing the 14 percent goal by 3.6 percentage points and Freddie Mac surpassing the goal by 3.2 percentage points (Table C.1). After lagging Freddie Mac on special affordable performance in 1998, Fannie Mae surpassed Freddie Mac last year.[5] A major reason for Fannie Mae's record special affordable goal performance in 1999 was the 15 percent increase in the dollar volume of its special affordable multifamily purchases; Freddie Mac, on the other hand, experienced a 16 percent decline in such purchases between 1998 and 1999.[6]

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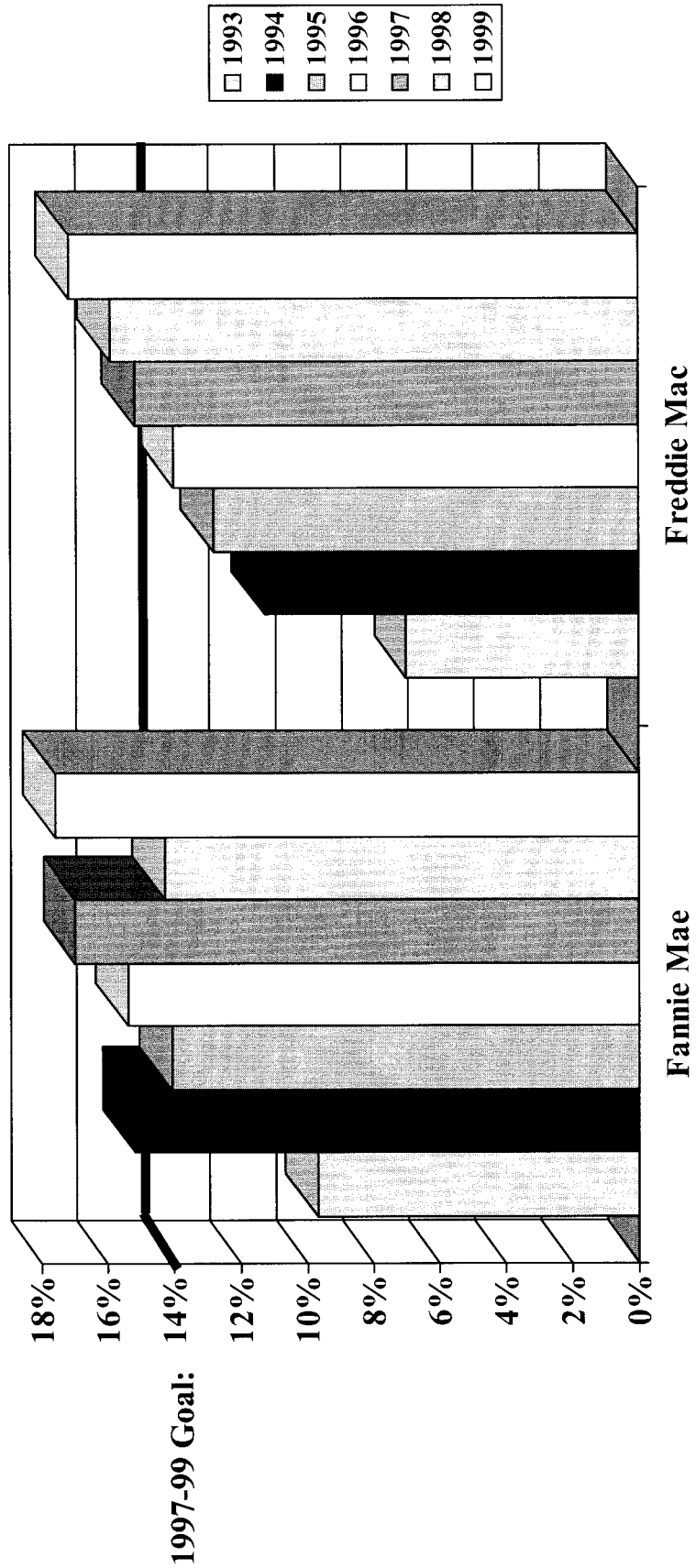
Table C.1

GSEs' Special Affordable Purchases, 1993-99

	1993	1994	1995	1996	1997	1998	1999
Fannie Mae:							
Units Eligible to Count Toward Goal	2,909,941	1,832,257	1,417,542	1,852,233	1,748,044	3,486,040	2,935,075
Special Affordable Units	282,170	279,093	199,715	285,642	296,366	499,948	517,169
Percent Special Affordable	9.7%	15.2%	14.1%	15.4%	17.0%	14.3%	17.6%
Special Affordable Multifamily Purchases ($billions)	$1.64	$1.74	$1.34	$2.37	$3.19	$3.53	$4.06
Freddie Mac:							
Units Eligible to Count Toward Goal	2,170,036	1,290,990	959,137	1,299,589	1,175,271	2,658,174	2,228,906
Special Affordable Units	152,628	146,224	122,954	181,505	178,736	422,900	383,329
Percent Special Affordable	7.0%	11.3%	12.8%	14.0%	15.2%	15.9%	17.2%
Special Affordable Multifamily Purchases ($billions)	$0.14	$0.46	$0.69	$1.06	$1.21	$2.69	$2.26

Figure C.1

Special Affordable Mortgage Purchases



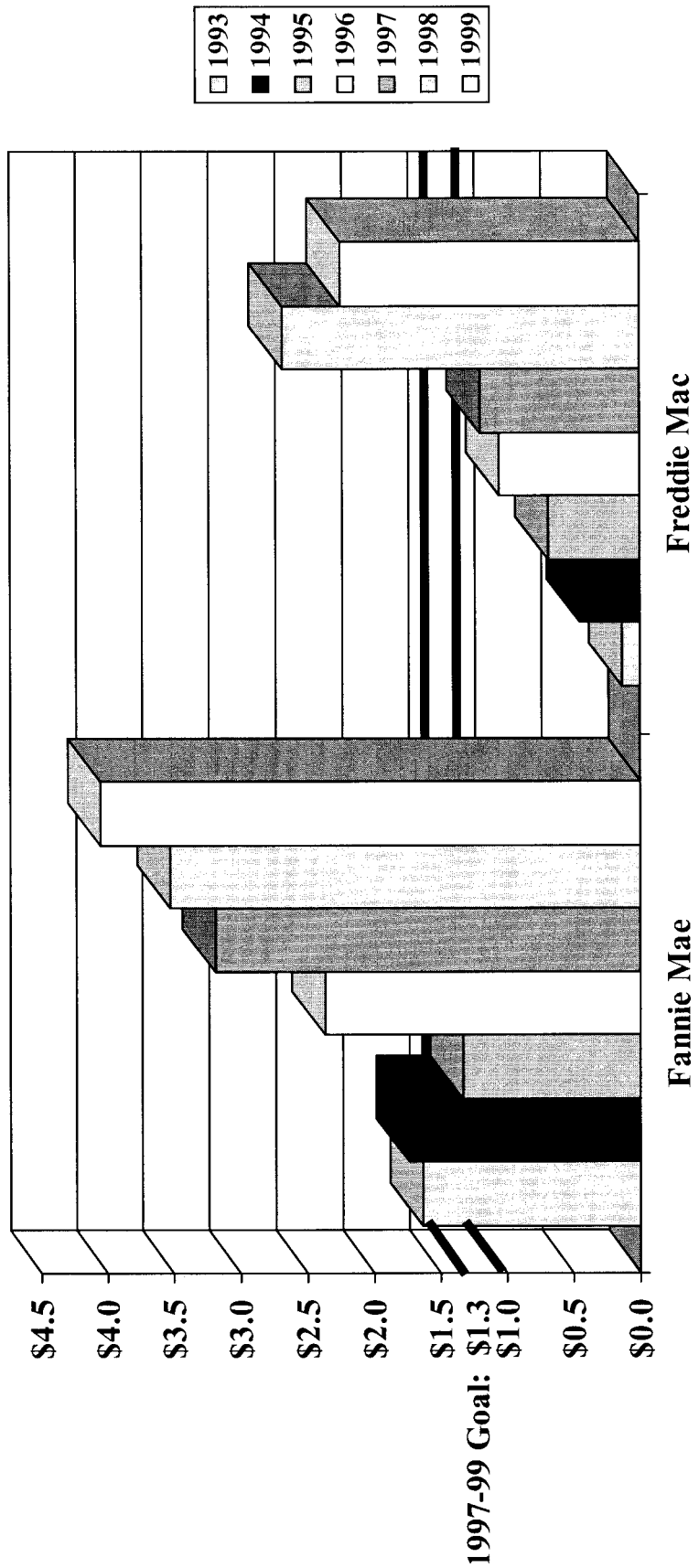
Special Affordable Goal was 14% of units financed for 1997-99 (12% for 1996).

Source: HUD analysis of GSEs' loan-level data.

Figure C.2

Multifamily Special Affordable Mortgage Purchases

(Billions of Dollars Per Year)



Multifamily Special Affordable Goals for 1996-99 were $1.29 billion per year for Fannie Mae and $988 million per year for Freddie Mac.

Source: HUD analysis of GSEs' loan-level data.

Table C.2

Fannie Mae's Special Affordable Purchases By Unit Affordability and Area Income, 1993-1999

Year of purchase and Type of unit	Very-Low Income Units in Low-Income Areas	Very-Low Income Units Outside Low-Income Areas	Other Low-Income Units in Low-Income Areas	Other Units Qualifying For Goal*	Total Units Qualifying For Goal	Percent
1993						
Single-family owner	21,731	108,354	28,351		158,436	56.1%
Single-family rental	11,474	21,022	12,082		44,578	15.8%
Multifamily	19,831	43,754	10,480	5,092	79,157	28.1%
Total	53,036	173,130	50,913	5,092	282,171	100.0%
Percent	18.8%	61.4%	18.0%	1.8%	100.0%	
1994						
Single-family owner	22,599	88,407	23,310		134,316	48.1%
Single-family rental	14,392	21,637	11,545		47,574	17.0%
Multifamily	25,712	51,173	13,572	6,746	97,203	34.8%
Total	62,703	161,217	48,427	6,746	279,093	100.0%
Percent	22.5%	57.8%	17.4%	2.4%	100.0%	
1995						
Single-family owner	20,292	68,062	18,139		106,493	53.3%
Single-family rental	8,251	11,210	5,887		25,348	12.7%
Multifamily	16,334	33,988	12,801	4,750	67,873	34.0%
Total	44,877	113,260	36,827	4,750	199,714	100.0%
Percent	22.5%	56.7%	18.4%	2.4%	100.0%	
1996						
Single-family owner	25,103	93,029	23,328		141,460	49.5%
Single-family rental	11,242	18,207	6,938		36,387	12.7%
Multifamily	23,703	59,556	15,399	9,136	107,794	37.7%
Total	60,048	170,792	45,665	9,136	285,641	100.0%
Percent	21.0%	59.8%	16.0%	3.2%	100.0%	
1997						
Single-family owner	23,909	91,400	20,825		136,134	45.9%
Single-family rental	9,169	15,290	5,399		29,858	10.1%
Multifamily	27,522	80,069	13,294	9,488	130,373	44.0%
Total	60,600	186,759	39,518	9,488	296,365	100.0%
Percent	20.4%	63.0%	13.3%	3.2%	100.0%	
1998						
Single-family owner	43,631	212,519	41,108		297,257	59.5%
Single-family rental	18,158	34,396	11,314		63,868	12.8%
Multifamily	34,481	74,417	19,799	10,126	138,822	27.8%
Total	96,270	321,332	72,221	10,126	499,947	100.0%
Percent	19.3%	64.3%	14.4%	2.0%	100.0%	
1999						
Single-family owner	41,943	205,048	36,366		283,357	54.8%
Single-family rental	21,161	38,663	12,063		71,887	13.9%
Multifamily	38,292	95,623	15,586	12,423	161,924	31.3%
Total	101,396	339,334	64,015	12,423	517,168	100.0%
Percent	19.6%	65.6%	12.4%	2.4%	100.0%	

* Low-income rental units in multifamily properties where at least 20 percent of the units are affordable to families whose incomes are 50 percent of area median income or less or where at least 40 percent of the units are affordable to families whose incomes are 60 percent of area median income or less, which do not otherwise qualify under the goal.

Table C.3

Freddie Mac's Special Affordable Purchases By Unit Affordability and Area Income, 1993-1999

Year of purchase and Type of unit	Very-Low Income Units in Low-Income Areas	Very-Low Income Units Outside Low-Income Areas	Other Low-Income Units in Low-Income Areas	Other Units Qualifying For Goal*	Total Units Qualifying For Goal	Percent
1993						
Single-family owner	14,689	79,181	20,935		114,805	75.2%
Single-family rental	7,426	13,612	8,365		29,403	19.3%
Multifamily	3,432	4,237	577	181	8,427	5.5%
Total	25,547	97,030	29,877	181	152,635	100.0%
Percent	16.7%	63.6%	19.6%	0.1%	100.0%	
1994						
Single-family owner	13,012	61,986	15,509		90,507	55.9%
Single-family rental	16,851	21,047	6,071		43,969	27.2%
Multifamily	12,550	11,546	2,124	1,216	27,436	16.9%
Total	42,413	94,579	23,704	1,216	161,912	100.0%
Percent	26.2%	58.4%	14.6%	0.8%	100.0%	
1995						
Single-family owner	10,801	45,782	11,138		67,721	55.1%
Single-family rental	6,018	10,705	4,697		21,420	17.4%
Multifamily	9,818	15,352	5,199	3,444	33,813	27.5%
Total	26,637	71,839	21,034	3,444	122,954	100.0%
Percent	21.7%	58.4%	17.1%	2.8%	100.0%	
1996						
Single-family owner	15,330	70,731	16,018		102,080	56.2%
Single-family rental	7,539	14,339	4,178		26,056	14.4%
Multifamily	12,634	28,301	8,760	3,675	53,370	29.4%
Total	35,503	113,371	28,956	3,675	181,506	100.0%
Percent	19.6%	62.5%	16.0%	2.0%	100.0%	
1997						
Single-family owner	15,742	66,656	15,449		97,847	54.7%
Single-family rental	7,469	11,612	5,552		24,633	13.8%
Multifamily	16,131	28,789	8,133	3,203	56,256	31.5%
Total	39,342	107,057	29,134	3,203	178,736	100.0%
Percent	22.0%	59.9%	16.3%	1.8%	100.0%	
1998						
Single-family owner	40,690	176,846	33,869		251,404	59.4%
Single-family rental	14,665	28,691	7,364		50,720	12.0%
Multifamily	30,736	63,272	21,609	5,159	120,776	28.6%
Total	86,091	268,809	62,842	5,159	422,900	100.0%
Percent	20.4%	63.6%	14.9%	1.2%	100.0%	
1999						
Single-family owner	37,675	168,684	31,452		237,810	62.0%
Single-family rental	18,054	33,305	11,179		62,538	16.3%
Multifamily	20,969	46,765	10,001	5,247	82,982	21.6%
Total	76,698	248,754	52,632	5,247	383,330	100.0%
Percent	20.0%	64.9%	13.7%	1.4%	100.0%	

* Low-income rental units in multifamily properties where at least 20 percent of the units are affordable to families whose incomes are 50 percent of area median income or less or where at least 40 percent of the units are affordable to families whose incomes are 60 percent of area median income or less, which do not otherwise qualify under the goal.

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Table C.1 also includes, for comparison purposes, comparable figures for 1993 through 1995, calculated according to the counting conventions of the 1995 rule that became applicable in 1996. Each GSE's performance in 1996 through 1999 exceeded its performance in each of the three preceding years.

The Fannie Mae figures presented above are smaller than the corresponding figures presented by Fannie Mae in its Annual Housing Activity Reports to HUD by approximately 2 percentage points in both 1996 and 1997, 1.3 percentage points in 1998, and 1.1 percentage points in 1999. The difference largely reflects HUD-Fannie Mae differences in application of counting rules relating to counting of seasoned loans for purposes of this goal. In particular, HUD's tabulations reflect inclusion of seasoned loan purchases in the denominator in calculating performance under the Special Affordable goal, as discussed in Preamble section II(B)(6)(c) on the Seasoned Mortgage Loan Purchases ''Recycling'' Requirement. Freddie Mac's Annual Housing Activity Report figures for this goal differ from the figures presented above by 0.1 percentage point, reflecting minor differences in application of counting rules.

Since 1996 each GSE has been subject to an annual subgoal for multifamily Special Affordable mortgage purchases, as discussed above, established as 0.8 percent of the dollar volume of single-family and multifamily mortgages purchased by the respective GSE in 1994. Fannie Mae's subgoal was $1.29 billion and Freddie Mac's subgoal was $988 million for each year. Fannie Mae surpassed the subgoal by $1.08 billion, $1.90 billion, $2.24 billion, and $2.77 billion in 1996, 1997, 1998, and 1999, respectively, while Freddie Mac exceeded the subgoal by $18 million, $220 million, $1.70 billion, and $1.27 billion. Table C.1 includes figures on subgoal performance, and they are depicted graphically in Figure C.2.

b. Characteristics of Special Affordable Purchases

The following analysis presents information on the composition of the GSEs' Special Affordable purchases according to area income, unit affordability, tenure of unit and property type (single- or multifamily).

Increased reliance on multifamily housing to meet goal. Tables C.2 and C.3 show that both GSEs have increasingly relied on multifamily housing units to meet the special affordable goal since 1993. Fannie Mae's multifamily purchases represented 31.3 percent of all purchases qualifying for the goal in 1999, compared with 28.1 percent in 1993. Freddie Mac's multifamily purchases represented 21.6 percent of all purchases qualifying for the goal in 1999, compared to 5.5 percent in 1993. The trends for both GSEs were steadily upward throughout the 1993–97 period, with some decrease in multifamily share of the special affordable purchases since 1997.

The other two housing categories—single-family owner and single-family rental—both exhibited downward trends for both GSEs. In 1999 Fannie Mae's single-family owner units qualifying for the goal represented 54.8 percent of all qualifying units, and Fannie Mae's single-family rental units were 13.9 percent of all qualifying units. In 1999 Freddie Mac's single-family owner units qualifying for the goal represented 62.0 percent of all qualifying units, and Freddie Mac's single-family rental units were 16.3 percent of all qualifying units.

Reliance on household income relative to area income characteristics to meet goal. Tables C.2 and C.3 also show the allocation of units qualifying for the goal as related to the family income and area median income criteria in the goal definition. Very-low-income families (shown in the two leftmost columns in the tables) accounted for 85.2 percent of Fannie Mae's units qualifying under the goal in 1999, compared to 80.2 percent in 1993. For Freddie Mac, very-low-income families accounted for 84.9 percent of units qualifying under the goal in 1999 and 80.3 percent in 1993. In contrast, mortgage purchases from low-income areas (shown in the first and third columns in the tables) accounted for 32.0 percent of Fannie Mae's units qualifying under the goal in 1999, compared to 36.8 percent in 1993. The corresponding percentages for Freddie Mac were 33.7 percent in 1999 and 36.3 percent in 1993. Thus given the definition of special affordable housing in terms of household and area income characteristics, both GSEs have consistently relied substantially more on low-income characteristics of households than low-income characteristics of census tracts to meet this goal.

c. GSEs' Performance Relative to Market

Section E in Appendix A used HMDA data and GSE loan-level data for home purchase mortgages on single-family owner-occupied properties in metropolitan areas to compare the GSEs' performance in special affordable lending to the performance of depositories and other lenders in the conventional conforming market. There were three main findings. *First*, both GSEs lag depositories and the overall market in providing mortgage funds for very low-income and other special affordable borrowers. *Second*, the performance of Freddie Mac through 1998 was particularly weak compared to Fannie Mae, the depositories, and the overall market. For example, between 1996 and 1998, special affordable borrowers accounted for 9.8 percent of the home loans purchased by Freddie Mac, 11.9 percent of Fannie Mae's purchases, 16.7 percent of home loans originated and retained by depositories, and 15.3 percent of all home loans originated in the conventional conforming market (see Table A.3 in Appendix A). While Freddie Mac improved its performance, it had not closed the gap between its performance and that of the overall market. In 1992, special affordable loans accounted for 6.5 percent of Freddie Mac's purchases and 10.4 percent of market originations, for a ''Freddie-Mac-to-market'' ratio of 0.63. By 1998, that ratio had increased only to 0.73 (11.3 percent versus 15.5 percent). *Third*, in 1999, Freddie Mac matched Fannie Mae in purchasing special affordable home loans. Special affordable loans accounted for 12.5 percent of Freddie Mac's 1999 home purchase mortgages, and for 12.3 percent of Fannie Mae's purchases. With respect to the GSEs' total (combined home purchase and refinance) loans, Freddie Mac's performance in 1999 surpassed Fannie Mae's performance. The special affordable category accounted for 13.3 percent of Freddie Mac's 1999 purchases, compared with 12.3 percent of Fannie Mae's purchases.

Section G in Appendix A discusses the role of the GSEs both in the overall special affordable market and in the different segments (single-family owner, single-family rental, and multifamily rental) of the special affordable market. The GSEs' special affordable purchases have accounted for 25 percent of all special affordable owner and rental units that were financed in the conventional conforming market during 1997. The GSEs' 25-percent share of the special affordable market was three-fifths of their 40-percent share of the overall market. Even in the owner market, where the GSEs account for 50 percent of the market, their share of the special affordable market was only 36 percent. Similar patterns prevailed in 1998. This analysis suggests that the GSEs are not leading the single-family market in purchasing loans that qualify for the Special Affordable Goal. There is room for the GSEs to improve their performance in purchasing affordable loans at the lower-income end of the market.

3. National Housing Needs of Low-Income Families in Low-Income Areas and Very-Low-Income Families

This discussion concentrates on very low-income families with the greatest needs. It complements Section C of Appendix A, which presents detailed analyses of housing problems and demographic trends for lower-income families which are relevant to the issue addressed in this part of Appendix C.

Data from the American Housing Survey demonstrate that housing problems and needs for affordable housing continue to be more pressing in the lowest-income categories than among moderate-income families, as established in HUD's analysis for the 1995 rule. Table C.4 displays figures on several types of housing problems—high housing costs relative to income, physical housing defects, and crowding—for both owners and renters. Figures are presented for households experiencing multiple (two or more) of these problems as well as households experiencing a severe degree of either cost burden or physical problems. Housing problems in 1995 were much more frequent for the lowest-income groups.[7] Incidence of problems is shown for households in the income range covered by the special affordable goal, as well as for higher income households.

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Table C.4

Incidence of Housing Problems by Household Income, 1995

	Household Income as Percent of Area Median Income			
	0-60%	61-80%	81-100%	> 100%
Renter Households (Thousands)				
Total	17,428	4,579	3,896	8,246
Rent Burden > 50% of Income	6,056	100	25	5
31-50%	5,385	1,299	482	219
Severely Inadequate Housing	587	60	68	134
Moderately Inadequate	1,415	290	197	376
Crowded	1,282	159	99	133
Multiple Problems*	2,022	75	42	34
Priority Problems**	5,492	160	94	139
As Percent of Total				
Rent Burden > 50% of Income	34.7%	2.2%	0.6%	0.1%
31-50%	30.9%	28.4%	12.4%	2.7%
Severely Inadequate Housing	3.4%	1.3%	1.7%	1.6%
Moderately Inadequate	8.1%	6.3%	5.1%	4.6%
Crowded	7.4%	3.5%	2.5%	1.6%
Multiple Problems*	11.6%	1.6%	1.1%	0.4%
Priority Problems**	31.5%	3.5%	2.4%	1.7%
Owner Households (Thousands)				
Total	19,366	7,758	6,492	29,927
Cost Burden > 50% of Income	4,177	437	147	152
31-50%	4,027	1,473	913	1,639
Severely Inadequate Housing	536	123	101	412
Moderately Inadequate	995	266	205	604
Crowded	299	157	95	329
Multiple Problems*	753	130	79	106
Priority Problems**	4,602	550	247	559
As Percent of Total				
Cost Burden > 50% of Income	21.6%	5.6%	2.3%	0.5%
31-50%	20.8%	19.0%	14.1%	5.5%
Severely Inadequate Housing	2.8%	1.6%	1.6%	1.4%
Moderately Inadequate	5.1%	3.4%	3.2%	2.0%
Crowded	1.5%	2.0%	1.5%	1.1%
Multiple Problems*	3.9%	1.7%	1.2%	0.4%
Priority Problems**	23.8%	7.1%	3.8%	1.9%

* Two or three of the following: housing costs >30%, severe or moderate physical problems, and overcrowding.
** Housing costs >50% of income or severely inadequate housing among unassisted households.
Note: Incomes of renter households are estimated based on rents, adjusted for number of bedrooms.

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This analysis shows that priority problems of severe cost burden or severely inadequate housing are noticeably concentrated among renters and owners with incomes below 60 percent of area median income (31.5 percent of renter households and 23.8 percent of owner households). In contrast, 3.5 percent of renter households and 7.1 percent of owner households with incomes above 60 percent of area median income, up to 80 percent of area median income, had priority problems. For more than two-thirds of the very low-income renter families with worst case problems, the only problem was affordability—they did not have problems with housing adequacy or crowding.

4. The Ability of the Enterprises To Lead the Industry in Making Mortgage Credit Available for Low-Income and Very Low-Income Families

The discussion of the ability of Fannie Mae and Freddie Mac to lead the industry in Section G.5 of Appendix A is relevant to this factor—the GSEs' roles in the owner and rental markets, their role in establishing widely-applied underwriting standards, their role in the development of new technology for mortgage origination, their strong staff resources, and their financial strength. Additional analyses of the potential ability of the enterprises to lead the industry in the low- and very low-income market appears below—in Section D.2 generally, and in Section D.3 with respect to multifamily housing.

5. The Need To Maintain the Sound Financial Condition of the GSEs

HUD has undertaken a separate, detailed economic analysis of this final rule, which includes consideration of (a) the financial returns that the GSEs earn on low- and moderate-income loans and (b) the financial safety and soundness implications of the housing goals. Based on this economic analysis and discussions with the Office of Federal Housing Enterprise Oversight, HUD concludes that the housing goals in this final rule raise minimal, if any, safety and soundness concerns.

D. Determination of the Goal

Several considerations, many of which are reviewed in Appendixes A and B and in previous sections of this Appendix, led to the determination of the Special Affordable Housing Goal.

1. Severe Housing Problems

The data presented in Section C.3 demonstrate that housing problems and needs for affordable housing are much more pressing in the lowest-income categories than among moderate-income families. The high incidence of severe problems among the lowest-income renters reflects severe shortages of units affordable to those renters. At incomes below 60 percent of area median, 34.7 percent of renters and 21.6 percent of owners paid more than 50 percent of their income for housing. In this same income range, 65.6 percent of renters and 42.4 percent of owners paid more than 30 percent of their income for housing. In addition, 31.5 percent of renters and 23.8 percent of owners exhibited ''priority problems'', meaning housing costs over 50 percent of income or severely inadequate housing.

2. GSE Performance and the Market

a. GSEs' Single-Family Performance

The Special Affordable Housing Goal is designed, in part, to ensure that the GSEs maintain a consistent focus on serving the very low-income portion of the housing market where housing needs are greatest. The bulk of the GSEs' low- and moderate-income mortgage purchases are for the higher-income portion of this category. The lowest-income borrowers account for approximately one-fourth of each GSE's below-median income purchases of owner-occupied mortgages.

b. Single-Family Market Comparisons in Metropolitan Areas

Section C compared the GSEs' performance in special affordable lending to the performance of depositories and other lenders in the conventional conforming market for single-family home loans. The analysis showed that both GSEs lag depositories and the overall market in providing mortgage funds for very low-income and other special affordable borrowers. Figure C.3 illustrates these findings. In 1998, special affordable borrowers accounted for 11.3 percent of the home loans purchased by Freddie Mac, 13.2 percent of Fannie Mae's purchases, 17.7 percent of home loans originated and retained by depositories, and 15.5 percent of all home loans originated in the conventional conforming market. Section C also noted that Freddie Mac improved its performance, but it had not made much progress in closing the gap between its performance and that of the overall market. In 1999, however, Freddie Mac's funding of special affordable loans improved to the point that it matched Fannie Mae's performance with respect to purchases of home loans (12.5 percent and 12.3 percent, respectively) and it surpassed Fannie Mae's performance with respect to purchases of total combined home purchases and refinance loans (13.3 percent and 12.3 percent, respectively).

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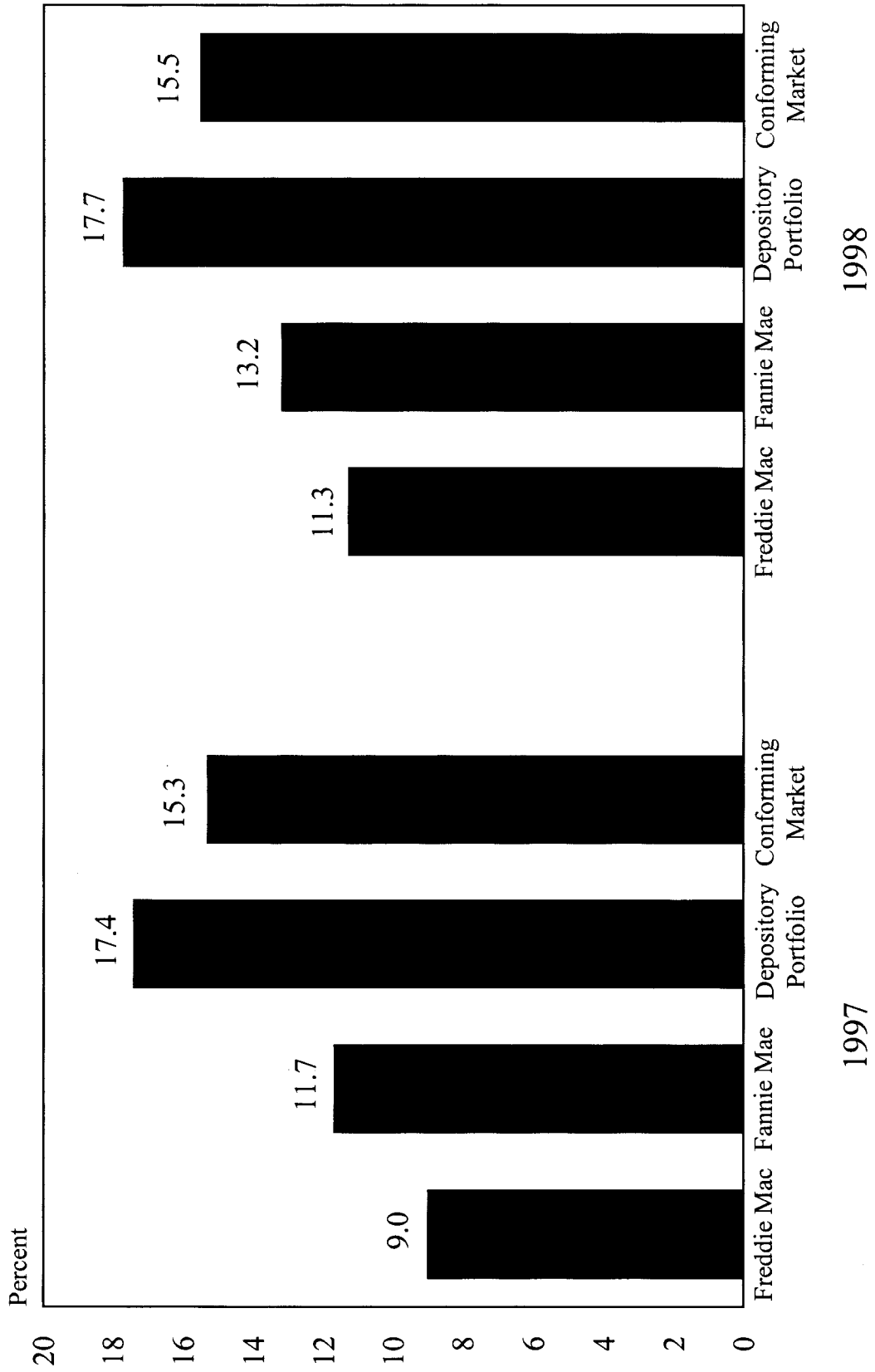
Figure C.3

The Share Of GSE And Conventional Conforming Mortgages for Special Affordable Borrowers, 1997 and 1998



Source: Conforming market and depository data are from 1997 and 1998 HMDA; GSE data are from loan-level data reported to HUD. Data are for single-family home purchase loans in metropolitan areas. See Table A.4a for further explanation.

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c. Overall Market Comparisons

Section C compared the GSEs' role in the overall market with their role in the special affordable market. The GSEs' purchases have provided financing for 2,948,112 dwelling units, which represented 40 percent of the 7,306,950 single-family and multifamily units that were financed in the conventional conforming market during 1997. However, in the special affordable part of the market, the 519,371 units that were financed by GSE

purchases represented only 25 percent of the 2,105,508 dwelling units that were financed in the market. A similar pattern prevailed in 1998. Thus, there appears to ample room for the GSEs to improve their performance in the special affordable market.

3. Reasons for Increasing the Special Affordable Housing Goal

The reasons the Secretary is increasing the Special Affordable Goal are essentially the same as those given in Section H.4 of Appendix A for the Low- and Moderate-Income Goal. Although that discussion will not be repeated here, the main considerations are the following: Freddie Mac's re-entry into the multifamily market; the underlying strength of the primary mortgage market for lower-income families; the need for the GSEs to improve their purchases of mortgages for lower-income families and their communities; the existence of several low-income market segments that would benefit from more active efforts by the GSEs; and the substantial profits and financial capacity of Fannie Mae and Freddie Mac. The Department's analysis shows that the GSEs are not leading the market in purchasing loans that qualify for the Special Affordable Goal. There are also plenty of opportunities for the GSEs to improve their performance in purchasing special affordable loans. The GSEs' accounted for only 25 percent of the special affordable market in 1997—a figure substantially below their 40-percent share of the overall market. Similarly, the GSEs accounted for only 33 percent of the special affordable market in 1998, compared with their 55-percent share of the overall market during that heavy refinance year.

4. Multifamily Purchases—Further Analysis

As noted previously, the multifamily sector is especially important in the establishment of the special affordable housing goals for Fannie Mae and Freddie Mac because of the relatively high percentage of multifamily units meeting the special affordable goal as compared with single-family. For example, in 1999, 56.0 percent of units backing Fannie Mae's multifamily transactions met the special affordable goal, representing 31.3 percent of units meeting the special affordable goal, when multifamily units represented only 9.5 percent of total purchase volume.[8]

Significant new developments in the multifamily mortgage market have occurred since the publication of the December 1995 rule, most notably the increased rate of debt securitization via Commercial Mortgage Backed Securities (CMBS) and a higher level of equity securitization by Real Estate Investment Trusts (REITs). Fannie Mae has played a role in establishing underwriting standards that have been widely emulated in the growth of the CMBS market. Freddie Mac has contributed to the growth and stability of the CMBS sector by acting as an investor.

Increased securitization of debt and equity interests in multifamily property present the GSEs with new challenges as well as new opportunities. The GSEs are currently experiencing a higher degree of secondary market competition than they did in 1995. At the same time, recent volatility in the CMBS market underlines the need for an ongoing GSE presence in the multifamily secondary market. The potential for an increased GSE presence is enhanced by virtue of the fact that an increasing proportion of multifamily mortgages are originated to secondary market standards.

Despite the expanded presence of the GSEs in the multifamily mortgage market and the rapid growth in multifamily securitization by means of CMBS, increased secondary market liquidity does not appear to have benefited all segments of the market equally. Small properties with 5–50 units appear to have been adversely affected by excessive borrowing costs as described in Appendix A. Another market segment that appears experiencing difficulty in obtaining mortgage credit consists of multifamily properties with significant rehabilitation needs. Properties that are more than 10 years old are typically classified as ''C'' or ''D'' properties, and are considered less attractive than newer properties by many lenders and investors.

Context. As discussed above, in the 1995 Final Rule, the multifamily subgoal for the 1996–1999 period was set at 0.8 percent of the dollar value of each GSEs' respective 1994 origination volume, or $998 million for Freddie Mac and $1.29 billion for Fannie Mae. Freddie Mac exceeded the goal by a narrow margin in 1996 and more comfortably in 1997–1999. Fannie Mae has exceeded the goal by a wide margin in all four years.

The experience of the 1996–1999 period suggests the following preliminary findings regarding the multifamily special affordable subgoal:

- The goal has contributed toward a significantly increased presence by Freddie Mac in the multifamily market.
- The current goal is out of date, as it is based on market conditions in 1993–94. The goal has remained at a fixed level, despite significant growth in the multifamily market and in the GSEs' administrative capabilities with regard to multifamily.

As mentioned previously, HUD's final rule establishes the multifamily subgoal at the respective average of one percent of each GSEs' combined mortgage purchases over 1997–1999. This implies the following thresholds for the two GSEs:

	2001–2003 (in billions)
Fannie Mae	$2.85
Freddie Mac	2.11

A multifamily subgoal for 2001–2003 set at one percent of each GSEs' combined mortgage purchases over 1997–1999 will sustain and likely increase the efforts of the GSEs in the multifamily mortgage market, with particular emphasis upon the special affordable segment.

5. Conclusion

HUD has determined that the Special Affordable Housing Goal in this final rule addresses national housing needs within the income categories specified for this goal, while accounting for the GSEs' past performance in purchasing mortgages meeting the needs of very-low-income families and low-income families in low-income areas. HUD has also considered the size of the conventional mortgage market serving very-low-income families and low-income families in low-income areas. Moreover, HUD has considered the GSEs' ability to lead the industry as well as their financial condition. HUD has determined that a Special Affordable Housing Goal of 20 percent in 2001–2003 is both necessary and achievable. HUD has also determined that a multifamily special affordable subgoal for 2001–2003 set at one percent of the average of each GSE's respective dollar volume of combined (single-family and multifamily) 1997–1999 mortgage purchases in is both necessary and achievable.

Endnotes to Appendix C

[1] HUD has determined that the total dollar volume of the GSEs' combined (single and multifamily) mortgage purchases by Fannie Mae was $165.3 billion in 1997, $367.6 billion 1998, and $323.0 in 1999. Freddie Mac's corresponding acquisition volume was $117.7 billion in 1997, $273.2 billion in 1998, and $240.7 billion in 1999.

[2] *Federal Reserve Bulletin*, June 2000, A 35.

[3] Source: HUD analysis of GSE loan-level data.

[4] U.S. House of Representatives, *Congressional Record.* (October 13, 1999), p. H10014.

[5] It should be noted that in all years, Fannie Mae's performance on the special affordable goal under HUD scoring lags performance as reported by Fannie Mae, because of differences pertaining to the ''recycling'' of proceeds from the sales of portfolios of special affordable loans.

[6] Total dollar volume of multifamily purchases moved in the opposite direction from special affordable multifamily volume last year—total volume fell by 25 percent for Fannie Mae (from $12.50 billion in 1998 to $9.39 billion in 1999), but rose by 16 percent for Freddie Mac (from $6.58 billion in 1998 to $7.62 billion in 1999); special affordable multifamily volume rose by 15 percent for Fannie Mae (from $3.53 billion in 1998 to $4.06 billion in 1999), but fell by 16 percent for Freddie Mac (from $2.69 billion in 1998 to $2.26 billion in 1999).

[7] Tabulations of the 1995 American Housing Survey by HUD's Office of Policy Development and Research. The results in the table categorize renters reporting housing assistance as having no housing problems.

[8] Source: HUD analysis of GSE loan-level data.

Appendix D—Estimating the Size of the Conventional Conforming Market for Each Housing Goal

A. Introduction

1. Overview of Appendix D

In establishing the three housing goals, the Secretary is required to assess, among a number of factors, the size of the conventional market for each goal. This appendix explains HUD's methodology for estimating the size of the conventional market for each of the three housing goals. Following this overview, the remainder of Section A summarizes the main components

of HUD's market-share model and identifies those parameters that have a large effect on the relative market shares. With this material as background, Section B provides an overview of the GSEs' main comments on, and criticisms of, HUD's market share methodology, as well HUD's response to those comments and criticisms. More detailed analyses of selected comments by the GSEs are provided throughout this appendix. Sections C and D discuss two particularly important market parameters, the size of the multifamily market and the share of the single-family mortgage market accounted for by single-family rental properties. Section E provides a more systematic presentation of the model's equations and main assumptions. Sections F, G, and H report HUD's estimates for the Low- and Moderate-Income Goal, the Geographically-Targeted (Underserved Areas) Goal, and the Special Affordable Housing Goal, respectively.[1]

In developing this rule, HUD has carefully reviewed existing information on mortgage activity in order to understand the weakness of various data sources and has conducted sensitivity analyses to show the effects of alternative parameter assumptions. Data on the multifamily mortgage market from HUD's Property Owners and Managers' Survey (POMS), not available at the time 1995 GSE final rule was published, is utilized here. HUD is well aware of uncertainties with some of the data and much of this appendix is spent discussing the effects of alternative assumptions about data parameters and presenting the results of an extensive set of sensitivity analyses.

In a critique of HUD's market share model, Blackley and Follain (1995, 1996) concluded that conceptually HUD had chosen a reasonable approach to determining the size of the mortgage market that qualifies for each of the three housing goals.[2] Blackley and Follain correctly note that the challenge lies in getting accurate estimates of the model's parameters. As noted later, both GSEs reached the same conclusion in their comments on the proposed rule.

This appendix reviews in some detail HUD's efforts to combine information from several mortgage market data bases to obtain reasonable values for the model's parameters. Numerous sensitivity analyses are performed in order to arrive at a set of reasonable market estimates.

The single-family market analysis in this appendix is based heavily on HMDA data for the years 1992 to 1998. The HMDA data for 1999 were not released until August 2000, which did not give HUD enough time to incorporate that data into the analyses reported in the Appendices. It should also be noted that the discussion sometimes focuses on the year 1997, as 1997 represents a more typical mortgage market than the heavy refinancing year of 1998.

2. Overview of HUD's Market Share Methodology[3]

a. Definition of Market Share

The size of the market for each housing goal is one of the factors that the Secretary is required to consider when setting the level of each housing goal.[4] Using the Low- and Moderate-Income Housing Goal as an example, the market share in a particular year is defined as follows:

Low- and Moderate-Income Share of Market: The number of dwelling units financed by the primary mortgage market in a particular calendar year that are occupied by (or affordable to, in the case of rental units) families with incomes equal to or less than the area median income *divided by* the total number of dwelling units financed in the conforming conventional primary mortgage market.

There are three important aspects to this definition. First, the market is defined in terms of ''dwelling units'' rather than, for example, ''value of mortgages'' or ''number of properties.'' Second, the units are ''financed'' units rather than the entire stock of all mortgaged dwelling units; that is, the market-share concept is based on the mortgage flow in a particular year, which will be smaller than total outstanding mortgage debt. Third, the low- and moderate-income market is expressed relative to the overall conforming conventional market, which is the relevant market for the GSEs.[5] The low- and moderate-income market is defined as a percentage of the conforming market; this percentage approach maintains consistency with the method for computing each GSE's performance under the Low- and Moderate-Income Goal (that is, the number of low- and moderate-income dwelling units financed by GSE mortgage purchases relative to the overall number of dwelling units financed by GSE mortgage purchases).

b. Three-Step Procedure

Ideally, computing the low- and moderate-income market share would be straightforward, consisting of three steps:

(Step 1) Projecting the market shares of the four major property types included in the conventional conforming mortgage market:

(a) Single-family owner-occupied dwelling units (SF–O units);

(b) Rental units in 2–4 unit properties where the owner occupies one unit (SF 2–4 units);[6]

(c) Rental units in one-to-four unit investor-owned properties (SF Investor units); and,

(d) Rental units in multifamily (5 or more units) properties (MF units).[7]

(Step 2) Projecting the ''goal percentage'' for each of the above four property types (for example, the ''Low- and Moderate-Income Goal percentage for single-family owner-occupied properties'' is the percentage of those dwelling units financed by mortgages in a particular year that are occupied by households with incomes below the area median).

(Step 3) Multiplying the four percentages in (2) by their corresponding market shares in (1), and summing the results to arrive at an estimate of the overall share of dwelling units financed by mortgages that are occupied by low- and moderate-income families.

The four property types are analyzed separately because of their differences in low- and moderate-income occupancy. Rental properties have substantially higher percentages of low- and moderate-income occupants than owner-occupied properties. This can be seen in the top portion of Table D.1, which illustrates Step 3's basic formula for calculating the size of the low- and moderate-income market.[8] In this example, low- and moderate-income dwelling units are estimated to account for 53.9 percent of the total number of dwelling units financed in the conforming mortgage market.

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Table D.1

Illustration of Market Share Calculations

Property Type	Low- and Moderate-Income Market (Step 1) Share of Market (Percent)	(Step 2) Low-Mod Share (Percent)	(Step 3) Multiply (1) x (2) (Percent)
(a) SF-Owner	72.2	40.0	28.9
(b) SF-2-4 Rental	2.0	90.0	1.8
(c) SF Investor	10.8	90.0	9.7
(d) MF	15.0	90.0	13.5
Total Low-Mod Market	100.0		53.9

Property Type	Underserved Areas Market (Step 1) Share of Market (Percent)	(Step 2) Underserved Areas Share (Percent)	(Step 3) Multiply (1) x (2) (Percent)
(a) SF-Owner	72.2	26.0	18.8
(b) SF-2-4 Rental	2.0	42.5	0.9
(c) SF Investor	10.8	42.5	4.6
(d) MF	15.0	48.0	7.2
Total Underserved Areas Market	100.0		31.4

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To examine the other housing goals, the "goal percentages" in Step 2 would be changed and the new "goal percentages" would be multiplied by Step 1's property distribution, which remains constant. For example, the Geographically-Targeted Goal[9] would be derived as illustrated in the bottom portion of Table D.1. In this example, units eligible under the Underserved Areas Goal are estimated to account for 31.4 percent of the total number of dwelling units financed in the conforming mortgage market.

c. Data Issues

Unfortunately, complete and consistent mortgage data are not readily available for carrying out the above three steps. A single data set for calculating either the property shares or the housing goal percentages does not exist. However, there are several major data bases that provide a wealth of useful information on the mortgage market. HUD combined information from the following sources: the Home Mortgage Disclosure Act (HMDA) reports, the American Housing Survey (AHS), HUD's Survey of Mortgage Lending Activity (SMLA), Property Owners and Managers Survey (POMS) and the Census Bureau's Residential Finance Survey (RFS). In addition, information on the mortgage market was obtained from the Mortgage Bankers Association, Fannie Mae, Freddie Mac and other organizations.

Property Shares. To derive the property shares, HUD started with forecasts of single-family mortgage originations (expressed in dollars). These forecasts, which are available from the GSEs and industry groups such as the Mortgage Bankers Association, do not provide information on conforming mortgages, on owner versus renter mortgages, or on the number of units financed. Thus, to estimate the number of single-family units financed in the conforming conventional market, HUD had to project certain market parameters based on its judgment about the reliability of different data sources. Sections D and E report HUD's findings related to the single-family market.

Total market originations are obtained by adding multifamily originations to the single-family estimate. Because of the wide range of estimates available, the size of the multifamily mortgage market turned out to be one of the most controversial issues raised during the 1995 rule-making process and as noted in Section B below, an issue that the GSEs focussed on in their comments on this year's proposed rule. In 1997, HMDA reported about $20.0 billion in multifamily originations while the SMLA reported more than double that amount ($47.9 billion). Because most renters qualify under the Low- and Moderate-Income Goal, the chosen market size for multifamily can have a substantial effect on the overall estimate of the low- and moderate-income market (as well as on the estimate of the special affordable market). Thus, it is important to consider estimates of the size of the multifamily market in some detail, as Section C does. In addition, given the uncertainty surrounding estimates of the multifamily mortgage market, it is important to consider a range of market estimates, as Sections G–H do.

Goal Percentages. To derive the goal percentages for each property type, HUD relied heavily on HMDA, AHS, and POMS data. For single-family owner originations,

HMDA provides comprehensive information on borrower incomes and census tract locations for metropolitan areas. Unfortunately, it provides no information on the incomes of renters living in mortgaged properties (either single-family or multifamily) or on the rents (and therefore the affordability) of rental units in mortgaged properties. The AHS, however, does provide a wealth of information on rents and the affordability of the outstanding stock of single-family and multifamily rental properties. An important issue here concerns whether rent data for the stock of rental properties can serve as a proxy for rents on newly-mortgaged rental properties. The POMS data, which were not available during the 1995 rule-making process, are used below to examine the rents of newly-mortgaged rental properties; thus, the POMS data supplements the AHS data. The data base issues as well as other technical issues related to the goal percentages (such as the need to consider a range of mortgage market environments) are discussed in Sections F, G, and H, which present the market share estimates for the Low- and Moderate-Income Goal, the Underserved Areas Goal, and the Special Affordable Goal, respectively.

d. Conclusions

HUD is using the same basic methodology for estimating market shares that it used during 1995. As demonstrated in the remainder of this appendix, HUD has attempted to reduce the range of uncertainty around its market estimates by carefully reviewing all known major mortgage data sources and by conducting numerous sensitivity analyses to show the effects of alternative assumptions. Sections C, D, and E report findings related to the property share distributions called for in Step 1, while Sections F, G, and H report findings related to the goal-specific market parameters called for in Step 2. These latter sections also report the overall market estimates for each housing goal calculated in Step 3.

During the 1995 rule-making process, HUD contracted with the Urban Institute to comment on the reasonableness of its market share approach and to conduct analyses related to specific comments received from the public about its market share methodology. Several findings from the Urban Institute reports are discussed throughout this appendix. Since 1995, HUD has continued to examine the reliability of data sources about mortgage activity. HUD's Office of Policy Development and Research has published several studies concerning the reliability of HMDA data. [10] In addition, since 1995, HUD has gathered additional information regarding the mortgages for multifamily and single-family rental properties through the Property Owners and Managers Survey (POMS). [11] Findings regarding the magnitude of multifamily originations, as well as the rent and affordability characteristics of mortgages backing both single-family and multifamily rental properties have been made by combining data from POMS with that from internal Census Bureau files from the 1995 American Housing Survey-National Sample. The results of these more recent analyses will be presented in the following sections.

B. Comments on HUD's Market Share Methodology

1. Overall Issues

Both Fannie Mae and Freddie Mac stated that HUD's market share model (outlined in Section A above) was a reasonable approach for estimating the goals-qualifying (low-mod, special affordable, and underserved areas) shares of the mortgage market. Freddie Mac stated:

We believe the Department takes the correct approach in the Proposed Rule by examining several different data sets, using alternative methodologies, and conducting sensitivity analysis. We applaud the Department's general approach for addressing the empirical challenges.[12]

Similarly, Fannie Mae stated that "* * * HUD has developed a reasonable model for assessing the size of the affordable housing market". [13]

However, both GSEs provided extensive criticisms of HUD's implementation of its market methodology. Their major comments fall into two general areas. *First,* the GSEs expressed concern about HUD's assumptions and use of specific data elements both in constructing the distribution of property shares among single-family owner, single-family rental, and multifamily properties and in estimating the goals-qualifying shares for each property type. The GSEs contended that HUD chose assumptions and data sources that result in an overstatement of the market estimate for each of the housing goals. In particular, the GSEs claimed that HUD overstated the importance of rental properties (both single-family and multifamily) in its market model and overstated the low-mod, special affordable, and underserved areas shares of the single-family owner market.

HUD recognizes that there is no single, perfect data set for estimating the size of the affordable lending market and that available data bases on different sectors of the market must be combined in order to implement its market share model (as outlined in Section A.2 above).

While HUD recognizes that existing mortgage market data bases vary in terms of comprehensiveness and quality, HUD believes that the GSEs have exaggerated the inadequacies of available mortgage market data, such as HMDA-reported data on the borrower income and census tract characteristics of mortgages for single-family owner properties. In addition, as explained below and demonstrated throughout this appendix, HUD has carefully combined various mortgage market data bases in a manner which draws on the strength of each in order to implement its market methodology and to arrive at a reasonable range of estimates for the three goals-qualifying shares of the mortgage market. In this appendix, HUD demonstrates the robustness of its market estimates by reporting the results of numerous sensitivity analyses that examine a range of assumptions about the relative importance of the rental and owner markets and the goals-qualifying shares of the owner portion of the mortgage market.

Second, both GSEs argued that HUD's market estimates depended heavily on a continuation of recent conditions of economic expansion and low interest rates. According to the GSEs, HUD's range of market estimates did not include periods of adverse economic and affordability conditions such as those which existed in the early 1990s. HUD believes that the range for the market shares should be broad enough to reflect the likely volatility in the mortgage market over the three-year period (2001–03) in which the new housing goals will be in effect. As explained below and demonstrated throughout this appendix, HUD's range of market estimates for each of the housing goals is reasonable because it allows for economic and interest rate conditions significantly more adverse than have existed in the mid-to-late 1990s. As HUD stated in its 1995 final GSE rule, policy should not necessarily be based on market estimates that include the worst possible economic scenarios.

To support their contentions, the GSEs made extensive criticisms of the inadequacies of the major mortgage market data bases (such as HMDA and the American Housing Survey), offering in their place findings from market share and simulation models they had developed. Fannie Mae focused many of its comments on the inadequacy of the single-family-owner data reported by HMDA, arguing that significant portions of HMDA data are not relevant for calculating the market standard for evaluating GSE performance in the conventional conforming market. Fannie Mae's comments on this topic are discussed and critiqued by HUD in Appendix A of this final rule. Freddie Mac focused many of its comments on the size of the rental portion of the mortgage market, concluding that HUD had overestimated that portion of the market. Both Fannie Mae and Freddie Mac commented extensively on the need for the market estimates to reflect the significant volatility that exists in the single-family and multifamily mortgage markets. In this regard, the GSEs relied heavily on a Freddie-Mac-funded study by PriceWaterhouseCoopers (PWC), entitled "The Impact of Economic Conditions on the Size and the Composition of the Affordable Housing Market" (dated April 5, 2000). Because the GSEs' comments (especially those of Freddie Mac) draw heavily upon the PWC study, the next section reports and critiques its main findings. This analysis of the PWC report also incorporates related GSE comments where appropriate. Following that, other major issues raised by the GSEs about HUD's market estimates will be examined.

The discussion in the remainder of this section assumes readers are familiar with the market methodology and related concepts developed in later sections of the appendix. There is no attempt in this section to fully develop the various concepts. Rather, the purpose of this section is to provide, in one place, HUD's insights and comments on the more important issues raised by the GSEs in their comments and by PriceWaterhouseCoopers in its report. It should be noted that the GSEs' comments are also discussed throughout the development of the market share methodology in this appendix.

2. PriceWaterhouseCoopers (PWC) Study

The main purpose of the PWC study was to address how the business cycle affects the affordability of mortgages originated in the conventional conforming mortgage market. Based on its analysis of the 1990–98 mortgage market, PWC concluded that (a) changing economic conditions can quickly impact the low-and moderate-income portion of the mortgage market; (b) the highly affordable economic conditions that have existed since 1995 are not likely to persist in the future; and (c) it is difficult to project affordable lending levels accurately. PWC argues that HUD's basing its market shares on the recent past may lead to unrealistic housing goals.

HUD's review of the PWC study found that it included several interesting analyses and insights about economic volatility. For example, its regression analyses of the multifamily and affordable lending shares of the market highlight the impacts that shifts in economic conditions can have on these sectors of the market, as well as the difficulty in modeling changes in market conditions. The PWC document also included a useful critique of existing mortgage market data bases. In the event of a severe economic downturn, the PWC study will serve as an interesting reference document for policymakers and mortgage market analysts concerned about the implications of the business cycle for affordable lending.

In relation to the policy discussion surrounding the GSE housing goals, however, the PWC document contains significant shortcomings. A major shortcoming is that the PWC document underestimates the size of the multifamily mortgage market by relying heavily on multifamily originations reported in HMDA. While HMDA is for many purposes a preeminent data source on single-family lending, it has been widely discredited as a multifamily data source due to severe underreporting of loan originations. Indeed, HMDA has been rejected as inadequate in published work by highly regarded independent researchers, as well as by Fannie Mae in its comments submitted in response to HUD's proposed rule.

Another major shortcoming of the PWC report is an error in calculating the size of the single-family conventional conforming market. The discussion of single-family lending in the PWC document initially appears to contradict HUD's analysis in Appendix D of the proposed rule, but this is mainly because HUD's analysis is based upon the conforming conventional mortgage market, whereas PWC effectively includes FHA loans and loans above the conforming loan limit in portions of their analysis of the 1980–98 mortgage market. For example, in 1998, PWC estimates the size of the single-family mortgage market at $1.5 trillion. This is identical to the widely used estimate by the Mortgage Bankers Association (MBA) for the *entire* single-family mortgage market that year, including jumbo and FHA loans.[14] Because the GSEs are prohibited from purchasing loans above the conforming limit, and because HUD is directed by statute to focus on the conventional market in setting the housing goals, it is necessary to restrict analyses of the mortgage market to the conventional conforming market if they are to be used in connection with the housing goals. Because of these statutory considerations, PWC's calculations (which effectively include mortgages outside the conventional conforming market) cannot be relied upon for policymaking purposes. PWC's error (overstating single-family originations), combined with their underestimating multifamily originations (see above), leads PWC to substantially underestimate the multifamily share of the conventional conforming mortgage market, which further leads them to substantially underestimate the low- and moderate-income share of the market.

The PWC study focuses on the low-mod share of the mortgage market during the 1990s. PWC claims that the low-mod share of the market ranged from 35 percent to 56 percent during the 1990s, with a mean of 46 percent. These figures are contrasted with HUD's 50–55 percent projection of the low-mod market for the years 2001–03. The following are observations about this and other findings in the PWC report.

- PWC begins its analysis by estimating the low-mod share of the existing mortgage market and then applying its results to an analysis of the low-mod share of the market for newly-originated mortgages. In the top portion of its Table 2, PWC assumes the low-mod share of the existing housing stock is 50 percent. In fact, it can be shown empirically that the actual proportion is 56.8 percent based on data from AHS and the Property Owners and Managers Survey (POMS).[15] PWC then proceeds to compound this error. Based on the mistaken assumption that 50 percent of the housing stock is occupied by low- and moderate-income households, PWC infers that the low-mod share of the stock of mortgaged owner-occupied properties is 31 percent. Empirically, however, the correct figure is 37 percent, based on AHS data.
- Based on HUD's best estimates of the multifamily market, the multifamily mix averaged 16–17 percent for 1991–1998, not 8.7 percent as estimated by PWC.[16] PWC's multifamily mix is unrealistically low because of their reliance on a flawed, HMDA-based methodology which underestimates the size of the conventional multifamily origination market, and because they used techniques for estimating the size of the single-family mortgage market equivalent in several years to including FHA and jumbo single-family loans. Inclusion of loans outside the conventional conforming market is inappropriate for purposes of setting the housing goals, as discussed above.
- Although Fannie Mae relies on the PWC study, Fannie Mae's multifamily market estimates are higher than PWC's—for example, Fannie Mae's $35–$40 billion multifamily origination estimate for 1997 leads to a multifamily mix of 16–18 percent (versus 11 percent for PWC) and its $40–$45 billion estimate for 1998 leads to a 11–12 percent multifamily mix (versus 7.3 percent for PWC).
- In calculating the multifamily share of housing units financed each year (the ''multifamily mix'') PWC compounds the problems associated with its unrealistically low figure for multifamily originations by utilizing estimates for single-family origination volume far exceeding realistic figures for the conventional conforming segment of the single-family mortgage market. When HUD implemented PWC's HMDA-based procedure for calculating the size of the multifamily market, it derived an average multifamily mix of 11.6 percent for 1991–1998, well above the PWC figure of 8.7 percent.
- Results of PWC simulations are contradicted by historical evidence. For example, PWC simulates a refinance boom and under one scenario projects that the low-mod share of the market would fall to 40 percent. However, during the 1998 refinance wave, the low-mod share of the market was 54 percent, and even GSE performance exceeded 45 percent, suggesting that PWC overestimates the effect of a refinance boom on the low-mod share.

Mainly for the above reasons, PWC substantially underestimates the size of the low-mod market during the 1990s. Using realistic estimates of the multifamily market outlined in Section C, HUD derives an average low-mod share of 52 percent during the 1990s, substantially higher than the 46 percent average advocated by PWC.

The remainder of the section summarizes the main comments of Fannie Mae and Freddie Mac on HUD's market share methodology. Because the GSEs relied heavily on the PWC study or a similar analysis, the points in this section will apply to their comments as well.

3. Volatility of the Mortgage Market

Based on the PWC study and their own analyses, both GSEs contended that HUD had not adequately considered the impact that changes in the national economy could have on the size of the conventional conforming mortgage market. The GSEs commented that HUD based its market estimates on the unusually favorable economic and housing market conditions that have existed since 1995. Fannie Mae stated that HUD's analysis overstates the size of the market because it ''does not reflect the potential effects of a broader range of plausible economic scenarios''. Freddie Mac recommended that ''the market estimates in the Final Rule be revised to reflect the large impact of economic conditions on the very-low, low- and moderate-income, and underserved areas' shares of the market''. As noted earlier, both GSEs relied on the PWC study which concluded that ''interest rate movements and changes in the rate of economic growth are statistically significant determinants of the low- and moderate-income share of the conventional conforming mortgage market by affecting both the multifamily share of aggregate lending and the affordability composition of single-family lending''. (PWC, page iv).

As explained in Appendix A and Section F of this appendix, HUD understands that the current levels of interest rates, home prices, borrower incomes, alternative rental costs, and consumer confidence, as well as expectations about their future levels, play a role in determining whether homeownership is feasible or desirable for any particular household. HUD is also aware that the

mortgage market is very dynamic and susceptible to significant changes in conditions that would affect the overall level of affordable lending to lower-income families. HUD agrees that forecasting all these factors for upcoming years to obtain a picture of the future climate for the mortgage market is difficult.

In response to concerns expressed about the volatility of the mortgage markets over time, HUD has estimated a range of market shares for each of the housing goals—50–55 percent of the Low-Mod Goal, 23–26 percent for the Special Affordable Goal, and 29–32 percent for the Underserved Areas Goal—that reflect economic environments significantly more adverse than those which existed during the period between 1995 and 1998, when the Low-Mod Goal averaged 56.5 percent, the Special Affordable Goal, 28.1 percent, and the Underserved Areas Goal, 33.0 percent.

HUD conducted detailed sensitivity analyses for each of the housing goals to reflect affordability conditions that are less conducive to lower-income homeownership than those that existed during the mid- to late-1990s. The following examples drawn from Sections F and H of this appendix may be helpful in clarifying this issue:

- The low-mod percentage for single-family home purchase loans can fall to as low as 34 percent—or four-fifths of its 1995–98 average of over 42 percent—before the projected low- and moderate-income share of the overall market would fall below 50 percent.
- Similarly, the underserved areas percentage for owner loans can fall to as low as 22 percent—also about four-fifths of its 1995–98 average of almost 27 percent—before the projected underserved areas share of the overall market would fall below 29 percent.

HUD also conducted additional sensitivity analyses by examining recession and refinance scenarios and varying other key assumptions, such as the size of the multifamily market. These sensitivity analyses, presented in this appendix, show that HUD's market estimates cover a range of mortgage market and affordability conditions and provide a sound basis for setting housing goals for the years 2001–03.

HUD recognizes that under certain extremely adverse circumstances, the goals-qualifying market shares could fall below its estimates. The PWC study and the GSEs presented estimates based on a hypothetical economic slowdown accompanied by low affordability conditions that fall below the range of HUD's estimates. Fannie Mae, for example, included mortgage originations falling to as low as $771 billion and as high as $1,706 billion in its ''likely single family mortgage market volume ranges'' for the year 2001. However, as HUD stated in its 1995 GSE rule, setting goals so that they can be met even under the worst of circumstances is unreasonable. If macroeconomic conditions change dramatically, then the levels of the goals can be revised to reflect the changed conditions. As discussed below in Section F, FHEFSSA and HUD recognize that conditions could change in ways that would require revised expectations. Thus, HUD is given the statutory discretion to revise the goals if the need arises. If a GSE fails to meet a housing goal, HUD has the authority to determine that the goal was not feasible, and not take further action.

4. Size of the Multifamily Market

Section C contains a detailed discussion of the size of the conventional multifamily origination market, summarizing findings from a variety of sources regarding the size of the conventional multifamily mortgage market, measured in terms of dollars, units, and as a share of total conventional conforming annual mortgage origination volume, a key factor influencing the share of the overall market comprised of units meeting each of the housing goals. This section considers a number of alternative data sources providing evidence on conventional multifamily origination volume over a number of years, in some cases the entire 1990–1999 period. The approaches considered here include the HUD Survey of Mortgage Lending Activity (SMLA); Home Mortgage Disclosure Act data (HMDA); and a projection model developed by the Urban Institute based on data from the 1991 Residential Finance Survey (RFS). A new methodology, developed by HUD for purposes of this analysis, is discussed, as are estimates submitted by Fannie Mae and Freddie Mac on their comments on the proposed rule. Estimates for 1990 from the RFS and for 1995 from the Property Owners and Managers Survey (POMS) are also discussed.

Based on the likely range of annual conventional multifamily origination volume, multifamily units represent an average of 16–17 percent of units financed each year during the 1990s.[17] HUD's estimated multifamily market shares exceed estimates prepared by PWC (averaging 8.7 percent for 1991–1998) for two reasons, as mentioned previously. One is that PWC's adjusted HMDA methodology does not adequately correct for underreporting in HMDA, resulting in unrealistically low estimates of the size of the conventional multifamily origination market. Another reason that PWC's estimated multifamily market shares are low is that a number of their calculations appear to include FHA and jumbo loans in estimating the number of single-family units financed each year, as discussed above. HUD's market share calculations, in contrast, are based on the multifamily share of conventional conforming mortgage loans originated each year.

The multifamily share of the conforming conventional market (or ''multifamily mix'') derived from this discussion of multifamily origination volume is utilized below as part of HUD's analysis of the share of units financed each year meeting each of the housing goals. For purposes of that analysis, a multifamily mix of 16.5 percent is reasonable, based upon the analysis and discussion below. However, a 15 percent market share can be utilized as an alternative market share estimate corresponding to a somewhat less favorable environment for multifamily lending. While somewhat low from an historical standpoint, a 15 percent mix more readily accommodates the possibility of a recession or heavy refinance year than would baseline assumptions based more strictly on historical data. In order to more fully consider the effects of an even more adverse market environments, an alternative multifamily mix assumptions of 13.5 is also considered, as well as a number of others.

5. Size of the Single-Family Rental Market

Both GSEs argued that the single-family (1–4) investor portion of the single-family mortgage market should be eight percent or less of total single-family originations, based on HMDA data. In both 1995 and in the proposed rule, HUD considered three scenarios for investor mortgages when estimating the housing goals—a baseline model that assumed 10 percent, a lower scenario that assumed 8 percent, and a higher scenario that assumed 12 percent. HUD's base case of 10 percent is well below the 17.3 percent reported by the 1991 Residential Finance Survey (which is considered accurate but unfortunately is out-of-date) and above the 7–8 percent estimates provided by HMDA over the past few years. In 1995, research by Urban Institute researchers concluded that the HMDA estimates were too low (although the GSEs raise concerns about this research in their comments). HUD has decided to stay with its baseline 10 percent estimate but it acknowledges that due to limited data there is some uncertainty about the investor share of the single-family market, which will be clarified when the next Residential Finance Survey is released in a couple of years. Sensitivity analyses indicate that reducing the investor share from 10 percent to 8 percent would reduce the low-mod market share by 1.05 percent, the special affordable share by 0.90 percent, and the underserved areas share by 0.36 percent.

6. Relevant Market for Single-Family Owner Market

Both GSEs provided numerous comments concerning the types of mortgages that HUD should exclude from the definition of the single-family owner market when HUD is calculating the market shares for each housing goal. The GSEs comments and HUD's response to them are discussed in Section A of Appendix A. As noted there, HUD believes that the risky, B&C portion of the subprime market should be excluded from the market definition for each of the housing goals. HUD includes the A-minus portion of the subprime market in its market estimates. This appendix explains HUD's method for making this adjustment to the overall market estimates.

As explained in Appendix A, HUD disagrees with most of the other adjustments proposed by the GSEs. Excluding important segments of the lower-income mortgage market as the GSEs recommend would distort HUD's estimates of the goals-qualifying shares of the conventional conforming market.

7. Shortcomings of Various Mortgage Market Data Bases

Major mortgage market data bases such as HMDA and the American Housing Survey (AHS) are used to implement HUD's market

methodology. In their comments, Fannie Mae and Freddie Mac, as well as PWC, each provided a useful critique of the various mortgage data bases. Based on its analysis, Freddie Mac concluded that HUD should revise its market share estimates to reflect ''the lack of reliable data''. Similarly, Fannie Mae concluded that ''HUD analysis overstates the size of the market because it relies on unreliable data sources. * * *''. Fannie Mae further states that ''* * * HUD has chosen to extrapolate from several disparate data sources in ways that inflate the Department's estimate of the market size for each of the goals''. PWC, as well as the GSEs, expressed concern that mortgage market data bases had not improved since 1995, when HUD issued its last GSE rule on the housing goals.

Examples of problems noted by the GSEs include: limited variables (such as LTV ratio) and bias in HMDA data; inability of HMDA to identify important segments of the market (such as subprime lenders); underreporting of multifamily mortgages in HMDA and general unreliable reporting of rental mortgages in other data bases; underreporting of income in the AHS; and the fact that some important mortgage market data bases such as the 1991 Residential Mortgage Finance Survey are simply out of date. Both GSEs expressed particularly strong criticism of HUD's use of data on the rental market, that is, estimates of the proportion of 1-to 4-unit rental properties and of annual multifamily origination volume.

HUD agrees that a comprehensive source of information on mortgage markets is not available. However, HUD considered and analyzed a number of data sources for the purpose of estimating market size, because no single source could provide all the data elements needed. In these appendices, HUD has carefully defined the range of uncertainty associated with each of these data sources, has pulled together estimates of important market parameters from independent sources, and has conducted sensitivity analyses to show the effects of various assumptions. In fact, Freddie Mac noted that ''We [Freddie Mac] support the Department's approach for addressing the empirical challenges of setting the goals by examining several different data sets, using alternative methodologies, and conducting sensitivity analysis.''

While HUD recognizes the shortcomings of the various data and the inability to derive precise point estimates of various market parameters, HUD, however, does not believe that these limitations call for expanding the range of the market estimates, as suggested by the GSEs. One purpose of this appendix is to demonstrate that careful consideration of independent data sources can lead to reliable ranges of estimates for the goals-qualifying shares of the mortgage market. It should also be emphasized that while there are some problems with existing mortgage market data, there is a wealth of information on important components of the market. HMDA provides wide coverage of the single-family owner market in metropolitan areas, yielding important information on the borrower income and census tract (underserved area) characteristics of that market. The AHS provides excellent information on the affordability characteristics of the single-family rental and multifamily housing stock. As explained in Section F of this appendix, POMS data confirm that the rent affordability data based on the AHS stock provide reliable estimates of the rent characteristics of newly-mortgaged dwelling units in the rental stock.

HUD's specific responses to the GSEs' comments on data are included throughout these appendices. For example, see subsection B.4 above and Section C of this appendix for a discussion of the multifamily data; as explained there, HUD concludes that Freddie Mac and PWC, in particular, underestimate the size of the multifamily market. Issues related to single-family rental data are discussed in B.5 above and in Section D to this appendix. Appendix A provides a complete discussion of the single-family owner data reported in HMDA. As noted in Section A of Appendix A, HUD disagrees with the GSEs in terms of the seriousness of the bias problem in HMDA data. It should also be mentioned that HUD does not rely heavily on some of the data bases that the GSEs criticize. For example, Freddie Mac argues that the AHS underreports borrower income; but HUD relies on HMDA data for the borrower income characteristics of home purchase and refinance markets. According to the out-of-date RFS data, investor mortgages account for 17 percent of the single-family mortgage market the RFS; as explained in above, HUD's baseline model uses 10 percent, with sensitivity analyses at 8 percent and 12 percent.

8. Miscellaneous Comments

There are several specific comments of the GSEs that should be mentioned and clarified. In many cases, these comments relate to the broad issues that have already been discussed in this section. However, because of their technical nature, it was decided to discuss them in this separate section rather than including them in the above discussion.

- On page 17 of its Appendix III, Freddie Mac states that HUD assumed the investor share of single-family mortgages was 10.7 percent; in fact, HUD's baseline model assumed 10 percent.
- On page 22 of its Appendix III, Freddie Mac states that because HMDA does not identify subprime and manufactured housing loans, the proposed rule does not adjust for these loans originated by prime lenders. As this appendix explains, HUD's market estimates for the three housing goals are adjusted for all loans originated in the B&C portion of the subprime market.
- On page 23 of its Appendix III, Freddie Mac states that HUD does not compare HMDA and GSE data with the same precision as Berkovec and Zorn because HUD has included HMDA-reported non-metropolitan loans, which are poorly reported by HMDA. Freddie Mac is incorrect. HUD's analysis in Table A.4a is based on HMDA and GSE data for only metropolitan areas. In addition, HUD does not include GSE purchases of FHA loans in Table A.4a, as suggested by Freddie Mac.
- On page 1 of its Appendix III, Freddie Mac states that HUD's market projections ''effectively are based on an analysis of mortgage lending patterns since 1995.'' Freddie Mac is incorrect, as explained in B.3 above and throughout this appendix. For example, as reported in Table D.15 below, the low-mod share of the conventional conforming market has averaged over 56 percent since 1995; this compares with HUD's projection of 50–55 percent for this market.
- On page 6 of its Appendix III, Freddie Mac states that HMDA accurately reports multifamily originations for commercial banks. HUD's analysis concurs with that of other researchers that HMDA significantly underreports multifamily originations by commercial banks. For example, Crews, Dunsky and Follain (1995) conclude that ''HMDA surely underestimates lending by both mortgage bankers and commercial banks.'' [18]
- On pages 20–21, Freddie Mac uses the AHS and POMS to estimate the distribution of newly-mortgaged units by property type. Based on this analysis, Freddie Mac estimates that multifamily units represented 10.6 percent of newly financed dwelling units over the 1993–95 period. Based on HUD's calculations, however, multifamily units were 20.6 percent of conventional conforming units financed during 1993–1995. Freddie Mac may have underestimated the number of rental units by excluding observations with missing origination year, and may have overestimated the number of single-family units by including jumbo or FHA loans.
- In its comments (page 30) about the low-mod goal, Freddie Mac states that ''an analysis limited to the exceptional economic environment since 1995 would suggest a narrow range centered at 50 percent * * *''. As explained in Section F of this appendix, the low-mod goal averaged 56.5 percent between 1995 and 1998.
- On pages 34 and 35 of its comments, Fannie Mae states that HUD's approach to housing and economic conditions involves ''point estimates''. As this appendix makes clear, HUD's analysis is based on a range of market estimates—not point estimates as stated by Fannie Mae. Of course, the ''likely single-family mortgage market volume ranges'' chosen by Fannie Mae are not necessarily the ones HUD would choose for setting housing goals for the next three years. Fannie Mae offers wide ranges in mortgage market projections for the years 2001–03; for example, $771 billion to $1,706 billion is its projection for the year 2001.
- Fannie Mae states ''HUD should provide an explicit range of goals based upon differing economic outlooks with reasonable chances of occurring—ranging from modest recession to a continued boom economy''. As demonstrated in Sections F–H, HUD's market ranges are reasonably set to include much more adverse economic and affordability conditions than have existed during the past few years.
- On pages 66–67, Fannie Mae estimates a market range of 48–51 percent for the Low-Mod Goal, 21–24 percent for the Special Affordable Goal, and 24–28 percent for the Underserved Areas Goals; the range covers a recession scenario and a growth scenario and

adjusts for B&C loans. Fannie Mae states that its market share analysis supports the proposed higher levels for the new housing goals but it also shows that the GSEs will experience greater difficulty achieving the new goals (and particularly the underserved areas goal) than suggested by HUD's market share estimates. Fannie Mae assumes a lower percentage of single-family and multifamily rental properties than HUD, which is one reason Fannie Mae obtains lower market estimates than HUD. Fannie Mae assumes that the goals-qualifying shares for the single-family owner market can fall to their 1993 levels when, for example, the underserved areas share of the owner market equaled 20 percent. As explained in Section G, HUD's range of market estimates (29–32 percent) for the underserved areas goal is consistent with the underserved areas owner percentage for the single-family market falling from its average of 28 percent over the 1995–98 period to 22 percent. Fannie Mae's assumes an additional two percentage point decline in its sensitivity analysis. It should also be noted that while Fannie Mae adjusts for B&C loans, it does not make the 1–2 percentage point upward adjustment to incorporate the effects of underserved counties in non-metropolitan areas.

9. Conclusions

In considering the levels of the goals, HUD carefully examined the comments on the methodology used to establish the market share for each of the goals. Based on that thorough evaluation, as well as HUD's additional analysis, the basic methodology employed by HUD is a reasonable and valid approach to estimating market share and the percentage range for each of the three market share estimates do not need to be adjusted from those reported in the proposed rule. While a number of technical changes have been made in response to the comments, the approach for determining market size has not been modified substantially. The detailed evaluations show that the methodology, as modified, produces reasonable estimates of the market share for each goal. HUD recognizes the uncertainty regarding some of these estimates, which has led the Department to undertake a number of sensitivity and other analyses to reduce this uncertainty and also to provide a range of market estimates (rather than precise point estimates) for each of the housing goals.

C. Size of the Conventional Multifamily Mortgage Market

This section derives projections of conventional multifamily mortgage origination volume.[19]

The multifamily sector is especially important in the establishment of housing goals for Fannie Mae and Freddie Mac because multifamily properties are overwhelmingly occupied by low- and moderate-income families. For example, in 1999, 9.5 percent of units financed by Fannie Mae were multifamily, but 95 percent of those units met the Low- and Moderate-Income Goal, accounting for 20 percent of all of Fannie Mae's low- and moderate-income purchases for that year.[20] Multifamily acquisitions are also of strategic significance with regard to the Special Affordable Goal. In 1999, 43 percent of units backing Freddie Mac's multifamily acquisitions met the Special Affordable Goal, representing 22 percent of units counted toward its Special Affordable Goal, at a time when multifamily units represented only 8.3 percent of total annual purchase volume.[21]

This discussion is organized as follows: Section 1 identifies and evaluates available data resources regarding the dollar value of conventional multifamily mortgage origination during 1990–1999. Section 2 discusses loan amount per unit, a key parameter in estimating the number of units backing multifamily originations. Section 3 summarizes findings from a variety of sources regarding the size of the conventional multifamily mortgage market, measured in terms of dollars, units, and as a share of total conventional conforming annual mortgage origination volume, a key factor influencing the share of the overall market comprised of units meeting each of the housing goals. Inferences regarding the likely range and ''baseline'' estimates of annual multifamily origination volume for 1990–1999 are drawn.

1. Multifamily Data Sources

This section considers a number of alternative data sources providing evidence on conventional multifamily origination volume over a number of years, in some cases the entire 1990–1999 period. The approaches considered here include the HUD Survey of Mortgage Lending Activity (SMLA); Home Mortgage Disclosure Act data (HMDA); and a projection model developed by the Urban Institute based on data from the 1991 Residential Finance Survey (RFS). A new methodology, developed by HUD for purposes of this analysis, is discussed, as are estimates submitted by Fannie Mae and Freddie Mac in connection with the Department's GSE rulemaking efforts. Estimates for 1990 from the RFS and for 1995 from the Property Owners and Managers Survey (POMS) are also discussed.

a. Survey of Mortgage Lending Activity (SMLA)

The data that enter into SMLA were compiled by HUD until 1998 from source materials generated in various ways from the different institutional types of mortgage lenders. Data on lending by savings associations were collected for HUD by the Office of Thrift Supervision; these data cover all thrifts, not a sample. Mortgage company and life insurance company data were collected through sample surveys conducted by the Mortgage Bankers Association of America and the American Council of Life Insurance, respectively. Data on commercial banks and mutual savings banks were collected through sample surveys conducted by a number of different entities over the years. Federal credit agencies such as the U.S. Small Business Administration and HUD non-FHA programs as well as State credit agencies such as housing finance agencies reported their data directly to HUD. Local credit agency data are collected by HUD staff from a publication that lists their mortgage financing activities. The SMLA was discontinued by HUD in 1998, and data are available only through 1997.

Commercial bank data in the SMLA have been questioned by a number of researchers. Part of the problem arises from the possibility of double-counting of originations by mortgage banks in the American Bankers Association (ABA) and Mortgage Bankers Association (MBA) surveys conducted as part of SMLA. Originations by mortgage banks which are affiliated with commercial banks may be counted in both surveys. A 1995 analysis prepared by Crews, Dunsky and Follain found that, in 1993, the SMLA conventional origination figure of $30 billion was calculated on the basis of overstated originations by commercial banks, but understated lending volume by mortgage banks, life insurance companies, and individuals. Taking all of these factors into consideration, as well as other evidence, they conclude that actual 1993 origination volume appears to be in the range of $25-$30 billion.[22]

One solution to the double-counting problem in SMLA is to remove the mortgage bank subtotal from total origination volume. The resulting figure may provide a more accurate representation of conventional multifamily lending volume. Table D.2 presents SMLA figures for 1990–1997, including and excluding mortgage banks.

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Table D.2

Multifamily Conventional Origination Volume, 1990-1997 Survey of Mortgage Lending Activity

Year	Total ($ billions)	Total less Mortgage Banks ($ billions)
1990	$30.6	$25.9
1991	$24.6	$22.7
1992	$25.2	$23.5
1993	$30.0	$28.9
1994	$31.7	$31.7
1995	$37.9	$32.4
1996	$43.7	$33.3
1997	$44.6	$35.5

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b. Home Mortgage Disclosure Act (HMDA)

HMDA data are collected by lending institutions and reported to their respective regulators as required by law. HMDA was enacted as a mechanism to permit the public to determine locations of properties on which local depository institutions make mortgage loans, ''to enable them to determine whether depository institutions are filling their obligations to serve the housing needs of the communities and neighborhoods in which they are located * * *'' (12 U.S.C. 2801). HMDA reporting requirements generally apply to all depository lenders with more than $29 million in total assets and which have offices in Metropolitan Statistical Areas. Reporting is generally required of other mortgage lending institutions (*e.g.* mortgage bankers) originating at least 100 home purchase loans annually provided that home purchase loan originations exceed 10 percent of total loans. Reporting is required for all loans closed in the name of the lending institution and loans approved and later acquired by the lending institution, including multifamily loans. Thus, the HMDA data base concentrates on lending by depository institutions in metropolitan areas but, unlike SMLA and RFS, it is not a sample survey; it is intended to include loan-level data on all loans made by the institutions that are required to file reports.

A deficiency of the HMDA database is that there is compelling evidence of significant underreporting of multifamily mortgages. In their 1995 analysis, Crews, Dunsky and Follain conclude ''We clearly demonstrate that HMDA alone is not an accurate measure of the total market. Our argument is based upon two facts. First, HMDA was not designed to cover multifamily lending by all lenders; it focuses on lending done primarily by commercial banks, thrifts, and large mortgage bankers in metropolitan areas. Second, HMDA surely underestimates lending by both mortgage bankers and commercial banks.'' [23] In its comments submitted in response to HUD's proposed rule, Fannie Mae observes that ''HMDA is not considered a reliable source of multifamily mortgage originations because it provides an incomplete view of non-depository institution sources of loans.'' [24]

It does not appear that HMDA has significantly improved its multifamily coverage since the time of the 1995 Crews, Dunsky and Follain analysis. For example, in 1998, HMDA reports approximately $1 billion in FHA multifamily origination volume, compared with $2.5 billion reported by FHA. The underreporting appears to be even more serious with regard to GSE acquisitions. The 1998 HMDA file reports approximately $2 billion in Fannie Mae multifamily transactions, compared with an actual total of $12.5 billion. A sizeable shortfall is also evident with regard to Freddie Mac, with HMDA reporting 1998 transactions volume of $295 million, compared with an actual figure of $6.6 billion.

In addition, the HMDA data base does not cover a number of important categories of multifamily lenders such as life insurance companies and State housing finance agencies, providing another reason that the HMDA data understates the size of the multifamily market.

One way to address the undercounting problem in HMDA is to incorporate an adjustment factor to correct for underreporting, for example by multiplying each year's annual total by 1.25, as suggested by PriceWaterhouseCoopers (PWC) in their report prepared for Freddie Mac in connection with HUD's proposed rule. However, this 1.25 correction factor is based upon an estimate of underreporting of single-family loans in HMDA, and may be too small to accurately capture the degree of multifamily underreporting in HMDA, judging from comparisons between actual and HMDA-reported volume by the GSEs and FHA cited above.

To the adjusted HMDA figure, PWC then adds an estimate for originations by life insurance companies by utilizing figures on multifamily loan commitments published by the American Council on Life Insurance (ACLI), a trade group which conducts regular surveys. Table D.3 shows annual conventional multifamily origination volume as reported in HMDA, as well as an adjusted HMDA figure including a 1.25 correction factor as well as the ACLI figure for loan commitments in the last quarter of the preceding year as well as the first three quarters of each origination year. In calculating annual totals, the absolute value is taken of loan amounts reporting as negative numbers. The table shows a sharp drop in origination volume between 1990 and 1991, possibly associated with the commercial real estate recession of the early 1990s. However, the implication that multifamily mortgage lending has remained 20 percent below the 1990 level for the entire remainder of the decade is inconsistent with

other data sources, and raises further concerns regarding the accuracy and reliability of HMDA as a multifamily data source.

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Table D.3

Multifamily Conventional Origination Volume, 1990-1998* Home Mortgage Disclosure Act

Year	Total ($ billions)	1.25*HMDA + ACLI ($ billions)
1990	$38.8	$51.4
1991	$8.1	$11.8
1992	$10.2	$14.0
1993	$12.8	$17.9
1994	$14.7	$21.4
1995	$12.8	$20.4
1996	$15.8	$23.8
1997	$19.6	$28.8
1998	$27.1	$38.3

* Calculating using absolute value of loan amounts < 0.

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A difficulty with the adjustment factor approach is that very little is known regarding the degree of underreporting of multifamily originations in HMDA. There is no reason that the 20 percent underreporting figure sometimes used in single-family discussions of HMDA is applicable to multifamily. Indeed, if the degree of underreporting of FHA originations or GSE acquisitions noted above is representative, even the adjusted HMDA figures are likely to significantly underreport the actual totals.

c. Urban Institute Statistical Model

In 1995, Urban Institute researchers developed a model to project multifamily origination volumes from 1992 forward, based on data from the 1991 Survey of Residential Finance.[25] They applied a statistical model of mortgage terminations based on Freddie Mac's experience from the mid-1970s to around 1990. While mortgage characteristics in 1990 are not wholly similar to the characteristics of these historical mortgages financed by Freddie Mac, nevertheless the prepayment propensities of contemporary mortgages may at least be approximated by the prepayment experience of these historical mortgages. The research methodology took account of the influence of interest rate fluctuations on prepayments of the historical mortgages; the projections assumed that prepayments are motivated mainly by property sales.

Table D.4 shows annual projected conventional multifamily origination volume as reported in the Urban Institute model, derived by subtracting actual FHA origination volume from the overall projected multifamily total each year, except in 2000, when 1999 FHA originations are used as a proxy for 2000 originations.

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Table D.4

Projected Multifamily Conventional Origination Volume, 1990-2000* Urban Institute Hazard Model

Year	Total ($ billions)
1992	$28.7
1993	$30.2
1994	$33.8
1995	$38.5
1996	$40.6
1997	$43.9
1998	$40.6
1999	$48.8
2000	$50.6

* Subtracts actual FHA originations from projected total originations each year, except 2000, which uses 1999 FHA originations as proxy for 2000.

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d. New Methodology for Recent Years

In the context of (i) the discontinuation of SMLA; (ii) evidence of significant underreporting in HMDA; and (iii) increased availability of data regarding purely private, non-GSE securitization of commercial mortgage loans, HUD has developed a new methodology for the purpose of preparing a lower-bound estimate for the minimum size of the multifamily market. The following sources are combined to calculate the estimated size of the conventional multifamily market in a way that is relatively complete, but which avoids double-counting and excludes seasoned loans:

(1) *HMDA portfolio loans.* This component comprises conventional loans originated by depositories and not sold, plus conventional loans acquired by depositories but not sold, less overlap between these two categories. In principle, if a loan originated during the current year is acquired by a depository, it should show up as an origination. However, due to underreporting, this is not always the case. The procedure utilized here is to sum conventional originations by depositories and conventional acquisitions by depositories, and then to utilize a matching procedure to identify loans falling into both categories, which are then subtracted.

(2) *GSE purchases of current-year acquisitions.* A data series on GSE multifamily transactions covering 1995–1999 that excludes non-GSE securities and repurchased GSE securities is published by OFHEO in their 2000 Report to Congress. These exclusions are needed in order to avoid double-counting. However, this figure must be further adjusted to take into consideration the fact that some of these transactions involved seasoned purchases, and a few involve government-insured mortgages. In order to adjust the data for this possibility, the OFHEO figures are reduced by 33 percent, the figure derived by calculating the proportion of seasoned and FHA mortgages among the GSEs' cash and swap transactions during 1995–1999, using GSE loan-level data provided to HUD. Any loans sold by depositories to the GSEs would be counted here, but not in the HMDA component, which is restricted to loans kept in portfolio by depositories.

(3) *Commercial Mortgage Backed Security multifamily loans. Commercial Mortgage Alert,* Hoboken NJ, publishes detailed, transaction-level database that provides information on transaction size and the proportion of collateral comprised by multifamily collateral for the entire 1990–1999 period. Multifamily loan amounts at the transaction level are derived by applying the multifamily proportion to the transaction amount. These transaction-level loan amounts are then aggregated over all transactions conducted during a calendar year to derive an annual total. This data series identifies securitizations by depositories, government and insurance companies; seasoned loans; GSE transactions; and transactions involving foreign collateral, all of which are in order to avoid double-counting. Thus, loans included in this component consist of nongovernment, non-GSE securitizations of recently-originated mortgages by non-depository, non-life insurance company institutions.

(4) *Conventional originations by life insurance companies.* Source: American Council on Life Insurance (ACLI) quarterly data on multifamily loan commitments. Annual originations estimated by combining commitment in the last quarter of the preceding year and the first three quarters of the origination year.

(5) *Conventional originations by private pension funds; state and local retirement funds; federal credit agencies; state and local credit agencies.* Source: SMLA (1990–1997). Data not available for 1998 and subsequent years.

This methodology is intended to generate a lower-bound estimate for the annual size of the conventional multifamily mortgage origination market. A more accurate and realistic estimate could be derived if corrections for the following could be generated:

(1) *HMDA under-reporting.* To the extent that lenders do not report to HMDA, this data source leads to downward bias in origination

volume attributable to the depository sector. While the true extent of under-reporting is unknown, a correction factor of 1.25 could be employed.

(2) *State and local credit agencies, state and local retirement funds, noninsured pension funds* are not counted following 1997 because of the discontinuation of SMLA.

(3) *REITs, individuals.* FRB data show significant growth in multifamily mortgage debt held by ''individuals and others'' including mortgage companies, real estate investment trusts, state and local credit agencies, state and local retirement funds, noninsured pension funds, credit unions, and finance companies. Estimates derived using the above procedure do not include any data on originations by individuals. Some REIT activity is included to the extent that REITs purchase CMBS included in the CMBS database. However, circumstances where REITs originate and hold mortgage loans without securitizing them would not be included.

(4) *Pipeline effects.* Conduit loans originated during the current year but which remain in securitization pipelines as of the end of the year are not counted. However, this is mitigated by inclusion of CMBS transactions conducted during the calendar year, which may include a small number of loans originated late in the prior year.

Table D.5 illustrates annual estimated conventional multifamily origination flow utilizing this methodology. A shortcoming of the methodology is that it shows a sharp, $10 billion increase in origination volume from 1995–1996 which does not appear on any of the other data sources discussed above. This discontinuity may, in part, reflect improved data quality during the latter part of the decade as increased CMBS transactions volume has promoted greater market transparency and more complete and accurate public reporting with regard to this market segment. It may therefore be concluded that this methodology appears to provide more reliable estimates for the latter part of the decade, from 1996 forward, than with regard to 1995 and earlier years.

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Table D.5
Estimated Multifamily Conventional Origination Volume, 1995-2000
New HUD Methodology
($ millions)

	1995	1996	1997	1998	1999 [6]	2000 [7]
Fannie Mae[1]	$ 3,322	$ 4,315	$ 4,370	$ 7,644	$ 6,697	$ 5,641
Freddie Mac[1]	1,047	1,491	7,136	2,615	4,803	5,096
CMBS multifamily[2]	0	4,436	1,499	15,677	10,805	8,271
HMDA-portfolio[3]	15,714	17,321	18,521	22,485	19,336	19,162
Life companies[4]	3,072	4,115	4,403	4,465	2,865	3,805
Private pension funds[5]	427	812	835			
St. & local retirement funds[5]	228	197	228			
Federal credit agencies[5]	627	404	408			
St. & local credit agencies[5]	358	1,394	840			
Total	24,795	34,484	38,240	52,886	44,505	41,976

[1] Source: OFHEO, 2000 Report to Congress. Cash purchases from lenders plus lender-originated securitizations; excludes non-GSE securities and repurchased GSE securities.
Adjusted for estimated seasoned and FHA volume.

[2] Commercial Mortgage Alert (CMA) database. Excludes agency, bank, thrift, insurance company, foreign, and seasoned securitizations.

[3] Conventional multifamily loans originated by depositories but not sold, plus conventional multifamily loans acquired by depositories but not sold, less overlap.

[4] Source: ACLI.

[5] Source: SMLA.

[6] HMDA figure estimated projected based on 1998 HMDA in conjunction with 1998-1999 change in transactions volume for GSE and CMBS market segments.

[7] Estimate based on partial-year data.

e. Fannie Mae

Fannie Mae has developed a number of estimates of the size of the conventional multifamily mortgage market that it has shared with the Department. In discussions with HUD staff in connection with the Department's 1995 GSE final rule, Fannie Mae estimated the size of the market in 1994 at $32.2 billion, and in 1995 at $33.7 billion. In discussions with HUD staff in connection with the 2000 proposed rule, Fannie Mae provided estimates for 1997–1999 based on a combination of data sources including SMLA, HMDA, ACLI, *Commercial Mortgage Alert*, and the Office of Thrift Supervision. Fannie Mae's estimates are summarized in Table D.6.

Table D.6

Estimated Multifamily Conventional Origination Volume, 1994-1999 Fannie Mae

Year	Total ($ billions)
1994	$ 32.2
1995	$ 33.7
1996	
1997	$35-40
1998	$40-45
1999	$37-41

f. Freddie Mac

In its comments submitted in response to HUD's proposed rule, Freddie Mac provided estimates of the size of the conventional multifamily market for 1995–1997. Some of these estimates are derived from HMDA, incorporating a 25 percent expansion factor to adjust for underreporting, plus estimated originations by life insurance companies, pension funds, and government credit agencies. Other estimates are derived by combining HMDA with SMLA. Freddie Mac derives an alternative estimate for 1995 using the public-use version of the Property Owners and Managers Survey (POMS). In discussions with HUD staff in connection with the 2000 proposed rule, Freddie Mac staff provided an estimate of the 1998 conventional multifamily market of $40–$50 billion. Freddie Mac's estimates are summarized in Table D.7.

Table D.7

Estimated Multifamily Conventional Origination Volume, 1995-1998 Freddie Mac

Year	Total ($ billions)
1995	$21-27
1996	$24-29
1997	$28-30
1998	$40-50

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g. Other Estimates

1990 Residential Finance Survey (RFS). The 1990 Residential Finance Survey (RFS) can be utilized to derive an estimate of the size of the conventional multifamily market in 1990. Because loans originated during 1989–1991 are grouped together during in the public use version of the RFS, a combined figure for loans originated over this time period must be divided by 2⅓ to derive estimated 1990 conventional origination volume of $37.4 billion.

HUD Property Owners and Managers Survey (POMS). HUD's analysis of data in the HUD Property Owners and Managers Survey (POMS) yields an estimated size of the 1995 multifamily origination market of approximately $37 billion. Analysis of this survey data is complicated by virtue of the

fact that data on mortgage loan amount are missing for a large number of properties, requiring the imputation of missing values, and also because the mortgage loan amount is ''topcoded'' on some observations in order to protect the privacy of respondents. Such topcoding complicates the use of multiple regression techniques for imputation of missing values. In order to more effectively utilize regression techniques, HUD staff and contractors were sworn in as special employees of the Census Bureau in order to gain access to the internal Census file. The regression specification with the greatest explanatory power imputed missing loan amounts on the basis of number of units, region of the country, and a dummy variable for large properties with more than 1,000 units. The use of this specification yielded an estimated total multifamily market size of $39.1 billion. After subtracting $2.3 billion in FHA-insured originations, this yields $36.7 billion as the estimated size of the conforming multifamily mortgage market in 1995. Details are provided in Table D.8.

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Table D.8

Regression Analysis of Mortgage Loan Amount, 1995 Originations
Property Owners and Managers Survey
Multifamily properties (5+ units)
Unit weights

Regressor	Parameter estimate	T	Prob > |T|		
INTERCEPT	1477530	2.907	0.0043	Adj. R2=	0.6933
T_UNITS	18172	10.66	0.0001	F=	62.932
NE	-323736	-0.459	0.6533	Prob>F=	0.0001
MW	-1463703	-2.128	0.0352	DF=	132
S	-2094596	-2.896	0.0044		
BIG_PROP	25316150	6.613	0.0001		

2. Loan Amount per Unit

Another issue regarding the multifamily mortgage market concerns average loan amount per unit. This ratio is used in converting estimates of conventional multifamily lending volume as measured in dollars into a number of units financed. For this purpose, the ratio of total UPB to total units financed, rather than UPB on a ''typical'' multifamily unit, is the appropriate measure, since the objective of this exercise is to convert total UPB to total units financed.

For the purposes of estimating the number of units financed in the conventional multifamily market during 1993–1998, publicly available GSE loan-level data appear to generate reasonable loan amount per unit figures. The public use version of the GSE data do not provide a means for excluding seasoned loans, which limits the usefulness of the data for the purpose of analyzing current-year originations, but this does not appear to be a major shortcoming for the purposes of this analysis.

The GSE loan-level data are not available for 1990–1992. For this time period, therefore, multifamily loan amount per unit must be estimated utilizing an alternative technique. The method utilized here is to calculate the ratio of the average conventional conforming single-family mortgage to the average per-unit multifamily mortgage loan amount over 1993–1998.[26] The resulting figure (3.57) is then applied to average single-family loan amounts over 1990–1992 to derive estimated multifamily per-unit loan amounts for this earlier time period. The resulting annual multifamily per-unit loan amount series for 1990–1998 is applied in the following section of this discussion to the estimated dollar volume of conventional multifamily originations to derive an estimate of annual origination volume measured in dwelling units.

While HUD's market share analysis for purposes of this final rule does not rely on assumptions regarding per-unit loan amounts on a going-forward basis, further discussion of the issue is warranted in light of comments by Freddie Mac in response to the analysis supporting HUD's proposed rule. Freddie Mac forecasts that per-unit loan amounts will rise to $37,500 to $40,000 over 2000–2003. This forecast is based in part upon a sudden increase in GSE per-unit loan amounts from approximately $31,000 in 1998 to more than $35,000 in 1999. In reality, however, this increase is almost entirely attributable to Freddie Mac, which experienced an increase in per-unit loan amount of more than $10,000 over 1998–1999, in contrast to Fannie Mae, which experienced an increase of only about $200 over this time period. (See Table D.9 for details.)

Table D.9

Multifamily Loan Amount per Unit, 1990-1999
Freddie Mac

	UPB per unit*	FNMA UPB	FNMA units	FNMA UPB/unit	FHLMC UPB	FHLMC units	FHLMC UPB/unit	CMBS UPB	CMBS units	CMBS UPB/unit
1990	$ 23,847									
1991	$ 24,951									
1992	$ 25,888									
1993	$ 24,300	$ 4,602	186,471	$ 24,682	$ 191	10,794	$ 17,710			
1994	$ 21,156	$ 4,735	221,420	$ 21,383	$ 913	45,538	$ 20,052			
1995	$ 24,825	$ 5,958	235,358	$ 25,316	$ 1,582	68,381	$ 23,138			
1996	$ 25,268	$ 7,037	272,931	$ 25,782	$ 2,350	98,574	$ 23,843			
1997	$ 27,266	$ 6,896	253,065	$ 27,251	$ 2,716	99,469	$ 27,304			
1998	$ 31,041	$ 12,503	393,397	$ 31,782	$ 6,578	221,319	$ 29,723	$ 12,465	406,006	$ 30,702
1999	$ 30,719	$ 9,393	294,091	$ 31,938	$ 7,621	191,492	$ 39,798	$ 9,238	300,724	$ 30,719

* 1990-1992: Average single-family conventional conforming loan amount/3.57.
1993-1998: GSE data.
1999: CMBS data.

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Additional information regarding multifamily loan amount per unit can be derived from loan-level data on multifamily mortgages contained in prospectus disclosures. This data source yields an average per-unit loan amount of approximately $31,000 in both 1998 and 1999, based on $12.5 billion in 1998 non-GSE multifamily transactions and $9.2 billion the following year. Thus, the large increase in loan-amount per unit in the GSE data for 1999 does not appear to be representative of larger trends in the multifamily market. Rather, it appears to reflect changes in Freddie Mac's business practices which may or may not be evident in future years.[27]

3. Conventional Multifamily Origination Volume, 1990–1999

Taken by itself, none of the data sources appears to definitively answer the question of the size of the market each year for the entire time period, but taken together, the various data sources can be compared and analyzed in relation to each other in order to determine a likely range of estimates. Table D.10 brings together the various estimates discussed here, and presents the results of calculations of the multifamily share of the conventional conforming mortgage market derived using per-unit loan amounts discussed above.[28] As discussed below in Section E, the multifamily share of units financed in the conventional conforming market (or ''multifamily mix'') is a key determinant of the share of units meeting each of the HUD housing goals.

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Table D.10

Estimates of Conventional Multifamily Mortgage Market ($ billions) and Multifamily Share of Entire Conventional Conforming Market

	1. SMLA	2. New	3. ACLI+ 1.25*HMDA	4. UI	5. FNMA	6. FHLMC	7. misc	8. Likely Range	
1990	$ 30.6 $ (25.9)		$ 51.4 45.4%				$ 37.4 (RFS)		
1991	$ 24.6 $ (22.7)		$ 11.8 12.0%					$ 22 16%	$ 24 17%
1992	$ 25.2 $ (23.5)		$ 14.0 7.7%	$ 28.7 13.1%				$ 24 11%	$ 26 12%
1993	$ 30.0 $ (28.9)		$ 17.9 7.7%	$ 30.2 13.8%				$ 28 13%	$ 30 14%
1994	$ 31.7 $ (31.7)		$ 21.4 15.0%	$ 33.8 21.5%	$ 32.2 (meeting)			$ 31 20%	$ 33 21%
1995	$ 37.9 $ (32.4)	$ 24.8 15.8%	$ 20.4 14.3%	$ 38.5 22.6%	$ 33.7 (meeting)	$21-27 (comments)	$ 36.7 (POMS)	$ 33 20%	$ 35 21%
1996	$ 43.7 $ (33.3)	$ 34.5 17.7%	$ 23.8 13.0%	$ 40.6 20.1%		$24-29 (comments)		$ 33 17%	$ 37 19%
1997	$ 44.6 $ (35.5)	$ 38.2 17.3%	$ 28.8 13.8%	$ 43.9 19.4%	$35-40 (comments)	$28-30 (comments)		$ 36 16%	$ 40 18%
1998		$ 52.9 13.6%	$ 38.3 9.5%	$ 40.6 12.3%	$40-45 (comments)	$40-50 (meeting)		$ 52 13%	$ 55 14%
1999		$ 44.5 13.6%		$ 48.8 15.6%	$37-41 (comments)		$ 42.4 (FRB)	$ 45	$ 48
2000 (prjctd.)		$ 42.0		$ 50.6*				$ 42	$ 44

1 Top figure is conventional multifamily originations reported in SMLA.
Bottom figure in parentheses is total conventional multifamily originations less originations by mortgage banks.

2 New methodology combining HMDA portfolio lending by depositories; multifamily CMBS; estimated GSE acquisitions of current-year originations; and originations by other financial institutions reported in SMLA. See text for details.

3 Combines multifamily originations in HMDA, multiplied by 1.25, plus commitments by life insurance companies in fourth quarter of preceding year and first three quarters of current year. Market shares derived by dividing by estimated total conforming conventional origination volume. See text for details.

4 Actual FHA originations subtracted from total multifamily originations projected in Urban Institute model.
Assumes 2000 FHA originations at 1999 level.

5 1994-1995 estimates from meetings between Fannie Mae and HUD staff in connection with HUD 1995 GSE Rule.
1997-1999 estimates from Fannie Mae comments on HUD 2000 proposed GSE rule.

6 1995-1997 estimates from Freddie Mac comments on HUD 2000 proposed GSE rule.
1998 estimate from meeting between Freddie Mac and HUD in connection with HUD 2000 GSE Rule, March 25, 1999.

7 RFS estimate from mortgages originated during 1989-1991 divided by 2 1/3. See HUD (1995), 61972 for details.
POMS estimate from analysis of internal Census Bureau POMS data.
FRB figure is 1999 net multifamily borrowing figure published by Federal Reserve Board of Governors.

8 Likely range taking into consideration the reliability of various estimates presented here.

In the 1991–1994 period, the SMLA can be utilized to derive annual estimates of multifamily origination volume after removing originations by mortgage banks in order to eliminate double-counting of lending in the commercial bank and mortgage bank surveys included in SMLA. The plausibility of the revised SMLA estimates during this time period is enhanced by their proximity to other, independently derived figures. For example, the 1992 revised SMLA estimate of $23.5 billion is relatively close to the Urban Institute (UI) estimate of $28.7 billion during the period of time when the UI projection model is presumably most reliable, since it was based on the 1991 RFS, a relatively recent data source during the early 1990s. The 1994 revised SMLA estimate of $31.7 billion is relatively close to the Fannie Mae estimate of $32.2 billion. It is not clear that the "augmented" HMDA methodology introduced by PWC adequately corrects for undercounting. The likely range of estimates for the 1991–1994 period therefore express a range of uncertainty around the revised SMLA figures.

In 1995, it appears likely that actual origination volume lies somewhere between the revised SMLA ($32.4 billion) and POMS ($36.7 billion) estimates. The Freddie Mac

POMS figure of $27 billion, based on the public-use version of the POMS file, may be affected adversely by topcoding, and for this reason the HUD POMS estimate, derived from internal Census data, may be considered more reliable. The Fannie Mae estimate of $33.7 billion lies approximately in the middle of the reasonable range of $33-$35 billion for 1995. Freddie Mac's HMDA-based methodology, generating an estimate of $21 billion, appears to suffer from significant undercounting as discussed above. Overall, the Fannie Mae multifamily estimates summarized here appear to reflect more careful consideration of the various components of the multifamily market, in contrast to the mechanical application of a 25 percent correction factor to the HMDA data by Freddie Mac, based on estimated *single-family* underreporting.

HUD's new methodology can be utilized for the years 1996 and later, in part because the accuracy and completeness of CMBS data expanded rapidly during this time period. The new methodology estimate of $34.5 billion for 1996 is close to the revised SMLA estimate of $33.3 billion. Based on these two independent estimates, a likely range of $33–37 billion is selected.

In 1997, the new methodology ($38.2 billion) and the revised SMLA figure ($35.5 billion) diverge slightly, but remain relatively close to each other, and to Fannie Mae's estimate of $35–40 billion, in comparison with other methodological choices. In light of these three, relatively consistent estimates, a likely range of $36–40 billion is a reasonable choice for 1997.

HUD's new methodology generates a 1998 estimate of $52.9 billion, exceeding even Freddie Mac's estimate of $40–50 billion. However, because of the careful avoidance of double-counting in construction of this methodology, it is difficult to see how conventional multifamily volume could be less than $52.9 billion. Indeed, because of the discontinuation of the SMLA in 1998, the $52.9 billion new methodology estimate does not include originations by pension funds or government credit agencies. Therefore, a likely range of $52–55 billion appears reasonable.

Table D.10 concludes with estimates for 1999 origination volume as well as projections for 2000. The Federal Reserve Board of Governors has published data indicating that *net* multifamily borrowing in 1999 was $42.4 billion.[29] Because net multifamily borrowing includes only increases in the stock of indebtedness, it excludes refinance loans, which are a significant component of the multifamily origination market. Hence, the Federal Reserve figure can be used as a lower bound for 1999 origination volume. Consequently, it would appear reasonable to reject the Fannie Mae figure of $37–$41 billion for 1999 as unrealistically low. Because it is based on data regarding the multifamily mortgage market from 1991, the UI figure of $48.8 billion may not be valid. Of the four 1999 estimates reported in Table D.10, the $44.5 billion HUD figure appears to be the most reliable. Because this figure excludes several important conventional lending categories, such as pension and retirement funds and state and federal agencies, it would appear to be on the low side of the likely range. Based on information on origination volume represented by these omitted categories in the years prior to discontinuation of the SMLA, a likely range of $45–$48 billion for 1999 may be derived.

Multifamily Mix During the 1990s. Based on the likely range of annual conventional multifamily origination volume, multifamily units represent an average of 16–17 percent of units financed each year during the 1990s.[30] HUD's estimated multifamily market shares exceed estimates prepared by PWC (averaging 8.7 percent for 1991–1998) for two reasons.[31] One is that PWC's adjusted HMDA methodology does not adequately correct for underreporting in HMDA, resulting in unrealistically low estimates of the size of the conventional multifamily origination market. Another reason that PWC's estimated multifamily market shares are low is that a number of their calculations appear to include FHA and jumbo loans in estimating the number of single-family units financed each year. For example, in 1998, PWC estimates the size of the single-family mortgage market at $1.5 trillion. This is identical to the widely-used estimate by the Mortgage Bankers Association (MBA) for the *entire* single-family mortgage market that year, including jumbo and FHA loans, as discussed previously. HUD's market share calculations, in contrast, are based on the multifamily share of conventional conforming mortgage loans originated each year.

The multifamily share of the conforming conventional market (or ''multifamily mix'') derived from this discussion of multifamily origination volume is utilized below as part of HUD's analysis of the share of units financed each year meeting each of the housing goals. For purposes of that analysis, a multifamily mix of 16.5 percent is reasonable, since it corresponds most closely to the midpoint of the likely range of estimates in Table D.10. However, a 15 percent market share can be utilized as an alternative market share estimate corresponding to a somewhat less favorable environment for multifamily lending. While somewhat low from an historical standpoint, a 15 percent mix more readily accommodates the possibility of a recession or heavy refinance year than would baseline assumptions based more strictly on historical data. In order to more fully consider the effects of an even more adverse market environments, an alternative multifamily mix assumption of 13.5 is also considered, as well as a number of others.

D. Single-Family Owner and Rental Mortgage Market Shares

1. Available Data

As explained later, HUD's market model will also use projections of mortgage originations on single-family (1–4 unit) properties. Current mortgage origination data combine mortgage originations for the three different types of single-family properties: owner-occupied, one-unit properties (SF–O); 2–4 unit rental properties (SF 2–4); and 1–4 unit rental properties owned by investors (SF-Investor). The fact that the goal percentages are much higher for the two rental categories argues strongly for disaggregating single-family mortgage originations by property type. This section discusses available data for estimating the relative size of the single-family rental mortgage market.

The RFS and HMDA are the data sources for estimating the relative size of the single-family rental market. The RFS, provides mortgage origination estimates for each of the three single-family property types but it is quite dated, as it includes mortgages originated between 1987 and 1991. HMDA divides newly-originated single-family mortgages into two property types:[32]

(1) Owner-occupied originations, which include both SF–O and SF 2–4.

(2) Non-owner-occupied mortgage originations, which include SF Investor.

The percentage distributions of mortgages from these data sources are provided in Table D.11a. (Table D.11b will be discussed below.) Because HMDA combines the first two categories (SF–O and SF 2–4), the comparisons between the data bases must necessarily focus on the SF investor category. According to 1997 (1998) HMDA data, investors account for 9.4 (9.0 percent) percent of home purchase loans and 7.4 percent (5.5 percent) of refinance loans.[33] Assuming a 35 percent refinance rate per HUD's projection model, the 1997 (1998) HMDA data are consistent with an investor share of 8.7 (7.8) percent. The RFS estimate of 17.3 percent is approximately twice the HMDA estimates. In their comments, the GSEs argued that the HMDA-reported SF investor share of approximately 8 percent should be used by HUD. In its 1995 rule as well as in this year's proposed rule, HUD's baseline model assumed a 10 percent share for the SF investor group; alternative models assuming 8 percent and 12 percent were also considered. As discussed below, HUD's baseline projection of 10 percent is probably quite conservative; however, given the uncertainty around the data, it is difficult to draw firm conclusions about the size of the single-family investor market, which necessitates the sensitivity analysis that HUD conducts.

2. Analysis of Investor Market Share

Blackley and Follain

During the 1995 rule-making, HUD asked the Urban Institute to analyze the differences between the RFS and HMDA investor shares and determine which was the more reasonable. The Urban Institute's analysis of this issue is contained in reports by Dixie Blackley and James Follain.[34] Blackley and Follain provide reasons why HMDA should be adjusted upward as well as reasons why the RFS should be adjusted downward. They find that HMDA may understate the investor share of single-family mortgages because of ''hidden investors'' who falsely claim that a property is owner-occupied in order to more easily obtain mortgage financing. RFS may overstate the investor share of the market because units that are temporarily rented while the owner seeks another buyer may be counted as rental units in the RFS, even though rental status of such units may only be temporary.

Blackley and Follain also noted that the fact that investor loans prepay at a faster rate than other single-family loans suggests that the investor share of single-family mortgage originations should be higher not lower than the investor share of the single-family housing stock. In comments, Freddie Mac questions this part of Follain and Blackely's analysis.

The RFS's investor share should be adjusted downward in part because the RFS assigns all vacant properties to the rental group, but some of these are likely intended for the owner market, especially among one-unit properties. Blackley and Follain's analysis of this issue suggests lowering the investor share from 17.3 percent to about 14–15 percent.

Finally, Blackley and Follain note that a conservative estimate of the SF investor share is advisable because of the difficulty of measuring the magnitudes of the various effects that they analyzed. [35] In their 1996 paper, they conclude that 12 percent is a reasonable estimate of the investor share of single-family mortgage originations. [36] Blackley and Follain caution that uncertainty exists around this estimate because of inadequate data.

3. Single-Family Market in Terms of Unit Shares

The market share estimates for the housing goals need to be expressed as percentages of *units* rather than as percentages of mortgages. Thus, it is necessary to compare unit-based distributions of the single-family mortgage market under the alternative estimates discussed so far. The mortgage-based distributions given in Table D.11a were adjusted in two ways. First, the owner-occupied HMDA data were disaggregated between SF–O and SF 2–4 mortgages by assuming that SF 2–4 mortgages account for 2.0 percent of all single-family mortgages; according to RFS data, SF 2–4 mortgages represent 2.3 percent of all single-family mortgages so the 2.0 percent assumption may be slightly conservative. Second, the resulting mortgage-based distributions were shifted to unit-based distributions by applying the following unit-per-mortgage assumptions: 2.25 units per SF 2–4 property and 1.35 units per SF investor property. Both figures were derived from the 1991 RFS.[37]

Based on these calculations, the percentage distribution of newly-mortgaged single family dwelling units was derived for each of the various estimates of the investor share of single-family mortgages (discussed earlier and reported in Table D.11a). The results are presented in Table D.11b. Three points should be made about these data. *First,* notice that the ''SF-Rental'' row highlights the share of the single-family mortgage market accounted for by all rental units.

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Table D.11a

Percentage Distribution of Single-Family Owner and Rental Mortgages

	1997 (1998) HMDA (Percent)				Projected (Assume 35% Refinance Rate)		1987-91[1] RFS	HUD's 1995 and 2000 Rules
	Purchase		Refinance					
SF-O	90.6	(91.0)	92.6	(94.5)	91.3	(92.2)	80.4	88.0
SF 2-4	(Included above)						2.3	2.0
SF Investor	9.4	(9.0)	7.4	(5.5)	8.7	(7.8)	17.3	10.0
Total	100.0	(100.0)	100.0	(100.0)	100.0	(100.0)	100.0	100.0

Note: The refinance rate of 35 percent is assumed in HUD's baseline model described in Section E.

Table D.11b

Percentage Distribution of Newly-Mortgaged Single-Family Owner and Rental Units

	1997 (1998) HMDA With 35% Refinance Assumption		1997-91 RFS	HUD's 1995 and 2000 Rules	Blackley/Follain Alternative
SF-O	84.6	(85.7)	73.8	83.0	80.6
SF-2-4 Owner[1]	*1.9	(1.9)	2.1	1.9	1.9
SF-2-4 Renter	*2.4	(2.4)	2.7	2.4	2.3
SF Investor	11.1	(10.0)	21.4	12.7	15.2
Total	100.0	(100.0)	100.0	100.0	100.0
SF-Rental	13.5	(12.4)	24.1	15.1	17.5

[1] Notice that the SF 2-4 category has been divided into its owner and renter subcomponents. This is easily done based on the assumption of 2.25 units per SF 2-4 mortgage. For each mortgage, one unit represents the owner occupant and 1.25 additional units represent renter occupants. The owner-occupant of the 2-4 property is included in the SF-O category in this appendix. This is necessary because different data sources are used to estimate the owner's income and the affordability of the rental units. The income of owners of 2-4 properties are included in the borrower income data reported by HMDA. The AHS and POMS will be used to estimate the affordability of the rental units.

* Estimate

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Second, notice that the rental categories represent a larger share of the unit-based market than they did of the mortgage-based market reported earlier. This, of course, follows directly from applying the loan-per-unit expansion factors.

Third, notice that the rental share under HMDA's unit-based distribution is again about one-half of the rental share under the RFS's distribution. The rental share in HUD's 1995 rule and this year's proposed rule is slightly larger than that reported by HMDA. The rental share in the "Blackley-Follain" alternative is slightly above that in HUD's 1995 rule. Rental units account for 15.1 percent of all newly financed single-family units under HUD's baseline model, compared with 13.5 (12.4) percent under a model based on 1997 (1998) HMDA data.

4. Conclusions

This section has reviewed data and analyses related to determining the rental share of the single-family mortgage market. There are two main conclusions:

(1) While there is uncertainty concerning the relative size of this market, the projections made by HUD in 1995 appear reasonable and, therefore, will serve as the baseline assumption in the HUD's market share model for this year's final rule.

(2) HMDA likely underestimates the single-family rental mortgage market. Thus, this part of the HMDA data are not considered reliable enough to use in computing the market shares for the housing goals. Various sensitivity analyses of the market shares for single-family rental properties are conducted in Sections F, G, and H. These sensitivity analyses will include the GSEs' recommended model that assumes investors

account for 8 percent of all single-family mortgages. These sensitivity analyses will show the effects on the overall market estimates of the different projections about the size of the single-family rental market.

The upcoming RFS based on the year 2000 Census will help clarify issues related to the investor share of the single-family mortgage market. At that time, HUD will reconsider its estimates of the investor share of the mortgage market.

E. HUD's Market Share Model

This section integrates findings from the previous two sections about the size of the multifamily mortgage market and the relative distribution of single-family owner and rental mortgages into a single model of the mortgage market. The section provides the basic equations for HUD's market share model and identifies the remaining parameters that must be estimated.

The output of this section is a unit-based distribution for the four property types discussed in Section B.[38] Sections F–H will apply goal percentages to this property distribution in order to determine the size of the mortgage market for each of the three housing goals.

1. Basic Equations for Determining Units Financed in the Mortgage Market

The model first estimates the number of dwelling units financed by conventional conforming mortgage originations for each of the four property types. It then determines each property type's share of the total number of dwelling units financed.

a. Single-Family Units

This section estimates the number of single-family units that will be financed in the conventional conforming market, where single-family units (SF–UNITS) are defined as:

SF–UNITS=SF–O+SF 2–4+SF–INVESTOR

First, the dollar volume of conventional conforming single-family mortgages (CCSFM$) is derived as follows:

(1) CCSFM$=CONF%*CONV%*SFORIG$

Where

CONV%=conforming mortgage originations (measured in dollars) as a percent of conventional single-family originations; estimated to be 87%.[39]

CONF%=conventional mortgage originations as a percent of total mortgage originations; forecasted to 78% by industry and GSEs.[40]

SFORIG$=dollar volume of single-family one-to-four unit mortgages; $950 billion is used here as a starting assumption to reflect market conditions during the years 2001–2003.[41] Alternative assumptions will be examined later.[42]

Substituting these values into (1) yields an estimate for the conventional conforming market (CCSFM$) of $645 billion.

Second, the number of conventional conforming single-family mortgages (CCSFM#) is derived as follows:

(2) CCSFM#=CCSFM$/SFLOAN$

Where SFLOAN$=the average conventional conforming mortgage amount for single-family properties; estimated to be $110,000.[43] Substituting this value into (2) yields an estimate of 5.9 million mortgages.

Third, the total number of single-family mortgages is divided among the three single-family property types. Using the 88/2/10 percentage distribution for single-family mortgages (see Section D), the following results are obtained:

(3a) SF–OM#=.88*CCSFM#
=number of owner-occupied, one-unit mortgages
=5.2 million.

(3b) SF–2–4M#=.02*CCSFM#
=number of owner-occupied, two-to-four unit mortgages
=.1 million.

(3c) SF–INVM# =.10*CCSFM#
=number of one-to-four unit investor mortgages
=.6 million.

Fourth, the number of dwelling units financed for the three single-family property types is derived as follows:

(4a) SF–O=SF–OM#+SF–2–4M#
=number of owner-occupied dwelling units financed
=5.3 million.

(4b) SF 2–4=1.25*SF–2–4M#
=number of rental units in 2–4 properties where a owner occupies one of the units
=.1 million.[44]

(4c) SF–INVESTOR=1.35*SF–INVM#
=number of single-family investor dwelling units financed
=.8 million.

Fifth, summing equations 4a–4c gives the projected number of newly-mortgaged single-family units (SF–UNITS):

(5) SF–UNITS = SF–O + SF 2–4 + SF–INVESTOR
= 6.2 million

b. Multifamily Units

The number of multifamily dwelling units (MF-UNITS) financed by conventional conforming multifamily originations is calculated by the following series of equations:

(5a) TOTAL = SF–UNITS + MF–UNITS

(5b) MF–UNITS = MF–MIX * TOTAL
= MF-MIX * (SF–UNITS + MF–UNITS)
= [MF–MIX/(1–MF–MIX)] * SF–UNITS

Where MF–MIX = the ''multifamily mix'', or the percentage of all newly-mortgaged dwelling units that are multifamily; as discussed in Section C, alternative estimates of the multifamily market will be included in the analysis. Section C concludes that 15.0 percent and 16.5 percent are reasonable projections for the year 2001–03. The baseline model assumes the more conservative of these two multifamily mixes—15 percent.

Assuming a multifamily mix of 15 percent and solving (5b) yields the following:

(5c) MF–UNITS = [0.15/0.85] * SF–UNITS
= 0.176 * SF–UNITS
= 1.1 million.

c. Total Units Financed

The total number of dwelling units financed by the conventional conforming mortgage market (TOTAL) can be expressed in three useful ways:

(6a) TOTAL = SF–UNITS + MF–UNITS = 7,308,558

(6b) TOTAL = SF–O + SF 2–4 + SF–INVESTOR + MF–UNITS

(6c) TOTAL = SF–O + SF–RENTAL + MF–UNITS

Where SF–RENTAL equals SF–2–4 plus SF–INVESTOR.

2. Dwelling Unit Distributions by Property Type

The next step is to express the number of dwelling units financed for each property type as a percentage of the total number of units financed by conventional conforming mortgage originations.[45]

The projections used above in equations (1)–(6) produce the following distributions of financed units by property type:

	% Share		% Share
SF–O	72.2		
SF 2–4	2.0	SF–O	[46] 72.2
SFINVESTOR	10.8	SF–RENTER	12.8
MF–UNITs	15.0	MF–UNITS	15.0
Total	100.0	Total	100.0

Sections C and D discussed alternative projections for the mix of multifamily originations and the investor share of single-family mortgages. This appendix will focus on three multifamily mixes (13.5 percent, 15.0 percent, and 16.5 percent) but there will also be sensitivity analysis of other multifamily mix assumptions. Under a 16.5 percent multifamily mix'the average mix during the 1990s—the newly-mortgaged unit distribution would be 70.9 percent for Single-Family Owner, 12.6 percent for Single-Family Renter, and 16.5 percent for Multifamily-Units. This distribution is similar to the baseline distribution in HUD's 1995 final rule and in this year's proposed rule. The analysis in sections F-H will focus on goals-qualifying market shares for this property distribution as well as the one presented above for the more conservative multifamily mix of 15 percent.

The appendix will assume the following for the investor share of single-family mortgages—8 percent, 10 percent, and 12 percent. The middle value (10 percent investor share) is used in the above calculations and will be considered the ''baseline'' projection throughout the appendix. However, HUD recognizes the uncertainty of projecting origination volume in markets such as single-family investor properties; therefore, the analysis in Sections G–H will also consider market assumptions other than the baseline assumptions.

Table D.12 reports the unit-based distributions produced by HUD's market share model for different combinations of these projections. The effects of the different projections can best be seen by examining the owner category which varies by 6.6 percentage points, from a low of 68.9 percent (multifamily mix of 16.5 percent coupled with an investor mortgage share of 12 percent) to a high of 75.5 percent (multifamily mix of 13.5 percent coupled with an investor mortgage share of 8 percent). The owner share under the baseline projections (15 percent mix and 10 percent investor) is 72.2 percent, which is slightly higher than the owner share (71.0 percent) in the baseline projection of HUD's 1995 rule and this year's proposed rule.

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Table D.12

Distribution of Financed Dwelling Units by Property Type for Different Projections of Multifamily and Single-Family Investor Originations

Investor Share Percentage of Single-Family Mortgage Market	Mulitfamily Mix (Percent)		
	13.5%	15%	16.5%
12 Percent			
Single-Family Owner-Occupied	71.4 %	70.1 %	68.9 %
Single-Family Rental	15.1	14.9	14.6
Multifamily	13.5	15.0	16.5
Total	100.0	100.0	100.0
10 Percent			
Single-Family Owner-Occupied	73.5 %	72.2 %	70.9 %
Single-Family Rental	13.0	12.8	12.6
Multifamily	13.5	15.0	16.5
Total	100.0	100.0	100.0
8 Percent			
Single-Family Owner-Occupied	75.5 %	74.3 %	73.0 %
Single-Family Rental	11.0	10.7	10.5
Multifamily	13.5	15.0	16.5
Total	100.0	100.0	100.0

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Comparison with the RFS. The Residential Finance Survey is the only mortgage data source that provides unit-based property distributions directly comparable to those reported in Table D.12. Based on RFS data for 1987 to 1991, HUD estimated that, of total dwelling units in properties financed by recently acquired conventional conforming mortgages, 56.5 percent were owner-occupied units, 17.9 percent were single-family rental units, and 25.6 percent were

multifamily rental units.[47] Thus, the RFS presents a much lower owner share than does HUD's model. This difference is due mainly to the relatively high level of multifamily originations (relative to single-family originations) during the mid-to late-1980s, which is the period covered by the RFS.[48] As noted earlier, the RFS based on the year 2000 census should clarify issues related to the rental segment of the mortgage market.

F. Size of the Conventional Conforming Mortgage Market Serving Low- and Moderate-Income Families

This section estimates the size of the low- and moderate-income market by applying low- and moderate-income percentages to the property shares given in Table D.12. This section essentially accomplishes Steps 2 and 3 of the three-step procedure discussed in Section A.2.b.

Technical issues and data adjustments related to the low- and moderate-income percentages for owners and renters are discussed in the first two subsections. Then, estimates of the size of the low- and moderate-income market are presented along with several sensitivity analyses. Based on these analyses, HUD concludes that 50–55 percent is a reasonable estimate of the mortgage market's low- and moderate-income share for the years (2001–2003) when the new goals will be in effect.

This rule establishes that the Low- and Moderate-Income Goal at 50 percent of eligible units financed in each of calendar years 2001–2003.

HMDA data for 1999 was not released until August 2000, thus it was not available at the time this rule was prepared.

1. Low- and Moderate-Income Percentage for Single-Family Owner Mortgages

a. HMDA Data

The most important determinant of the low- and moderate-income share of the mortgage market is the income distribution of single-family borrowers. HMDA reports annual income data for families who live in metropolitan areas and purchase a home or refinance their existing mortgage.[49] Table D.13 gives the percentage of mortgages originated for low- and moderate-income families for the years 1992–1998. Data for home purchase and refinance loans are presented separately; the discussion will focus on home purchase loans because they typically account for the majority of all single-family owner mortgages. For each year, a low- and moderate-income percentage is also reported for the conforming market without loans originated by lenders that primarily originate manufactured home loans (discussed below) in metropolitan areas.

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Table D.13

Single-Family Owner-Occupied Mortgage Market by Borrower Income

	Home Purchase		Refinance	
	Conforming Market	Market W/O Mfg loans	Conforming Market	Market W/O Mfg loans
Very-Low-Income Share				
1992	8.7 %	7.6 %	4.5 %	4.2 %
1993	10.8	9.6	5.8	5.6
1994	11.9	10.7	11.0	10.2
1995	12.0	10.5	12.3	11.2
1996	12.7	10.8	13.0	12.2
1997	13.0	11.0	14.5	13.9
1998	13.3	11.4	11.3	11.1
Low- and-Moderate Income Share				
1992	34.4 %	33.0 %	25.2 %	24.8 %
1993	38.9	37.4	29.3	29.1
1994	41.8	40.3	39.9	38.9
1995	41.4	39.2	41.1	39.6
1996	42.2	39.4	42.7	41.6
1997	42.5	39.6	45.0	44.1
1998	43.0	40.4	39.7	39.4

Source: HMDA data for metropolitan areas. "Market without manufactured housing loans" excludes loans by lenders that primarily originate manufactured housing loans and loans less than $15,000.

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Table D.13 also reports similar data for very-low-income families (that is, families with incomes less than 60 percent of area median income). As discussed in Section H, very-low-income families are the main component of the special affordable mortgage market.

Two trends in the income data should be mentioned—one related to the market's funding of low- and moderate-income families since the 1995 rule was written and the other related to the different borrower income distributions for refinance and home purchase mortgages.

Low-Mod Market Share Since 1995. As discussed in the 1995 rule, the percentage of borrowers with less than area median income

increased significantly between 1992 and 1994. Mortgages to low-mod borrowers increased from 34.4 percent of the home purchase market in 1992 to 41.8 percent of that market in 1994. Over the next four years (1995–98), the low-mod share of the home purchase market remained at a high level, averaging about 42 percent, or almost 40 percent if manufactured loans are excluded from the market totals. The share of the market accounted for by very-low-income borrowers followed a similar trend, increasing from 8.7 percent in 1992 to 11.9 percent in 1994 and then remaining at a high level through 1998. As discussed in Appendix A, this jump in low-income lending has been attributed to several factors, including a favorable economy accompanied by historically low interest rates; the entry into the housing market of more diverse groups including non-traditional households (*e.g.*, singles), immigrants, and minority families seeking homeownership for the first time; and affordable lending initiatives and outreach efforts on the part of the mortgage industry. Essentially, the affordable lending market is much stronger than it appeared to be when HUD wrote the 1995 rule. At that time, there had been two years (1993 and 1994) of increasing affordable lending for lower-income borrowers. The four additional years of data for 1995–98 show more clearly the underlying strength of this market.

It is recognized that lending patterns could change with sharp changes in the economy. However, the fact that there have been six years (1993–98) of strong affordable lending suggests the market may have changed in fundamental ways from the mortgage market of the early 1990s. The numerous innovative products and outreach programs that the industry has developed to attract lower-income families into the homeownership and mortgage markets appear to be working and there is no reason to believe that they will not continue to assist in closing troubling homeownership gaps that exist today. As explained in Appendix A, the demand for homeownership on the part of non-traditional borrowers, minorities, and immigrants should help to maintain activity in the affordable portion of the mortgage market. Thus, while economic recession or higher interest rates would likely reduce the low- and moderate-income share of mortgage originations, there is evidence that the low-mod market might not return to the low levels of the early 1990s.

Refinance Mortgages. HUD's model for determining the size of the low- and moderate-income market assumes that low-mod borrowers will represent a smaller share of refinance mortgages than they do of home purchase mortgages. However, as shown in Table D.4, the income characteristics of borrowers refinancing mortgages seem to depend on the overall level of refinancing in the market. During the refinancing wave of 1992 and 1993, refinancing borrowers had much higher incomes than borrowers purchasing homes. For example, during 1993 low- and moderate-income borrowers accounted for 29.3 percent of refinance mortgages, compared to 38.9 percent of home purchase borrowers. In 1998, another period of high refinance activity, low- and moderate-income borrowers accounted for 39.7 percent of refinance loans, versus 43.0 percent of home purchase loans. But during the years (1995–97) characterized by lower levels of refinancing activity, the low-mod share for refinance mortgages was about the same as that for home purchase mortgages. In 1997, the low-mod share of refinance mortgages (45.0) was even higher than the low-mod share of home loans (42.5 percent).

The projection model assumes that refinancing will be 35 percent of the single-family mortgage market. However given the volatility of refinance rates from year to year, it is important to conduct sensitivity tests using different refinance rates.

b. Manufactured Housing Loans

The mortgage market definition in this appendix includes manufactured housing loans,[50] which have become an important source of affordable housing and which the GSEs have started to purchase. Because the market estimates in HUD's 1995 rule were adjusted to exclude manufactured housing loans, several tables in this appendix will show how the goals-qualifying shares of the single-family-owner market change depending on the treatment of manufactured housing loans. As explained later, the effect of manufactured housing on HUD's metropolitan area market estimate for each of the three housing goals is a modest one percentage point

As discussed in Appendix A, the manufactured housing market has been increasing rapidly over the past few years, as sales volume has increased from $4.7 billion in 1991 to $15.3 billion in 1999. The affordability of manufactured homes for lower-income families is demonstrated by their average price of $44,000 in 1999, a fraction of the $196,000 for new homes and $168,000 for existing homes. Many households live in manufactured housing because they simply cannot afford site-built homes, for which the construction costs per square foot are much higher.

Data on the incomes of purchasers of manufactured homes is not readily available, but HMDA data on home loans made by 22 lenders that primarily originate manufactured home loans, discussed below, indicate that:[51]

- A very high percentage of these loans—76 percent in 1998—would qualify for the Low- and Moderate-Income Goal,
- A substantial percentage of these loans—42 percent in 1998—would qualify for the Special Affordable Goal, and
- Almost half of these loans—47 percent in 1998—would qualify for the Underserved Areas Goal.

Thus an enhanced presence in this market by the GSEs would benefit many lower-income families. It would also contribute to their presence in underserved rural areas, especially in the South.

To date the GSEs have played a minimal role in the manufactured home loan market, but both enterprises have expressed an interest in expanding their roles.[52] Except in structured transactions, the GSEs do not purchase manufactured housing loans under their seller/servicer guidelines unless they are real estate loans. That is, such homes must have a permanent foundation and the site must be either purchased as part of the transaction or already owned by the borrower. Industry trends toward more homes on private lots and on concrete foundations suggest that the percentage of manufactured homes that would qualify as real estate loans under GSE guidelines has grown in the past few years. There has also been a major shift from single-section homes to multisection homes, which contain two or three units which are joined together on site.

Although manufactured home loans cannot be identified in the HMDA data, HUD staff have identified 22 lenders that primarily originate manufactured home loans and likely account for most of these loans in the HMDA data for metropolitan areas. In Table D.13, the data presented under ''Conforming Market Without Manufactured Home Loans'' excludes loans originated by manufactured housing lenders, as well as loans less than $15,000. The lenders include companies such as Green Tree Financial; Vanderbilt Mortgage; Deutsche Financial Capital; Oakwood Acceptance Corporation; Allied Acceptance Corporation; Belgravia Financial Services; Ford Consumer Finance Company; and the CIT Group.[53]

c. American Housing Survey Data

The American Housing Survey also reports borrower income data similar to that reported in Table D.3. The low- and moderate-income market shares from the AHS are as follows:

1985 27.0%
1987 32.0%
1989 34.0%
1991 36.0%
1993 33.0% (38.7% home purchase and 28.6% refinance)
1995 40.0% (38.5% home purchase and 43.2% refinance)

According to the AHS, 38.5 percent of those families surveyed during 1995 who had recently purchased their homes, and who obtained conventional mortgages below the conforming loan limit, had incomes below the area median; this compares with 39.3 percent based on 1995 HMDA data that excludes manufactured homes (as the AHS data do).

A longer-term perspective of the mortgage market can be gained by examining income data from the last six American Housing Surveys. During the earlier period between 1987 and 1991, the low- and moderate-income share increased from 27 percent to 36 percent, and averaged 32.3 percent. After remaining at a relatively low percentage (33.0 percent) during the heavy refinance year of 1993, the low- and moderate-income share rebounded to 40.0 percent in 1995. As noted earlier, this is about the same market share reported by HMDA data for 1995.

The GSEs have raised issues concerning underreporting of income in the AHS.[54] Since HMDA data cover over 80 percent of the single-family-owner mortgage market, and the American Housing Survey represents only a very small sample of this market, the HMDA data will be the source of information on the characteristics of single-family property owners receiving mortgage financing. As discussed next, the American Housing Survey and the Property Owners and Managers Survey will be relied on for information about the rents and affordability

of single-family and multifamily rental properties.

2. Low- and Moderate-Income Percentage for Renter Mortgages

The 1995 rule relied on the American Housing Survey for a measure of the rent affordability of the single-family rental stock and the multifamily rental stock. As explained below, the AHS provides rent information for the stock of rental properties rather than for the flow of mortgages financing that stock. This section discusses a new survey, the Property Owners and Managers Survey (POMS), that provides information on the flow of mortgages financing rental properties. As discussed below, the AHS and POMS data provide very similar estimates of the low- and moderate-income share of the rental market.

a. American Housing Survey Data

The American Housing Survey does not include data on mortgages for rental properties; rather, it includes data on the characteristics of the existing rental housing stock and recently completed rental properties. Current data on the income of prospective or actual tenants has also not been readily available for rental properties. Where such income information is not available, FHEFSSA provides that the rent of a unit can be used to determine the affordability of that unit and whether it qualifies for the Low- and Moderate-Income Goal. A unit qualifies for the Low- and Moderate-Income Goal if the rent does not exceed 30 percent of the local area median income (with appropriate adjustments for family size as measured by the number of bedrooms). Thus, the GSEs' performance under the housing goals is measured in terms of the affordability of the rental dwelling units that are financed by mortgages that the GSEs purchase; the income of the occupants of these rental units is not considered in the calculation of goal performance. For this reason, it is appropriate to base estimates of market size on rent affordability data rather than on renter income data.

A rental unit is considered to be ''affordable'' to low- and moderate-income families, and thus qualifies for the Low- and Moderate-Income Goal, if that unit's rent is equal to or less than 30 percent of area median income. Table D.14 presents AHS data on the affordability of the rental housing stock for the survey years between 1985 and 1997. The 1997 AHS shows that for 1–4 unit unsubsidized single-family rental properties, 94 percent of all units and of units constructed in the preceding three years had gross rent (contract rent plus the cost of all utilities) less than or equal to 30 percent of area median income. For multifamily unsubsidized rental properties, the corresponding figure was 92 percent. The AHS data for 1989, 1991, 1993, and 1995 are similar to the 1997 data.

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Table D.14

Rental Market By Affordability of Dwelling Unit: American Housing Survey, 1985-1997

Units Affordable at 100% of Area Median Income	Recently Constructed Stock(a)	Stock 4 Years or Older	Existing Stock
1-4 Properties			
1985	75%	94%	93%
1987	80%	93%	92%
1989	90%	97%	97%
1991	92%	97%	97%
1993	92%	98%	98%
1995	89%	97%	97%
1997	87%	94%	94%
Multifamily (5+) Properties			
1985	88%	94%	93%
1987	86%	93%	92%
1989	88%	96%	95%
1991	88%	97%	96%
1993	88%	96%	96%
1995	89%	95%	95%
1997	80%	92%	92%
Units Affordable at 60% of Area Median Income			
1-4 Properties			
1985	8%	56%	54%
1987	17%	54%	52%
1989	24%	60%	59%
1991	26%	64%	63%
1993	37%	61%	61%
1995	30%	58%	57%
1997	35%	59%	59%
Multifamily (5+) Properties			
1985	14%	44%	41%
1987	18%	43%	40%
1989	13%	51%	47%
1991	18%	54%	51%
1993	12%	53%	51%
1995	20%	50%	49%
1997	28%	54%	53%

Source: American Housing Surveys, 1985, 1987, 1989, 1991, 1993, 1995, 1997.
a. Constructed in last 3 years.

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b. Property Owners and Managers Survey (POMS)

During the 1995 rule-making, concern was expressed about using data on rents from the outstanding rental stock to proxy rents for newly mortgaged rental units.[55] At that time, HUD conducted an analysis of this issue using the Residential Finance Survey and concluded that the existing stock was an adequate proxy for the mortgage flow when rent affordability is defined in terms of less than 30 percent of area median income, which is the affordability definition for the Low- and Moderate-Income Goal. More specifically, that analysis suggested that 85 percent of single-family rental units and 90 percent of multifamily units are reasonable estimates for projecting the percentage of financed units affordable at the low- and moderate-income level.[56] HUD has investigated this issue further using the POMS.

POMS Methodology. The affordability of multifamily and single-family rental housing backing mortgages originated in 1993–1995 was calculated using internal Census Bureau files from the American Housing Survey-National Sample (AHS) from 1995 and the Property Owners and Managers Survey from 1995–1996. The POMS survey was conducted on the same units included in the AHS survey, and provides supplemental information such as the origination year of the mortgage loan, if any, recorded against the property included in the AHS survey. Monthly housing cost data (including rent and utilities), number of bedrooms, and metropolitan area (MSA) location data were obtained from the AHS file.

In cases where units in the AHS were not occupied, the AHS typically provides rents, either by obtaining this information from property owners or through the use of imputation techniques. Estimated monthly housing costs on vacant units were therefore calculated as the sum of AHS rent and utility costs estimated using utility allowances published by HUD as part of its regulation of the GSEs. Observations where neither monthly housing cost nor monthly rent was available were omitted, as were observations where MSA could not be determined. Units with no cash rent and subsidized housing units were also omitted. Because of the shortage of observations with 1995 originations, POMS data on year of mortgage origination were utilized to restrict the sample to properties mortgaged during 1993–1995. POMS weights were then applied to estimate population statistics. Affordability calculations were made using 1993–95 area median incomes calculated by HUD.

POMS Results. The rent affordability estimates from POMS of the affordability of newly-mortgaged rental properties are quite consistent with the AHS data reported in Table D.5 on the affordability of the rental stock. Ninety-six (96) percent of single-family rental properties with new mortgages between 1993 and 1995 were affordable to low- and moderate-income families, and 56 percent were affordable to very-low-income families. The corresponding percentages for newly-mortgaged multifamily properties are 96 percent and 51 percent, respectively. Thus, these percentages for newly-mortgaged properties from the POMS are similar to those from the AHS for the rental stock. As discussed in the next section, the baseline projection from HUD's market share model assumes that 90 percent of newly-mortgaged, single-family rental and multifamily units are affordable to low- and moderate-income families.

3. Size of the Low- and Moderate-Income Mortgage Market

This section provides estimates of the size of the low- and moderate-income mortgage market. Subsection 3.a provides some necessary background by comparing HUD's estimate made during the 1995 rule-making process with actual experience between 1995 and 1998. Subsection 3.b presents new estimates of the low-mod market while Subsection 3.c reports the sensitivity of the new estimates to changes in assumptions about economic and mortgage market conditions.

a. Comparison of Market Estimates With Actual Performance

The market share estimates that HUD made during 1995 can now be compared with actual market shares for 1995 to 1998. This discussion of the accuracy of HUD's past market estimates considers all three housing goals, since the explanations for the differences between the estimated and actual market shares are common across the three goals. HUD estimated the market for each housing goal for 1995–98, and obtained the results reported in Table D.15.[57] B&C loans are not included in the market estimates reported in Table D.15. The discussion of Table D.15 will proceed as follows. It will first focus on the market estimates for 1995 to 1997 which are the most useful comparisons with HUD's market estimates from the 1995 rule. The discussion will then examine the market estimates for the heavy refinance year of 1998. After that, HUD's method for adjusting the 1995–98 market data to exclude B&C loans as well as the non-metropolitan area adjusted market for the Underserved Areas Goal will be explained. (See Table D.15)

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Table D.15

Goals-Qualifying Market Shares, (Without B&C Loans) 1995-1998

	1995	1996	1997	1998
1. Low-Mod Goal	57.3 %	57.3 %	57.5 %	53.8 %
2. Special Affordable Goal	28.9	28.7	28.8	25.8
3. Underserved Area Goal	32.4	31.9	32.4	29.4
(a) Include Non-Metropolitan Underserved Areas	33.9	33.4	33.9	30.9

Notes: See the text (a) for the method for excluding B&C loans from the market, and (b) for the rationale for increasing the metropolitan-area-based market share by 1.5 percentage points to incorporate underserved areas in non-metropolitan areas.

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HUD's market estimates in 1995 were 48–52 percent for the Low- and Moderate-Income Goal, 20–23 percent for the Special Affordable Goal, and 25–28 percent for the Underserved Areas Goal. Thus, even the upper bound figures for the market share ranges in the 1995 rule proved to be low for the 1995–97 period—for the low-mod estimate, 52 percent versus 57–58 percent; for the special affordable estimate, 23 versus 28–29 percent, and for the underserved areas estimate, 28 percent versus 33–34 percent.

There are several factors explaining HUD's underestimate of the goals-qualifying market shares. The 1995–97 mortgage markets originated more affordable single-family mortgages than anticipated, mainly due to historically low interest rates and strong economic expansion. In 1997, for instance, almost 44 percent of all (home purchase and refinance) single-family-owner mortgages qualified for the Low- and Moderate-Income Goal, 16 percent qualified for the Special Affordable Goal, and 28 percent qualified for the Underserved Areas Goal.[58] HUD's 1995 estimates anticipated smaller shares of new mortgages being originated for low-income families and in their neighborhoods.[59 60]

The financing of multifamily properties during 1995–97 was larger than anticipated. HUD's earlier estimates assumed a multifamily share of 16 percent, which was lower than the approximately 19 percent multifamily share for the years 1995–97. The underestimate for the multifamily share was due both to a larger multifamily dollar volume ($34 billion for 1995, $37 billion for 1996, and $38 billion for 1997) than anticipated in the 1995 GSE rule ($30 billion) and to lower per unit multifamily loan amounts than assumed in HUD's earlier model.[61]

B&C Mortgages. As discussed in Appendix A, the market for subprime mortgages has experienced rapid growth over the past 2–3 years. Table D.15 provides goals-qualifying market shares that exclude the B&C portion of the subprime market. This section explains how these ''adjusted'' market shares are calculated from ''unadjusted'' market shares that include B&C loans, using the year 1997 as an example. Comprehensive data for measuring the size of the subprime market are not available. However, estimates by various industry observers suggest that the subprime market could have accounted for as much as 15 percent of all mortgages originated during 1997, which would have amounted to approximately $125 billion.[62] In terms of credit risk, this $125 billion includes a wide range of mortgage types. ''A-minus'' loans, which represented at least half of the subprime market in 1997, make up the least risky category. As discussed in Appendix A, the GSEs are involved in this market both through specific program offerings and through purchases of securities backed by subprime loans (including B&C loans). The B&C loans experience much higher delinquency rates than A-minus loans.[63]

The procedure for excluding B&C mortgages from estimated ''unadjusted'' market shares for goals-qualifying loans in 1997 combined information from several sources. First, the $125 billion estimate for the subprime market was reduced by 20 percent to arrive at an estimate of $100 billion for subprime loans that were less than the conforming loan limit of $214,600 in 1997. This figure was reduced by one-half to arrive at an estimate of $50 billion for the conforming B&C market; with an average loan amount of $68,289 (obtained from HMDA data, as discussed below), the $50 billion represented approximately 732,182 B&C loans originated during 1997 under the conforming loan limit.

HMDA data was used to provide an estimate of the portion of these 732,182 B&C loans that would qualify for each of the housing goals. HMDA data does not identify subprime loans, much less divide them into their A-minus and B&C components. As explained in Appendix A, Randall Scheessele in HUD's Office of Policy Development and Research has identified 200 HMDA reporters that primarily originate subprime loans. The goals-qualifying percentages of the loans originated by these subprime lenders in 1997 were as follows: 57.3 percent qualified for the Low- and Moderate-Income Goal, 28.1 percent for the Special Affordable Goal, and 44.7 percent for the Underserved Areas Goal.[64] Applying the goals-qualifying percentages to the estimated B&C market total of 732,182 gives the following estimates of B&C loans that qualified for each of the housing goals in 1997: Low- and Moderate Income (419,540), Special Affordable (205,743), and Underserved Areas (327,286).

Adjusting HUD's model to exclude the B&C market involves subtracting the above four figures' one for the overall B&C market and three for B&C loans that qualify for each of the three housing goals—from the corresponding figures estimated by HUD for the total single-family and multifamily market inclusive of B&C loans. HUD's model estimates that 8,039,132 single-family and multifamily units were financed during 1997; of these, 4,620,828 (57.5 percent) qualified for the Low- and Moderate-Income Goal, 2,311,251 (28.8 percent) for the Special Affordable Goal, and 2,694,351 (33.5 percent) for the Underserved Areas Goal. Deducting the B&C market estimates produces the following adjusted market estimates: a total market of 7,306,950, of which 4,201,287 (57.5 percent) qualified for the Low- and Moderate-Income Goal, 2,105,508 (28.8 percent) for the Special Affordable Goal, and 2,367,066 (32.4 percent) for the Underserved Areas Goal.

As seen, the low-mod market share estimate exclusive of B&C loans (57.5 percent) is the same as the original market estimate (57.5 percent) and the corresponding special affordable market estimate (28.8 percent) is also the same as the original estimate. This occurs because the B&C loans that were dropped from the analysis had similar low-mod and special affordable percentages as the overall (both single-family and multifamily) market. For example, the low-mod share of B&C loans was projected to be 57.3 percent and HUD's market model projected the overall low-mod share to be 57.5 percent. Thus, dropping B&C loans from the market totals does not change the overall low-mod share of the market.

The situation is different for the Underserved Areas Goal. Underserved areas account for 44.7 percent of the B&C loans, which is a higher percentage than the underserved area share of the overall market (33.5 percent). Thus, dropping the B&C loans leads to a reduction in the underserved areas market share of 1.1 percentage points, from 33.5 percent to 32.4 percent.

Dropping B&C loans from HUD's model changes the mix between rental and owner units in the final market estimate. Based on assumptions about the size of the owner and rental markets for 1997, HUD's model calculates that single-family-owner units accounted for 70.2 percent of total units financed during 1997. Dropping the B&C owner loans, as described above, reduces the owner percentage of the market by three percentage points to 67.2 percent. Thus, another way of explaining why the goals-qualifying market shares are not affected so much by dropping B&C loans is that the rental share of the overall market increases as the B&C owner units are dropped from the market. Since rental units have very high goals-qualifying percentages, their increased importance in the market partially offsets the negative effects on the goals-qualifying shares of any reductions in B&C owner loans. In fact, this rental mix effect would come into play with any reduction in owner units from HUD's model.

There are caveats that should be mentioned concerning the above adjustments for the B&C market for 1997. The adjustment for B&C loans depends on several estimates relating to the 1997 mortgage market, derived from various sources. Different estimates of the size of the B&C market in 1997 or the goals-qualifying shares of the B&C market could lead to different estimates of the goals-qualifying shares for the overall market. The goals-qualifying shares of the B&C market were based on HMDA data for selected lenders that primarily originate subprime loans; since these lenders are likely originating both A-minus and B&C loans, the goals-qualifying percentages used here may not be accurately measuring the goals-qualifying percentages for only B&C loans. The above technique of dropping B&C loans also assumes that the coverage of B&C and non-B&C loans in HMDA's metropolitan area data is the same; however, it is likely that HMDA coverage of non-B&C loans is higher than its coverage of B&C loans.[65] Despite these caveats, it also appears that reasonably different estimates of the various market parameters would not likely change, in any significant way, the above estimates of the effects of excluding B&C loans in calculating the goals-qualifying shares of the market. As discussed below, HUD provides a range of estimates for the goals-qualifying market shares to account for uncertainty related to the various parameters included in its projection model for the mortgage market.

Adjustment for Non-Metropolitan Areas. The first set of 1995–98 market shares for underserved areas is based on single-family-owner parameters for metropolitan areas. It is necessary to adjust these market shares upward by about 1.5 percentage points to reflect the fact that underserved counties account for a much larger portion of non-metropolitan areas than underserved census tracts do metropolitan areas. The method for deriving the 1.5 percentage point adjustment is explained in Section G.3 below, which presents the projected 2001–03 market estimates for the Underserved Areas Goal.

1998 Market Estimates. The high volume of single-family mortgages in the heavy refinance year of 1998 increased the share of single-family-owner units to 73.1 percent, compared with 68–70 percent for 1995 to 1997. This shift toward single-family loans, combined with the higher level of single-family refinance activity in 1998, results in market shares that are slightly smaller than reported for 1995–97. The following estimates are obtained: low-mod, 53.8 percent; special affordable, 25.8 percent; and underserved areas, 30.9 percent.[66] While lower, these estimates remain higher than the market estimates that HUD made in 1995 (see earlier discussion for reasons).

b. Market Estimates

This section provides HUD's estimates for the size of the low-and moderate-income mortgage market that will serve as a proxy for the four-year period (2001–2003) when the new housing goals will be in effect. Three alternative sets of projections about property shares and rental property low-and moderate-

income percentages are given in Table D.16. Case 1 projections represent the baseline and intermediate case; it assumes that investors account for 10 percent of the single-family mortgage market. Case 2 assumes a lower investor share (8 percent) based on HMDA data and slightly more conservative low-and moderate-income percentages for single-family rental and multifamily properties (85 percent). Case 3 assumes a higher investor share (12 percent) consistent with Follain and Blackley's suggestions.

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Table D.16

Alternative Assumptions for Single-Family Rental and Multifamily Mortgage Shares

	Case 1	Case 2	Case 3
1. Single-Family Mortgage Shares			
Single-Family Owner-Occupied	88.0%	90.0%	85.6%
Single-Family 2-4	2.0%	2.0%	2.4%
Single-Family 1-4 Investor	10.0%	8.0%	12.0%
2. Units Per Single-Family Mortgage			
Single-Family 2-4	2.25	2.25	2.25
Single-Family 1-4 Investor	1.35	1.35	1.40
3. Percentage Affordable at Area Median Income (AMI)			
Single-Family Rental	90.0%	85.0%	95.0%
Multifamily	90.0%	85.0%	95.0%
4. Percentage Underserved			
Single-Family Rental	42.5%	40.0%	45.0%
Multifamily	48.0%	46.0%	48.0%
5. Percent Affordable at 60% of AMI			
Single-Family Rental	50.0%	47.0%	53.0%
Multifamily	47.0%	44.0%	50.0%
6. Percentage Low-Income in Low-Income Areas:			
Single-Family Rental	8.0%	6.0%	8.0%
Multifamily	11.0%	10.0%	12.0%

Table D.17

Low- and Moderate-Income Mortgage Market: Sensitivity Analysis

Case 1 with Different Percentages for Single-Family Owner-Occupied's with Income Less than AMI:		Multifamily Mix (Percent) 13.5%	15%	16.5%
Single-Family: [a]	43%	54.7 %	55.3 %	55.9 %
	42%	54.0	54.6	55.2
	41%	53.2	53.9	54.5
	40%	52.5	53.2	53.8
	39%	51.8	52.4	53.1
	38%	51.0	51.7	52.4
	37%	50.3	51.0	51.7
	36%	49.6	50.3	51.0
	35%	48.8	49.5	50.3
	34%	48.1	48.8	49.6
Single-Family:	40% with:			
	Case 1 (above)	52.5 %	53.2 %	53.8 %
	Case 2	50.2	50.8	51.4
	Case 3	55.4	56.1	56.8
Single-Family:	36% with:			
	Case 1 (above)	49.6 %	50.3 %	51.0 %
	Case 2	47.2	47.8	48.5
	Case 3	52.6	53.3	54.1

[a] These percentages are used for home purchase loans. Refinance loans were assumed to be 3 percentage points less for each alternative.

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Because single-family-owner units account for about 70 percent of all newly mortgaged dwelling units, the low- and moderate-income percentage for owners is the most important determinant of the total market estimate.[67] Thus, Table D.17 provides market estimates for different low-mod percentages for the owner market as well as for different multifamily mix percentages—the 15.0 percent projection bracketed by 13.5 percent and 16.5 percent. As discussed in Section C of this appendix, 16.5 percent represents the average multifamily share between 1991 and 1998, while 15 percent represents a slightly more conservative baseline.

Several low-mod percentages of the owner market are given in Table D.17 to account for different perceptions about the low-mod share of that market. Essentially, HUD's approach throughout this appendix is to provide several sensitivity analyses to illustrate the effects of different views about the goals-qualifying share of the single-family-owner market on the goals-qualifying share of the overall mortgage market. This approach recognizes that there is some uncertainty in the data and that there can be different viewpoints about the various market definitions and other model parameters.

With respect to excluding B&C loans from the market estimates, Table D.17 can be interpreted in two ways. *First*, readers could choose a home purchase low-mod percentage (that is, one of the percentages in the first column) that they believe is adjusted for B&C loans and then obtain a rough estimate of the overall low-mod estimate from the second to fourth columns corresponding to different

multifamily mixes. For instance, if one believes the appropriate home purchase percentage adjusted for B&C loans (or adjusted for any other exclusions that the reader thinks are appropriate) is 39 percent, then the low-mod market estimate is 52.4 percent assuming a multifamily mix of 15 percent. *Second,* readers could choose a home purchase percentage directly from HMDA data that is unadjusted for B&C loans and then rely on HUD's methodology (described below) for excluding B&C loans from the market estimates reported in Table D.17. The advantage of the second approach is that HUD's methodology makes the appropriate adjustments to the various property shares (*i.e.*, the owner versus rental percentages) due to excluding B&C owner loans from the analysis. According to HUD's methodology, dropping B&C owner loans would reduce the various low-mod market estimates reported in Table D.17 by less than half of a percentage point. This minor effect is due to (a) the fact that the low-mod share of B&C loans is similar to that of the overall market; and (b) the offsetting effects of the increase in the rental share when B&C owner loans are dropped from the market totals. For this reason, the low-mod market estimates reported in Table D.17 provide a reasonable proxy for low-mod market estimates without B&C loans. This issue is discussed in more detail below.

As shown in Table D.17, the market estimate is 53–56 percent if the owner percentage is at or above 40 percent (slightly less than its 1994–98 levels), and it is 52–53 percent if the owner percentage is 39 percent (its 1993 level). If the low- and moderate-income percentage for owners fell from its 1997–98 level of 43 percent to 35 percent, the overall market estimate would be approximately 50 percent. Thus, 50 percent is consistent with a rather significant decline in the low-mod share of the single-family home purchase market. Under the baseline projection, the home purchase percentage can fall as low as 34 percent—about four-fifths of the 1997–98 level—and the low- and moderate-income market share would still be 49 percent.

The volume of multifamily activity is an important determinant of the size of the low- and moderate-income market. HUD is aware of the uncertainty surrounding projections of the multifamily market and consequently recognizes the need to conduct sensitivity analyses to determine the effects on the overall market estimate of different assumptions about the size of that market. As discussed in Section E.2, the multifamily mix assumption of 15 percent produces an overall (both multifamily and single-family) rental mix of 27.8 percent, which is about a percentage point less than the overall rental mix projection in HUD's 1995 rule. Lowering the multifamily mix to 13.5 produces the set of overall low-mod market estimates that are reported in the first column of Table D.17. Compared with 15 percent, the 13.5 percent mix assumption reduces the overall low-mod market estimates by slightly over a half percentage point. For example, when the low-mod share of the owner market is 42 percent, the low-mod share of the overall market is 54.6 percent assuming a 15 percent multifamily mix but is 54.0 percent assuming a 13.5 percent multifamily mix.[68]

The market estimates for Case 2 and Case 3 bracket those for Case 1. The smaller single-family rental market and lower low- and moderate-income percentages for rental properties result in the Case 2 estimates being almost two percentage points below the Case 1 estimates. Conversely, the higher percentages under Case 3 result in estimates of the low-mod market approximately three percentage points higher than the baseline estimates.

The various market estimates presented in Table D.17 are not all equally likely. Most of them equal or exceed 51 percent; in the baseline model, estimates below 51 percent would require the low-mod share of the single-family owner market for home purchase loans to drop to approximately 36 percent which would be over six percentage points lower than the 1993–98 average for the low-mod share of the home purchase market. With a multifamily mix at 13.5 percent, the low-mod share of the owner market can fall to 36 percent before the average market share falls below 50 percent.

The upper bound (56 percent) of the low-mod estimates reported in Table D.17 for the baseline case is lower than the low-mod share of the market between 1995 and 1997. As reported above, HUD estimates that the low-mod market share during this period was about 57 percent. There are two reasons the projected low-mod estimates are lower than the 1995–97 experience. First, the projected rental share of 28 percent is lower than the rental share of 31 percent for the 1995–97 period; a smaller market share for rental units lowers the low-mod market share. Second, HUD's projections assume that refinancing borrowers will have higher incomes than borrowers purchasing a home (explained below). As Table D.14 shows, this was the reverse of the situation between 1995 and 1997 when refinancing borrowers had higher incomes than borrowers purchasing a home.[69] This fact, along with the larger single-family mix effect, resulted in the low-mod share of the market falling below the 1997 level of 57 percent.

B&C Loans. As discussed above, if one assumes the home purchase percentages in the first column of Table D.17 are unadjusted for B&C loans, then the overall low-mod market estimates must be adjusted to exclude these loans. B&C loans can be deducted from HUD's low-mod market estimates using the same procedure described earlier. But before doing that, some additional comments about how HUD's projection model operates are in order. HUD's projection model assumes that the low-mod share of refinance loans will be three percentage points lower than the low-mod share of home purchase loans, even though there have been years recently (1995–97) when the low-mod share of refinance loans has been as high or higher than that for home purchase loans (see Table D.14).[70] Since B&C loans are primarily refinance loans, this assumption of a lower low-mod share for refinance loans partially adjusts for the effects of B&C loans, based on 1995–97 market conditions. For example, in Table D.17, the low-mod home purchase percentage of 43 percent, which reflects 1997 conditions, is combined with a low-mod refinance percentage of 40 percentage when, in fact, the low-mod refinance percentage in 1997 was 45 percent. Thus, by taking the 1992–98 average low-mod differential between home purchase and refinance loans, the projection model deviates from 1995–97 conditions in the single-family owner market.[71]

The effects of deducting the B&C loans from the projection model can be illustrated using the above example of a low-mod home purchase percentage of 42 percent and a low-mod refinance percentage of 39 percent; as Table D.17 shows, this translates into an overall low-mod market share of 54.6 percent. It is assumed that the subprime market accounts for 12 percent of all mortgages originated, which would be $114 billion based on $827 billion for the conventional market. This $114 billion estimate for the subprime market is reduced by 20 percent to arrive at $91 billion for subprime loans that will be less than the conforming loan limit. This figure is reduced by one-half to arrive at approximately $46 billion for the conforming B&C market; with an average loan amount of $82,022; the $46 billion represents 556,000 B&C loans projected to be originated under the conforming loan limit.[72]

Following the procedure discussed in Section F.3.a, the low-mod share of the market exclusive of B&C loans is estimated to be 54.3 percent, which is only slightly lower than the original estimate (54.6 percent).[73] As noted earlier, this occurs because the B&C loans that were dropped from the analysis had similar low-mod percentages as the overall (both single family and multifamily) market (59.3 percent and 55.7 percent, respectively). The impact of dropping B&C loans is larger when the overall market share for low-mod loans is smaller. As shown in Table D.17, a 38 percent low-mod share for single-family owners is associated with an overall low-mod share of 51.7 percent. In this case, dropping B&C loans would reduce the low-mod market share by 0.5 percentage point to 51.2 percent. Still, dropping B&C loans from the market totals does not change the overall low-mod share of the market appreciably.

Dropping B&C loans from HUD's projection model changes the mix between rental and owner units in the final market estimate; rental units accounted for 30.1 percent of total units after dropping B&C loans compared with 27.8 percent before dropping B&C loans. Since practically all rental units qualify for the low-mod goal, their increased importance in the market partially offsets the negative effects on the goals-qualifying shares of any reductions in B&C owner loans.

Section F.3.a discussed several caveats concerning the analysis of B&C loans. It is not clear what types of loans (e.g., first versus second mortgages) are included in the B&C market estimates. There is only limited data on the borrower characteristics of B&C loans and the extent to which these loans are included in HMDA is not clear. Still, the analysis of Table D.17 and the above analysis of the effects of dropping B&C loans from the market suggest that 50–55 percent is a reasonable range of estimates for the low- and moderate-income market for the years 2001–

2003. This range covers markets without B&C loans and allows for market environments that would be much less affordable than recent market conditions. The next section presents additional analyses related to market volatility and affordability conditions.

c. Economic Conditions, Market Estimates, and the Feasibility of the Low- and Moderate-Income Housing Goal

During the 1995 rule-making, there was a concern that the market share estimates and the housing goals failed to recognize the volatility of housing markets and the existence of macroeconomic cycles. There was particular concern that the market shares and housing goals were based on a period of economic expansion accompanied by record low interest rates and high housing affordability. As discussed in Section B of this appendix, the GSEs expressed similar concerns in their comments on this year's proposed rule. This section discusses these issues, noting that the Secretary can consider shifts in economic conditions when evaluating the performance of the GSEs on the goals, and noting further that the market share estimates can be examined in terms of less favorable market conditions than existed during the 1993 to 1998 period.

Volatility of Market. The starting point for HUD's estimates of market share is the projected $950 billion in single-family originations. Shifts in economic activity could obviously affect the degree to which this projection is borne out. As noted earlier, the Mortgage Bankers Association has recently revised its forecasts of mortgage originations numerous times in the face of projected changes in market conditions. Changing economic conditions can affect the validity of HUD's market estimates as well as the feasibility of the GSEs' accomplishing the housing goals.

One only has to recall the volatile nature of the mortgage market in the past few years to appreciate the uncertainty around projections of that market. Large swings in refinancing, consumers switching between adjustable-rate mortgages and fixed-rate mortgages, and increased first-time homebuyer activity due to record low interest rates, have all characterized the mortgage market during the nineties. These conditions are beyond the control of the GSEs but they would affect their performance on the housing goals. A mortgage market dominated by heavy refinancing on the part of middle-income homeowners would reduce the GSEs' ability to reach a specific target on the Low- and Moderate-Income Goal, for example. A jump in interest rates would reduce the availability of very-low-income mortgages for the GSEs to purchase. But on the other hand, the next few years may be favorable to achieving the goals because of the high refinancing activity in 1998 and early 1999. While interest rates have recently risen, they continue to be moderate by historical standards. A period of low-to-moderate interest rates would sustain affordability levels without causing the rush to refinance seen earlier in 1993 and more recently in 1998. A high percentage of potential refinancers have already done so, and are less likely to do so again.

HUD conducted numerous sensitivity analyses of the market shares. In the projection model, increasing the single-family mortgage origination forecast while holding the multifamily origination forecast constant is equivalent to reducing the multifamily mix. Increasing the single-family projection by $100 billion, from $950 billion to $1,050 billion, would reduce the market share for the Low-and Moderate-Income Goal by approximately 0.5 percentage point, assuming the other baseline assumptions remain unchanged.[74] A $200 billion increase would reduce the low-mod projected market share by 0.9 percentage point.

HUD also examined potential changes in the market shares under very different macroeconomic environments, one assuming a recession and one assuming a period of low interest rates and heavy refinancing. The recessionary environment was simulated using Fannie Mae's minimum projections of single-family mortgage originations ($880 billion). The low- and moderate-income share of the home purchase market was reduced to 34 percent, or 8.5 percentage points lower than its 1997 share.[75] Under these rather severe conditions, the overall market share for the Low- and Moderate-Income Goal would decline to 50.4 percent. If the low-mod share of the owner market were reduced to 32 percent (for both home purchase and refinance loans), the low-mod share for the overall market would fall to 49.0 percent.

The heavy refinance environment was simulated assuming that the single-family origination market increased to $1,400 billion, which increases the owner share of newly-mortgaged dwelling units from 72.2 percent under HUD's baseline model to 73.2 percent. Refinances were assumed to account for 60 percent of all single-family mortgage originations. If low- and moderate-income borrowers accounted for 40 percent of borrowers purchasing a home but only 36 percent of refinancing borrowers, then the market share for the Low- and Moderate-Income Goal would be 51.6 percent. If the first two percentages were reduced to 39 percent and 32 percent, respectively, then the market share for the Low- and Moderate-Income Goal would fall to 49.6 percent. However, if the refinance market resembled 1998 conditions, the low-mod share would be 54 percent, as reported earlier.

Finally, HUD simulated the specific scenario based on the MBA's most recent market estimate of $912 billion and a refinance rate of 22 percent. In this case, assuming a low-mod home purchase percentage of 40, the overall low-mod market share was 53.4 percent, assuming a multifamily mix of 15 percent; 52.8 percent, assuming a multifamily mix of 13.5 percent; and 54.1 percent, assuming a multifamily mix of 16.5 percent.

Feasibility Determination. As stated in the 1995 rule, HUD is well aware of the volatility of mortgage markets and the possible impacts on the GSEs' ability to meet the housing goals. FHEFSSA allows for changing market conditions.[76] If HUD has set a goal for a given year and market conditions change dramatically during or prior to the year, making it infeasible for the GSE to attain the goal, HUD must determine ''whether (taking into consideration market and economic conditions and the financial condition of the enterprise) the achievement of the housing goal was or is feasible.'' This provision of FHEFSSA clearly allows for a finding by HUD that a goal was not feasible due to market conditions, and no subsequent actions would be taken. As HUD noted in the 1995 GSE rule, it does not set the housing goals so that they can be met even under the worst of circumstances. Rather, as explained above, HUD has conducted numerous sensitivity analyses for economic environments much more adverse than has existed in recent years. If macroeconomic conditions change even more dramatically, the levels of the goals can be revised to reflect the changed conditions. FHEFSSA and HUD recognize that conditions could change in ways that require revised expectations.

Affordability Conditions and Market Estimates. The market share estimates rely on 1992–1998 HMDA data for the percentage of low- and moderate-income borrowers. As discussed in Appendix A, record low interest rates, a more diverse socioeconomic group of households seeking homeownership, and affordability initiatives of the private sector have encouraged first-time buyers and low-income borrowers to enter the market during the mid- and late-1990s. A significant increase in interest rates over recent levels would reduce the presence of low-income families in the mortgage market and the availability of low-income mortgages for purchase by the GSEs. As discussed above, the 50–55 percent range for the low-mod market share covers economic and housing market conditions much less favorable than recent conditions of low interest rates and economic expansion. The low-mod share of the single-family home purchase market could fall to 34 percent, which is over nine percentage points lower than its 1998 level of about 43 percent, before the baseline market share for the Low- and Moderate-Income Goal would fall to 49 percent.

d. Conclusions About the Size of Low- and Moderate-Income Market

Based on the above findings as well as numerous sensitivity analyses, HUD concludes that 50–55 percent is a reasonable range of estimates of the mortgage market's low- and moderate-income share for each of years 2001–2003. This range covers much more adverse market conditions than have existed recently, allows for different assumptions about the multifamily market, and excludes the effects of B&C loans. HUD recognizes that shifts in economic conditions could increase or decrease the size of the low- and moderate-income market during that period.

G. Size of the Conventional Conforming Market Serving Central Cities, Rural Areas, and Other Underserved Areas

The following discussion presents estimates of the size of the conventional conforming market for the Central City, Rural Areas, and other Underserved Areas Goal; this housing goal will also be referred to as the Underserved Areas Goal or the

Geographically-Targeted Goal. The first two sections focus on underserved census tracts in metropolitan areas. Section 1 presents underserved area percentages for different property types while Section 2 presents market estimates for metropolitan areas. Section 3 discusses B&C loans and rural areas.

This rule establishes that the Central Cities, Rural Areas, and other Underserved Areas Goal at 31 percent of eligible units financed in each of calendar years 2001–2003.

1. Geographically-Targeted Goal Shares by Property Type

For purposes of the Geographically-Targeted Goal, underserved areas in metropolitan areas are defined as census tracts with:

(a) Tract median income at or below 90 percent of the MSA median income; or

(b) a minority composition equal to 30 percent or more and a tract median income no more than 120 percent of MSA median income.

Owner Mortgages. The first set of numbers in Table D.18 are the percentages of single-family-owner mortgages that financed properties located in underserved census tracts of metropolitan areas between 1992 and 1998. In 1997 and 1998, approximately 25 percent of home purchase loans financed properties located in these areas; this represents an increase from 22 percent in 1992 and 1993. In some years, refinance loans are even more likely than home purchase loans to finance properties located in underserved census tracts. Between 1994 and 1997, 28.5 percent of refinance loans were for properties in underserved areas, compared to 25.1 percent of home purchase loans.[77] In the heavy refinance year of 1998, underserved areas accounted for about 25 percent of both refinance and home purchase loans.

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Table D.18

Underserved Area Mortgage Market In Metropolitan Areas: 1993-1998 HMDA Data

Single-Family Owner-Occupied	Purchase		Refinance		Total	
1992	22.2%	(21.5)	20.1%	(19.9)	20.8	(20.4)
1993	21.9	(21.1)	19.5	(19.4)	20.2	(19.9)
1994	24.4	(23.5)	27.5	(26.7)	25.5	(24.9)
1995	25.5	(24.2)	29.3	(28.1)	26.9	(25.6)
1996	25.0	(23.1)	28.7	(27.9)	26.7	(25.3)
1997	25.2	(23.3)	30.8	(30.1)	27.8	(26.6)
1998	24.6	(22.8)	24.9	(24.5)	24.8	(23.9)
Non-Owner						
1992						42.4
1993		39.3		41.1		40.4
1994		39.6		46.7		43.0
1995		40.1		50.1		43.7
1996		39.7		48.8		43.5
1997		40.5		51.2		45.0
1998		40.3		46.5		43.6
Multifamily[1]						
1992						50.2
1993						47.1
1994						51.0
1995						47.8
1996						48.5
1997						48.0
1998						47.0

Source: HMDA data for metropolitan areas. Numbers in parantheses exclude loans less than $15,000 and loans from lenders that primarily originate manufactured housing home loans. The reductions in the refinance percentages are mainly due to excluding loans less than $15,000, as there are few manufactured housing refinance loans.

[1] A purchase/refinance breakdown is not available for multifamily.

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Since the 1995 rule was written, the single-family-owner market in underserved areas has remained strong, similar to the low- and moderate-income market discussed in Section F. Over the past five years, the underserved area share of the metropolitan mortgage market has leveled off at 25–28 percent, considering both home purchase and refinance loans. This is higher than the 23 percent average for the 1992–94 period, which was the period that HUD was

considering when writing the 1995 rule. As discussed earlier, economic conditions could change and reduce the size of the underserved areas market; however, that market appears to have shifted to a higher level over the past five years.

Renter Mortgages. The second and third sets of numbers in Table D.18 are the underserved area percentages for single-family rental mortgages and multifamily mortgages, respectively. Based on HMDA data for single-family, non-owner-occupied (investor) loans, the underserved area share of newly-mortgaged single-family rental units has been in the 43–45 percent range over the past five years. HMDA data also show that about half of newly-mortgaged multifamily rental units are located in underserved areas.

2. Market Estimates for Underserved Areas in Metropolitan Areas

In the 1995 GSE rule, HUD estimated that the market share for underserved areas would be between 25 and 28 percent. This estimate turned out to be below market experience, as underserved areas accounted for approximately 33–34 percent of all mortgages originated in metropolitan areas between 1995 and 1997 and for 31 percent in 1998 (see Table D.15).[78]

Table D.19 reports HUD's estimates of the market share for underserved areas based on the projection model discussed earlier.[79] As indicated in Table D.18, these overall market estimates are based mainly on HMDA-reported underserved area shares of owner and rental properties in metropolitan areas. As explained in Section F.3 below, the estimated combined effect of dropping B&C loans and of including non-metropolitan areas is to increase the underserved area market shares reported in Table D.19 by approximately one-half percentage point.

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Table D.19

Underserved Area Market Estimates For Metropolitan Areas: Sensitivity Analysis

Case 1 with Different Underserved Areas Percentages for Single-Family Owner-Occupied's:		Multifamily Mix (Percent)		
		13.5%	15%	16.5%
Single-Family Owner-Occupied: [a]	28%	32.6 %	32.9 %	33.1 %
	27%	31.9	32.1	32.4
	26%	31.1	31.4	31.7
	25%	30.4	30.7	31.0
	24%	29.7	30.0	30.3
	23%	28.9	29.3	29.6
	22%	28.2	28.5	28.9
	21%	27.5	27.8	28.2
	20%	26.7	27.1	27.5
	19%	26.0	26.4	26.7
	18%	25.2	25.6	26.0
Single-Family Owner-Occupied:	25% with:			
	Case 1 (above)	30.4 %	30.7 %	31.0 %
	Case 2	29.5	29.8	30.0
	Case 3	31.3	31.6	31.9
Single-Family Owner-Occupied:	22% with:			
	Case 1 (above)	28.2 %	28.5 %	28.9 %
	Case 2	27.2	27.5	27.9
	Case 3	29.2	29.5	29.8

[a] These percentages are assumed to be the overall (both home purchase and refinance) percentages of single-family owner mortgages in underserved census tracts.

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The percentage of single-family-owner mortgages financing properties in underserved areas is the most important determinant of the overall market share for this goal. Therefore, Table D.19 reports market shares for different single-family-owner percentages ranging from 28 percent (1997 HMDA) to 20 percent (1993 HMDA) to 18 percent. If the single-family-owner percentage for underserved areas is at its 1994–98 HMDA average of 26 percent, the market share estimate is over 31 percent. The overall market share for underserved areas peaks at 33 percent when the single-family-owner percentage is at its 1997 figure of 28 percent. Most of the estimated market shares for the owner percentages that are slightly below recent experience are in the 30 percent range. In the baseline case, the single-family-owner percentage can go as low as 23 percent, which is over 3 percentage points lower than the 1994–98 HMDA average, and the estimated market share for underserved areas remains over 29 percent.

Unlike the Low- and Moderate-Income Goal, the market estimates differ only slightly as one moves from Case 1 to Case 3 and from a 13.5 percent mix to 16.5 percent mix. For example, reducing the assumed multifamily mix to 13.5 percent reduces the overall market projection for underserved areas by only about 0.3 percentage points. This is because the underserved area differentials between owner and rental properties are not as large as the low- and moderate-income differentials reported earlier. Additional sensitivity analyses were conducted as described in Section F.3c.

For example, adding $100 ($200) billion to the $950 billion single-family originations would reduce the underserved area market

share by about 0.3 (0.5) percent, assuming there were no other changes. The MBA scenario combined with a single-family owner underserved area percentage of 25 percent, would produce an overall market share for underserved areas of 30.7 percent. The recession scenario described in Section F.3.c assumed that the underserved area percentage for single-family-owner mortgages was 21 percent or almost seven percentage points lower than its 1997 value. In this case, the overall market share for underserved areas declines to 28.4 percent. In the refinance scenarios, the underserved areas market share was approximately 31 percent.

3. Adjustments: B&C Loans and the Rural Underserved Area Market

B&C Loans. The procedure for dropping B&C loans from the projections is the same as described in Section F.3.b for the Low- and Moderate-Income Goal. The underserved area percentage for B&C loans is 44.7 percent, which is much higher than the projected percentage for the overall market (30–33 percent as indicated in Table D.19). Thus, dropping B&C loans will reduce the overall market estimates. Consider in Table D.19, the case of a single-family-owner percentage of 26 percent, which yields an overall market estimate for underserved areas of 31.4 percent. Dropping B&C loans from the projection model reduces the underserved areas market share by 1.1 percentage points to 30.3.

Non-metropolitan Areas. Underserved rural areas are non-metropolitan counties with:

(a) county median income at or below 95 percent of the greater of statewide non-metropolitan median income or nationwide non-metropolitan income; or

(b) a minority composition equal to 30 percent or more and a county median income no more that 120 percent of the greater of statewide or national non-metropolitan median income.

HMDA's limited coverage of mortgage data in non-metropolitan counties makes it impossible to estimate the size of the mortgage market in rural areas. However, all indicators suggest that underserved counties in non-metropolitan areas comprise a larger share of the non-metropolitan mortgage market than the underserved census tracts in metropolitan areas comprise of the metropolitan mortgage market. For instance, underserved counties within rural areas include 54 percent of non-metropolitan homeowners; on the other hand, underserved census tracts in metropolitan areas account for only 34 percent of metropolitan homeowners.

During 1997–99, 36–38 percent of the GSE's total purchases in non-metropolitan areas were in underserved counties while 25–27 percent of their purchases in metropolitan areas were in underserved census tracts. These figures suggest the market share for underserved counties in rural areas is higher than the market share for underserved census tracts in metropolitan areas. Thus, using a metropolitan estimate to proxy the overall market for this goal, including rural areas, is conservative. Over the past few years, the non-metropolitan portion of the Underserved Areas Goal has contributed approximately 1.3 percentage point to the GSEs performance, compared with a goals-counting system that only included metropolitan areas.

The limited HMDA data available for non-metropolitan counties also suggest that the underserved areas market estimate would be higher if complete data for non-metropolitan counties were available. According to HMDA, underserved counties accounted for 42 percent of all mortgages originated in non-metropolitan areas during 1997 and 1998. By contrast, underserved census tracts accounted for approximately 25 percent of all mortgages in metropolitan area.[80] If this 17 point differential reflected actual market conditions, then the underserved areas market share estimated using metropolitan area data should be increased by 1.9 percentage points to account for the effects of underserved counties in non-metropolitan areas.[81] To be conservative, HUD used a 1.5 percentage adjustment in Table D.15 which reported market estimates for the 1995–98 period.

The combined effects of the above analyses on the underserved area market shares presented in Table D.19 can now be considered. First, deducting B&C loans from the analysis reduces the market estimates presented in Table D.19 by almost one percentage point. Second, including non-metropolitan counties in data for estimating the underserved areas market share could increase the market share estimates up to 2 percentage points. Therefore, the combination of these two effects suggests that the market estimates in Table D.19 should be increased by up to one percentage point, with one-half percentage point being a conservative upward adjustment. At a minimum, the various estimates presented in Table D.19 are conservative estimates of the underserved areas market excluding B&C loans but including non-metropolitan counties.[82]

The estimates presented in Table D.19 and this section's analysis of dropping B&C loans and including non-metropolitan areas suggest that 29–32 percent is a conservative range for the market estimate for underserved areas based on the projection model described earlier. This range incorporates market conditions that are more adverse than have existed recently and it excludes B&C loans from the market estimates. The estimate is conservative because, due to lack of data, it does not fully reflect the size of the mortgage market in non-metropolitan underserved counties.

4. Conclusions

Based on the above findings as well as numerous sensitivity analyses, HUD concludes that 29–32 percent is a conservative estimate of mortgage market originations that would qualify toward achievement of the Geographically Targeted Goal if purchased by a GSE. HUD recognizes that shifts in economic and housing market conditions could affect the size of this market; however, the market estimate allows for the possibility that adverse economic conditions can make housing less affordable than it has been in the last few years. In addition, the market estimate incorporates a range of assumptions about the size of the multifamily market and excludes B&C loans.

H. Size of the Conventional Conforming Market for the Special Affordable Housing Goal

This section presents estimates of the conventional conforming mortgage market for the Special Affordable Housing Goal. The special affordable market consists of owner and rental dwelling units which are occupied by, or affordable to: (a) Very low-income families; *or* (b) low-income families in low-income census tracts; *or* (c) low-income families in multifamily projects that meet minimum income thresholds patterned on the low-income housing tax credit (LIHTC).[38] HUD estimates that the special affordable market is 23–26 percent of the conventional conforming market.

HUD has determined that the annual goal for mortgage purchases qualifying under the Special Affordable Housing Goal shall be 20 percent of eligible units financed in each of calendar years 2001–2003. This final rule further provides that of the total mortgage purchases counted toward the Special Affordable Housing Goal, each GSE must annually purchase multifamily mortgages in an amount equal to at least 1.0 percent of the dollar volume of combined (single-family and multifamily) mortgage purchases over 1997 through 1999. This implies the following thresholds for the two GSEs:

	(In billions)
Fannie Mae	$2.85
Freddie Mac	2.11

Section F described HUD's methodology for estimating the size of the low-and moderate-income market. Essentially the same methodology is employed here except that the focus is on the very-low-income market (0–60 percent of Area Median Income) and that portion of the low-income market (60–80 percent of Area Median Income) that is located in low-income census tracts. Data are not available to estimate the number of renters with incomes between 60 and 80 percent of Area Median Income who live in projects that meet the tax credit thresholds. Thus, this part of the Special Affordable Housing Goal is not included in the market estimate.

1. Special Affordable Shares by Property Type

The basic approach involves estimating for each property type the share of dwelling units financed by mortgages in a particular year that are occupied by very-low-income families or by low-income families living in low-income areas. HUD has combined mortgage information from HMDA, the American Housing Survey, and the Property Owners and Managers Survey in order to estimate these special affordable shares.

a. Special Affordable Owner Percentages

The percentage of single-family-owners that qualify for the Special Affordable Goal is reported in Table D.20. That table also reports data for the two components of the Special Affordable Goal—very-low-income

borrowers and low-income borrowers living in low-income census tracts. HMDA data show that special affordable borrowers accounted for 15.3 percent of all conforming home purchase loans between 1996 and 1998. The special affordable share of the market has followed a pattern similar to that discussed earlier for the low-mod share of the market. The percentage of special affordable borrowers increased significantly between 1992 and 1994, from 10.4 percent of the conforming market to 12.6 percent in 1993, and then to 14.1 percent in 1994. The additional years since the 1995 rule was written have seen the special affordable market maintain itself at an even higher level. Over the past four years (1995–98), the special affordable share of the home loan market has averaged 15.1 percent, or almost 13.0 percent if manufactured and small loans are excluded from the market totals. As mentioned earlier, lending patterns could change with sharp changes in the economy, but the fact that there have been several years of strong affordable lending suggests that the market has changed in fundamental ways from the mortgage market of the early 1990s. The effect of one factor, the growth in the B&C loans, on the special affordable market is discussed below in Section H.2.

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Table D.20

Special Affordable Share of Single-Family Owner-Occupied Mortgage Market

	Home Purchase		Refinance	
	Conforming Market	Market W/O Mfg loans	Conforming Market	Market W/O Mfg loans
1. Very-Low-Income				
1992	8.7 %	7.6 %	4.5 %	4.2 %
1993	10.8	9.6	5.8	5.6
1994	11.9	10.7	11.0	10.2
1995	12.0	10.5	12.3	11.2
1996	12.7	10.8	13.0	12.2
1997	13.0	11.0	14.5	13.9
1998	13.3	11.4	11.3	11.1
2. Low Income in Low Income Areas				
1992	1.7 %	1.6 %	1.1 %	1.0 %
1993	1.8	1.7	1.2	1.2
1994	2.2	2.1	2.3	2.2
1995	2.4	2.2	2.7	2.5
1996	2.3	2.0	2.6	2.5
1997	2.3	2.0	3.0	2.9
1998	2.2	2.0	2.2	2.1
3. Special Affordable (1 plus 2)				
1992	10.4 %	9.3 %	5.5 %	5.2 %
1993	12.6	11.3	7.0	6.8
1994	14.1	12.8	13.2	12.4
1995	14.4	12.7	14.9	13.7
1996	15.0	12.8	15.6	14.7
1997	15.3	13.0	17.6	16.8
1998	15.5	13.4	13.5	13.2

Source: HMDA data. "Market without manufactured housing loans" excludes loans by lenders that primarily originate manufactured housing loans and loans less than $15,000.

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b. Very-Low-Income Rental Percentages

Table D.14 in Section F reported the percentages of the single-family rental and multifamily stock affordable to very-low-income families. According to the AHS, 59 percent of single-family units and 53 percent of multifamily units were affordable to very-low-income families in 1997. The corresponding average values for the AHS's six surveys between 1985 and 1997 were 58 percent and 47 percent, respectively.

Outstanding Housing Stock versus Mortgage Flow. As discussed in Section F, an important issue concerns whether rent data based on the existing rental stock from the AHS can be used to proxy rents of newly mortgaged rental units.[84] HUD's analysis of POMS data suggests that it can—estimates from POMS of the rent affordability of newly-mortgaged rental properties are quite consistent with the AHS data reported in Table D.14 on the affordability of the rental stock. Fifty-six (56) percent of single-family rental properties with new mortgages between 1993 and 1995 were affordable to very-low-income families, as was 51 percent of newly-mortgaged multifamily properties. These percentages for newly-mortgaged properties from the POMS are similar to those reported above from the AHS for the rental stock. The baseline projection from HUD's market share model assumes that 50 percent of newly-mortgaged, single-family rental units, and 47 percent of multifamily units, are affordable to very-low-income families.

c. Low-Income Renters in Low-Income Areas

HMDA does not provide data on low-income renters living in low-income census tracts. As a substitute, HUD used the POMS and AHS data. The share of single-family and multifamily rental units affordable to low-income renters at 60–80 percent of area median income (AMI) and located in low-income tracts was calculated using the internal Census Bureau AHS and POMS data files.[85] The POMS data showed that 8.3 percent of the 1995 single-family rental stock, and 9.3 percent of single-family rental units receiving financing between 1993 and 1995, were affordable at the 60–80 percent level and were located in low-income census tracts. The POMS data also showed that 12.4 percent of the 1995 multifamily stock, and 13.5 percent of the multifamily units receiving financing between 1993 and 1995, were affordable at the 60–80 percent level and located in low-income census tracts.[86] The baseline analysis below assumes that 8 percent of the single-family rental units and 11.0 percent of multifamily units are affordable at 60–80 percent of AMI and located in low-income areas.[87]

2. Size of the Special Affordable Market

During the 1995 rule making, HUD estimated a market share for the Special Affordable Goal of 20–23 percent. This estimate turned out to be below market experience, as the special affordable market accounted for almost 29 percent of all housing units financed in metropolitan areas between 1995 and 1997 (see Table D.15). As explained in Section F.3.a, there are several explanations for HUD's underestimate of the 1995–97 market. The financing of rental properties during 1995–97 was larger than anticipated. Another important reason for HUD's underestimate was not anticipating the high percentage of single-family-owner mortgages that would be originated for special affordable borrowers. During the 1995–97 period, 15.4 percent of all (both home purchase and refinance) single-family-owner mortgages financed properties for special affordable borrowers; this compares with 9.5 percent for the 1992–94 period which was the basis for HUD's earlier analysis. The 1995–97 mortgage markets originated more affordable single-family mortgages than anticipated.[88] Furthermore, the special affordable market remained strong during the heavy refinance year of 1998. Almost 26 percent of all dwelling units financed in 1998 qualified for the Special Affordable Goal.

The size of the special affordable market depends in large part on the size of the multifamily market and on the special affordable percentages of both owners and renters. Table D.21 gives new market estimates for different combinations of these factors. As before, Case 2 is slightly more conservative than the baseline projections (Case 1) mentioned above. For instance, Case 2 assumes that only 6 percent of rental units are affordable to low-income renters living in low-income areas.

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Table D.21

Special Affordable Mortgage Market: Sensitivity Analysis

	Multifamily Mix (Percent)		
Case 1 With:	13.5%	15%	16.5%
(a) Rent Affordable at 60% AMI: Single-Family Rent Percentages= 50%, Multifmaily= 47%			
(b) Low-Income in Low-Income Areas= 8% for Single-Family Rental and 11% for Multifamily			
(c) Single-Family Owner-Occupied's Special Affordable Share: [a]			
15.0%	26.1 %	26.6 %	27.2 %
14.0%	25.4	25.9	26.5
13.0%	24.6	25.2	25.8
12.0%	23.9	24.5	25.1
11.0%	23.1	23.8	24.4
10.0%	22.4	23.0	23.6
9.0%	21.7	22.3	22.9
Case 2 With:			
(a) Rent Affordable at 60% AMI: Single-Family Rent Percentages= 47%, Multifamily= 44%			
(b) Low-Income in Low-Income Areas= 6% for Single-Family Rental and 10% for Multifamily			
(c) Single-Family Owner-Occupied's Special Affordable Share:			
14.0%	23.3 %	23.8 %	24.4 %
13.0%	22.6	23.1	23.7
12.0%	21.8	22.4	22.9
11.0%	21.0	21.6	22.2
10.0%	20.3	20.9	21.5
Case 3 With:			
(a) Rent Affordable at 60% AMI: Single-Family Rent Percentage= 53%, Multifamily= 50%			
(b) Low-Income in Low-Income Areas= 8% for Single-Family Rental and 12% for Multifamily			
(c) Single-Family Owner-Occupied's Special Affordable Share:			
14.0%	27.6 %	28.2 %	28.8 %
13.0%	26.9	27.5	28.1
12.0%	26.2	26.8	27.5
11.0%	25.5	26.1	26.8
10.0%	24.8	25.4	26.1

[a] These percentages are used for home purchase loans. Refinance loans were assumed to be 1.4 percentage points lower for each alternative.

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When the special affordable share of the single-family market for home mortgages is at its 1994–98 level of 14–15 percent, the special affordable market estimate is 26–27 percent under HUD's projections. In fact, the market estimates remain above 23 percent even if the special affordable percentage for home loans falls from its 15-percent-plus level during 1996–1998 to as low as 10–11 percent, which is similar to the 1992 level. Thus, a 23 percent market estimate allows for the possibility that adverse economic conditions could keep special affordable families out of the housing market. On the other hand, if the special affordable percentage stays at its recent levels, the market estimate is in the 26–27 percent range.[89]

B&C Loans. The procedure for dropping B&C loans from the projections is the same as described in Section F.3.b for the Low- and Moderate-Income Goal. The special affordable percentage for B&C loans is 28.5 percent, which is not much higher than the projected percentages for the overall market given in Table D.21. Thus, dropping B&C loans will not appreciably reduce the overall market estimates. Consider in Table D.21, the case of a single-family-owner percentage of 14 percent, which yields an overall market estimate for Special Affordable Goal of 25.9 percent. Dropping B&C loans from the projection model reduces the special affordable market share by 0.2 percentage points to 25.7. Thus, the market shares reported in Table D.21 are reasonable estimates of the size of the special affordable market excluding B&C loans.

Based on the data presented in Table D.21 and the analysis of the effects of excluding B&C loans from the market, a range of 23–26 percent is a reasonable estimate of the special affordable market. This range includes market conditions that are much more adverse than have recently existed. Additional sensitivity analyses are provided in the remainder of this section.

Additional Sensitivity Analyses. Assuming that the special affordable share of the home loan market is 13 percent, reducing the multifamily mix from 15 percent to 12 (10) percent would reduce the overall special affordable market share from 25.2 percent to 24.0 (23.3) percent. In this case, increasing the multifamily mix from 15 percent to 18 percent would increase the special affordable market share from 25.2 percent to 26.4 percent.

As shown in Table D.21, the market estimates under the more conservative Case 2 projections are approximately two percentage points below those under the Case 1 projections. This is due mainly to Case 2's lower share of single-family investor mortgages (8 percent versus 10 percent in Case 1) and its lower affordability and low-income-area percentages for rental housing (*e.g.,* 53 percent for single-family rental units in Case 2 versus 58 percent in Case 1).

Increasing the single-family projection by $100 billion, from $950 billion to $1,050 billion, would reduce the market share for the Special Affordable Goal by approximately 0.4 percentage points, assuming the other baseline assumptions remain unchanged.[90] A $200 billion increase would reduce the special affordable market share by 0.8 percentage point.

A recession scenario and a heavy refinance scenario were described during the discussion of the Low- and Moderate-Income Goal in Section F. The recession scenario assumed that special affordable borrowers would account for only 10 (9) percent of newly-originated home loans. In this case, the market share for the Special Affordable Goal declines to 24.2 (23.5) percent. In the heavy refinance scenario, the special affordable percentage for refinancing borrowers was assumed to be four percentage points lower that the corresponding percentage for borrowers purchasing a home. In this case, the market share for the Special Affordable Goal was typically in the 24–25 percent range, depending on assumptions about the incomes of borrowers in the home purchase market. As noted earlier, the special affordable market share was approximately 26 percent during 1998, a period of heavy refinance activity.

Finally, HUD simulated the specific scenario based on the MBA's most recent market estimate of $912 billion and a refinance rate of 22 percent. In this case, assuming a special affordable home purchase percentage of 14, the overall special affordable market share was varied from 25.5 percent to 26.6 percent as the multifamily mix of varied from 13.5 percent to 16.5 percent.

Tax Credit Definition. Data are not available to measure the increase in market share associated with including low-income units located in multifamily buildings that meet threshold standards for the low-income housing tax credit. Currently, the effect on GSE performance under the Special Affordable Housing Goal is rather small. For instance, adding the tax credit condition increase Fannie Mae's performance as follows: 0.5 percentage point in 1997 (from 16.5 to 12.0 percent); 0.29 percentage point in 1998 (from 14.05 to 14.34 percent); and 0.42 percent point in 1999 (from 17.20 to 17.62 percent). The increase for Freddie Mac has been lower (about 0.20 percentage point in 1998 and 1999).

3. Conclusions

Sensitivity analyses were conducted for the market shares of each property type, for the very-low-income shares of each property type, and for various assumptions in the market projection model. These analyses suggest that 23–26 percent is a reasonable estimate of the size of the conventional conforming market for the Special Affordable Housing Goal. This estimate excludes B&C loans and allows for the possibility that homeownership will not remain as affordable as it has over the past five years. In addition, the estimate covers a range of projections about the size of the multifamily market.

Endnotes to Appendix D

[1] Appendix D of the proposed rule also included a Section I that examined the likely impacts of the increase in FHA loans limits on market originations for lower-income families in the conventional market. That analysis—which concluded that the market impacts would likely be small given that FHA attracts a different group of borrowers than conventional lenders—is now included in the Department's Economic Analysis for this final GSE rule.

[2] Dixie M. Blackley and James R. Follain, ''A Critique of the Methodology Used to Determine Affordable Housing Goals for the Government Sponsored Housing Enterprises,'' unpublished report prepared for Office of Policy Development and Research, Department of Housing and Urban Development, October 1995; and ''HUD's Market Share Methodology and its Housing Goals for the Government Sponsored Enterprises,'' unpublished paper, March 1996.

[3] Readers not interested in this overview may want to proceed to Section B, which summarizes HUD's response to the GSEs' comments on HUD's market methodology.

[4] Sections 1332(b)(4), 1333(a)(2), and 1334(b)(4).

[5] So-called ''jumbo'' mortgages, greater than $227,150 in 1998 for 1-unit properties, are excluded in defining the conforming market. There is some overlap of loans eligible for purchase by the GSEs with loans insured by the FHA and guaranteed by the Veterans Administration.

[6] The owner of the SF 2–4 property is counted in (a).

[7] Property types (b), (c), and (d) consist of rental units. Property types (b) and (c) must sometimes be combined due to data limitations; in this case, they are referred to as ''single-family rental units'' (SF–R units).

[8] The property shares and low-mod percentages reported here are based on one set of model assumptions; other sets of assumptions are discussed in Section E.

[9] This goal will be referred to as the ''Underserved Areas Goal''.

[10] See Randall M. Scheessele, *HMDA Coverage of the Mortgage Market,* Housing Finance Working Paper No. 7, Office of Policy Development and Research, Department of Housing and Urban Development, July 1998; and *1998 HMDA Highlights,* Housing Finance Working Paper No. HF–009, Office of Policy Development and Research, Department of Housing and Urban Development, October 1999.

[11] See William Segal, *The Property Owners and Managers Survey and the Multifamily Housing Finance System,* Housing Finance Working Paper No. 10, Office of Policy Development and Research, Department of Housing and Urban Development, September 2000.

[12] See Freddie Mac, ''Comments on Estimating the Size of the Conventional Conforming Market for Each Housing Goal: Appendix III to the Comments of the Federal Home Loan Mortgage Corporation on HUD's Regulation of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)'', May 8, 2000, page 1.

[13] See Fannie Mae, ''Fannie Mae's Comments on HUD's Regulation of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)'', May 8, 2000, page 53.

[14] PWC estimates of single-family mortgage lending volume *exceed* the MBA figure for

the entire single-family market (conventional, conforming, jumbo, and government-insured) in 1993. The PWC estimates exceed MBA figures on all *conventional* lending volume, including jumbo loans, in 1994, 1996 and 1997. In effect, therefore, the PWC estimates of the single-family market include the jumbo market in 1993, 1994, 1996, 1997, and 1998. The PWC estimates are as large, or larger than the *entire* single-family market in 1993 and 1998. The MBA figures are found at www.mbaa.org/marketkdata.

[15] PWC does not offer any empirical evidence in support of their claim that 50 percent of households have below median family income. The main reason that more than half of all households have incomes below the median family income is that, empirically, household incomes are significantly lower than family incomes (which serve as the basis for the local area median income against which household incomes are compared to determine affordability status). Individuals are not included in family income calculations, but are included in household income calculations, thus causing a family-based median income to be larger than a household-based median income.

[16] 1990 is excluded from this discussion because of the unusually high multifamily mix that year.

[17] These market share estimates are based on the annual averages of the likely range of multifamily origination volume expressed in the last column of Table D.10 over 1991–1998. 1990 is excluded from this calculation because of the unusually high multifamily mix that year.

[18] Amy D. Crews, Robert M. Dunsky, and James R. Follain, ''What We Know about Multifamily Mortgage Originations,'' report for the U.S. Department of Housing and Urban Development, October 1995, 20.

[19] Because they are not counted toward the GSE housing goals (with the exception of a relatively small risk-sharing program), FHA mortgages are excluded from this analysis. Other categories of mortgages, considering the type of insurer, servicer, or holder, do not tend to have mortgage characteristics that appear to differ substantially from the multifamily mortgages that are purchased by Fannie Mae and Freddie Mac. There is thus no particular basis for excluding them.

[20] Corresponding percentages for Freddie Mac were 8.3 percent, 90 percent and 17 percent.

[21] Corresponding percentages for Fannie Mae were 56 percent and 31 percent.

[22] Amy D. Crews, Robert M. Dunsky, and James R. Follain, ''What We Know about Multifamily Mortgage Originations,'' report for the U.S. Department of Housing and Urban Development, October 1995.

[23] Crews, Dunsky, and Follain, *ibid.*, 20.

[24] Fannie Mae (2000), p. 58.

[25] Robert Dunsky, James R. Follain, and Jan Ondrich, ''An Alternative Methodology to Estimate the Volume of Multifamily Mortgage Originations,'' report for the U.S. Department of Housing and Urban Development, October 1995.

[26] Average single-family loan amounts are from HMDA. Multifamily per-unit loan amounts are from the loan-level GSE data, as discussed above.

[27] Increased per-unit loan amounts evident in the 1999 Freddie Mac data could be related to a higher level of activity in senior housing. Freddie Mac reported an increase in multifamily senior housing transactions from $84 million in 1998 to $383 million in 1999. See ''Freddie Mac Posts Record Year in Multifamily Financing, Nearly $7 Billion in Originations, '' press release, February 8, 1999; and ''Freddie Mac Posts Record Year in Multifamily Financing, Nearly $8 Billion in Total Funding In 1999,'' press release, February 14, 2000. Per-unit loan amounts on some Freddie Mac seniors transactions appear to exceed $100,000. See ''Freddie Mac Teams With Glaser Financial to Credit Enhance $65 Million in Seniors Housing Loans,'' press release, July 13, 1999; and ''Freddie Mac Closes Its Largest Seniors Housing Transaction With $88 Million Deal With GMAC and Sunrise Assisted Living,'' press release, June 1, 1999.

[28] Assumptions regarding the single-family mortgage market utilized in preparing the market share estimates presented in Table D.10 are discussed below in section F.

[29] Board of Governors of the Federal Reserve System, *Flow of Funds Accounts of the United States*, Federal Reserve Statistical Release Z.1, June 9, 2000, p. 49.

[30] These market share estimates are based on the annual averages of the likely range of multifamily origination volume expressed in the last column of Table 10 over 1991–1998. 1990 is excluded from this calculation because of the unusually high multifamily mix that year.

[31] Calculation based on PriceWaterhouseCoopers, *Ibid.*, p. 15.

[32] The data in Table D.11a ignore HMDA loans with ''non-applicable'' for owner type.

[33] Due to the higher share of refinance mortgages during 1998, the overall single-family owner percentage reported by HMDA for 1998 (93.2 percent) is larger than that reported for 1997 (91.5 percent).

[34] Dixie M. Blackley and James R. Follain, ''A Critique of the Methodology Used to Determine Affordable Housing Goals for the Government Sponsored Housing Enterprises,'' report prepared for Office of Policy Development and Research, Department of Housing and Urban Development, October 1995; and ''HUD's Market Share Methodology and its Housing Goals for the Government Sponsored Enterprises,'' unpublished paper, March 1996.

[35] For example, they note that discussions with some lenders suggest that because of higher mortgage rates on investor properties, some HMDA-reported owner-occupants may in fact be ''hidden'' investors; however, it would be difficult to quantify this effect. They also note that some properties may switch from owner to renter properties soon after the mortgage is originated. While such loans would be classified by HMDA as owner-occupied at the time of mortgage origination, they could be classified by the RFS as rental mortgages. Again, it would be difficult to quantify this effect given available data.

[36] Blackley and Follain (1996), p. 20.

[37] The unit-per-mortgage data from the 1991 RFS match closely the GSE purchase data for 1996 and 1997. Blackley and Follain show that an adjustment for vacant investor properties would raise the average units per mortgage to 1.4; however, this increase is so small that it has little effect on the overall market estimates.

[38] The property distribution reported in Table D.1 is an example of the market share model. Thus, this section completes Step 1 of the three-step procedure outlined in Section A.2.b.

[39] From MBA volume estimates, the conventional share of the 1–4 family market was between 86 and 88 percent of the market from 1993 to 1999, with a one-period low of 81 percent in 1994. Calculated from ''1–4 Family Mortgage Originations'' tables (Table 1—Industry and Table 2—Conventional Loans) from ''MBA Mortgage and Market Data,'' at www.mbaa.org/marketdata/ as of July 13, 2000.

[40] Data provided by Fannie Mae show that conforming loans have been about 78 percent of total conventional loans over the past few years.

[41] Single-family mortgage originations of $950 billion were $266 billion higher than the $834 billion in 1997, $520 billion less than the record setting $1,470 billion in 1998 and $335 billion less than the $1,285 billion in 1999. As discussed later, single-family originations could differ from $950 billion during the 2001–2003 period that the goals will be in effect. As recent experience shows, market projections often change. For example, $950 billion is similar to recent projections (made in June, 2000) by the Mortgage Bankers Association (MBA) of $955 billion in 2000 and $903 billion in 2001. (See http://www.mbaa.org/marketdata/forecasts June, 2000 Mortgage Finance Forecasts.) However, MBA estimates for year 2000 volume have changed substantially over the past year, dropping from $1,043 in June, 1999 to $955 billion more recently (see MBA Mortgage Finance Forecasts table in *Mortgage Finance Review*, Vol. 7, Issue No. 2, 1999 2nd quarter, p. 2). Section F will report the effects on the market estimates of alternative estimates of single-family mortgage originations. As also explained later, the important concept for deriving the goal-qualifying market shares is the relative importance of single-family versus multifamily mortgage originations (the ''multifamily mix'' discussed in Section C) rather than the total dollar volume of single-family originations considered in isolation.

[42] The model also requires an estimated refinance rate because purchase and refinance loans have different shares of goals-qualifying units. Over the past year, the MBA has estimated the year 2000 refinance rate to be 16, 20, 30, and 38 percent for the total market (expressed in dollar terms), with 16 percent the latest estimate. The MBA's current estimate of the year 2001 refinance rate is very low 12 percent. The baseline model uses a refinance rate of 35 percent for conforming conventional loans, which is consistent with an MBA-type estimate of 22 percent, since refinance rates are higher for the number of conventional conforming loans than for the total market expressed in dollar terms. The 35 percent refinance assumption (compared with the recent, lower MBA

projections) results in conservative estimates of goals-qualifying units in the market, since the low-mod share of refinance units in HUD's model is lower than the low-mod share of home purchase units. Sensitivity analyses for alternative refinance rates are presented in Sections F–H.

[43] The average 1998 loan amount is estimated at $104,656 for owner occupied units using 1998 HMDA metro average loan amounts for purchase and refinance loans, and then weighting by an assumed 35 percent refinance rate. A small adjustment is made to this figure for a small number of two-to-four and investor properties (see Section D above). This produces an average loan size of $102,664 for 1998, which is then inflated 3 percent a year for three years to arrive at an estimated $110,000 average loan size for 2001.

[44] Based on the RFS, there is an average of 2.25 housing units per mortgage for 2–4 properties. 1.25 is used here because one (*i.e.*, the owner occupant) of the 2.25 units is allocated to the SF–O category. The RFS is also the source of the 1.35 used in (4c).

[45] The share of the mortgage market accounted for by owner occupants is (SF–O)/TOTAL; the share of the market accounted for by all single-family rental units is SF–RENTAL/TOTAL; and so on.

[46] Owners of 2–4 properties account for 1.6 percentage points of the 88 percent for SF–O.

[47] Restricting the RFS analysis to 1991 resulted in only minor changes to the market shares.

[48] 1990 conventional multifamily origination volume in RFS can be estimated at $37.4 billion, comparable to HUD's estimate of $36–$40 billion in 1997. Conventional, conforming single-family origination volume grew from $285 billion to $581 billion over the same period. 1990 appears to have exhibited unusually high multifamily origination volume, as discussed earlier in Section C.

[49] As noted earlier, HMDA data are expressed in terms of number of loans rather than number of units. In addition, HMDA data do not distinguish between owner-occupied one-unit properties and owner-occupied 2–4 properties. This is not a particular problem for this section's analysis of owner incomes.

[50] Actually, the goals-qualifying percentages reported in this appendix include only the effects of manufactured houses in metropolitan areas, as HMDA does not adequately cover non-metropolitan areas.

[51] Since most HMDA data are for loans in metropolitan areas and a substantial share of manufactured homes are located outside metropolitan areas, HMDA data may not accurately state the goals-qualifying shares for loans on manufactured homes in all areas.

[52] Freddie Mac, the Manufactured Housing Institute and the Low Income Housing Fund have formed an alliance to utilize manufactured housing along with permanent financing and secondary market involvement to bring affordable, attractive housing to underserved, low- and moderate-income urban neighborhoods. *Origination News*. (December 1998), p.18.

[53] Randall M. Scheessele had developed a list of nine manufactured home lenders that has been used by several researchers in analyses of HMDA data prior to 1997. Scheessele developed the expanded list of 21 manufactured home loan lenders in his analysis of 1998 HMDA data. (See Randall M. Scheessele, *1998 HMDA Highlights, op. cit.*) In these appendices, the number of manufactured home loans deducted from the market totals for the years 1993 to 1997 are the same as reported by Scheessele (1999) in his Table D.2b.

[54] See Appendix D of the 1995 rule for a detailed discussion of the AHS data and improvements that have been made to the survey to better measure borrower incomes and rent affordability.

[55] Some even argued that data based on the recently completed stock would be a better proxy for mortgage flows. In the case of the Low- and Moderate-Income Goal, there is not a large difference between the affordability percentages for the recently constructed stock and those for the outstanding stock of rental properties. But this is not the case when affordability is defined at the very-low-income level. As shown in Table D.5, the recently completed stock houses substantially fewer very-low-income renters than does the existing stock. Because this issue is important for the Special Affordable Goal, it will be further analyzed in Section H when that goal is considered.

[56] In 1999, 88.7 percent of GSE purchases of single-family rental units and 93.1 percent of their purchases of multifamily units qualified under the Low- and Moderate-Income Goal, excluding the effects of missing data.

[57] The goals-qualifying shares reported in Table D.15 for 1995–98 are, of course, estimates themselves; even though information is available from HMDA and other data sources for most of the important model parameters, there are some areas where information is limited, as discussed throughout this appendix.

[58] The 1995–98 goals-qualifying percentages for single-family mortgages are based on HMDA data for all (both home purchase and refinance) mortgages. Thus, the implicit refinance rate is that reported by HMDA for conventional conforming mortgages.

[59] HUD had based its earlier projections heavily on market trends between 1992 and 1994. During this period, low- and moderate-income borrowers accounted for only 38 percent of home purchase loans, which is consistent with an overall market share for the Low- and Moderate-Income Goal of 52 percent (see Table D.17 below), which was HUD's upper bound in the 1995 rule. Based on the 1993 and 1994 mortgage markets, HUD's earlier estimates also assumed that refinance mortgages would have smaller shares of lower-income borrowers than home purchase loans; the experience during the 1995–1997 period was the reverse, with refinance loans having higher shares of lower-income borrowers than home purchase loans. For example, in 1997, 45 percent of refinancing borrowers had less-than-area-median incomes, compared with 42.5 percent of borrowers purchasing a home.

[60] The 1995–97 estimates also include the effects of small loans (less than $15,000) and manufactured housing loans which increase the market shares for metropolitan areas by approximately one percentage point. For example, assuming a constant mix of owner and rental properties, excluding these loans would reduce the goals-qualifying shares as follows: the Low- and Moderate-Income Goal by 1.4 percentage points, and the Special Affordable Goal and Underserved Areas Goals by one percentage point. However, dropping manufactured housing from the market totals would increase the rental share of the market, which would tend to lower these impact estimates. It should also be mentioned that manufactured housing in non-metropolitan areas is not included in HUD's analysis due to lack of data; including this segment of the market would tend to increase the goals-qualifying shares of the overall market. Thus, the analyses of manufactured housing reported above and throughout the text pertain only to manufactured housing loans in metropolitan areas, as measured by loans originated by the manufactured housing lenders identified by Scheessele, *op. cit.*

[61] The accuracy of the single-family portion of HUD's model can be tested using HMDA data. The number of single-family loans reported to HMDA for the years 1995 to 1997 can be compared with the corresponding number predicted by HUD's model. Single-family loans reported to HMDA during 1995 were 79 percent of the number of loans predicted by HUD's model; comparable percentages for 1996, 1997, and 1998 were 83 percent , 82 percent, and 88 percent, respectively. Studies of the coverage of HMDA data through 1996 conclude that HMDA covers approximately 85 percent of the conventional conforming market. (See Randall M. Scheessele, *HMDA Coverage of the Mortgage Market, op. cit.*) The fact that the HMDA data account for lower percentages of the single-family loans predicted by HUD's model suggests that HUD's model may be slightly overestimating the number of single-family loans during the 1995–97 period. The only caveat to this concerns manufactured housing in non-metropolitan areas. The average loan amount that HUD used in calculating the number of units financed from mortgage origination dollars did not include the effects of manufactured housing in non-metropolitan areas; thus, HUD's average loan amount is too high, which suggests that single-family-owner mortgages are underestimated. (Similarly, the goals-qualifying percentages in HUD's model are based on metropolitan area data and therefore do not include the effects of manufactured housing in non-metropolitan areas.)

[62] A 15 percent estimate for 1997 is reported by Michelle C. Hamecs and Michael Benedict, ''Mortgage Market Developments'', in *Housing Economics*, National Association of Home Builders, April 1998, pages 14–17. Hamecs and Benedict draw their estimate from a survey by *Inside B&C Lending*, an industry publication. A 12 percent estimate is reported in ''Subprime Products: Originators Still Say Subprime Is 'Wanted Dead or Alive' '' in *Secondary Marketing Executive*, August 1998, 34–38. Forest Pafenberg reports that subprime mortgages

accounted for 10 percent of the conventional conforming market in 1997; see his article, ''The Changing Face of Mortgage Lending: The Subprime Market'', *Real Estate Outlook*, National Association of Realtors, March 1999, pages 6–7. Pafenberg draws his estimate from Inside Mortgage Capital, which used data from the Mortgage Information Corporation. The uncertainty about what these various estimates include should be emphasized; for example, they may include second mortgages and home equity loans as well as first mortgages, which are the focus of this analysis.

[63] Based on information from The Mortgage Information Corporation, Pafenberg reports the following serious delinquency rates (either 90 days past due or in foreclosure) for 1997 by type of subprime loan: 2.97 percent for A-minus; 6.31 percent for B; 9.10 percent for C; and 17.69 percent for D. The D category accounted for only 5 percent of subprime loans and of course, is included in the ''B&C'' category referred to in this appendix. Also see ''Subprime Mortgage Delinquencies Inch Higher, Prepayments Slow During Final Months of 1998'', *Inside MBS & ABS: Inside MBS & ABS*, March 12, pages 8–11, where it is reported that fixed-rate A-minus loans have delinquency rates similar to high-LTV (over 95 percent) conventional conforming loans.

[64] Not surprisingly, the goals-qualifying percentages for subprime lenders are much higher than the percentages (43.6 percent, 16.3 percent, and 27.8 percent, respectively) for the overall single-family conventional conforming market in 1997. For further analysis of subprime lenders, see Randall M. Scheessele, *1998 HMDA Highlights, op. cit.*

[65] Dropping B&C loans in the manner described in the text results in the goals-qualifying percentages for the non-B&C market being underestimated since HMDA coverage of B&C loans is less than that of non-B&C loans and since B&C loans have higher goals-qualifying shares than non-B&C loans. For instance, the low-mod shares of the market reported in Table D.13 underestimate (to an unknown extent) the low-mod shares of the market inclusive of B&C loans; so reducing the low-mod owner shares by dropping B&C loans in the manner described in the text would provide an underestimate of the low-mod share of the non-B&C owner market. A study of 1997 HMDA data in Durham County, North Carolina by the Coalition for Responsible Lending (CRL) found that loans by mortgage and finance companies are often not reported to HMDA. For a summary of this study, see ''Renewed Attack on Predatory Subprime Lenders'' in *Fair Lending/CRA Compass*, June 9, 1999.

[66] In 1998, the ''unadjusted'' market shares (i.e., inclusive of B&C loans) were as follows: Low-Mod Goal (54.1 percent); Special Affordable Goal (26.0 percent); and Underserved Areas Goal (30.4 percent). The 1998 conforming B&C market is estimated to be $61 billion, with an average loan amount of $75,062 representing an estimated 812,662 B&C conforming loans. The 1998 goals-qualifying percentages (low-mod, 58.0 percent; special affordable, 28.5 percent; and underserved areas, 44.7 percent) used to ''proxy'' the B&C market are similar to those for 1995–97. As noted earlier, there is much uncertainty about the size of the B&C market.

[67] The percentages in Table D.17 refer to borrowers purchasing a home. In HUD's model, the low-mod share of refinancing borrowers is assumed to be three percentage points lower than the low-mod share of borrowers purchasing a home; three percentage points is the average differential between 1992 and 1999. Thus, the market share model with the 40 percent owner percentage in Table D.17 assumes that 40 percent of home purchase loans and 37 percent of refinance loans are originated for borrowers with low- and moderate-income. If the same low-mod percentage were used for both refinancing and home purchase borrowers, the overall market share for the Low- and Moderate-Income Goal would increase by 0.7 of a percentage point.

[68] Assuming a 42 (40) percent low-mod share of the owner market, the low-mod share of the overall market increased from 52.5 (51.0) percent to 55.9 (54.5) percent as the multifamily mix increased from 10 percent to 18 percent.

[69] On the other hand, in the heavy refinance year of 1998, refinancing borrowers had higher incomes than borrowers purchasing a home.

[70] The three percentage point differential is the average for the years 1992 to 1998 (see Table D.14).

[71] Rather, this approach reflects 1998 market conditions when the low-mod differential between home purchase and refinance loans was approximately three percentage points.

[72] The $82,022 is derived by adjusting the 1997 figure of $68,289 upward based on recent growth in the average loan amount for all loans. Also, it should be mentioned that one recent industry report suggests that the B&C part of the subprime market has fallen to 37 percent. See ''Retail Channel Surges in the Troubled ''98 Market'' in *Inside B&C Lending*, March 25, 1999, page 3.

[73] As before, 1998 HMDA data for 200 subprime lenders were used to provide an estimate of 58.0 percent for the portion of the B&C market that would qualify as low- and moderate-income. Applying the 58.0 percentage to the estimated B&C market total of 555,948 gives an estimate of 322,450 B&C loans that would qualify for the Low- and Moderate-Income Goal. Adjusting HUD's model to exclude the B&C market involves subtracting the 555,948 B&C loans and the 322,450 B&C low-mod loans from the corresponding figures estimated by HUD for the total single-family and multifamily market inclusive of B&C loans. HUD's projection model estimates that 7,308,558 single-family and multifamily units will be financed and of these, 3,990,525 (54.6 percent as in Table D.17) will qualify for the Low- and Moderate-Income Goal. Deducting the B&C market estimates produces the following adjusted market estimates: a total market of 6,752,610 of which 3,668,074 (54.3 percent) will qualify for the Low- and Moderate-Income Goal.

[74] This reduction in the low-mod share of the mortgage market share occurs because the multifamily mix is reduced from 15 percent to 13.8 percent. (See Section F.3b for additional sensitivity analyses of the multifamily mix.)

[75] Refinance mortgages were assumed to account for 15 percent of all single-family originations; 31 percent of refinancing borrowers were assumed to have less-than-area-median incomes, which is 14 percentage points below the 1997 level. A multifamily mix of 17.3 percent was assumed during the recession scenario. If the multifamily mix were reduced to 15.2 percent in this environment, the low-mod share would drop to 47.9 percent.

[76] Section 1336(b)(3)(A).

[77] As shown in Table D.18, excluding loans less than $15,000 and manufactured home loans reduces the 1997 underserved area percentage by 1.2 percentage points for all single-family-owner loans from 27.8 to 26.6 percent. Dropping only small loans reduces the underserved areas share of the metropolitan market by 0.4 and dropping manufactured loans (above $15,0000) reduces the market by 0.8.

[78] The main reason for HUD's underestimate in 1995 was not anticipating the high percentages of single-family-owner mortgages that would be originated in underserved areas. During the 1995–97 period, about 27 percent of single-family-owner mortgages financed properties in underserved areas; this compares with 24 percent for the 1992–94 period which was the basis for HUD's earlier analysis. There are other reasons the underserved area market shares for 1995 to 1997 were higher than HUD's 25–28 percent estimate. Single-family rental and multifamily mortgages originated during this period were also more likely to finance properties located in underserved areas than assumed in HUD's earlier model. In 1997, 45 percent of single-family rental mortgages and 48 percent of multifamily mortgages financed properties in underserved areas, both figures larger than HUD's assumptions (37.5 percent and 42.5 percent, respectively) in its earlier model. Even in the heavy refinance year of 1998, the underserved areas market share (31 percent) was higher than projected by HUD during the 1995 rule-making process.

[79] Table D.19 presents estimates for the same combinations of projections used to analyze the Low- and Moderate-Income Goal. Table D.16 in Section F.3 defines Cases 1, 2, and 3; Case 1 (the baseline) projects a 42.5 percent share for single-family rentals and a 48 percent share for multifamily properties while the more conservative Case 2 projects 40 percent and 46 percent, respectively.

[80] These data do not include loans originated by lenders that specialize in manufactured housing loans.

[81] Assuming that non-metropolitan areas account for 15 percent of all single-family-owner mortgages and recalling that the projected single-family-owner market for the year 2001 accounts for 72.2 percent of newly-mortgaged dwelling units, then the non-metropolitan underserved area differential of 17 percent would raise the overall market estimate by 1.9 percentage point—17 percentage points *times* 0.15 (non-metropolitan area mortgage market share) *times* 0.722 (single-family owner mortgage

market share). This calculation is the basis for the 1.5 percentage point adjustments to the 1995–98 underserved area market shares reported earlier in Table D.15.

[82] It is recognized that some may not view all of the assumptions made to generate the results in Table D.19 as conservative. The term ''conservative'' is being use here to reflect the fact that adjusting the data in Table D.19 to include underserved non-metropolitan counties would increase the underserved areas market share more than adjusting the same data to exclude B&C loans would reduce it.

[83] There are two LIHTC thresholds: at least 20 percent of the units are affordable at 50 percent of AMI or at least 40 percent of the units are affordable at 60 percent of AMI.

[84] Previous analysis of this issue has focused on the relative merits of data from the recently completed stock versus data from the outstanding stock. The very-low-income percentages are much lower for the recently completed stock—for instance, the averages across the five AHS surveys were 15 percent for recently completed multifamily properties versus 46 percent for the multifamily stock. But it seems obvious that data from the recently completed stock would underestimate the affordability of newly-mortgaged units because they exclude purchase and refinance transactions involving older buildings, which generally charge lower rents than newly constructed buildings. Blackley and Follain concluded that newly constructed properties did not provide a satisfactory basis for estimating the affordability of newly mortgaged properties. See ''A Critique of the Methodology Used to Determine Affordable Housing Goals for the Government Sponsored Enterprises.''

[85] Affordability was calculated as discussed earlier in Section F, using AHS monthly housing cost, monthly rent, number of bedrooms, and MSA location fields. Low-income tracts were identified using the income characteristics of census tracts from the 1990 Census of Population, and the census tract field on the AHS file was used to assign units in the AHS survey to low-income tracts and other tracts. POMS data on year of mortgage origination were utilized to restrict the sample to properties mortgaged during 1993–1995.

[86] During the 1995 rule-making process, HUD examined the rental housing stock located in low-income zones of 41 metropolitan areas surveyed as part of the AHS between 1989 and 1993. While the low-income zones did not exactly coincide with low-income tracts, they were the only proxy readily available to HUD at that time. Slightly over 13 percent of single-family rental units were both affordable at the 60–80 percent of AMI level and located in low-income zones; almost 16 percent of multifamily units fell into this category.

[87] Therefore, combining the assumed very-low-income percentage of 50 percent (47 percent) for single-family rental (multifamily) units with the assumed low-income-in-low-income-area percentage of 8 percent (11 percent) for single-family rental (multifamily) units yields the special affordable percentage of 58 percent (58 percent) for single-family rental (multifamily) units. This is the baseline Case 1 in Table D.6.

[88] The 28.8 percent estimate for 1997 excludes B&C loans but includes manufactured housing and small loans while HUD's earlier 20–23 percent estimate excluded the effects of these loans. Excluding manufacturing housing and small loans from the 1997 market would reduce the special affordable share of 28.8 percent by a percentage point. This can be approximated by multiplying the single-family-owner property share (0.702) for 1997 by the 1.4 percentage point differential between the special affordable share of all (home purchase and refinance) single-family-owner mortgages in 1997 with manufactured and small loans included (16.3 percent) and the corresponding share with these loans excluded (14.9 percent). This gives a reduction of 0.98 percentage point. These calculations overstate the actual reduction because they do not include the effect of the increase in the rental share of the market that accompanies dropping manufactured housing and small loans from the market totals.

[89] The upper bound of 27 percent from HUD's baseline special affordable model is obtained when the special affordable share of home purchase loans is 15 percent, which was the figure for 1997 (see Table D.20). However, the upper bound of 27 percent is below the 1997 estimate of the special affordable market of almost 29 percent (see Table D.15). There are several reasons for this discrepancy. As mentioned earlier, the rental share in HUD's baseline projection model is less than the rental share of the 1997 market. In addition, HUD's projection model assumes that the special affordable share of refinance mortgages will be 1.4 percentage points less than the corresponding share for home purchase loans (1.4 percent is the average difference between 1992 and 1998). But in 1997, the special affordable share (17.6 percent) of refinance mortgages was larger than the corresponding share (15.3 percent) for home loans.

[90] This reduction in the special affordable share of the mortgage market share occurs because the multifamily mix is reduced from 15 percent to 13.8 percent. (See above for additional sensitivity analyses of the multifamily mix.)

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