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S. 368 AND ELECTION REFORM

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

MAY 8, 2001

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ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

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S. 368 AND ELECTION REFORM

TUESDAY, MAY 8, 2001

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC

The Committee met, pursuant to notice, at 9:30 a.m. in room SR–253, Russell Senate Office Building, Hon. John McCain, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR FROM ARIZONA

The CHAIRMAN. Good morning. Today's hearing is our second hearing on the issue of election reform. In the Committee's last hearing on this issue, we analyzed the problems of our existing national voting system, especially the problems highlighted by the year 2000 election. In this hearing, we will examine solutions to these problems and how to restore the American public's confidence in our election system.

I will include the rest of my statement in the record, because we have a short time period this morning. Unfortunately, there are three votes that will be taking place at 10:15.

[The prepared statement of Senator McCain follows:]

PREPARED STATEMENT OF HON. JOHN MCCAIN,
U.S. SENATOR FROM ARIZONA

Good morning. Today's hearing is our second hearing on the issue of election reform. In the Committee's last hearing on this issue, we analyzed the problems of our existing national voting system, especially the problems highlighted by the Year 2000 election. In this hearing, we will examine solutions to these problems, and how to restore the American public's confidence in our election system.

I would first like to highlight the importance of Congressional action. As many newspapers have begun to point out, time is running out for Congress to enact meaningful legislation to make reforms before the 2002 elections. Concerns about the accuracy of our voting system are especially pernicious, because they undermine the public's confidence in our whole political system. Nothing is more sacred to our democracy than a person's right to vote. I found it remarkable when President Carter recently said that "the Carter Center has standards for participation as a monitor of an election, and the United States of America would not qualify at all."

It is promising that the states are beginning to write their own legislation to reform their election systems. In the 2001 legislative session, 1,505 election reform bills have been introduced in state legislatures across the country. Thirty-one states have considered or are considering legislation to upgrade or make uniform their voting systems. Most notably, Georgia and Florida recently passed legislation to comprehensively reform their election systems.

One important challenge to the federal and state governments is to ensure that these reforms are based on rigorous standards that will solve the problems of the Year 2000 election. As we will hear later in this hearing, a recent study from MIT and Caltech highlights this problem by showing that the most reliable voting technology use paper ballots, followed by obsolete lever machines and more recent opti-

cal scanners. Surprisingly, the high-tech Direct Recording Electronic devices were found to be less reliable than all types of voting machines other than punch card machines.

This study further emphasizes the need to match the efficiency of new technology with the reliability of the more traditional paper ballots and lever machines. Senator Hollings, Senator Cleland, and I have introduced S. 368, the American Voting Standards and Technology Act, to meet this challenge. The bill would direct the National Institute of Standards and Technology, or NIST, to develop voluntary voting system practices, and accredit laboratories on a voluntary basis to test vote casting and counting devices. For over a hundred years, NIST has been known for its ability to solve a myriad of technical problems and establish voluntary standards. Its expertise can be used today to reform current election practices.

Senator Hollings, Senator Cleland, and I do not profess to have all of the solutions to this issue. We look forward today to hearing the results of initiatives and reports by the states and independent commissions. Any final legislation will have to include input from these groups to ensure a comprehensive solution.

I welcome all of our witnesses here today.

The CHAIRMAN. We are pleased to have the Honorable Sheila Jackson Lee here with us this morning. Welcome, Congresswoman Lee. Thank you for joining us. We appreciate your taking the time to come over and give us your views on this very important issue, and you are recognized.

STATEMENT OF HON. SHEILA JACKSON LEE, A MEMBER OF CONGRESS FROM TEXAS

Ms. LEE. Chairman McCain, let me thank you for your leadership and your persistence in issues dealing with reform of the entire electoral process. It is my pleasure to be here this morning and to acknowledge the Committee and Ranking Member again for the leadership that you have shown. Might I also applaud you for your proposed bill dealing with the establishment of voluntary national standards on how votes are cast and how they are counted and also the importance of providing matching funds to assist our local communities in areas such as getting new and technologically profound and proficient voting machines, as well as providing for education programs and continuing to study this issue that we may do the best task.

This is a very important issue for me and I ask the Chairman to submit my entire statement for the record and I be allowed to summarize and speak to the issues that I hope will be helpful to us this morning.

The CHAIRMAN. Without objection.

Ms. LEE. Thank you.

I am a product of the 1965 Voting Rights Act. When I say that, clearly the surge of voting for African Americans became even more prominent after that particular passage of that bill. Obviously, we are very proud of the signing of the 1964 Civil Rights Act and the 1965 Voting Rights Act. Over the past couple of years, I have taken the challenge of revisiting the place which generated the 1965 Voting Rights Act. Of course, that was in Selma, Alabama, and the march across the Edmund Pettis Bridge.

Many people offered their ultimate commitment in that bloody Sunday on March 7th, 1965, to present and express their commitment to the fundamental right to vote for all Americans.

Out of the election, of course, came the opportunity for the redrawing of the lines in Texas, and that came and brought about the 18th Congressional District in which I serve. There are only

four holders of that seat. I am the fourth holder of the seat and the first holder, the maiden holder, was the Honorable Barbara Jordan.

So lives of Texans were changed by the Voting Rights Act of 1965. So I bring a passion to this issue and certainly believe it is an issue that is fundamental to the American process. Alexander Hamilton in his Federalist Papers recognized "the plain proposition, that EVERY GOVERNMENT OUGHT TO CONTAIN IN ITSELF THE MEANS OF ITS OWN PRESERVATION." The right the vote and to fully exercise that vote is a vital component of our collective preservation.

So this past election should have taught us a lot. I was a participant, if you will, in the post-election in Florida.

I went there, of course, with a perspective of assisting the candidate that I supported to move on to victory. But I think there are other lessons that were learned, and we are here today to talk about solutions, but I would be remiss, Mr. Chairman if I did not suggest to you that in speaking to the people of Florida certainly there are a range of opinions.

Let me say to you that their greatest concern was that every vote should be counted and that some of their votes were not counted. It goes along with the issue or the principle of the Fifteenth Amendment, that the right to vote shall not be denied or abridged by the states or the federal government on account of race or color. Also it goes to the National Voter Registration Act, which affirms the right of every U.S. citizen to cast a vote and to have the ballot counted.

On election day in Florida, and I think you have obviously heard of a number of violations; I only will give you a few: that citizens who were properly registered were denied the right to vote because election officials could not find their names on the precinct rolls; that registered voters were denied the right to vote because of minor discrepancies and clerical errors; that first-time voters who sent in voter registration forms prior to the state's deadline for registration were denied the right to vote because their registration forms were not processed; and that African Americans may have been singled out for criminal background checks at some precincts, and that one voter who had never been arrested was denied the right to vote after being told that he had a prior felony conviction.

Let me say to you that the need for election reform is, however, all of America's challenge. I say that, Mr. Chairman because since that time I have visited across the nation in some of our states on the East Coast and the West, and will continue to do so, working with the Congressional Black Caucus and the House Democratic Caucus.

We do realize that some 1,500 number of bills throughout the states have been promoted. We know that the Florida legislature has looked to eliminate the outdated punchcard technologies and that Georgia Governor George Roy Barnes has required every precinct to install up-to-date touchscreen voting.

So I think the question today is what can we do. I am also gratified and hopefully looking forward to the Attorney General investigating the voting improprieties that occurred in the State of Florida. But I think that there are things that we can do.

Let me suggest to you that, in my State of Texas, 14 counties, including Harris County which I represent, still use punchcard systems like those used in Florida. In Texas during the 2000 elections 1.7 million votes were cast statewide using punchcard systems, with an average of 1.5 percent undervotes and .54 percent overvotes, while over 4 million votes were cast statewide using modern optical scan systems, with an average of .51 percent undervotes and 1.2 percent overvotes.

I would suggest that we do have the capacity to utilize technology that can be of assistance to ensuring that every vote counts. In fact, the House Government Reform Committee analyzed the voting technology in Detroit, where they upgraded their technology, and saw a decided difference between the elections that they held in the past. Where there is certainly a diverse economic group, a high rate of poverty, and a high minority population, whey were able to determine that the percentage of undercounted votes for President in Detroit decreased by almost two-thirds, from almost 50 percent above the national average in 1996 elections, in which punchcards were used, to almost 50 percent below the national average in the 2000 election, in which the new machines were used.

So we do realize that technology can be provided for as a source to assist in the fundamental right to vote. That is what is going on in the State of Texas, Mr. Chairman. As I see, that is what is going on around the country. Just yesterday I sat in on a presentation to educate our community about the technologies that are available. The questions I asked is "What kind of training, what kind of percentage errors do you have?"

I believe legislation that involves studying the best selection and the best choice is valuable for us to overcome the problems of denying Americans the right to vote. So I would encourage studies and legislative initiatives that would, in fact, provide us with the information as to how best to choose the technology.

Another improvement that I think is extremely important is to provide for provisional voting in every election so that any voter wrongfully eliminated from the voting rolls because of a haphazard or mistaken voting purge may vote and have their vote counted. What I found as I participated in hearings, Mr. Chairman, is the terrible impact of purging. I would like to submit into the record an article from the *Dallas Morning News*, Friday, April 20, 2001. The headline reads "Voter Purges Are Subject of Panel Hearing."

We found out that 700,000, 750,000 votes were purged or voters were purged from the rolls in Texas after the last election. Their processes for doing so is if you miss at least two elections. I am going to offer a suggestion, Mr. Chairman that purging be one that we study extremely in detail, because I think it is particularly daunting to, as I will read if you will allow me, to find Cominar Martinez, who told the Committee that she thought she would always be able to vote after she registered the day she became a U.S. citizen, but was turned away because she had not renewed her registration. "I did not know I had to register twice," she said in Spanish.

Obviously, we want to have the sanctity of the vote and the protection of the voting process. But I do believe that when voters are not notified that they have been purged and that they are then en-

ticed and encouraged and inspired to go vote and then they show up at the polls and they are nowhere on the polling records, it is a discouragement and a denial of the fundamental right to vote.

So I would encourage a review of the purging process. I suggest there be a uniform 10-year period of inactivity before a voter's name is purged. This would give people a set amount of time in order to anticipate being purged, so that they can either vote, thereby resetting the 10-year clock, or if they have already been purged to allow them the opportunity to re-register before going to the polling location or to vote.

The purging process has seen many African Americans and Hispanics off the rolls, therefore denying the fundamental right to vote.

Let me further explain very briefly the provisional voting. That is, of course, people coming to the polls, notably as it occurred in Florida, and they knew that they had registered to vote, particularly Florida A&M students, some 4,000 of them, and then their names were not on the list. It would be important at that time for them to have the privilege of indicating by affidavit, as we do in Texas, to say that I am a registered voter, be allowed to vote, and then have that determined subsequent to the voting process.

It does not in any way, I think, support the suggestion that fraudulent activities would take place. An affidavit is signed. The person has the right to express their vote, and there is an appropriate checking system that can be handled.

Any leaving of the polls, Mr. Chairman, immediately extinguishes that person's right to vote, either because of timing, either because of intimidation, such as having to going to a police station or a court to acknowledge that you are a voter in the United States of America.

I believe that training more poll workers and providing them with the understanding of voting procedures can be one of the best efforts that we can make. I also think that it is important to take stock of what we do on election day. We force people to go to work, and there is nothing wrong with going to work in America, but we force them to go to work with the admonition: Ask your boss to let you off. Certainly in certain places of employment, Mr. Chairman, that is readily done. But in other places of employment, where the inequities or the differences between boss and employee are slightly different or where there is a different need for the employer's particular business, those opportunities are not given.

Many times we will find that our low-income workers, teachers, nurses—as we know, there is a nurses crisis, but people in particular jobs of great necessity are not able to get time off. I believe that if there was a National Election Day that it does have value. The second Tuesday of every presidential year becoming a legal holiday, as I have offered in H.R. 934, would go a long way to enhance the voting commitment in the United States in presidential years.

In particular, I think that it would assist us in encouraging the number of young people to be poll workers, to encourage the number of professional people to be poll workers and to work at the polls, to increase the level of knowledge at the polls, to be able to assist the physically challenged, to assist those who may need a lot

more or slightly more assistance, to assist those who speak different languages, but are American citizens and have every right to vote.

So I would argue to this Committee that that could be a change that would enable us to do better at encouraging our particular members of our society to utilize their fundamental right to vote.

I also have introduced H.R. 60, the Secure Democracy for All Americans Act, which would develop greatly needed uniform standards which may be adopted by the states for the administration of elections for federal office by calling on the establishment of a commission on the comprehensive study of voting procedures, to study and report to the President and Congress on all issues relating to voting procedures. I believe that this effort is one to ensure again that we are studying the process and knowing the answers.

I have also founded by bipartisan Congressional Election Caucus, to allow members a forum to discuss their issues and concerns about the process.

Let me just simply say to you that once we noted, Mr. Chairman that there were other elements to the process of voting, such as the purging that occurs, such as the need for provisional voting. I believe that we can truly say that these are concerns that all Americans have, and that we can do this in a collective and collaborative way to ensure that not only minorities who are disenfranchised, maybe in larger numbers in Florida, are never disenfranchised or that the American right to vote is promoted and supported and enhanced by what we do here in the federal government.

I will say that your legislation that talks about grants, as others have done, is extremely important, because one of the issues that were raised as we spoke to local governments is that we have the muster and the will, but the collaborative effort of federal funding is important. A budget passed without dollars for electoral reform certainly is not one being responsive to our concerns.

Let me conclude, Mr. Chairman, by noting the whole issue of how you count votes. I might hold Texas as an example and say to you that I believe in the last 5 days the Florida legislature has risen to the occasion, and I look forward to the governor of Florida signing that legislation. But let me simply say to you that I think a federal standard is important on this basis: that voter intent is premier. Failure to mark a ballot in strict conformity with the code does not invalidate the ballot, is a premise in Texas law. Therefore we have enunciated four elements to suggest how a ballot may be counted. I believe that these can contribute to establishing a national standard so that all votes can be counted:

The voter intent premier. At least two corners of the chad are detached. Light is visible through the hole. An indentation on the chad from the stylus or other object is present and indicates clearly ascertainable intent of voter to vote, or the chad reflects by other means a clearly ascertainable intent of the voter the vote.

Now, I have just spoken to the fact of trying to eliminate possibly the punchcard voting process. But it may not occur. It may not occur in 2002, or 2001. It may not occur until some time in the near future where all of the nation has changed over to technology. If that is the case, then I would suggest that we look to the concept

of voter intent. This will help all voters and this will restore back to the American people the sense that my vote does count.

I will say to you, Mr. Chairman, that Florida and the election of 2000 brought about a great deal of emotions. It reminded many of the marches of the civil rights leaders of past. It reminded them of the bloody Sunday of March 7th, and it reminded us of the fact that in this country we still have to fight for equality.

In that instance, I think what we are doing here today in this particular hearing will allow us to say to the American people—along with other hearings that this Congress will have and this Senate will have—that we mean business and that we will collaborate together in a bipartisan manner, raising up the dignity of everyone's right to vote, and will work hard to ensure that not one person walks into a voting booth at any time in America and be able to say that, my voice has not been heard.

I thank you for your leadership. I look forward to working with you and I hope that out of this will come solutions and resolutions and freedom. I thank you very much.

[The prepared statement of Representative Lee follows:]

PREPARED STATEMENT OF HON. SHEILA JACKSON LEE, A MEMBER OF CONGRESS FROM TEXAS

Chairman McCain, Ranking Member Hollings, distinguished members of this Committee, I would like to commend you for holding this important hearing on Election Reform. I believe that we must continue to address the overwhelming evidence of grave voting irregularities and voting rights violations in the recent presidential election in what was the closest and most contested presidential election in the history of our great nation. It is imperative that Congress continues to engage in a serious review and comprehensive reform of our election process in this nation. The disenfranchisement of voters in the federal electoral process remains a chilling threat to the integrity of our democratic system in America.

Mr. Chairman, it was Alexander Hamilton in his Federalist Papers who recognized the "plain proposition, that EVERY GOVERNMENT OUGHT TO CONTAIN IN ITSELF THE MEANS OF ITS OWN PRESERVATION." The right to vote, and to fully exercise that vote, is a vital component of our collective preservation.

On November 7th, 2000, only a fraction of Americans were able to exercise their right to vote and have those votes counted, while thousands, and perhaps even millions of voters were denied this constitutional right as guaranteed by the Fifteenth Amendment. It is horrifying to me that such systemic mistakes were made in this election. We must address this today. But beyond these mistakes, there have been serious allegations of violations of the Sections 2 and 5 of the *Voting Rights Act of 1965*, 42 U.S.C. sec. 1973, which mandates the obligation and responsibility of the Congress to provide appropriate implementation of the guarantees of the Fifteenth Amendment to the Constitution, which states "the fundamental principle that the right to vote shall not be denied or abridged by the states or the federal government on account of race or color." Yet we know today, that such violations of fundamental voting rights did occur during the November 7th elections throughout the nation.

These irregularities also raise potential violations of several provisions of the *National Voter Registration Act of 1993*, 42 U.S.C. sec. 1973gg-5(a) which affirms the right of *every* U.S. citizen to cast a ballot and have that ballot be counted. These must be protected and enforced without compromise and without regard to the voter's race.

Victims and witnesses to Election Day irregularities and discriminatory practices at voting precincts came forward in significant numbers to tell their stories of how their votes were discarded and their voices silenced. My office remains inundated with countless letters, phone calls, and e-mails of stories of violations, and demands that justice and order be restored to this process.

If this democracy governed by the people, for the people means anything at all, we must listen to the voices of the people spoken through their votes, which is guaranteed by the United States Constitution.

Last month, the Democratic Caucus Special Committee on Election Reform held its second public hearing in San Antonio, Texas to study these election irregularities

and to seek solutions. There, we heard from law enforcement, poll workers, educators, civil rights organizations, state and federal legislators, and disenfranchised voters.

Testimony heard from disenfranchised voters recounted the following:

1. That citizens who were properly registered were denied the right to vote because election officials could not find their names on the precinct rolls and that some of these voters went to their polling place with registration identification cards but still were denied the right to vote.

2. That registered voters were denied the right to vote because of minor discrepancies and clerical errors between the name appearing on the registration lists and the name on their identification.

3. That first-time voters who sent in voter registration forms prior to the state's deadline for registration were denied the right to vote because their registration forms were not processed and their names did not appear on the precinct rolls.

4. That African-Americans voters were singled out for criminal background checks at some precincts and that one voter who had never been arrested was denied the right to vote after being told that he had a prior felony conviction.

5. That African-American voters were required to show photo identification while white voters at the same precincts were not subjected to the same requirement.

6. That voters who requested absentee ballots did not receive them but were denied the right to vote when they went to the precinct in person on Election Day.

7. That hundreds of absentee ballots of registered voters in various counties throughout the nation were improperly rejected by the Supervisor of Elections and not counted.

8. That African-American voters who requested assistance at the polls were denied assistance.

9. That African-American voters who requested the assistance of a volunteer CREOLE/ENGLISH speaker who were willing to translate the ballot for limited proficient voters were denied such assistance.

Mr. Chairman, the U.S. Supreme Court has held that "The United States is a constitutional democracy. Its organic law grants to all citizens a right to participate in the choice of elected officials without restriction by any state because of race." *Lane* v. *Wilson*, 307 U.S. 268, 275 (1939). This is clearly a task for the federal government because federal guarantees in federal elections are at stake.

The evidence that more people went to the polls in Florida to vote for Al Gore than went to vote for George W. Bush is substantial. I am not alone in believing that a full and fair hand recount would have proven this. It is for these reasons that a full investigation by the Attorney General is in order. However, although a letter sent to President Bush by virtually every House Democrat, called on the administration to "provide essential guidance and leadership on a national problem." Today, we are still without such leadership.

So what can be done to remedy these problems for the future? Since the 2000 presidential election more than 1,500 election reform bills have been introduced in state legislatures around this nation. The American Civil Liberties Union and other organizations have been filing suits in California and in other states demanding that uniform methods of casting and counting ballots be put in place. I applaud these efforts, and would like to recognize, for example, the recent election reform efforts of the Florida legislature to eliminate outdated punch card technologies, and legislation signed last month by Georgia Gov. Roy Barnes requiring that every precinct install up-to-date touch-screen voting machines by the next presidential election. These efforts are a step in the right direction, and I believe that outdated technology is a large part of the problem.

In my state of Texas, 14 counties still use "punch card systems" like those used in Florida during the 2000 presidential election. In Texas during the 2000 elections nearly 1.7 million votes were cast statewide using punch card systems with an average of 1.53 percent undervotes and .54 percent overvotes, while over 4 million votes were cast statewide using modern "optical scan systems" with an average of .51 percent undervotes and .12 percent overvotes. Harris County, which I represent, still uses the punch card system and had similar rates of error, with nearly 1 million votes cast and 1.51 percent undervotes and .67 percent overvotes. These numbers suggest that the newer technologies reduce mistakes, and may even expedite increased volume of votes cast.

One study done by the House Government Reform Committee analyzed upgrading voting technology in Detroit, having the highest poverty rate of any U.S. city, as well as one of the highest minority populations. It studied the effects of voter education and the replacement of the antiquated punch card machines, such as those used in Florida, with new optical scanner machines that let voters know when the voter made a mistake and gave the voter an opportunity to fix it. The results of

this study are staggering. The percentage of uncounted votes for President in Detroit decreased by almost two-thirds, from almost 50 percent above the national average in the 1996 election in which punch cards were used, to almost 50 percent below the national average in the 2000 election in which the new machines were used. Detroit also reduced the percentage of uncounted votes significantly, from 7 percent in precincts with high rates of uncounted votes in 1996, to less than 1 percent using the new machines in 2000.

Finally, even districts with increased turnout where large numbers of inexperienced or infrequent voters showed up, had low rates of uncounted ballots. For example, in the 18th Congressional District of Texas which I represent, turnout increased by over 1000 votes between 1996 and 2000, yet the rates of uncounted votes for President decreased from 2.9 percent to 0.8 percent.

Another necessary improvement is to ensure "provisional voting" in every election so that any voter wrongfully eliminated from voting rolls because of a haphazard or mistaken voter felony "purge" may vote and have that vote counted. The "purging" process includes eliminating a person's name from the voting rolls when that person has not voted recently, thus requiring the person to re-register before voting again. This is particularly problematic because voters are often not notified when their names have been purged. As a result, when the person arrives at the polls to vote, he or she is denied access. We need to change this practice so that voters are allowed, at the polling place, to promptly remedy the error, vote, and have that vote counted.

We also need to encourage our young people to get involved in the voting process, and begin hiring more young people at the polling locations. In order for there to be true electoral reform, our youth must take a more active roll, and we must give them the tools and the opportunity to do so.

Also needed is education. We must educate those who work at the polls and in the local precincts, so that they can anticipate problems beforehand, and prepare. For example, in precincts where there are large numbers of Creole-speaking people, workers should be informed so that they can provide ample ballots printed in Creole, or to ensure that there are poll workers onsite who speak Creole. Workers should also be educated in the newer voting technologies that are developing.

We must also educate our law enforcement officers, so that they understand the legalities and cultural sensitivities inherent in the voting process, and do not inadvertently interfere.

We must also educate the media so they are more sensitive to the influence and impact that their reporting has on people who have not yet made it to the polls. Many people, myself included, believe that the media played a key roll in last year's election by calling the election too early for Al Gore and Joe Lieberman, which resulted in many people not going to the polls to vote, believing that their vote would not have an effect on the election.

And last, we must educate and empower our voting citizens, so that they know their rights, understand how the voting process works, and can operate the newer technologies that are anticipated in the near future.

To help facilitate greater and more regular voter turnout, I strongly believe that we need to make election day a national holiday in order to reconcile employment commitments, which keep many people from voting or participating in this important election process. People should not be alienated from our democratic process simply because they cannot afford to take off work to vote. That's why I introduced H.R. 934 in Congress on March 7, 2001, establishing National Election Day on the second Tuesday of November, in presidential election years as a legal public holiday. This bill will merely federalize what some states have done with great success, so that employees in the private sector will be able to exercise their constitutional right to vote or take part in the electoral process as election volunteers with no restraints. Everyone should be able to afford to cast his or her vote. As a nation, we simply cannot afford not to.

I have also introduced H.R 60, the Secure Democracy for All Americans Act, which would develop greatly needed uniform standards which may be adopted by the states for the administration of elections for federal office by calling on the establishment of a Commission on the Comprehensive Study of Voting Procedures to study and report to the President and Congress on all issues relating to voting procedures in federal, state, and local elections.

In addition, I have drafted a bill that would modify the Secure Democracy for all Americans Act by assigning the Federal Election Commission the role of providing grants to states and local communities to enable them to efficiently implement this study.

Finally, I have recently founded the bipartisan Congressional Election Caucus to enable all members of Congress to engage in a serious review and dialog of the elec-

tion process in this nation as a recognition of the disenfranchisement of voters who lost their fundamental rights as citizens of the United States, to vote because of voter confusion, poor voter machinery, or work commitments.

While statutes were not enacted during this past election to prevent minorities from voting, deliberate actions were taken that prevented minorities, women, the elderly and thousands of Americans from invoking their constitutional right to vote. These actions demonstrate a grave injustice upon our democratic system. Sadly, those around the world who look to us as a symbol of justice and freedom have borne witness to one of our darkest hours, and the dimming of our great light that leads their way.

We must not let these actions be revived again. To do so would wash away the blood stains, and tears of our founders, our ancestors, our parents and even ourselves who have fought for the right of every citizen's voice to be heard regardless of race, ethnicity, gender, age, and yes, even political affiliation.

The Fifteenth Amendment of the Constitution tells us that "The Congress shall have the power to enforce this article by appropriate legislation." So, in the words of the Reverend Martin Luther King: "[T]he hour is late. And the clock of destiny is ticking out. We must act now before it is too late." Thank you.

[From The Dallas Morning News, April 21, 2001]

VOTER PURGES ARE SUBJECT OF PANEL HEARING: COMMITTEE CONSIDERS WAYS CITIZENS CAN STAY REGISTERED

(By Carolyn Barta)

SAN ANTONIO. Texas purged 750,000 voters from its rolls last year, a congressional election committee learned Friday, prompting members to ask how Congress can make it easier for voters to remain registered.

"I'm going to research that question," said U.S. Rep. Sheila Jackson Lee, D-Houston, after hearing a naturalized citizen tell her story—through a translator—of being turned away from a San Antonio polling place in November.

Ms. Lee is a member of the Democratic Caucus Special Committee on Election Reform, which heard testimony Friday on Texas' election problems and procedures at the second of several hearings planned across the country.

The committee's study was prompted by election irregularities in Florida and could result in recommendations on a wide variety of federally imposed reforms. Thousands of voters in Florida claimed, among other complaints, that they were not allowed to vote at polling places because their names did not appear on registration lists.

Carmen R. Martinez told the committee that she thought she would always be able to vote after she registered the day she became a U.S. citizen but was turned away because she had not renewed her registration.

"I didn't know I had to register twice," she said in Spanish.

Secretary of State Henry Cuellar, who provided the number of Texans taken off the voter rolls, explained that voters were purged at the county level if they didn't vote in the last two federal elections and did not renew their registration.

Tommy T.C. Calvert, president of the Neighborhood First Alliance, a coalition of 25 community groups, told of other minorities who were not allowed to vote because their address or voting location had changed or their registration had been purged or lost.

"It was eye-opening to me," Ms. Lee said of the testimony.

Mr. Cuellar said Texans who believe they are eligible to vote can sign an affidavit at the polling place and vote. But citizens testifying said many Hispanic and black voters don't know their rights and leave without casting a ballot.

"If you can sign an affidavit, why can't we have same-day registration?" asked U.S. Rep. Charlie Gonzalez, D-San Antonio, another committee member.

Mr. Cuellar said the Texas Legislature has repeatedly rejected proposals to allow same-day registration.

"I think you need to look at whether the purging law is burdensome," Ms. Lee said. "If you make an effort to register sometime in your life, you should continue to have the right to vote whether you've skipped an election or not." One issue being reviewed by the Democratic committee, headed by U.S. Rep. Maxine Waters, D-Calif., is whether Congress can force states to have "provisional ballots" to ensure the right to vote. Those ballots could be cast but not counted until the voters' authenticity later can be verified.

Mr. Cuellar also told the committee that Texas had almost 50,000 undervotes—ballots on which no vote for president was recorded—and 14,000 overvotes—ballots with more than one choice for president marked. Those votes were thrown out.

The undervotes made up 1.5 percent of punch-card votes, the system blamed for many problems in Florida, and less than 1 percent of optical-scan paper ballots and the newest technology of touch-screen voting.

The committee is considering a variety of issues, including standardized ballots, uniform poll closing times, a national election day holiday, weekend voting, voter education, and federal funds to allow local and state jurisdictions to upgrade equipment.

Friday's meeting was the only scheduled for Texas. Future hearings are planned for Florida, Chicago and several locations in the South.

The CHAIRMAN. Well, thank you very much, Congresswoman Lee. I want to thank you and the Congressional Black Caucus for your leadership and commitment to this issue. There seems to be a belief that interest in this issue has largely died out here on the Hill. I think your statement today indicates that at least there are some Members of Congress that do not agree with that.

We intend to mark up this legislation, which you and I would agree is a modest, very modest piece of legislation, and try and get it passed through the Senate. I do not know where the controversy would reside. I would look forward to doing what I can to help you with H.R. 60 and with other measures.

I also agree with you that—and I would be interested in what our other witnesses have to say—unless there is some funding for some of the poorer parts of America, that it is highly unlikely that they will be able to make the technological changes which are necessary so that every vote has an equal opportunity to be voted no matter how high or low income area the voting procedure takes place.

So I want to thank you very much. I thank you for your compelling statement. I want to thank you for your leadership, and I hope that we can contradict the prevailing view in some quarters that the Congress has lost interest in this issue.

I thank you, Congresswoman Lee.

Ms. LEE. Thank you very much, Mr. Chairman. If I might close by simply encouraging you, as you are already encouraged. I believe that the American people still have a passion from this issue. The hearings that we have held, both the Congressional Black Caucus and the Democratic Caucus on the House side, when we have visited in jurisdictions just plain citizens, if you will, that are not wearing any particular banner, come up and say: We want some solutions.

I think you are absolutely right. If the federal government does not collaborate with funding, rural communities that are still using paper ballots, and even though they may be smaller in population, probably will not be able to change their structures if they do not have the incentive grants or collaborative dollars that will be very helpful to us.

So I think that is extremely important, along with, if you will, the work that I hope the Civil Rights Division of the Attorney General's office will do to clear up the ills or the concerns of what occurred with some of the activities in Florida. Without again retracing the steps of that election, I would like to just look at how we can be better at allowing everyone the right to vote without intimidation or fear.

So I thank you very much.

The CHAIRMAN. Thank you again, and thank you for coming to visit with us. I look forward to working with you as we make at least some measurable progress on this issue before the 2002 election. Thank you very much, Congresswoman Lee.

Ms. LEE. Thank you, Mr. Chairman.

The CHAIRMAN. Our first panel is: the Honorable Betsey Bayless, who is the Secretary of State of the State of Arizona; and the Honorable John Willis, Secretary of State of the State of Maryland. I want to thank both of you for being here. The Honorable Betsey Bayless is an old and dear friend.

John Willis, I want to thank you for being here and I want to mention that we had a wonderful town hall meeting not long ago at St. John's after I visited with members of the legislature, where I was very warmly received, and I appreciate that—far more warmly received than when I went to school there. I thank you.

Betsey, we will begin with you. Thank you.

STATEMENT OF HON. BETSEY BAYLESS, SECRETARY OF STATE, STATE OF ARIZONA

Ms. BAYLESS. Mr. Chairman, good morning. I appreciate the opportunity to present my views regarding election reform.

While election——

The CHAIRMAN. By the way, maybe you might make some remarks, if you could, at the end of your prepared remarks concerning Congresswoman Lee's comments, if you could. I know you were paying attention to them. Thank you. Go ahead.

Ms. BAYLESS. Mr. Chairman, in fact, I think I will cover some of the points in my prepared remarks, and then I have got several other things to say.

The CHAIRMAN. Thank you.

Ms. BAYLESS. While elections should be conducted by state and local officials, there are several ways that the federal government could assist the states in improving the accuracy, integrity, and uniformity of voting throughout the United States. First, federal funding is necessary to enable states to upgrade voting equipment and eliminate punchcards.

Second, federal standards for voting should be updated, including standards for Internet voting systems.

It has been 6 months since election day 2000. Hardly a day goes by without someone saying to me, "Could the problems of Florida happen in Arizona?" My standard answer is the following: Arizona has excellent laws and uniform voting procedures in place. However, the voting equipment used in parts of Arizona needs to be improved to equalize voting and to reduce the rate of voter error in attempting to cast a vote.

Since 1979, the Arizona Secretary of State has been required by statute to adopt a procedures manual to provide correctness, impartiality, and uniformity in the conduct of elections and tabulations of results. While our laws and procedures in Arizona work well to provide uniformity, ease of voting would be improved with a modest amount of funding, actually $3.4 million.

In 1994, the Maricopa County Board of Supervisors, of which I was a member, voted to purchase optical scanning election equip-

ment for $6.4 million. Four other counties followed Maricopa County's lead, so now 80 percent of the voters in Arizona utilize marked paper ballots with optical scanning equipment. Ten of the counties in Arizona, representing 20 percent of the voters, still rely on punchcards. Cost is obviously the controlling factor for continuation of punchcard voting in these ten counties.

I believe that equalizing voting systems across our state is the right thing to do because our punchcard counties are primarily the rural areas of the state. Many of our minority voters live in these counties. The 2000 Census shows that a large percentage of the residents of our punchcard counties are Hispanic and Native American. For example, Santa Cruz County has over 80 percent voters which are Hispanic. In Navajo County, over 47 percent of the voters are Native Americans. Federal funding will enable Arizona to eliminate punchcards.

It is also time to update the federal standards for voting equipment. During my administration as Secretary of State, I have required companies to obtain certification from the Independent Testing Authority that their equipment, software and hardware, meet the Federal Election Commission's voting standards. These standards were adopted in 1993. It is crucial that they be updated and also that they address standards for Internet voting systems to ensure accuracy, integrity, auditability, security, and ballot secrecy.

I believe all Arizonans should be voting on equipment that minimizes the possibility of accidental overvotes. I believe all Arizonans deserve to have confidence that their votes count. I believe we must eliminate punchcard voting in Arizona by the 2002 general election. With matching funds from the federal government, and up-to-date federal voting equipment standards, we will accomplish these goals.

Free and fair elections are the foundation of American democracy. Public confidence and trust in the process is the cornerstone of that foundation. Thank you for your commitment to protect that freedom and trust.

With regard to the Congresswoman's comments, many of the points that she made really involved standardization of procedures. She talked about punchcards and I think I have talked a little bit about punchcards, but one of the things that I notice was most lacking throughout the country was standardized procedures. Now, as I said in my testimony, Arizona for quite some time has had a procedures manual which has the force of law with the 15 counties in Arizona. The counties follow that to the letter. We update it all the time. It says specifically—it calls for an inspection board in the counties that have the punchcards so that the inspection board will inspect every ballot and will know when to remove the chad, and when to leave it on. It dictates how often the machines must be cleaned out, how they should be tested, and so on and so forth with regard to both punchcard and also with the optical scan voting.

I think it would be very helpful to have some standards produced by the federal government, not only dealing with equipment, but dealing with all aspects of voting, so that as we move forward——

The CHAIRMAN. Including procedures for purging of the voting rolls?

Ms. BAYLESS. Well, actually, Mr. Chairman, we include that as well in our procedure. It covers everything. In Arizona it is very, very difficult to even get a voter onto the inactive list. Now, once a voter is on the inactive list, an individual may, if that person shows up at the polls, the individual may vote what we call a "ballot to be verified."

Now, the Congresswoman called it a provisional ballot. It is exactly the same thing that we call a "ballot to be verified."

People make their assertion and fill out, complete the ballot, and that is checked at a subsequent time.

So, in some states—it is not just Arizona, but in some states—these kinds of issues are covered by standards. I think it would be very helpful to have some standards published by the federal government. Of course, it should be voluntary that the states would buy into the standards. But I can tell you from Arizona's standpoint, we think it would be very worthwhile.

[The prepared statement of Ms. Bayless follows:]

PREPARED STATEMENT OF HON. BETSEY BAYLESS, SECRETARY OF STATE, STATE OF ARIZONA

Mr. Chairman, distinguished members of the committee—good morning. I appreciate this opportunity to present my views regarding election reform.

While elections should be conducted by state and local officials, there are several ways that the federal government could assist the states in improving the accuracy, integrity and uniformity of voting throughout the United States. First, federal funding is necessary to enable states to upgrade voting equipment and eliminate punch cards. Second, federal standards for voting equipment should be updated, including standards for Internet voting systems.

It has been 6 months since Election Day 2000. Hardly a day goes by without someone asking me, "Could the problems of Florida happen in Arizona?" My standard answer is the following: Arizona has excellent laws and uniform voting procedures in place; however, the voting equipment used in parts of Arizona needs to be improved to equalize voting and to reduce the rate of voter error in attempting to cast a vote.

Arizona has a solid foundation of long-established statewide uniform procedures that govern the conduct of elections. Since 1979, the Arizona Secretary of State has been required by statute to adopt a Procedures Manual to provide correctness, impartiality and uniformity in the conduct of elections and the tabulation of results. This manual has the force and effect of law. In fact, it is a criminal offense to violate the Arizona Secretary of State's Election Procedures Manual.

In Arizona, the Secretary of State's Office is also required to conduct a mandatory training course in election laws, procedures and ethics every 2 years for the certification of county election officials and employees.

While our laws and procedures in Arizona work well to provide some uniformity in our state, ease of voting would be improved with a modest amount of funding to upgrade voting equipment. We have estimated that an investment of $3.4 million would provide optical scan voting systems for our counties that are currently using punch card systems.

In 1994, the Maricopa County Board of Supervisors, of which I was a member, voted to purchase optical scanning election equipment for $6.5 million. Prior to that time, Maricopa County used punch card equipment. The large volume of ballots would heat up and burn out the tabulating machines. Election results were delayed until the next morning. We had had enough of punch cards.

In addition to speed of obtaining results, one of the benefits of optical scan tabulation is that when a voter casts a ballot at the polling place, the scanning machine will inform the voter of any accidental overvotes, which would invalidate the votes for a particular office. The voter then has the option of voting a new ballot or directing the election official to accept the ballot.

Four other counties followed Maricopa County's lead. Now, 80 percent of the voters in Arizona utilize marked paper ballots with optical scanning equipment. Ten of the counties, representing 20 percent of the voters, still rely on the punch cards. Cost is obviously the controlling factor for continuation of punch card voting in ten counties in Arizona.

I believe that equalizing voting systems across our state is the right thing to do because our punch card counties are primarily the rural areas of the state. Many of our minority voters live in these counties. The 2000 Census shows that large percentages of the residents of our punch card counties are Native Americans and Hispanics. For example:

Cochise County, 30.7 percent of the population is Hispanic/Latino
Greenlee County, 43.1 percent of the population is Hispanic/Latino
Pinal County, 29.9 percent of the population is Hispanic/Latino
Santa Cruz County, 80.8 percent of the population is Hispanic/Latino
Yuma County, 50.5 percent is of the population is Hispanic/Latino
Coconino County, 28.5 percent of the population is Native American
Navajo County, 47.7 percent of the population is Native American

In Navajo County only 45.9 percent of the population is White/Caucasian.

And finally, just a few weeks ago one of Arizona's cities experienced a serious problem with punch cards. My state election director was appointed by the superior court as a special master to oversee a re-tabulation of the results of a mayoral and city council race. She discovered that the coded punch cards for two precincts were inadvertently switched with each other, causing the votes to be counted for the wrong candidates. Neither the pollworkers, nor the voters, could determine by looking at the ballots that they were key-punch coded for a different precinct. An experienced county election official, who was conducting the election for the city, did not pick up this error during the first count of the ballots. After the ballots were re-tabulated according to the precincts in which they had actually been voted, the outcomes of the mayoral and city council races were reversed.

This never would have happened with optical scan equipment. They are not only more user-friendly for the voters—they are more user-friendly for election officials. This incident has only added to voter distrust of punch card voting in Arizona. Federal funding will enable Arizona to eliminate punch cards.

It is also time to update the federal standards for voting equipment. I have always supported the adoption of federal standards for voting equipment. Before equipment may be purchased for use in state and federal elections in Arizona, the Secretary of State must certify the equipment. During my administration, I have required companies to first obtain certification from the Independent Testing Authority that their equipment's software and hardware meet the Federal Election Commission's Voting Standards. These standards were adopted in 1993. It is crucial that they be updated and also that they address standards for Internet voting systems to ensure accuracy, integrity, auditability, security and ballot secrecy before any new system is used in binding elections for federal and state offices.

I believe all Arizonans should be voting on equipment that minimizes the possibility of accidental overvotes. I believe all Arizonans deserve to have confidence that their votes count. I believe we must eliminate punch card voting in Arizona by the 2002 General Election. With matching funds from the federal government and up-to-date federal voting equipment standards, we will accomplish these goals.

Free and fair elections are the foundation of American Democracy. Public confidence and trust in the process is the cornerstone of that foundation. Thank you for your commitment to protect that freedom and trust.

The CHAIRMAN. Thank you.

Mr. Willis, welcome.

STATEMENT OF HON. JOHN T. WILLIS, SECRETARY OF STATE, STATE OF MARYLAND

Mr. WILLIS. Thank you very much, Mr. Chairman. I want to commend the Committee for being one of the first Committees on the Hill on March 7 to address this issue, and, I think, addressing it in the proper tone and the proper manner.

Also, your appearance in Annapolis caused quite a stir. Unfortunately, I was unable to attend, but I know Delegate Hurson and some of the other leaders in campaign reform in the State of Maryland appreciate your attendance. They will be persisting and, hopefully, they will be as successful as you have been here on the Hill in Annapolis.

The CHAIRMAN. Thank you.

Mr. WILLIS. As I prepared today I wondered how I could be constructive and positive, noting that you wanted to focus on solutions. The State of Maryland has just gone through this process. What happens as we all look at this issue is we tend to think all the voting systems as the one that we used, or the one that we use in our state or what we are familiar with. The 2000 election showed there is this great disparity throughout the country and, even among jurisdictions in the state of what goes on in the conduct of elections.

I have distributed a written statement to you. We have three minor corrections, edits, we would like to make to that. With your permission, I would like to have that entered into the record.

The CHAIRMAN. Without objection.

Mr. WILLIS. It is a pleasure to be here with Betsey Bayless. We were on a National Association of Counties committee together some years ago. The second thing is, as I indicated, we just went through this process. Our governor, even before the election was determined, appointed me as Chair of a committee in Maryland to look at the Maryland procedures and laws.

Maryland is among one of the best states in the country in capturing voter intent. In the 1996 election we were the third best state in the country in terms of the rate of error. We even exceeded that in 2000. But I think Maryland is an interesting case study. Our full 124-page is on the web. It might be instructive to you and your Committee in its work.

The basic finding was that voting systems do make a difference and that procedures, as Secretary Bayless said, do make a significant difference. When I do election studies—I teach part-time at the University of Baltimore right now and have been involved in this subject matter for 20, 25 years—I do 20-year studies. We did a 20-year study in Maryland and it quite clearly showed 19 of our counties have changed systems in the last 6 years.

We have reduced the error rate in Maryland by two-thirds as a result of 19 of our 24 jurisdictions modernizing their equipment over the last decade. There is no question that you can reduce error rate. It is not a question of spending a lot of time. It is a question, quite frankly, of resources, training, and proper procedures to implement the system.

But to give you a perspective on what that means, the State of Maryland had over 2 million voters. We had 10,553 who did not express a preference for president. That is 0.518 percent. At the polling place it was less. It was .450 percent. I mean, it was very, very low, and it is directly related to what Secretary Bayless had indicated: improvement in machinery.

We publish through my office, the Secretary of State's office, the Code of Maryland Regulations and the procedures for the six different types of systems that we use in Maryland are, in fact, spelled out in the Code of Maryland Regulations.

What we have recommended in Maryland is that we move toward a unified statewide system, because even in Maryland we have disparities that occurred among our voting systems. Montgomery County, which I am sure you are familiar with, north of the District, is one of our wealthiest jurisdictions. It is the last remaining punchcard county in the State of Maryland. Now, we are talk-

ing about a county that is in the top 15 in education, the top 15 in income, the top——

The CHAIRMAN. Well, how do you account for that?

Mr. WILLIS. They use punchcards.

The CHAIRMAN. How do you account for the fact that they have not changed?

Mr. WILLIS. They have not changed because they bought their system over 25 years ago. They were in the front edge of technology. They do not use the VotoMatic. They use a DataVote kind of a system. Twenty-five years ago, that was an advance, and they were a growing population at that time and they were interested in "how can we process more quickly the ballots."

The CHAIRMAN. But is it not generally the rule that the oldest technology is in the poorest counties?

Mr. WILLIS. Well, it is still true with some of our old lever machines that are in rural counties. In Dorchester County and Allegany County—in the mountains—we have old lever machines. Most of the technology changes in Maryland, as I said, have occurred recently. In addition, what our counties have done, that gets into a solution, is that they have leased their machines as opposed to purchase, which reduces the cost tremendously.

But the point I wanted to make about Montgomery County is that in Montgomery County, which has these high indices, they are the only county in Maryland that uses the punchcard, 27 percent of our votes that were not counted came out of Montgomery County. It is directly related to technology. We have one precinct, a senior citizen precinct in Montgomery County, that had more "no votes" than votes that were not counted in 8 other Maryland counties. The reason is simply the technology employed by the seniors that live there was inadequate to meet the needs of those seniors.

Also in that county we have had some large, new immigrant Hispanic populations that had obvious language problems with that kind of a system.

Part of the point I would like to make——

The CHAIRMAN. Your argument is made for voter education.

Mr. WILLIS. Well, it is not just voter education, because it is the system used to do it. We have similar population groups in other jurisdictions that do not have that problem, because you can have technology that prevents overvoting (Baltimore City). We converted in Baltimore City to direct recording electronic (DRE) voting system. You cannot overvote. DRE systems can be adapted both to the disability community and language needs. You can program for different languages.

Secretary Cox and I—and I see our former Secretary of State, Senator Cleland, has joined us. Secretary Cox and I have talked about this at great length and she has recommended basically the same thing that my committee has recommended, that we move toward an electronic kind of a process, which will minimize voter error.

The CHAIRMAN. Do you think the best technology is the touchscreen technology?

Mr. WILLIS. I think ultimately that is the direction we will move. I made reference in my printed testimony to the debate that we had in this country 65 years ago about paper ballots versus voting

machines. If you look at the substance of that debate, that movement from paper ballots to voting machines, we are having the same basic discussion now: How is it that we can account for large numbers of votes, process those votes in an efficient, accurate, timely manner, and have confidence in the system?

We made that transition. I think we are in that same position now, moving from punchcards to electronic voting and even to the optiscans, which do a good job in Maryland, of counting votes and around the country—as long as they are precinct count, not central count systems. You can reduce that error rate by improving technology. You certainly could do it.

We do it in every other phase of our business and daily lives. In one of our committee hearings I pointed out to somebody that the very person you are trying to help—that Congresswoman Lee and I have testified about in front of the Black Caucus—is the person who is working at McDonald's, who is the deliveryman. What is the delivery person using when they are coming for Federal Express? They are punching in numbers electronically. If you go to a restaurant and you order a meal, the person who is waiting on you uses a touchscreen system.

The public is way ahead of where the election infrastructure is on this. It is not just a matter of access at home. It is what the people are using in their daily lives. I think that transition is going to come.

One other solution that our committee came up with was that we think the technology is going to change every 3 to 5 years. Therefore, we proposed in the State of Maryland—and the governor for the first time in the history of the state—provided for state funds. I asked Secretary Bayless this. Historically, counties have been totally funding elections. We have agreed to fund any new system in Maryland 50–50, state money and county money.

What we have also suggested is that we look into leasing for the next 3 to 5 years because we anticipate the technology is going to be able to change, adapt to this system. I an encouraged by what I hear from vendors. Major technology companies, Cisco, IBM, some of the consultant companies, are getting into this market and I think that we are going to see some dramatic improvements in the kind of technologies available.

One other point about suggestions——

The CHAIRMAN. Let me ask you and Betsey real quick. You in the state are willing to provide matching funds. Do you think the federal government should provide matching funds, and if so should there be a means test? Should we be providing funds for the poorest county in Texas as opposed to Montgomery County? I would like to ask you both.

Mr. WILLIS. I believe that there should be—yes, that the federal government should be a partner with state and local governments in correcting this problem. I think that what I suggested in my written testimony was that the federal government appropriate $1 per person of voting age to each state. Then those state funds could be conditioned. I have no problems with putting, one, adherence to the standards that Secretary Bayless was talking about. I have no problems with conditioning that.

I do think that if you wanted to have a grant process that rewarded, additionally, those lower income jurisdictions I would not have a problem with that situation whatsoever. But I think that states, that jurisdictions that do make improvements—for example, the State of Maryland, the State of Georgia, the State of Florida—those that are moving ahead ought to be eligible to apply for those funds. In other words, if we are going to start spending them and later this fall, in whatever may come out of this between now and October 1st, that we be eligible to apply for those funds if they met those certain standards.

The CHAIRMAN. Can I ask if Betsey agrees with that? Do you agree with that?

Ms. BAYLESS. Mr. Chairman, members of the Committee, in Arizona, of course, the 10 counties that I am talking about that have punchcards are all the low-income rural counties.

The CHAIRMAN. That is generally the case.

Ms. BAYLESS. Yes, that is generally the case. I do think that the federal government should be a partner with the State of Arizona. Now, it is hard for me to talk about every other state because, frankly, I do not understand why some of the more wealthy counties have not moved away from punchcards a long time ago, like the wealthier counties in Arizona have.

But having said that, I believe we must get rid of punchcards in the United States, period.

The CHAIRMAN. Proceed, Mr. Willis.

Mr. WILLIS. Senator, just to clarify for my friends in Montgomery County, because sometimes they get disturbed when I use that example, you have to remember it is a matter of perspective. They do a wonderful job. Their error rate in Montgomery County is below 1 percent. They do a very, very good job there.

But even compared to what their demographics would be and what the rest of the state, you would expect them to be even lower. That is the point. In the research, you have to watch out when you use statewide numbers or county numbers. You really have to get down to the precinct level. The indication is at the precinct level, even in Montgomery, some of the disparities that the Congresswoman talked about and Secretary Bayless noted will start appearing when you look at the precinct level.

The CHAIRMAN. I got you, okay. Are you finished?

Mr. WILLIS. Yes, sir. The suggestions—this is a topic—you are passionate about the campaign finance and what you have been working on throughout all your campaigns. This is a topic that I have been devoting a lot of time to over the last 20 years. It can be done. It is a matter of commitment, it is a matter of resources. It is a matter of voting systems, training, and education.

[The prepared statement of Mr. Willis follows:]

PREPARED STATEMENT OF HON. JOHN T. WILLIS, SECRETARY OF STATE, STATE OF MARYLAND

Mr. Chairman, Senator Hollings, members of the Senate Commerce Committee, thank you for the invitation to appear before you to discuss the most important relationship under our constitutional structure of government—the relationship between individual citizens and their representatives. In *Federalist Paper No. 22*, Alexander Hamilton closed with the observation:

"The fabric of American empire ought to rest on the solid basis of THE CONSENT OF THE PEOPLE. The streams of national power ought to flow immediately from that pure, original foundation of all legitimate authority."

The 2000 Presidential election highlighted weaknesses in the election process which threaten the purity of the flow in the political stream from the people to their governmental leaders. It is, therefore, not only appropriate, but also imperative, that this Senate Committee, and other legislative bodies at all levels of government, take necessary, meaningful, and immediate action to guard against further deterioration in the quality of the relationship between citizens and their government.

The right to vote is the essence and foundation of the constitutional framework of our federal and state governments in the United States. The recognition of the sanctity and power of the right to vote requires that its exercise not be diminished or impaired. Accordingly, it is mandatory that all possible steps be taken to guarantee that every eligible citizen in the United States has the unfettered opportunity to vote and that the mechanics of voting and election procedures facilitate—not frustrate—the free exercise of the right to vote.

The conduct of elections is a complex enterprise. In the 2000 Presidential election, more than 100 million voters cast ballots on over 700,000 voting machines in over 200,000 polling places throughout the country that were managed by approximately 22,000 election officials and 1.4 million part-time election workers. On election day, 1,940,089 Marylanders voted in 1,666 precincts at 1,459 polling places throughout the state, and 96,366 absentee ballots were counted within several days thereafter. Hundreds of state and county election officials, along with over 17,000 election judges stationed at the polling places, were responsible for the administration of the recent election in Maryland.

Despite the size and scope of election activity, and the important consequences of elections for citizens, the infrastructure for the administration of elections lags well behind the support systems for routine personal, commercial, governmental, and social interaction in our nation and respective states. Billions of transactions utilizing modern technology are conducted every day by U.S. citizens with a high degree of confidence and user satisfaction. Citizen-voters should have the same level of confidence and satisfaction in the accuracy and capability of the systems and equipment used to exercise the most fundamental right—the right to vote. The technologies used for obtaining money at the ATM, pumping gas at the neighborhood service station, making airplane reservations, or checking out of the supermarket should be available for exercising the most important and fundamental right in our country.

Elections in this country should be administered by comprehensive election management systems which would provide electronic linkage through all phases of election administration—from voter registration before the election to the voting machines in polling places on election day and from the initial tabulation of results to the official certification of the election by the appropriate reviewing entity. Assisted by adequate resources and advanced technology, a comprehensive election management system can ensure accurate election outcomes and enhance public confidence in the election process.

A central component of the current election process is voter registration which the U.S. Congress has long recognized in the passage of landmark legislation such as the 1965 Voting Rights Act, as amended, the 1984 Voting Accessibility for the Elderly and Handicapped Act, the 1986 Uniformed and Overseas Citizens Absentee Voting Act, and the 1993 National Voter Registration Act (the "Motor Voter" Act). Modern technology can be employed to ensure compliance with these federal laws as well as make voter registration easier and more convenient for the citizen-voter. Online access to voter registration information and applications, expanded opportunity to register at schools, government offices and public places, and electronic transfer of registration between jurisdictions can be securely accomplished. Election administrators can also benefit from greater use of technology in the voter registration process with improved databases, verification of information with non-election administrative agencies, and the sharing of information across jurisdictional lines.

For example, the State of Maryland began constructing in 1998 a statewide voter registration system as part of its comprehensive election management system. It is expected that the system will be functional by December 2001 and will allow real-time access to voter registration rolls by county and state election officials. This capability will ensure that a voter is not registered in more than one jurisdiction, interface with other governmental agencies in Maryland (*e.g.*, the Motor Vehicle Administration and the court system), and enable Maryland to cross reference its voter registration database with our neighboring states. With additional resources, Maryland envisions having a computer in each polling place with access to the statewide voter registration system to ensure that the voter is at the correct polling place and

to verify the signature on the voter authority card signed at the polling place with the signature on the voter registration application originally submitted by the voter.

During the recently concluded session of the Maryland General Assembly, legislation was adopted in response to reports of Maryland citizens being unable to vote after completing a change of address form at Maryland's Motor Vehicle Administration. Maryland Senate Bill 740 and Maryland House Bill 1458 will simplify the voter registration process for a voter moving from one jurisdiction to another within Maryland by providing for a simple transfer of registration rather than a "drop and add" process. In addition, new statutory and administrative provisions will streamline the transfer of voter information between the Motor Vehicle Administration and the Maryland State Board of Elections.

In addition to needed improvements in the voter registration process, the 2000 Presidential Election dramatically highlighted the importance of the voting system technology used to cast and count votes. Maryland's Governor Parris N. Glendening appointed a Special Committee on Voting Systems and Elections Procedures in Maryland on December 4, 2000, before the 2000 Presidential Election was judicially determined, to evaluate the voting systems and election procedures in Maryland, review existing standards for recounts and contested elections, recommend appropriate funding levels to provide Maryland with accurate, convenient and reliable voting systems, and recommend statutory and regulatory changes to ensure full and fair elections. The full 124 page Report and Recommendations of the Special Committee can be accessed from the Office of the Secretary of State's website at *http://www.sos.state.md.us*.

As a result of its 2 months of research, study and work, the Special Committee confirmed that the type of voting system used by a jurisdiction *does* make a difference in the accuracy of the vote count and that election procedures *do* affect the quality of the election results. During the past decade, 19 Maryland jurisdictions replaced mechanical lever and punchcard voting systems with optical scan or Direct Recording Electronic (electronic touchscreen ballot) voting systems. The change to technologically more advanced voting systems has been accompanied by a significant reduction in the percentage of overvotes and undervotes for the highest office on the ballot. *See* Exhibits 1 and 2 showing the percentage and number of "no votes" for President in Maryland subdivisions and by voting system from 1980-2000.[1]

With 2,036,455 voters participating in the 2000 Presidential election in Maryland, only 10,553 voters were not recorded as casting a vote for President yielding a low percentage of unrecorded votes in sharp contrast to the experiences in other states. This computes to a 0.518 percent percent of "no vote" for the 2000 Presidential election, a nearly two-thirds reduction since the last Presidential election without an incumbent candidate (1988). It should be noted that at the polling place, the percent of "no vote" for President in Maryland in the 2000 election was 0.450 percent. The rate of "no votes" for absentee ballots is generally higher in each election and increases the rate of "no votes" for combined county totals. Modern voting systems, specifically the precinct count optical scan and Direct Recording Electronic voting systems, can prevent the voter from "overvoting" a ballot at the polling place and, in Maryland, have proven to be accurate in vote counting. Maryland's current and past experiences with voting systems[2] parallels the experiences around the country as described hereinbelow by the type of voting system used:

1. The Votomatic stylus punchcard voting system, when used in Maryland from 1980-1992, failed to capture the voter's intent accurately as evidenced by jurisdictions using these systems consistently having substantially higher percentages of "no votes" for President than the statewide average.

2. The central count Datavote punchcard system was used in the 2000 Presidential Election at the polling places in Montgomery County, Maryland, a large, wealthy, highly educated suburban county, and for absentee ballots in Allegany County, a Western Appalachian mountain region county with below statewide average education and income indices. While Montgomery County represented 18.40 percent of the state's total voter turnout, this upscale jurisdiction accounted for 27.12 percent of the "no votes" in Maryland and reported 2,565 overvotes (in excess of 2,000 more than the rest of the state combined). In Allegany County, 9.9 percent

[1] A "no vote" for President represents the number of voters not recorded as voting for President. A "no vote" includes voters who deliberately did not cast a vote for President, who voted for more than one for President, or who may not have had their vote accurately counted by the voting system candidate utilized by the voter.

[2] *See* pp. 19-28 of the Report and Recommendations of the Special Committee on Voting Systems and Elections Procedures in Maryland (February 2001) for a more complete evaluation of the voting systems used in Maryland.

of the absentee ballots were not counted as having a proper vote for President, more than twice the rate of any other jurisdiction and five times the state average.

3. Although mechanical lever machines prevent overvotes, the machines are no longer manufactured, replacement parts and service are difficult to obtain, and reviews of precinct level data shows substantial and sporadic variances among precincts in "no votes" cast in each election and for different elections. *See* Exhibit 3 showing the four precincts in the last three Presidential elections that recorded the most number of "no votes" in Prince George's County, Maryland.

4. While precinct count optical scan voting systems have proven generally accurate in counting ballots in Maryland, voter intent can still be difficult to determine and the potential for preventable voter error exists. Exhibit 4 contains examples of optical scan ballots where the voter intent is clear but the optical scan voting system would not count some votes cast because the voter's marks do not fall within the circle. Optical scan voting systems are not accessible to all individuals with disabilities and do not allow visually impaired individuals to cast a secret ballot.

5. Direct Recording Electronic voting systems ("DRE"), the most modern voting equipment available, provide voters with immediate visual feedback, can prevent overvotes, are capable of creating a paper trail (if necessary for a recount), and can handle the specialized needs of the voting population, particularly individuals with disabilities and non-English speaking voters. In Baltimore City, the transition from mechanical lever machines to AVC Advantage, a Direct Recording Electronic voting system, was successfully accomplished resulting in a reduction of the percentage of "no votes" from 1.73 percent in 1988 (the last comparable non-incumbent Presidential election) to 0.72 percent in 2000. The disparities between precinct "no vote" rates in Baltimore City has been virtually eliminated with 311 precincts out of 325 having 10 or less "no votes" and with the highest number of "no votes" being 19.

In order to make reasoned correct evaluations and judgments about voting systems, equipment, and election procedures, it is important to ensure the accuracy of source data and to employ appropriate methodology. Analysis by, and action based upon, anecdotal evidence should be avoided. In my research, longitudinal studies and accounting for demographic factors (*e.g.*, education, income, and race) are essential. It is also important to capture census block and precinct level data as aggregating data at the county, state, and national level can mask substantial disparities among population groups and disguise differentiating circumstances and factors. Other problems in conducting research careful attention must be given to differences in terminology and procedures used by each of the local election officials which make adjustments necessary for accurate analysis.

Notwithstanding the comparative accuracy of Maryland's voting systems, the Special Committee on Voting Systems and Elections Procedures in Maryland recommended a Direct Recording Electronic as the preferred voting system at the polling place and an optical scan voting system for the absentee ballot voting system. The Maryland General Assembly recently adopted legislation authorizing the state Board of Elections to select a uniform statewide voting system, and the governor included funds in a legislatively approved supplemental budget to share the cost of new voting systems equally with county governments.

The selection of electronic voting systems must be preceded, and accompanied at every step of implementation, by thorough testing to ensure accurate, reliable, and secure election results. Maryland and thirty-one (31) other states have included as part of the state certification process for voting systems the Voluntary Federal Voting Systems Standards developed by the Office of Election Administration and the National Association of State Election Directors. While these voluntary standards have been implemented in a majority of states, adequate resources need to be allocated to the Office of Election Administration for continuous updating of the standards as voting system technology evolves.

While the transition to new technology is inevitably resisted for a variety of reasons, employing the most advanced voting systems and equipment is consistent with our nation's history of progress and with the ultimate goal of an informed and satisfied citizen-voter. In fact, the contemporary debate over the most appropriate voting system has a clear historical analogue. As the country's population grew rapidly, and suffrage was expanded, the voting system debate in the middle of the twentieth century was between maintaining very carefully crafted rules for counting paper ballots and authorizing mechanical lever voting systems. The fundamental nature of the debate involving accuracy, security of the ballot, and ease of voter use has not changed. *See* Exhibit 5: "Voting Machines Vs. Paper Ballots," *The Baltimore Sun*, May 3, 1935, (Early Edition).

In American politics, close elections are not unusual and occur regularly at every level of government and in every state. In Maryland, the 1800 Presidential election produced a tie in the state's electoral votes. In the 1904 Presidential election, the

difference between the leading Republican and Democratic state electors was a mere fifty-one (51) votes. Former Congressman Kweisi Mfume commenced his distinguished career with a narrow three (3) vote primary election victory in a 1979 race for City Council. Important offices at county and municipal levels of government are often closely decided and, in some recent instances, have been decided by a single vote or resulted in a tie vote. The frequent occurrence of close elections demands that the voting systems and equipment used in elections be accurate and reliable and that election procedures be open, clearly understood, and fair. In the future, there will be close elections for statewide offices, the U.S. House of Representatives, the U.S. Senate and, perhaps again, for President of the United States.

In a speech to the delegates of the Constitutional Convention in 1787 urging an end to divisiveness and in support of the proposed new governing document, Ben Franklin observed,

"Much of the strength and efficiency of any government, in procuring and securing happiness to the people, depends on *opinion*, on the general opinion of the goodness of that government, as well as of the wisdom and integrity of its governors."

Franklin's observations ring true today. The citizens' perception and opinion of their government and political leaders is based, in large part, on their level of trust in fair, open, and accurate elections. Improvements in voting systems and election procedures are therefore a crucial component in promoting the essential relationship in our democratic form of government between actively engaged citizens and a fair, responsive government which was cherished by our nation's founders. In order to manifest the wisdom and integrity urged by Ben Franklin, a strong federal, state, and local partnership needs to be forged for election reform.

While, traditionally, elections have been funded by local government, the federal government as well as state governments should partner with counties and municipalities in the funding of the comprehensive election management systems. Members of the election community know the problems with current election administration and know how to solve them. What these hardworking and dedicated election officials need are resources to make the necessary changes to improve the administration and conduct of elections in the United States. State and local governments should not bear alone the full burden of implementation of new technologies for voter registration and voting systems. The National Association of Secretaries of State ("NASS") adopted on February 6, 2001, a useful resolution to guide federal, state, and local officials in election reform efforts. *See* Exhibit 6.

Accordingly, I strongly urge this Senate Committee and the U.S. Congress to seize the opportunity presented by the increased public awareness resulting from the confusing and uncertain 2000 Presidential Election. I encourage the federal financial support for state and local election officials and suggest an annual appropriation from the U.S. Congress of $1.00 to each state per individual of voting age to assist in the necessary improvements of the equipment, voting systems, and procedures used in the conduct of federal, state, and local elections. Together, we can take significant, wise steps forward in assuring the integrity of the conduct of elections for all of the citizens of our country and ensure that the voice of the people is correctly and unambiguously heard.

SUMMARY OF PROPOSED ELECTION REFORM SOLUTIONS

Recommendations for the U.S. Congress

1. Annual appropriation from the U.S. Congress to each state of $1.00 per individual of voting age to assist in the necessary improvements of the equipment, voting systems, and procedures used in the conduct of federal, state, and local elections.

• Allow federal funds to reimburse those states which have made improvements to the equipment, voting systems, and procedures since January 1, 2001.

2. Annual appropriation from the U.S. Congress for continuous updating of the existing Voluntary Federal Voting Systems Standards as voting system technology evolves.

3. Encourage states to adopt and implement the Voluntary Federal Voting Systems Standards by conditioning federal funds for states on their adoption and implementation.

4. Authorize official election documents to be mailed with first class handling at the third class postal rate.

5. Assist in the research and development of technology used for voting systems, equipment, and election procedures.

6. Provide funding for the testing of current and future voting systems and equipment.

7. Encourage states to develop statewide voter registration databases.

8. Encourage state and local officials to collect and report election and voter turnout in a consistent and comparable format.

Recommendations for State and Local Governments

1. Implement a uniform statewide voting system or uniform statewide criteria for the voting systems used in the state. (Maryland recently adopted Senate Bill 833 and House Bill 1458 which authorizes the Maryland State Board of Elections to select a uniform voting system for polling place voting and a uniform voting system for absentee voting.) Suggested voting system criteria should include:

(a) Present the voter with a ballot where it is easy to recognize all races, candidates, and issues.

(b) Properly record a voter's ballot choices by preventing overvoting and unintentional undervoting.

(c) Provide the voter with an opportunity to review the ballot choices and, if necessary, correct any ballot errors prior to casting the vote.

(d) Provide individuals with disabilities the ability to cast a secret ballot and the ability to verify the votes cast.

(e) Provide the voter with the highest degree of secrecy as practicable when casting a ballot.

(f) Allow for precinct count of votes as well as future electronic linkage to a central location to facilitate reporting.

2. Implement a statewide voter registration database with links to the local election officials.

3. Share voter registration lists with neighboring states to ensure that voter registration lists are clean.

4. Authorize "provisional ballots" or "challenge ballots" which provide voters with the opportunity to vote at the polling place if errors were made in the voter registration process. (Maryland recently adopted Senate Bill 740 and House Bill 1457 which authorized provisional ballots.)

5. Use computers in each polling place to assist election judges and poll workers with the election administration. The computer should have access to the statewide voter registration system to ensure that the voter is at the correct polling place and could be used to verify the signature on the voter authority card signed at the polling place with the signature on the voter registration application originally submitted by the voter.

6. Implement statewide recount provisions. (The Maryland State Board of Elections adopted statewide regulations for recount procedures for each voting system used in the state. *See* Subtitle 12 of Title 33 of the Code of Maryland Regulations.)

7. Require statewide reporting to the Chief Election Official in the state with common definitions and reporting formats. (*See* Md. Ann. Code art. 33, § 11-401.)

Exhibit 1: PERCENTAGE OF NO VOTE FOR PRESIDENT BY SUBDIVISION*
(1980-2000)

Subdivision	1980	1984	1988	1992	1996	2000
Allegany	1.01	1.02	1.48	0.82	1.16	1.21
Anne Arundel	0.65	0.68	0.68	0.44	0.52	0.11
Baltimore City	1.51	1.36	1.73	0.92	0.69	0.72
Baltimore	0.80	0.66	0.80	0.51	0.69	0.53
Calvert	0.50	0.95	0.89	0.45	0.75	0.47
Caroline	1.10	1.10	0.75	0.55	0.93	0.47
Carroll	0.53	1.65	2.54	1.79	0.45	0.25
Cecil	0.64	0.74	0.74	0.39	0.85	0.48
Charles	2.87	0.40	0.69	0.51	0.62	0.37
Dorchester	2.18	1.92	1.96	1.55	0.75	0.41
Frederick	1.21	2.94	2.62	1.05	0.47	0.25
Garrett	0.49	1.05	1.74	0.51	0.86	0.45
Harford	2.51	2.78	7.64	1.47	0.62	0.27
Howard	0.57	0.50	0.86	0.70	0.65	0.20
Kent	0.99	2.19	2.32	0.95	0.74	0.43
Montgomery	1.49	1.40	1.57	0.47	0.98	0.76
Prince George's	0.90	1.12	1.00	0.74	0.86	0.70
Queen Anne's	1.09	0.63	0.81	0.32	0.35	0.33
St. Mary's	0.56	0.30	0.68	0.18	0.56	0.63
Somerset	2.31	2.44	1.55	1.02	0.94	0.92
Talbot	0.73	0.78	0.95	0.57	0.97	0.30
Washington	0.78	1.54	1.49	0.38	0.45	0.28
Wicomico	0.78	0.47	1.41	0.48	0.65	0.58
Worcester	0.78	0.73	1.07	1.57	0.53	0.41
MARYLAND	**1.142**	**1.167**	**1.495**	**0.691**	**0.732**	**0.518**

Legend

Automatic Voting Machine (Lever)	Datavote (Punch card ballot)
Optech/Globel ES Systems	CES Punchcard
AVC (Touchscreen)	Shoup (Lever)

* Percentage of "No Vote" for President represents the number of voters not recorded as voting for President in each subdivision divided by the total number of voters who voted in each of the designated Presidential elections. A "No Vote" includes voters who deliberately did not cast a vote for President, who voted for more than one candidate for President, or who may not have had their vote accurately counted by the voting system utilized by the voter.

In evaluating the information contained in this table, it is more appropriate to make comparisons horizontally (within jurisdictions) than vertically (between jurisdictions) to account for the socio-economic variables that exist among jurisdictions. Precinct level analysis is even more illuminating and instructive than this county level table. The percent of "no votes" was significantly higher among votes cast by absentee ballots than votes cast at the polling place on election day in the 2000 presidential election in Maryland.

Prepared by J.T. Willis from Presidential Elections in Maryland and official election information provided by the State Board of Elections and Local Boards of Elections. Variances in these base numbers may exist as a result of discrepancies between reports compiled and certified by the Local Boards of Elections and State Board of Elections. (4/24/01)

Exhibit 2: NO VOTE FOR PRESIDENT BY SUBDIVISION*
(1980-2000)

Subdivision	1980	1984	1988	1992	1996	2000
Allegany	321	321	444	252	305	324
Anne Arundel	862	973	1058	816	893	229
Baltimore City	4075	3911	4101	2261	1278	1389
Baltimore	2256	1871	2307	1657	1363	1612
Calvert	55	133	157	105	179	141
Caroline	75	79	54	47	77	42
Carroll	174	611	1139	1003	238	160
Cecil	122	148	157	107	210	139
Charles	649	105	220	198	222	166
Dorchester	235	195	203	173	76	47
Frederick	479	1305	1340	692	307	197
Garrett	42	101	164	54	85	46
Harford	1311	1561	4853	1206	486	248
Howard	298	309	684	700	627	229
Kent	63	142	159	73	52	35
Montgomery	4038	4182	5109	1719	3329	2862
Prince George's	1755	2628	2245	1922	2674	1920
Queen Anne's	100	62	95	47	48	55
St. Mary's	90	53	140	46	133	188
Somerset	164	174	113	82	68	71
Talbot	80	89	117	78	126	46
Washington	306	635	615	178	190	134
Wicomico	172	114	369	146	179	185
Worcester	80	88	143	264	90	86
MARYLAND	**17802**	**19790**	**25996**	**13826**	**13135**	**10553**

Legend

Automatic Voting Machine (Lever)
Optech/Globe-ES Systems
AVC (Touchscreen)
Datavote (Punch card ballot)
CES Punchcard
Shoup (Lever)

* "No Vote" for President represents the number of voters not recorded as voting for President in each subdivision. A "No Vote" includes voters who deliberately did not cast a vote for President, who voted for more than one for President, or who may not have had their vote accurately counted by the voting system candidate utilized by the voter.

In evaluating the information contained in this table, it is more appropriate to make comparisons horizontally (within jurisdictions) than vertically (between jurisdictions) to account for the socio-economic variables that exist among jurisdictions. Precinct level analysis is even more illustrative and instructive than this county level table. The percent of "no votes" was significantly higher among votes cast by absentee ballots than votes cast at the polling place on election day in the 2000 presidential election in Maryland.

Prepared by J.T. Willis from **Presidential Elections in Maryland** and official election information provided by the State Board of Elections and Local Boards of Elections. Variances in these base numbers may exist as a result of discrepancies between reports compiled and certified by the Local Boards of Election and State Board of Elections. (4/24/01)

EXHIBIT 3: PRINCE GEORGE'S COUNTY "NO VOTE" SELECTED PRECINCTS[1]
(Mechanical Lever Voting System)

Precinct	1992 Total No Vote	1992 Percent No Vote	1996 Total No Vote	1996 Percent No Vote	2000 Total No Vote	2000 Percent No Vote
5-7[2]	33	0.66%	119	5.86%	5	0.24%
6-6	69	5.40%	5	0.50%	2	0.16%
6-20	2	0.16%	9	0.56%	108	5.46%
7-6[3]	10	0.42%	9	0.80%	94	7.51%
7-11[4]	18	0.36%	70	3.48%	5	0.20%
10-1	4	0.31%	77	11.77%	2	0.29%
11-2	179	8.51%	14	0.60%	7	0.24%
12-5	7	0.42%	72	4.72%	0	0.00%
13-4[5]	37	0.83%	28	0.52%	12	0.18%
14-7	137	16.57%	2	0.25%	2	0.22%
16-5	24	1.53%	25	1.73%	117	7.14%
17-11	9	0.76%	12	1.13%	200	15.71%
Countywide	**1922**	**0.74%**	**2074**	**0.86%**	**1920**	**0.70%**

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[1] The selected precincts are the four precincts in each presidential election that experienced the most number of "no votes" of all precincts in Prince George's County for that year.

[2] Precinct 5-7 was formed from parts of precincts 5-2 and 5-5 in 1993. The 1992 total and percent of "no votes" is the combined totals from those precincts.

[3] Precinct 7-6 was split to create additional precincts 7-11 and 7-16 in 1993. The 1996 and 2000 numbers are for precinct 7-6 only.

[4] Precinct 7-11 was formed from parts of precincts 7-1 and 7-9 in 1993. The 1992 total and percent of "no votes" is the combined total from those precincts.

[5] Precinct 13-4 was split to create additional precincts 13-11, 13-12, and 13-13 in 1993. The 1996 and 2000 numbers are for precinct 13-4 only.

OFFICIAL BALLOT
GENERAL ELECTION
NOVEMBER 7, 2000
STATE OF MARYLAND, CAROLINE COUNTY
CONGRESSIONAL DISTRICT 1

BALLOT STYLE #1

INSTRUCTIONS

To Vote, completely fill in the oval ● to the left of your Choice(s). To vote for a candidate whose name is not printed on the ballot, write in the name of the candidate on the designated write-in line under that office title and completely fill in the oval opposite the write-in candidate's name.
Mark only with the pen or pencil provided. DO NOT ERASE. If you make a mistake you may request a new ballot. If your vote for a candidate or question is marked in such a manner that your intent is not clearly demonstrated, your vote for that office may not be counted. To protect the secrecy of your vote, do not put your name, initials, or any identifying mark on your official ballot.

PRESIDENT & VICE PRESIDENT OF THE UNITED STATES (Vote for One Pair)

- X AL GORE, Tennessee — Democratic
  AND
  JOE LIEBERMAN, Connecticut — Democratic
- ◯ GEORGE W. BUSH, Texas — Republican
  AND
  DICK CHENEY, Wyoming — Republican
- ◯ HARRY BROWNE, Tennessee — Libertarian
  AND
  ART OLIVIER, California — Libertarian
- ◯ PAT BUCHANAN, Virginia — Reform
  AND
  EZOLA FOSTER, California — Reform
- ◯ RALPH NADER, Connecticut — Green
  AND
  WINONA LaDUKE, Minnesota — Green
- ◯ HOWARD PHILLIPS, Virginia — Constitution
  AND
  J. CURTIS FRAZIER, Missouri — Constitution
- ◯ Write-In

U.S. SENATOR (Vote for One)

- X PAUL S. SARBANES — Democratic
- ◯ PAUL H. RAPPAPORT — Republican
- ◯ Write-In

REPRESENTATIVE IN CONGRESS CONGRESSIONAL DISTRICT 1 (Vote for One)

- X BENNETT BOZMAN — Democratic
- ◯ WAYNE T. GILCHREST — Republican
- ◯ Write-In

JUDGE OF THE CIRCUIT COURT JUDICIAL CIRCUIT 2 (Vote for One)

- X KAREN A. MURPHY JENSEN
- ◯ Write-In

JUDGE, COURT OF SPECIAL APPEALS AT LARGE (Vote Yes or No)

PETER B. KRAUSER
- ◯ YES FOR CONTINUANCE IN OFFICE
- ◯ NO FOR CONTINUANCE IN OFFICE

JUDGE, COURT OF SPECIAL APPEALS APPELLATE CIRCUIT 1 (Vote Yes or No)

SALLY D. ADKINS
- ◯ YES FOR CONTINUANCE IN OFFICE
- ◯ NO FOR CONTINUANCE IN OFFICE

QUESTION NUMBER 1

CONSTITUTIONAL AMENDMENT
CECIL COUNTY-ELECTION AND TERMS OF OFFICE FOR THE BOARD OF COUNTY COMMISSIONERS

Excepts the Board of County Commissioners of Cecil County from the constitutiona. requirements that all State and county elections be held only in every fourth year on a particular date and that all State and county officers hold four-year terms. in order to allow staggered terms with elections held every second year.

- ◯ FOR THE CONSTITUTIONAL AMENDMENT
- ◯ AGAINST THE CONSTITUTIONAL AMENDMENT

QUESTION NUMBER 2

CONSTITUTIONAL AMENDMENT
PRINCE GEORGE'S COUNTY
PROPERTY FOR REDEVELOPMENT PURPOSES

Expressly authorizes the Prince George's County Council to take property immediately upon a finding of immediate need for redevelopment purposes: designates properties eligible for taking as those located between Suitland Federal Center and Silver Hill Road that are also within any two certain designated areas (a revitalization tax district, an enterprise zone, or a priority funding area); requires the Council to pay at the time of taking the appraised fair market value and also to pay any additional amount later awarded by a jury; and requires the Council to offer financial assistance and payments to displaced owners or tenants.

- ◯ FOR THE CONSTITUTIONAL AMENDMENT
- ◯ AGAINST THE CONSTITUTIONAL AMENDMENT

END OF BALLOT

Since the lines of the mark pass through the center of the oval in only one oval, that vote counts, but the others may not. The ballot is accepted as a voted ballot.

FRONT Card 1

OFFICIAL BALLOT
GENERAL ELECTION
NOVEMBER 7, 2000
STATE OF MARYLAND, CAROLINE COUNTY
CONGRESSIONAL DISTRICT 1

BALLOT STYLE #1

INSTRUCTIONS

To Vote, completely fill in the oval ● to the left of your Choice(s). To vote for a candidate whose name is not printed on the ballot, write in the name of the candidate on the designated write-in line under that office title and completely fill in the oval opposite the write-in candidate's name.
Mark only with the pen or pencil provided. DO NOT ERASE. If you make a mistake you may request a new ballot. If your vote for a candidate or question is marked in such a manner that your intent is not clearly demonstrated, your vote for that office may not be counted. To protect the secrecy of your vote, do not put your name, initials, or any identifying mark on your official ballot.

PRESIDENT & VICE PRESIDENT OF THE UNITED STATES (Vote for One Pair)

- ✓ AL GORE — Democratic — Tennessee AND JOE LIEBERMAN — Democratic — Connecticut
- GEORGE W. BUSH — Republican — Texas AND DICK CHENEY — Republican — Wyoming
- HARRY BROWNE — Libertarian — Tennessee AND ART OLIVIER — Libertarian — California
- PAT BUCHANAN — Reform — Virginia AND EZOLA FOSTER — Reform — California
- RALPH NADER — Green — Connecticut AND WINONA LaDUKE — Green — Minnesota
- HOWARD PHILLIPS — Constitution — Virginia AND J. CURTIS FRAZIER — Constitution — Missouri
- Write-In

U.S. SENATOR (Vote for One)

- ✓ PAUL S. SARBANES — Democratic
- PAUL H. RAPPAPORT — Republican
- Write-In

REPRESENTATIVE IN CONGRESS CONGRESSIONAL DISTRICT 1 (Vote for One)

- ✓ BENNETT BOZMAN — Democratic
- WAYNE T. GILCHREST — Republican
- Write-In

JUDGE OF THE CIRCUIT COURT JUDICIAL CIRCUIT 2 (Vote for One)

- ✓ KAREN A. MURPHY JENSEN
- Write-In

JUDGE, COURT OF SPECIAL APPEALS AT LARGE (Vote Yes or No)

PETER B. KRAUSER
- YES FOR CONTINUANCE IN OFFICE
- NO FOR CONTINUANCE IN OFFICE

JUDGE, COURT OF SPECIAL APPEALS APPELLATE CIRCUIT 1 (Vote Yes or No)

SALLY D. ADKINS
- YES FOR CONTINUANCE IN OFFICE
- NO FOR CONTINUANCE IN OFFICE

QUESTION NUMBER 1

CONSTITUTIONAL AMENDMENT
CECIL COUNTY-ELECTION AND TERMS OF OFFICE FOR THE BOARD OF COUNTY COMMISSIONERS

Excepts the Board of County Commissioners of Cecil County from the constitutional requirements that all State and county elections be held only in every fourth year on a particular date and that all State and county officers hold four-year terms, in order to allow staggered terms with elections held every second year

- FOR THE CONSTITUTIONAL AMENDMENT
- AGAINST THE CONSTITUTIONAL AMENDMENT

QUESTION NUMBER 2

CONSTITUTIONAL AMENDMENT
PRINCE GEORGE'S COUNTY
PROPERTY FOR REDEVELOPMENT PURPOSES

Expressly authorizes the Prince George's County Council to take property immediately upon a finding of immediate need for redevelopment purposes; designates properties eligible for taking as those located between Suitland Federal Center and Silver Hill Road that are also within any two certain designated areas (a revitalization tax district, an enterprise zone, or a priority funding area); requires the Council to pay at the time of taking the appraised fair market value and also to pay any additional amount later awarded by a jury; and requires the Council to offer financial assistance and payments to displaced owners or tenants.

- FOR THE CONSTITUTIONAL AMENDMENT
- AGAINST THE CONSTITUTIONAL AMENDMENT

END OF BALLOT

The mark on the oval is just enough that the vote counts. The other marks are not in the oval enough to be counted by the scanner. This ballot is accepted by the scanner as a voted ballot.

FRONT Card 1

OFFICIAL BALLOT

GENERAL ELECTION
NOVEMBER 7, 2000
STATE OF MARYLAND, CAROLINE COUNTY
CONGRESSIONAL DISTRICT 1

BALLOT STYLE #1

INSTRUCTIONS

To Vote, completely fill in the oval ● to the left of your Choice(s). To vote for a candidate whose name is not printed on the ballot, write in the name of the candidate on the designated write-in line under that office title and completely fill in the oval opposite the write-in candidate's name.
Mark only with the pen or pencil provided. DO NOT ERASE. If you make a mistake you may request a new ballot. If your vote for a candidate or question is marked in such a manner that your intent is not clearly demonstrated, your vote for that office may not be counted. To protect the secrecy of your vote, do not put your name, initials, or any identifying mark on your official ballot.

PRESIDENT & VICE PRESIDENT OF THE UNITED STATES (Vote for One Pair)

- ● AL GORE — Democratic — Tennessee — AND — JOE LIEBERMAN — Democratic — Connecticut
- ○ GEORGE W. BUSH — Republican — Texas — AND — DICK CHENEY — Republican — Wyoming
- ○ HARRY BROWNE — Libertarian — Tennessee — AND — ART OLIVIER — Libertarian — California
- ○ PAT BUCHANAN — Reform — Virginia — AND — EZOLA FOSTER — Reform — California
- ○ RALPH NADER — Green — Connecticut — AND — WINONA LaDUKE — Green — Minnesota
- ○ HOWARD PHILLIPS — Constitution — Virginia — AND — J. CURTIS FRAZIER — Constitution — Missouri
- ○ Write-In

U.S. SENATOR (Vote for One)

- ● PAUL S. SARBANES — Democratic
- ○ PAUL H. RAPPAPORT — Republican
- ○ Write-In

REPRESENTATIVE IN CONGRESS CONGRESSIONAL DISTRICT 1 (Vote for One)

- ● BENNETT BOZMAN — Democratic
- ○ WAYNE T. GILCHREST — Republican
- ○ Write-In

JUDGE OF THE CIRCUIT COURT JUDICIAL CIRCUIT 2 (Vote for One)

- ● KAREN A. MURPHY JENSEN
- ○ Write-In

JUDGE, COURT OF SPECIAL APPEALS AT LARGE (Vote Yes or No)

PETER B. KRAUSER

- ● YES FOR CONTINUANCE IN OFFICE
- ○ NO FOR CONTINUANCE IN OFFICE

JUDGE, COURT OF SPECIAL APPEALS APPELLATE CIRCUIT 1 (Vote Yes or No)

SALLY D. ADKINS

- ● YES FOR CONTINUANCE IN OFFICE
- ○ NO FOR CONTINUANCE IN OFFICE

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- ○ FOR THE CONSTITUTIONAL AMENDMENT
- ○ AGAINST THE CONSTITUTIONAL AMENDMENT

END OF BALLOT

Scanner reads vote for candidate not intended by voter. This ballot would be accepted by the scanner as a voted ballot.

Only vote for Congress counts - other votes recorded as under-vote.

FRONT Card 1

OFFICIAL BALLOT

GENERAL ELECTION
NOVEMBER 7, 2000
STATE OF MARYLAND, CAROLINE COUNTY
CONGRESSIONAL DISTRICT 1

BALLOT STYLE #1

INSTRUCTIONS

To Vote, completely fill in the oval ● to the left of your Choice(s). To vote for a candidate whose name is not printed on the ballot, write in the name of the candidate on the designated write-in line under that office title and completely fill in the oval opposite the write-in candidate's name.
Mark only with the pen or pencil provided. DO NOT ERASE. If you make a mistake you may request a new ballot. If your vote for a candidate or question is marked in such a manner that your intent is not clearly demonstrated, your vote for that office may not be counted. To protect the secrecy of your vote, do not put your name, initials, or any identifying mark on your official ballot.

PRESIDENT & VICE PRESIDENT OF THE UNITED STATES
(Vote for One Pair)

- ● AL GORE — Democratic, Tennessee
  AND
  JOE LIEBERMAN — Democratic, Connecticut
- ● GEORGE W. BUSH — Republican, Texas
  AND
  DICK CHENEY — Republican, Wyoming
- ○ HARRY BROWNE — Libertarian, Tennessee
  AND
  ART OLIVIER — Libertarian, California
- ○ PAT BUCHANAN — Reform, Virginia
  AND
  EZOLA FOSTER — Reform, California
- ○ RALPH NADER — Green, Connecticut
  AND
  WINONA LaDUKE — Green, Minnesota
- ○ HOWARD PHILLIPS — Constitution, Virginia
  AND
  J. CURTIS FRAZIER — Constitution, Missouri
- ○ Write-In

U.S. SENATOR
(Vote for One)

- ○ PAUL S. SARBANES — Democratic
- ○ PAUL H. RAPPAPORT — Republican
- ○ Write-In

REPRESENTATIVE IN CONGRESS CONGRESSIONAL DISTRICT 1
(Vote for One)

- ○ BENNETT BOZMAN — Democratic
- ○ WAYNE T. GILCHREST — Republican
- ○ Write-In

JUDGE OF THE CIRCUIT COURT JUDICIAL CIRCUIT 2
(Vote for One)

- ○ KAREN A. MURPHY JENSEN
- ○ Write-In

JUDGE, COURT OF SPECIAL APPEALS AT LARGE
(Vote Yes or No)

PETER B. KRAUSER

- ○ YES FOR CONTINUANCE IN OFFICE
- ○ NO FOR CONTINUANCE IN OFFICE

JUDGE, COURT OF SPECIAL APPEALS APPELLATE CIRCUIT 1
(Vote Yes or No)

SALLY D. ADKINS

- ○ YES FOR CONTINUANCE IN OFFICE
- ○ NO FOR CONTINUANCE IN OFFICE

QUESTION NUMBER 1

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- ○ AGAINST THE CONSTITUTIONAL AMENDMENT

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- ○ FOR THE CONSTITUTIONAL AMENDMENT
- ○ AGAINST THE CONSTITUTIONAL AMENDMENT

END OF BALLOT

Many times voters mistook "one pair" to mean "fill in two ovals." At the polling place, the voter will get another chance to vote another ballot. Absentee ballots are sent through with the vote not counting

FRONT Card 1

EXHIBIT 5: "Voting Machines Vs. Paper Ballots," The Baltimore Sun, May 3, 1935 (Early Edition)

Voting Machines Vs. Paper Ballots

MAY 3 1935

By CHARLES T. LeVINESS 3d

RECENTLY eighty-four men sat around tables in Superior Court room for four days and evenings at $6 per day, the party being given by the taxpayers of Baltimore. Their job was to count votes. The same votes had been counted once by six judges and clerks of election in each of the 085 polling places of Baltimore. The results had been tabulated by the newspapers and the police. Thereafter the results had been officially counted and tabulated by the Board of Supervisors of Elections. The closeness of the race had provoked the recount. *Every time the votes were counted the result was different.*

Aside from cries of fraud—which make good headlines but have only the slightest basis in fact—the disparity in the results lay squarely upon the doorstep of the paper ballot. It had failed in its only purpose: to enable registered voters accurately to record their preferences at the polls. Quite naturally the recount again revived the hardy perennial of the voting machine.

BALTIMORE City could have voting machines in short order if the election supervisors and the municipal authorities wanted them. No action by the Legislature is necessary, since the Legislature has spoken more than twenty years ago and has made it a local matter.

The sections of the code under which this authority is given seem to be little known and perhaps a quotation will be pardoned:

> The election supervisors of Baltimore city and the election supervisors of the respective counties are hereby authorized and empowered to use voting machines in primary and general elections under such rules and regulations as said election supervisors may deem advisable or necessary. . . . All elections held through the medium of voting machines shall have the same validity in law as elections held by means of paper ballots.
>
> The election supervisors of Baltimore city and the election supervisors of the respective counties are hereby given the power and authority to determine what precincts in said city and what precincts in the respective counties shall be first equipped with voting machines, and said election supervisors are hereby authorized to purchase from time to time such machines as meet their approval and in such numbers as they deem advisable, payment for said machines to be made out of money appropriated for that purpose.—Acts of 1914, Chapter 513 (Code, Article 33, Sections 222-223 and 224).

Thus to substitute voting by robot for voting by hand there are two prerequisites:

1. The election supervisors must deem it "advisable."

2. Money must be "appropriated for that purpose."

In Baltimore this means that the Mayor and City Council must do the appropriating.

In June Governor Nice's newly-appointed Board of Supervisors of Elections will take office in Baltimore, with an entirely new personnel. Before that there are municipal elections for Mayor and City Council. It might be of interest to know how these officials stack up on this question.

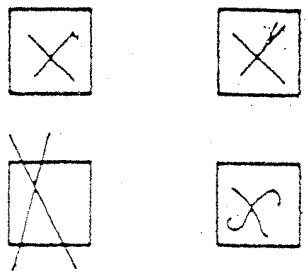
—o—

THE inadequacy of the paper ballot is nothing new. Some have claimed that with the decline in illiteracy there would be fewer and fewer spoiled ballots. But the facts do not bear out this claim. If anything, it seems that, in the precincts where business men vote, one finds the most rejected ballots. In the Meyer-Sellmayer recount over 200 ballots were thrown out because the voter had used his own pencil instead of the indelible pencil ordained by the election laws. In most cases these were cast by business men who thoughtlessly or ignorantly pulled out their own pencils instead of using the little indelible slung on a chain in the dimly-lighted booth. Yet this perfectly natural act on the part of intelligent voters invalidated their whole ballots.

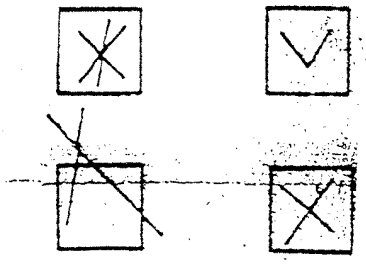
In one precinct, so the recount revealed, thirty-seven persons were disfranchised because an election judge forgot to initial that many ballots. In another place six votes were tossed out because the election judge had subscribed his initials in pencil rather than in ink, as required by the law.

The act of making an X-mark in a square opposite a name may sound like a simple procedure even for the most unlettered. But it is far from simple for many persons, as an examination of any batch of ballots will attest. It is estimated that in any general election at least 1,000 ballots are thrown out because of faulty cross marks. In the Meyer-Sellmayer recount the ballots rejected for this reason ran over 600.

Our election laws go into painstaking detail on the subject of this X-mark—and not one voter in 1,000 has read the laws. For instance, the law says that the following marks shall be considered good:



But if the voter, by nervousness, bad sight, bad light, noisy or sheer devilry, makes any of the following marks the law says his whole ballot must be thrown out:



The reason ascribed to the distinction here is that in the upper group the discrepancies are apt to be mere errors, while in the lower bracket they are more apt to be intentional, distinguishing marks—marks made to show that a certain person voted a certain way so that if a vote buyer checks up he can see if he got his money's worth, or was sold out or double-crossed or what.

So jealous is the law to maintain the purity of the polls in this respect that obviously many honest but careless voters are disfranchised at every election because of a slip of the pencil. This was graphically brought out by the recent recount.

It might be added that the above diagrams actually have been passed upon, in one shape or another, by the Court of Appeals of Maryland, thus giving the sanction of the highest authority to what might seem to the uninitiated to be hair-splitting delicateness of distinction.

—o—

VOTING machines, of course, would change all this. One votes by setting a few markers and pulling a lever. And the results are tabulated as you go.

In the past the city has bought a number of these machines on the installment plan and they are now in use in some of our precincts. The 1933 Legislature passed a law requiring the supervisors of election to use these few machines in all future elections, not more than two to a polling place. And the city could buy more on the same plan if it chose to, and if the supervisors deemed it "advisable."

Senate Bill No. 213, introduced into the last Legislature by Senator Fine, would have eliminated the two clerks in each polling place but would have kept the four judges of election. It was defeated. However, the city's right to go ahead with voting machines under the present set-up was unimpaired.

Opponents of machines cite their great cost to the city. Also they claim they are complicated to operate and are more susceptible to honest mistake than paper ballots, at least until the electorate has practiced up on them for a few years. And, too, it is claimed that ward heelers with a flair for machinery and shady practices can "fix" them to serve their own ends—on the theory that fraud, like love, will always find a way.

But machines would do away with the counts, and that would be something—

EXHIBIT 6: NATIONAL ASSOCIATION OF SECRETARIES OF STATE ELECTION REFORM RESOLUTION

National Association of Secretaries of State Election Reform Resolution

Adopted February 6, 2001

WHEREAS, the nation's Secretaries of State are committed to protecting an individual's right to vote by ensuring access, accuracy and integrity in elections;

WHEREAS, the administration of elections is a complex enterprise involving 200,000 polling places, 7,000 jurisdictions, 1.4 million poll workers, more than 700,000 voting machines, 100 million voters and 22,000 elections officials;

WHEREAS, the United States was founded upon the principle of self-government in which the right to vote is the most important and fundamental right of the people;

WHEREAS, the conduct of elections is primarily the responsibility of state and county elections officials;

WHEREAS, America's voting systems and election procedures must ensure that all votes are counted accurately and that voting is easily understood and as convenient and accessible as possible;

WHEREAS, our collective expertise with elections issues and our strong commitment to fair and accurate elections will enhance our democratic process;

WHEREAS, the recent election and subsequent civics lesson that emerged draws critical attention to the issues that NASS has steadfastly sought to address; and

WHEREAS, to ensure that all eligible voters are afforded their constitutional right to vote and unfettered access to the elections process,

The National Association of Secretaries of State recommends that State and Local governments and election officials continue to work to:

1. Ensure non-discriminatory equal access to the elections system for all voters, including elderly, disabled, minority, military, and overseas citizens.

2. Encourage the adoption and enforcement of election day rules and procedures to ensure equal treatment of all voters;

3. Modernize the voting process as necessary, including voting machines, equipment, voting technologies and systems and implement well-defined, consistent standards for what counts as a vote throughout the election process ensuring accurate vote counts and minimal voter error;

4. Encourage states to adopt uniform state standards and procedures for both recounts and contested

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elections, in order to ensure that each vote is counted and to provide public confidence in the election results;

5. Provide elections officials with increased funding to implement the recommendations of this resolution;

6. Conduct aggressive voter education and broad-based outreach programs;

7. Expand poll worker recruitment and training programs by adopting the innovative practices of other states and localities, with the ultimate goal of providing a satisfactory election day experience for all voters;

8. Maintain accurate voter registration rolls with a system of intergovernmental cooperation and communication;

9. Enhance the integrity and timeliness of absentee ballot procedures;

10. Adopt and adhere to the Voluntary Federal Voting Systems Standards for Voting Systems;

11. Provide for continuous training and certification for election officials; and

12. Collect data and election information on a regular and consistent basis to provide a nexus for public consumption and systemic improvements.

NASS further recommends that the Congress:

1. Fully fund the continuous update of the Federal Voting Systems Standards developed in consensus with state and local election officials;

2. Fund the development of voluntary management practices standards for each voting system;

3. Promote intergovernmental cooperation and communication among state and local elections officials to facilitate the maintenance of accurate voter registration rolls; and

4. Provide funding to the States to implement the state and local recommendations of this resolution.

Now, THEREFORE BE IT RESOLVED that the National Association of Secretaries of State welcomes the opportunity to work with the Administration, Congress, governors, state legislators and county election officials as well as organizations such as National Association of State Election Directors and the Election Center, all members of the election community, and concerned organizations, community groups, and the public to secure funding to ensure our citizens will have accurate, reliable, and efficient systems of elections;

THEREFORE BE IT FURTHER RESOLVED, that we, the National Association of Secretaries of State, reaffirm our determination and commitment to ensure that all eligible voters can register and vote, and that all votes will be counted accurately and fairly in each and every election.

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The CHAIRMAN. Well, may I say I appreciate your passion, and Secretary of State Bayless' as well. I share that passion, because if we have campaign finance reform, unless we have a system where all Americans can be represented, and I think there is a clear case that can be made that voters in lower income areas of America have less opportunity for their vote to be counted, then you can render to a large degree campaign finance reform meaningless, because then more affluent Americans would have more influence in the electoral process.

We are going to have a vote in a few minutes and what I would like to do is go over and vote. Senator Cleland has a statement and I think Senator Hollings does. Then I will come back for the next panel because, as usual, our 15-minute voting period will last approximately a half-an-hour to 45 minutes.

I just have one question for both the witnesses. I want to thank you. What is the proper role in your view of the federal government in reforming this election system? I wish you would address the area of funding, the area of setting standards, the area of setting requirements, whether they be voluntary or mandatory. I think once we move forward on this issue there is going to be a degree of disagreement on exactly what the states' authorities are and whether they would be usurped in some respects by the federal government, because I think traditionally the role of the state has been paramount in the conduct of those elections.

Ms. Bayless.

Ms. BAYLESS. Mr. Chairman, Members of the Committee, I believe the federal government should provide some matching grants to states to move them out of punchcards and into higher levels of technology.

The CHAIRMAN. Should the federal government have the right then to impose certain standards along with those moneys?

Ms. BAYLESS. Well, Mr. Chairman, Members of the Committee, the elimination of punchcards I believe—I believe the federal government should provide some standards to the state. Now, I have to say that I believe that the adoption of the standards should be voluntary. I believe most states would do that, because I think we have seen this past year what happens when you do not have procedures and you do not have uniform procedures.

I will assure you that, from Arizona's standpoint, we would gladly buy into the federal standards. Of course, we would want to participate.

The CHAIRMAN. But you think they should be voluntary?

Ms. BAYLESS. I believe it should be voluntary, yes, I do, Mr. Chairman. I believe the standards, the availability of grants—we have followed the FEC standards since they were originally adopted. We follow the standards with regard to voting equipment. We follow the Independent Testing Authority on equipment. I believe that if the FEC standard said no more punchcards we would very happily follow that as well.

The CHAIRMAN. Mr. Willis.

Mr. WILLIS. Yes, Mr. Chairman. I think I would suggest a one-third, one-third, one-third: one-third federal government, one-third state, one-third local. That is why I indicated the $1 per voting person. That would actually in Maryland be about $1 below what our

most expensive county is paying right now. If we pool these resources, we can actually lower the cost per voter, if we pool these resources.

Second, I think you can have funding——

The CHAIRMAN. With voluntary or mandatory standards?

Mr. WILLIS. Well, the National Association of Secretaries of State—I am vice chair of the election committee—we encourage the federal government to enhance the voluntary voting system standards. I believe most of the states, 32 of the states, are already there. We have 18 of the states that have not adopted those standards. I think we can get those other 18.

I know we are going to be doing a national best practices report at our meeting July 13 to 16 in Little Rock. We will be coming out with our best practices report after that meeting and we will, of course, provide that to the Committee.

I was intrigued by Senator Hollings and your jurisdiction in terms of the Commerce Committee, because I think it is absolutely appropriate technology for the Commerce Department. Because one of the things the federal government can do directly is research and development of voting systems, states and counties themselves cannot do the testing that may be necessary to develop a system that is appropriate to their jurisdiction.

That involves a lot of research and development dollars that local jurisdictions simply do not have. The federal government can do it, share that information, and share that knowledge with the other jurisdictions.

Second, you can support the actual testing of the system. There are laboratories that need assistance in that. We were down to one laboratory and then with corporate mergers we had some problems. There is some concern now whether accreditation under the National Association of Election Standards can actually be done in time for 2002.

Third, you can ask the states to promote state and local collaboration, build statewide voter registration databases. We are in the process of building a statewide voter registration database. I told the Secretary of the Commonwealth of Pennsylvania we will share that with Pennsylvania. We can share our databases together to make sure that our rolls, our voter registration rolls, are as accurate as possible. We have already shared it with the District of Columbia to make sure that we are doing the best we can.

Third, I think the carrot approach will, in fact, work. I think there is enough momentum at the state level. I cannot speak for all jurisdictions, but I certainly know that that is the approach we used in Maryland with our local jurisdictions, is the carrot approach, and I think that that could be successful.

The CHAIRMAN. Thank you.

Senator Hollings, I am going to run over and vote and then come back. Senator Cleland had an opening statement as well.

Senator HOLLINGS. Let me yield to my distinguished colleague. Thank you, Mr. Chairman.

STATEMENT OF HON. MAX CLELAND, U.S. SENATOR FROM GEORGIA

Senator CLELAND. Thank you very much, Mr. Chairman. I want to thank you, Mr. Chairman, and Senator Hollings for your continuing leadership on the issue of election reform. I can think of few more important objectives for the Senate than ensuring the integrity of the voting process and securing the rights of American citizens to have their voices heard and their votes counted. Our representative democracy is grounded on the principle of popular sovereignty. As Thomas Paine put it: "The right of voting for representatives is the primary right by which other rights are protected."

Now that we have completed the campaign finance debate, it is time for election reform debate and action. In February, the National Association of Secretaries of State, the great organization I used to be part of, adopted an election reform resolution. One of their recommendations was that Congress should provide funding to the states to assist the state and local efforts for reform. I could not agree more.

Several bills have been introduced in the Senate this year, including the McCain-Hollings-Cleland bill—I like the ring of that—as well as the Brownback-Schumer bill and my own proposal, which would address the issue of election reform. The Commerce, Governmental Affairs, and Rules Committees have also begun hearings on this priority issue.

However, states like Florida, Maryland, and Georgia have already developed election reform plans and need federal assistance to help their efforts.

My fear, based in large part on what I saw in my 13 years as Georgia Secretary of State, is that passage of time after the unique clarion call from the 2000 presidential election, especially the Florida recount, will diminish our attention, our sense of urgency and priority, and ultimately our willingness to appropriate significant sums of federal taxpayer dollars to address election systems reform.

I would urge my colleagues to heed the wise words on election reform which appeared in the *Atlanta Journal Constitution* on March 28th: "Congress should not squander this opportunity for meaningful change that will allow people to vote with ease and with confidence that their votes will be counted." I would like to have that inserted into the record, Mr. Chairman.

Senator HOLLINGS [presiding]. Without objection, so ordered.

[The material referred to follows:]

[From The Atlanta Journal and Constitution, March 28, 2001]

VOTING REFORM REQUIRES FEDERAL HELP

Mistakes are inevitable in a national election process that gives 50 states and 4,000 counties free rein but no federal money to operate their voting systems. When the mistakes grow so pervasive that thousands of votes and a presidential election are left in doubt, the country has to rethink the way it casts ballots.

Though Georgia has already set 2004 as its goal for a uniform system of voting, many other states have yet to act on the lessons learned from the Florida debacle. The U.S. Congress ought to be committed to offering financial incentives to states to upgrade and modernize their voting systems. But the formation of separate study

committees on the matter by both Democrats and Republicans makes it unlikely that the nation will see comprehensive voting reform any time soon.

An example of the contrary party stances could be seen in the testimony this week of Georgia's Democratic Secretary of State Cathy Cox and State Rep. Robert Irvin (R-Atlanta) at the National Commission on Federal Election Reform meeting in Atlanta. While Cox talked about finding ways to make it easier for more Georgians to vote, Irvin focused on fraudulent voting and suggested that voter registration be done in person and that photo identification be required at voting places.

Still, the best hope for bridging those disparate views rests with the commission, which is co-chaired by former Presidents Jimmy Carter and Gerald Ford. While Carter was optimistic that some reforms would result, he cautioned, "Whether that will be the least common denominator or whether there will be some substance to it still remains to be seen."

Election reform ought to be a priority of the Bush administration. Even voters who feel the best man won the White House cannot be content with the system that got him there. A failure by Washington to overhaul that system and fund new election equipment will further erode voter confidence and ensure more disputed elections and fraud allegations.

With voters nationwide in support of reform, Congress should not squander this opportunity for meaningful change that will allow people to vote with ease and with confidence that their votes will be counted. It is well within the national interest that every state have the most reliable and easy-to-use voting methods available. Because as Florida demonstrated, even problems in one state can tip the balance of an election.

Senator CLELAND. As a young man I had the opportunity to be one of the first in our country to use the then brand new punchcard voting machines when they were introduced in my home county of DeKalb County in Georgia in 1964. Then, I faced the even more daunting challenge of voting on that punchcard system absentee while I was serving in Vietnam in 1968. For 14 years, from 1983 to 1996, I had the privilege of being my state's chief elections official as Georgia Secretary of State.

So when I saw the problems experienced in our neighboring state of Florida during the 2000 presidential election, with both citizens and election officials struggling with chads and so forth, I had a great deal of empathy and sympathy. I would say that from the beginning the punchcard ballot in Georgia had problems. A Congressional race recorded over 1200 overvotes because people voted for a straight party candidate and then went down and voted for that candidate. You could defeat the system, and the system could defeat you. We discovered that early-on in the punchcard ballot system. That is one of the things we found in the Florida system.

I would hasten to add that I do not think Florida was, or is at all, unique in facing serious problems in ensuring every citizen's vote is tabulated. From my own experience in Georgia and my very able successor, Georgia Secretary of State Cathy Cox, who came before this Committee in March, I know that my state would fare no better and quite possibly much worse if subjected to the same set of circumstances as Florida.

As a matter of fact, Georgia had about twice the undervotes as Florida. We had almost 100,000 undervotes, which means people went in the ballot booth, but their votes were not counted. Most of those undervotes occurred in the 18 counties that involved the punchcard ballot. Therefore, I have declared war on the punchcard system, especially since I am up for re-election next year.

[Laughter.]

Indeed, most states suffer from some the following problems which jeopardize the voting rights of American citizens:

One, unclear state laws on the counting and recounting of votes and on election contest certifications; Second, use of outdated voting machinery and the existence of multiple voting systems within the same state, making it impossible to have all the votes in the state counted or recounted under the same standard. I think that was one of the concerns of the Supreme Court when it looked at this issue.

In Georgia, I might add, Secretary of State Cathy Cox has led the way. Governor Barnes has signed into law legislation making Georgia the first state in the nation, beginning in the year 2004, to have a uniform system of voting. I think the tendency, Mr. Willis, is to lean toward—and Ms. Bayless—the touchscreen technology.

But it takes money to implement this. While the first item is certainly of national significance, federally established and funded efforts to study and make recommendations on ballot counting and contest standards can make an important contribution, these are now and should remain a matter for state governments.

Although the choice of voting systems and the means for assuring the voting rights of service members and disabled citizens is also primarily a matter of state and local decisionmaking, I believe in these cases consensus exists that an infusion of federal funds can make a decisive difference. *The Washington Post* reported on April 5 that the number of Detroit voters whose ballots were invalidated dropped by almost two-thirds after the city switched from punchcard to optical scan machines that warn of errors and allow for an immediate revote. I would like that article added to the record if there is no objection.

Senator HOLLINGS. Without objection, it will be included.

[The material referred to follows:]

[From The Washington Post, April 5, 2001]

TECHNOLOGY SLASHES DETROIT VOTING ERROR; 'SECOND CHANCE' SCANNERS ALLOW CORRECTION

(By Ellen Nakashima and Dan Keating)

The number of Detroit voters whose ballots were invalidated dropped by almost two-thirds after the city switched from punch-card to optical-scan machines that warn of errors and allow an immediate revote, according to a congressional study to be released today.

The report, produced by the staff of Rep. Henry A. Waxman (D-Calif.), is the first to document how a switch in technology affects voting results. The study is also significant because it involves a city with the nation's highest poverty rate, suggesting that changing technology can make a dramatic difference, especially in an area where voting machines are often outdated and voters tend to have less experience casting ballots.

"This report shows very nicely what happened in this community where you might expect the barriers to voting to keep the error rate high," said Charles Stewart, a political science professor at Massachusetts Institute of Technology. "By a simple change in technology, you can reduce the error rate."

In 1996, when the city was using punch-card machines, 3.1 percent of its ballots were spoiled, more than a full percentage point higher than the national average. In 2000, the error rate fell to 1.1 percent, thanks largely to the use of optical-scan machines with "second chance" technology, Waxman's study found.

With the newer system, a special tabulating machine optically "scans" or reads the ballot as soon as the voter is finished, giving any voter who made a mistake—for example, by voting twice in a race—a chance to correct the error.

About 20 percent of counties and more than a third of the population nationally use punch-card systems, and about 40 percent of counties and 28 percent of the pop-

ulation use the optical-scan system, although not all those systems are outfitted with second-chance technology.

The use of optical-scan voting is growing as jurisdictions adopt newer technology. A Florida election reform task force recommended moving the entire state to optical ballots with second-chance technology, but election officials in the largest counties have said optical ballots are impractical in their jurisdictions.

For Detroit, said city clerk Jackie Currie, "It's an answer from heaven." Currie said she embarked on a search for a better type of voting system after a local prosecuting attorney's race in 1992 yielded 20,000 spoiled ballots out of more 300,000 votes cast.

In a trip to Milwaukee, she saw the optical-scan machines in use. "I just fell in love with it," she said. "I said, 'We've got to have this in the city of Detroit.'"

In 1997, the city spent $3.5 million to purchase 700 Optech 3-P Eagle machines, made by ES&S of Omaha, she said. They were placed in polling stations in Detroit's 659 precincts. The city also embarked on a $100,000 voter education campaign in which election officials gave demonstrations on how to use the machine in community centers, churches, government buildings and at festivals.

Some 32 percent of Detroit's nearly 1 million people live below the poverty line, the highest poverty rate of cities with more than 200,000 people. African Americans make up 76 percent of the population.

Previous reporting by *The Washington Post* found that minority precincts using outdated punch-card machines without second-chance technology had the highest rates of failed votes—often as many as 1 in 6 ballots—and that counties using second-chance technology had many fewer failed ballots.

"There's a tendency for the communities with the largest number of African Americans live to be the most economically strapped," said Hilary Shelton, director of the Washington bureau of the NAACP, who hailed the study's results. "Most election machines that were utilized in black communities throughout the country were quite old and quite antiquated and need to be replaced."

Senator CLELAND. Thank you, Mr. Chairman.

It is my strong conviction that time is the enemy with respect to the provision of sufficient federal funds to really make a difference in sharply reducing the number of Americans who are literally being disenfranchised by voting machinery. As the Supreme Court majority found in *Bush* v. *Gore*: "It must be remembered that the right of suffrage can be denied by a debasement or dilution of the weight of a citizen's vote just as effectively as by wholly prohibiting the free exercise of the franchise."

Thus, I see the legislation that I am proposing, which provides for an immediate, large and one-time infusion of federal funding to deal with widely recognized problems with our voting equipment, as complementary and not necessarily in competition with other bills I alluded to earlier. My bill, S. 479, the Make Every Vote Count Act, seeks to quickly and effectively improve our electoral system by increasing the likelihood that all citizens' votes will be properly counted in a way which fully respects the primary role of state and local governments in the conduct of elections.

It accomplishes this by providing federal funds to modernize voting systems, promote uniformity in voting equipment within the states, and require greater standardization in assuring the voting rights of military personnel abroad. In addition, it allows up to one-third of the funds to be used for training of election officials and voter education.

Again, I would just like to thank the Ranking Member and the Chairman here for their efforts to address this critical need for reform. The issue will not be resolved in one hearing, but I think we have made some great strides in this Committee. The McCain-Hollings-Cleland bill is a good bill, and I hope it will be considered by the full Senate this year.

Thank you all very much for coming. Thank you, Mr. Chairman.

STATEMENT OF HON. ERNEST F. HOLLINGS, U.S. SENATOR FROM SOUTH CAROLINA

Senator HOLLINGS. Thank you very much, Senator Cleland.

With respect to the panel and the question asked about the federal role, it is quite obvious that the feds have already taken a role through the United States Supreme Court. Unless you have a standard, that court could, following the precedent of *Bush* v. *Gore*, find that someone was denied their right to vote because there was no standard.

So yes, we can set the standard here at the Congressional level. Somewhat like education, though, the primary role and function should be left at the state level, and what funds we can provide and guidance we ought do. At the federal level, the Bureau of Standards, now the National Institute of Standards and Technology, has been looking at elections for some 30 years or more.

So we have an important role here at this Committee. I am going to submit my prepared statement for the record since the five bells have rung.

[The prepared statement of Senator Hollings follows:]

PREPARED STATEMENT OF HON. ERNEST F. HOLLINGS, U.S. SENATOR FROM SOUTH CAROLINA

The right of a free, open and honest election is the foundation upon which our democracy rests. During his inaugural speech in 1801, Thomas Jefferson said, "I deem [one of] the essential principles of our government . . . a jealous care of the right of election by the people" (Thomas Jefferson: 1st Inaugural, 1801). Many U.S. citizens feel that this "essential principal" has been damaged by the current state of our nation's election system. Two reports, by the federal standards and technology agency, now called the National Institute of Standards and Technology, one in 1978 and the other in 1988—found difficulties in vote-tallying stemming from management failures, technology failures, and human operational failures. As we all know, not much has changed since these reports were published; the 2000 federal election in Florida exemplified every problem highlighted in those reports and more. Thus, two hundred years later, Thomas Jefferson's words provide a blueprint for what we all must accomplish. The Congress, the states, and the federal government must work together to rebuild the trust of the American people and restore this "essential principle."

The Committee's previous hearing on election reform focused on election problems evidenced in many states and experienced by many citizens in the 2000 election. Testimony revealed that voting and election systems flaws were widespread and varied. Systems that worked in one state, or a voting precinct, did not work as well in others. Nonetheless, the one thing that did not seem to vary is that most voting precincts experienced problems at some point in the election—either during registration, during the act of voting, or in counting the vote and certifying the election.

During today's hearing, witnesses will provide testimony on conclusions from several studies of our election system and potential solutions to fix it. Just as the problems in elections are variable, the solutions will likely be variable. For example, the city of Detroit replaced its punch card voting system with an optical scan system that allowed voters to check their ballots before leaving the polling station. The city also engaged in a city-wide voter education effort to inform voters about the new technology and teach them how to use it. This resulted in a decline of uncounted ballots from 3.1 percent in 1996 to 1.1 percent in 2000—well below the national average of 2.1 percent. Conversely, in a review of recent elections, the Caltech/MIT Voting Technology Project revealed a surprising finding: electronic voting, as currently implemented, has performed less well than was widely believed. In fact, manually counted paper ballots, followed closely by optical scan and lever machine ballots, had the lowest average incidence of undercounts. These results shows that better equipment in combination with voter education can have a profound positive effect on voters' ability to make their votes count. It may also show that expensive

equipment alone, without education of voters and training of poll workers may not improve voters' ability to make their votes count.

In addition to hearing about the results of recent studies on election reform, we will hear from 2 Secretaries of state on their efforts. More than 1,500 election reform bills have been introduced in state legislatures during the 2001 legislative sessions. Thirty-one states have considered legislation to upgrade or make uniform their voting systems. In particular, I am interested in learning what role the states believe the federal government should play in reforming the election system.

In the current 107th Congress, more than 50 bills concerning elections have been introduced. Senator McCain and I have put forward what we hope will be part of the solution—S. 368 the American Voting Standards and Technology Act. This legislation would direct the National Institute of Standards and Technology, "NIST" to carry out the following activities: (1) facilitate the development of voluntary standards governing the performance of voting systems; (2) conduct a study of factors impacting voter participation by individuals and groups; and (3) implement a program making grants available to states and local governments to aid in the updating of voting equipment and to conduct voter educational programs.

Other Senators have bills which offer reforms such as uniform poll closing times, same day registration, overseas military voting reforms, and reaffirmation of the Voting Rights Act, among others. Undoubtedly, this will not be the last hearing that the Senate will hold on this matter. Election reform is a complex problem. Senator McCain and I realize that our American Voting Standards and Technology Act is only one piece of the pie. In that regard, we look forward to working with other Senators who are examining other aspects of the electoral system.

In conclusion, while we may have allowed our current election system to degrade to its present condition, I, for one, believe that we cannot let this sad state of affairs continue. All of us—the states, the Congress, the federal government—must do our utmost to improve our election system. We must, as Thomas Jefferson said, take "jealous care" of the people's right to vote because it is the very foundation of our great democracy.

Senator HOLLINGS. I want to thank both Secretary Bayless and Secretary Willis for their appearance here this morning and ask our good friend Congressman and Chairman Bob Michel to come on forward, you and the next panel of Bill Richardson and Professor Ansolabehere. The Committee will be at ease subject to the Chairman, who will be back momentarily.

[Recess from 10:27 a.m. to 10:31 a.m.]

The CHAIRMAN. The hearing will come the order. Thank you for being here. It is wonderful to see some of my dear friends from service here. Please proceed, the Honorable Robert Michel.

STATEMENT OF HON. ROBERT H. MICHEL, CO-CHAIR, NATIONAL COMMISSION ON FEDERAL ELECTION REFORM

Mr. MICHEL. Mr. Chairman and Members of the Committee:

May I first apologize for the fact that my colleague here, Bill Richardson and I do not have prepared statements. Actually, when we got the invitation from your distinguished Committee to our commission, we were just barely getting underway and, as a matter of fact, it might have been just a little bit premature to have the invite because we can be so much more effective after we have concluded our hearings, written our report, etcetera, etcetera.

But with the distinguished Committee we did not want to decline the invitation, so we are hoping that we can make some contribution here in an extemporaneous sort of way.

The CHAIRMAN. Could I just mention one thing? Perhaps it would be helpful in your remarks to comment on the remarks of the previous witnesses, in other words how you view them in the context of what you both are doing. Would that be okay?

Thank you. Thank you very much.

Mr. MICHEL. Mr. Chairman, first of all, you know that the commission of which I am now co-chairman with Lloyd Cutler, replacing Howard Baker, who has just been nominated to be our new Ambassador to Japan, President Jimmy Carter and President Ford are the honorary chairmen. President Carter was good enough to chair the first hearing that we had, down in Atlanta, and President Ford will chair the one as we conclude in his library in Michigan in June.

Then of course, there are a number of your former colleagues who are members of that commission: Pat Moynihan and Jack Danforth. Of course, Griffin Bell and Bill Barr both were attorneys general in different parties; and Rudy Boschwitz, who is also a former colleague of yours. I mention that because it is a commission that has been made up with a national perspective and both parties, very bipartisan in nature, and a diverse varied citizen group—as I said, distinguished politicians and scholars from every part of the country, looking at practical policy, yet aided by task forces compiling best work for academic fields of law, political science and history.

We have a strong program of hearings for the country, as I indicated. There will be four of them: the first one in Atlanta; the second one was in the Reagan Library in California. Unfortunately, Bill and I could not attend that hearing. We were at the first hearing. Then we will be within 2 weeks down in Austin, Texas, for the hearing at the LBJ Library, and then concluding with that at Gerry Ford's library.

Now, the scope of the commission's work is who votes, the breadth and accuracy of voter registration, how are votes cast and counted, how are disputes resolved, how are results reported by the media. I guess very briefly, if I could say, our emerging goal is for limited, but responsible federal partnership.

Running federal elections is a state service, and locality, provided to the federal government, and they do so encumbered by various mandates. So it is only fair that the federal government should pay some of the bill. Yet, elections for the Congress and the presidency affect national interests and transcend any single state. So only fair, I guess, that within constitutional limits the federal government see that a few limited national interests are served.

As a matter of fact, we talk about national or federal elections. What we really have are state elections to choose federal officers. So it has got to be a partnership, and we are hoping in our deliberations to get better voter participation. Oh goodness, if I remember correctly, in the last presidential primary election, among young people, for example, and that would be between 18 and 29, a miserable record of 8 percent turnout for those younger people. It has been riven through in different categories of lack of participation.

Then of course we want to see that there is honest voting. Then you get to what is a registered voter and who is unregistered, and effective technology that effectuates the intent of all sorts of voters. Of course, that varies. Now, one would think maybe by hearing some of the testimony here this morning that punchcards are definitely out and everything else is in. That is not all that conclusive. We are going to have a third of the people in the next general elec-

tion still voting by punchcards probably. So we have got to move as best we can to make sure that we are making some improvements over what we have had.

Federal election reform does not mean a federal takeover. I am sorry Senator Hollings is not here because I know that he has been concerned about that. Election reform is likely to mean a shift in power to state government, to centralized voter rolls and standardize the definition of a vote. State governments will be critical in any new federal partnership.

Florida's election reform bill is a welcome start. At our Atlanta hearing we heard from the Florida task force created by Governor Bush, which shaped the bill, even though there is still a great deal of bitterness about the events of that last year. I think the legislature has indeed shown a bipartisan effort here to do what they have done.

We have learned that election reform is about a lot more than just picking the best machine. Different places need different procedures and equipment. Oregon does not even use polling places any more. Instead, the role of the federal government is to facilitate change, encourage innovation and competition, rather than telling everyone what machine to use.

I know this Committee is interested in Internet voting. The witnesses we have heard have argued persuasively that Internet voting still has some fundamental problems that are far from being solved. But new touchscreen technology holds great promise. It saves money on ballot printing costs, can handle complex ballots in different languages, and can help disabled citizens vote.

Older technologies can work well, too, especially if the system is set up to give voters a chance to correct their errors.

These are just a few personal impressions. After our final hearing in Michigan, we will get together at Charlottesville in July, and then our goal is to have a report by September. Now, I do not know how that comports with the schedule of your committee, but there will be other committees, I think, on the Hill here, House and Senate, what will be holding hearings and discussions on this very critical issue. So hopefully what we are doing will be of an assist to your committee eventually. If it hopefully comes before your final markup, all the better.

We want to be sure that our staff has some liaison with your staff and the other staffs of these committees, because it is useless for us to issue some report we think is going nowhere. I think we have got enough practical politicians in addition to the academicians on our commission to recognize the art of what is possible. That is not to say we shut out completely that which we know will not pass, because we ought to be thinking continually about new ways of improving the system.

I am reminded particularly of what some of the witnesses said relative to the new technology. There is have some question whether to invest too much in today's technology when next year or within 6 months there will be something better. So we have got to remain flexible in this thing.

Thank you, Mr. Chairman, very much for the opportunity to at least alert the Committee to the fact that we are in existence and we hope to assist in helping you as best we can.

The CHAIRMAN. Well, we thank you, Bob. I would just like to say the composition of that commission is such that your recommendations and conclusions will be highly regarded and have a significant impact, I believe, on whatever actions the Congress may take. I think it may serve as a motivation for us to act.

There is a fear, as I mentioned earlier, that we have sort of lost interest. I think what your commission will do will help us in a variety of ways. I thank you and the other members of the commission for serving.

Ambassador/Secretary/friend, Mr. Richardson, welcome.

STATEMENT OF HON. BILL RICHARDSON, MEMBER, NATIONAL COMMISSION ON FEDERAL ELECTION REFORM

Mr. RICHARDSON. Thank you, Senator McCain. The chairman has outlined our goals and our objectives. I would just like to add a few words.

Mr. Chairman, first of all, I am glad that you personally have taken this issue in terms of your interest. I think anything that you touch seems to go a lot of places.

The CHAIRMAN. It may take a long time.

[Laughter.]

Mr. RICHARDSON. So I am delighted, besides the fact that your committee has jurisdiction with the networks and the Internet issue, I am delighted that you have taken an interest.

Second, I want to reinforce what Chairman Michel said. We really think election reform legislation is needed from the Congress. The Congress needs to lead, to keep the momentum going. I worry that, with the press of other legislation, that somehow these very important issues will be forgotten.

I think we have gotten some very good momentum from the Florida initiative. The Florida initiative, Governor Bush and the Florida Legislature, have put forth a good bill. At the federal level, I hope that by September, when our report is ready, that you will carefully take a look at our recommendations. The National Commission on Federal Election Reform is an outstanding committee and the chairman has been outstanding in making sure that we reach out to all witnesses. We have two hearings left, at the Ford Library June 5, and at the Johnson Library May 24.

I would just close, Mr. Chairman, with just some of the issues that we are looking at. The chairman outlined some of our preliminary impressions. We are focusing on: the breadth and integrity of voter registration; the timing of federal elections and release of election results; voting techniques and ballot design, whether with suggestions and subsidies or with minimal national and statewide standards; problems that have arisen with respect to absentee and overseas military votes; rules and procedures for contesting and recounting results of elections for federal offices; and new technology for conducting elections, as I think the chairman has outlined. We have heard some problems about Internet voting. We have, at the same time, heard a lot of promising things about the new touch machines that seem to be sprawling everywhere.

On the subject of new institutions or strengthened versions of existing ones that oversee progress. I guess, Mr. Chairman, the main issue would be, do you beef up the existing entity within the FEC,

or do you have a separate entity that you beef up? I think these are very important issues and federal leadership, Congressional leadership, is needed because I think the public wants to see some reforms. We have to ensure that the voters that you represent—that I used to represent, Hispanics, Native Americans in the West and rural areas—are full participants.

But I just want to commend Chairman Michel for the leadership he has shown. This is a very good commission, an excellent staff. Many of them are back here. The membership bipartisan. Phil Zelikow sits back here. He does all the work. Well, not all of it.

Mr. Chairman, again I thank you.

The CHAIRMAN. I thank you and I want to thank you for your service on the commission, but I also want to thank you for your incredible service to our nation in a variety of capacities. I am very proud of you since we may have come some distance since we were elected in 1982 to the House and Bob Michel told us how we should behave. I thank you, Bill.

Professor Ansolabehere, welcome.

STATEMENT OF STEPHEN ANSOLABEHERE, Ph.D., PROFESSOR, DEPARTMENT OF POLITICAL SCIENCE, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Dr. ANSOLABEHERE. Thank you. Thank you for inviting me to speak today. I would like to begin by telling you a little bit about our project and then tell you some specific findings. A week after the 2000 presidential election, David Baltimore, the president of Caltech, called Charles Vest, the president of MIT, with an idea: Our two institutions should collaborate to develop new voting technologies because, after all, the problems experienced in Florida had as much to do with technology as they did democracy, and for our institutions technology is central.

Presidents Vest and Baltimore proceeded to assemble a team of computer scientists, mechanical engineers, and social scientists. The Carnegie Corporation and both Caltech and MIT have funded this endeavor.

I am Steve Ansolabehere, professor of political science at MIT and co-director of this project. My counterpart at Caltech is Tom Paulfrey, a professor of economics. Our team consists of 11 faculty members and many students, and our goal is to develop new voting technology. The engineers bring expertise in electronic security—and they are not very optimistic about Internet voting, but that is a dispute within our group—user interface design, machine design, and performance standards. The social scientists bring expertise in voter behavior, operations, and public finance.

We are in the initial phase of our project, which we consider the learning or listening phase. Over the last 4 months we have met with many voting machine manufacturers and election administrators to ascertain what the problems with voting are and also how we can contribute to the solutions.

We have conducted also studies of voting machine performance and design, the public finances of elections, administration and voter registration practices.

The complete work of our last 4 months of work is due out July 16th and it will include our assessment of existing voting processes

in the United States. The report will also offer some specific recommendations, which I will share with you at the end of my testimony. The second phase of our project will discuss equipment design and prospects for development.

What I would like to do now is share a couple of what we consider important central findings about the current voting system. Before our group sets out to consider equipment design, we first tried to answer two questions: First, how much is currently being spent on election administration in the United States today? Second, how accurate is the equipment being used and is there any opportunity for substantial improvement?

Let me deal first with election expenditures and equipment costs. The basic point is that an immediate upgrade to new equipment will be expensive. It is not impossible.

The main problem is the transition and how that will be financed, rather than the total amount of money that will be spent over the lifetime of the machines used.

So how much does equipment cost? We see that two technologies are competing for the immediate future, optical scan equipment and electronic machines, also called direct recording electronic machines—or DREs for short. According to estimates provided by the industry, a typical DRE will cost about $20 per voter on average to acquire. The operating or variable cost for electronic is about 75 cents a voter on election day. The cost of acquiring a scanner system is on average about $6 a voter, so it is substantially less, but the operating costs are higher, about $1.50 a voter, so over time the operating costs will creep up and add to the total costs for the scanners.

If the machinery lasts about 20 years, that is the lifespan, on these two systems the total expenditures are going to be about the same. We are not sure how long electronic equipment exists or lives. 15 to 20 years seem to be a pretty good ballpark. Just to give you some sense of what we discovered, the last lever machines really that were manufactured were distributed in the 1960s, 1963, 1964. We have come across in our studies lever machines dating back to 1923 in some counties. That is a degree of longevity that the electronic equipment will not have.

A nationwide upgrade today, then, would cost about $2 billion on the outset if we all upgraded to direct recording electronic equipment—that is based on the idea that there are about 100 million voters, $20 a voter—or $600 million if we all upgraded to scanners. Again, that is just the upgrade cost. That does not include the variable cost, and it depends on how you prorate the life of the equipment.

How big is the voting machine industry today? The voting machine industry is about $150 million to $200 million in revenues annually. We have been told this by the industry and we have corroborated that estimate from a study of various purchases that have occurred.

The industry consists of four main firms and approximately 20 smaller firms, so that is a lot of firms competing for a relatively small total industry size. We think the small industry size puts some limits on the amount of innovation and research and development that can happen feasibly in the industry. The industry em-

phasizes sales because it must sell to every county in the United States and every machine manufacturer tries to maintain, on an ongoing basis, relationships with those county administrators.

Large firms tend to stay out. We saw a flurry of firms announcing projects after the 2000 election. Those firms have been in on and off in the past. IBM helped develop the punchcards, but they got out in 1968. Unisys developed the optical scan systems and they got out in the late 1980s. The reasons that these large firms get out is that the revenues that they could get out of this business line are small, and the down side risks are potentially enormous because you have a very embarrassing incident, such as in Florida, with the IBM brand name or the Unisys name splashed all over the headlines.

To upgrade equipment, then, we are talking about a substantial increase in the size of the industry all at once. If we upgraded and spent $2 billion, that is probably 10 times the size of the industry sales on an annual basis. That is a big shock to an industry. It would probably have price effects and so forth.

However, if we prorate the size of the industry over, say 15 years, then we get roughly the amount of money that would be spent by counties on election purchases anyway. In other words, take 15 times $150 million and you get $2.25 billion, which is roughly what it would cost to upgrade all at once right now.

The issue then is the transition: How do we transition from—how do we pay for an upgrade of equipment all at once? Should there be cost-sharing? That is one proposal. Another possibility is that the industry should adopt leasing, which would give them a constant revenue stream as opposed to a highly variable revenue. The best practice here might be the State of Rhode Island, which is the largest leasing practice that we have encountered in the U.S. so far.

The second part of our analysis has been a study of the performance of current voting equipment, and I will alter what I have prepared for the remarks. There is a punchier way to do it. Is there a technology today that minimizes the incidence of questionable ballots, a technology that would make us more certain of the tally that comes out at the end of the election day? The answer is yes. We estimate that if the counties using punchcards switched to precinct-based optical scanning, the incidence of under- and overvotes in those counties using punchcards would be cut nearly in half, from a little over 3 percent to a little over 1.5 percent.

That is a pretty substantial reduction. Thirty percent of the voters in the U.S. vote with punchcards, a quarter use optical scanning. This finding is based on our evaluation of the incidence of under- and overvotes in the last four presidential elections. In this analysis we have held constant all sorts of factors at the county level, including the demographic composition, age, race, and so forth of the counties, and whether the county had changed voting equipment in any given year.

The most surprising result, at least surprising to us, was that the electronic machinery, the DREs, had rates of undervotes—they exclude overvotes—nearly as high as the punchcards. We have some hypotheses as to why this is. We see this as a potential place for technological improvements in the DREs. To some extent, an

evaluation like this is looking in the rear view mirror. It is looking at what is in the field currently, rather than at what is coming down the road.

We feel that universities, such as MIT, Caltech, Ohio State, Michigan, and others that we have heard of becoming involved in this or interested in this area are prepared to contribute to the assessment and design of technology. That is a possible venue for federal investment. In that light, we see that there are three big recommendations I would like to put forward to you.

The first is there needs to be a process for continual innovation. I think the thing to think about here is that the voting system is continually changing. Counties always are upgrading their equipment. That is what sustains a voting machine industry. If they were not continually doing it, there would not be an industry. There needs to be a process for testing and stressing systems that emphasizes the ease of use and the security of systems, especially as we are going to see the rise of Internet voting. I think it is impossible to hold the lid on that. The question for Internet voting is how can we direct this in a sensible way.

In this respect, I see the universities as a possible venue. There are efforts afoot at Michigan and Ohio State, as well as at Caltech and MIT.

Second, a federal agency, NIST or the FEC, should regularly assess the election day performance of technology and make that information publicly available. I think this is important information for any county or state wanting to purchase equipment. Right now the counties and states largely do the purchases without much of a sense of what has happened in other counties or other states with current equipment. They rely mainly on the vendors for some assessment of performance, rather than on an independent assessment of how the equipment has performed.

Finally, existing standards should be revised to evaluate equipment as it is set up and managed in the field. One of the things that we have seen as we have gone to numerous demonstrations of voting equipment is that if you let a Caltech or MIT undergrad loose on some equipment they are going to break it in about 5 minutes. We have see far too many demonstrations of malfunctioning equipment, with blown fuses, loose cables, and paper jams. That is the equipment as it is set up in the field.

The CHAIRMAN. That argues for better training of people who conduct the elections.

Dr. ANSOLABEHERE. Yes, that would also help. But the equipment as it is tested now is not tested for the setup and for maintenance by a 65- or 67-year-old poll worker and so forth.

I think the equipment industry does a very good job, given its limited resources, to do as much as possible, but there is a capacity constraint.

Thank you very much for your time and I welcome any questions.

[The prepared statement of Dr. Ansolabehere follows:]

PREPARED STATEMENT OF STEPHEN ANSOLABEHERE,
PROFESSOR OF POLITICAL SCIENCE, MIT

Thank you for inviting me to speak today.

I'd like to begin by telling you a little bit about our project, and then tell you about some specific findings.

Overview of the Caltech/MIT Voting Technology Product.

A week after the 2000 Presidential election, David Baltimore, the president of Caltech, called Charles Vest, the president of MIT, with an idea. Our two institutions should collaborate to develop improved voting technologies—a new voting machine. They believed that the problems observed in the vote counting in Florida and elsewhere originated with technology.

Presidents Vest and Baltimore assembled a team of computer scientists, mechanical engineers, and social scientists. The Carnegie Corporation and both Caltech and MIT have funded our endeavors.

I'm Steve Ansolabehere, a professor of Political Science at MIT, and co-director of the Caltech/MIT voting technology project. My counterpart at Caltech is Tom Palfrey, a professor of Economics. Our team consists of 11 faculty and many students, and our central goal is to develop new voting technology. The engineers bring expertise in electronic security, user interface design, machine design, and performance standards. The social scientists bring expertise in voter behavior, operations design, and public finance.

We are in the initial phase of our project, which I consider the learning phase. Over the last 4 months we have met with many voting machine manufacturers and election administrators to ascertain what the problems are and to explore ways that we can contribute to solutions. We have also conducted studies of voting machine performance and design, the public finances of election administration, and voter registration practices. A complete report of our work over the last 4 months is due out at the beginning of July. It will include our assessment of existing voting processes in the United States. The report will also offer specific recommendations for the industry, governments, and universities to pursue.

The second phase of our project will focus on equipment design. We've identified a number of user interface and security features of existing equipment that can be improved upon. We have identified specific practices in voter registration and polling place administration that can be improved at minimal cost or with cost savings with the use of computer technology. We have also identified the need for a process that would involve industry, government, and universities in continual innovation in voting equipment and software.

Where Technology Affects the Voting System

Like most Americans, I have always taken the voting system for granted, even though I have voted with every kind of technology. With a little introspection, it is evident that computing technology has driven changes in voting technology. Today, we are in the of a computing and communication revolution, and that revolution will change the voting system over the next decade.

The question before us is how can we make the transition to new voting systems a good one.

There are three big pieces to the voting system where our group see technology, and, in particular, computer technology, changing the picture. These parts of the system are voter registration, casting of votes, and counting of votes.

First, Voter Registration. The registration system serves two purposes: **authentication and management.** It is used to authenticate the voter. That is, to make sure that those who are not allowed to vote do not and that those who are allowed to vote do so only once. Registration is also used to manage the ballots. We vote on so many different offices and questions today that it has become a chore simply to keep straight who should vote on what. Voter registration information tells people what polling place to go to and it allows the administrators to distribute the ballots to the right polling places.

Voter registration poses considerable database management problems for counties. How to keep the files up to date and free from incorrect or duplicate registrations? How to access the voter registration rolls at polling places on election day? Computing advances now afford improved database management. As the cost of maintaining and accessing databases has fallen, many counties and states have begun to computerize voter registration information. Excellent examples are the states of Kentucky, Maryland, and Michigan. Some counties have even linked the polling places to the counties' central voter files, substantially reducing polling place problems created by inaccurate registrations or by people going to the wrong polling place. A good example is Orange County, Florida.

Second, Casting Votes. The act of casting a vote is fundamentally **communication.** Voters need a way to communicate their preferences and intentions: dropping

a chit in a dish, raising their hands or voices, marking a piece of paper, pulling a lever, or, now, touching a screen.

Since 1990, there have been important developments in understanding how to make computers more user friendly to the everyday person. Improvements in user interface design—the look and feel of electronic ballots—will improve the acceptance and usefulness of electronic voting machines. The challenge is how to implement better ballot designs.

Third, Counting Votes. With the close of polls begins an enormous **computing or tabulation** problem. A brief history of the technology reveals the importance of computational speed.

- Hand counted paper ballots are slow.
- Lever machines speed up the count by aggregating many ballots at the precinct, leaving the administrator to tally the counts on the backs of the three or four machines at the polling place.
- Punch cards improved on this by providing and fast counts of all ballots at once.
- PC connected punch cards, scanners, and DREs permit the counts to be sent in via modem—faster still.

With speed has probably come greater confidence in the process and less opportunity to tamper with ballots. Additional gains in the speed of counting are marginal at best. But there is a need for improved security and audit ability of counts. With electronic counting office the observability or visibility of the count. In most states this is done publicly, with representatives from the parties to check the counting. That check has been lost, and that check often caught problems. One challenge is to devise a new systems of automatic checks that would highlight suspicious looking counts. Also we feel that standards for audibility need to be developed.

The Current Voting System

Before our group set out to consider equipment design, we first tried to answer two questions. First, how much is currently being spent on voting equipment, specifically, and election administration, generally? Second, how accurate is the equipment being used today? Is there any opportunity for substantial improvement?

Election Expenditures and Equipment Cost

1. How much does equipment cost?

We see that two technologies are competing for the immediate future of voting: optical scanning and electronic machines, called direct recording electronic machines, or DREs for short. According to estimates provided by industry to us and based on recent acquisitions that we have studied, the cost of acquiring a DRE is approximately $18 to $25 per voter. The operating or variable cost for electronics is about $.50 to $1 a voter. The cost of acquiring a scanner system ranges from $3 to $8 per voter. The operating cost for scanners ranges from $1 to $2 a voter.

A nationwide upgrade today would be expensive. If we were to upgrade completely to electronics, assuming prices remained the same, the acquisition cost would be approximately $2 billion ($20/voter and approximately 100 million voters). If the U.S. were to adopt scanners, the cost would be approximately $600 million ($6/voter and approximately 100 million voters).

2. How big is the voting equipment industry?

Industry executives estimate that total voting equipment sales range from $150 million to $200 million per year.

The industry consists of four main firms and approximately 20 smaller firms, as well as many local contractors. Election Software and Services (ES&S) is the largest firm, followed by Guardian (a division of Danaher), Global, and Sequoia Pacific. Guardian vends the most widely used electronic machine, the 1242, which used to be called the Shouptronic. ES&S, Global, and Sequoia offer many different machines, including DREs and scanners, and offer some services, such as ballot design, printing and database management.

Large firms stay out, but when they enter they bring significant design innovations. IBM and Unisys are cases in point. IBM was one of the first punch card innovators, but they got out of the business in 1968 because of bad publicity. IBM spun off two companies, CES and EVM, which became two of the main punch card vendors. In the mid-1980s, Unisys developed the Optech scanner, the most widely used scanner in the U.S., but withdrew from the industry.

Industry executives estimate that total voting equipment sales range from $150 million to $200 million per year. This appears to be consistent with data that we have collected on total number of changes in equipment per year.

An upgrade to new equipment, then, would be 3 to 15 times more than the size of the industry today. That seems quite expensive. But it is the wrong calculation; one must also include the time horizon.

Electronic equipment will probably last 15 years, before it becomes badly obsolete. Over a 15 year span (approximate life of these machines), we would spend nationwide between $2.25 billion and $3 billion on machines anyway. That is, if revenues are between $150 annually and $200 million annually, then over 15 years we expect to spend 15 times the revenues. At today's machine prices a complete upgrade to DREs would be approximately $2.5 billion, which is in the range of what the counties and municipalities would spend anyway.

One concern is the effect of a massive upgrade. The industry may not have the capacity to fill orders. Such a large infusion of cash might increase prices. And, an immediate and complete upgrade would kill demand for the next 5 years or so, which might kill the industry.

A second concern with an immediate upgrade concerns the public financing. Because equipment is mainly sold rather than leased, county budgets would have to absorb sizable capital costs. A separate capital request is required, which is often more difficult than a request for additional operating funds. Leasing is a solution that would smooth the costs over the life of the machine.

A more general matter is how much do we spend on elections overall. When we began this project, it became immediately apparent that such a figure does not exist. We found audits of several counties and projections based on those counties, but we found no estimates of nationwide expenditures. If anyone knows of studies of election administration spending nationwide, we'd appreciate any information you have.

To fill this void, we surveyed county administrators throughout the country by sending them faxes to ask how much they budget for election administration. This gives us a ball park estimate of the nationwide expenditure on all aspects of elections. The data are still coming in, but I can share with you our preliminary findings. In the 2000 elections, the U.S. counties and municipalities spent (on average) approximately $8.80 per voter on all election administration. That works out to approximately $1 billion nationwide.

This figure includes all expenditures—voter registration, salaries, office overhead, equipment purchases, equipment maintenance and storage, poll worker training and pay. Ernest Hawkins, the Sacramento County registrar, has performed an excellent cost analysis based on that county's expenditures. His total figure is slightly higher, but not much.

The $1 billion figure suggests that there are considerable financial constraints on immediate upgrading to equipment. County election boards must make capital budget requests. One possible solution is leasing, which Rhode Island has done. This moves the line item for equipment acquisition out of the capital budget and into the operating budget, which is more affordable.

Performance of Current Voting Equipment

A second study we have undertaken concerns the accuracy of existing equipment. This study is posted on our web page (*www.vote.caltech.edu*) and we have provided copies to the Committee.

We undertook this study to establish some benchmarks:

- How many votes are unmarked, spoiled, or uncounted, and thus problematic in the event of a recount?
- Does the incidence of such ballots depend on the equipment used?

The incidence of unmarked, spoiled, and uncounted ballots (which we call residual votes) is particularly important because it is a measure of the number of questionable ballots that must be resolved in the event of a recount. It does not, however, measure all mistakes that voters may make in the voting booth or all problems with equipment in registering voters' preferences and it does capture some intentional non-voting.

If the incidence of residual votes is unrelated to machines then it may be unlikely that design improvements could help. However, if the incidence of residual votes does depend on equipment, then it is important to know which technologies are doing particularly well.

We collected data on election results and equipment used in each of the counties in the U.S. for the 1988 to 2000 election. We began data from Election Data Services data and proceeded to fill in data for states not covered in that database. We also augmented that data with data from 2000, and we carefully checked the data for errors.

There are some odd observations in the data (very few) that we were unable to resolve. We have omitted these cases.

The metric we use is the percent of total ballots cast for which no Presidential vote was registered. This does not capture all errors, but it does capture those votes that would be problematic in the event of a recount or an audit of the election.

The average county in the United States has a residual vote rate in Presidential contests of 2.3 percent. The percent of all ballots cast that had no Presidential vote recorded equals 2.1 percent. The figures differ because larger counties have lower residual vote rates. We suspect that this is because they have more resources to administer elections.

We then performed several statistical analyses to assess the extent to which the residual vote rate depends on what voting equipment in use. It does. And some of the results surprised us.

First, we looked at simple averages. For each type of voting equipment, what is the average residual vote rate?

Counties using punch cards, either Votomatic or DataVote, had the highest residual vote rates—3 percent of total ballots cast.

Counties using direct recording electronic equipment also averaged residual vote rates above the national mean.

The average residual vote rate among counties using optical scanning, lever machines, or hand counted paper ballots were below the national mean.

Results that we will include in subsequent versions of the report look at elections for U.S. Senate offices. Here again, optical scanning and hand counted paper are well below the national average. Punch cards are again above the mean. And DREs are double the residual vote rate of counties with scanning or paper. Lever machines also have higher than average residual vote rates for U.S. Senate races.

Many factors may affect the residual vote rate. So we tried to control for these other factors statistically. Doing so did not change the results.

Holding constant county-level factors, such as racial composition, literacy rates, income, and age, we find the same pattern. Hand counted paper ballots, optically scanned ballots are significantly better than Direct Recording Electronic equipment and punch cards.

This is not to say that those other factors do not matter. A county's average per capita annual income, racial composition, percentage of voters over age 65, voter participation rates, and other factors, strongly affect the incidence of residual votes. Rather, holding those factors constant we still find the same pattern of effects:

Hand counted paper ballots and optically scanned paper ballots and lever machines on average had significantly fewer unmarked, uncounted, and spoiled ballots than punch cards and electronic machines.

Our immediate reactions to these results were two-fold.

First, there is a good case to be made against punch cards. They are an established technology, and they are, on average, performing poorly.

Second, these results sparked a heated debate within our group between adherents of paper (optically scanned or hand counted) and adherents of electronics. We have subsequently studied much of the equipment on the market, and we feel that design improvements for DREs are possible. This is the challenge facing our engineers. The results clearly set paper—hand counted or optically scanned—as the benchmark, the thing to beat.

Doing so will require less attention to designs that speed up the count and more attention to designs that are easy-to-use, that start with the many different types of voters in mind.

EXECUTIVE SUMMARY

RESIDUAL VOTES ATTRIBUTABLE TO TECHNOLOGY: AN ASSESSMENT OF THE RELIABILITY OF EXISTING VOTING EQUIPMENT

The Caltech/MIT Voting Technology Project
Version 2: March 30, 2001

This report examines the use of voting equipment and the incidence of spoiled and unmarked ballots associated with that equipment. We call the rate of spoiled and unmarked ballots the residual vote rate. The residual vote rate is not a pure measure of voter error. If voting technologies are not producing voter mistakes or confusion, the residual vote rate should be unrelated to equipment. The study covers election results from over 2700 counties and municipalities in the 1988, 1992, 1996, and 2000 Presidential elections.

• The United States uses five general types of election technologies: hand-counted paper ballots, lever machines, punch cards, optically scanned paper ballots, and electronic machines (called direct recording electronics). There are variations within each of these types of technology; this investigation focuses on the performance of the five broad types of voting technology.

• Over the last two decades, election administrators have increasingly abandoned lever machines and hand-counted paper ballots in favor of electronic machines and optically scanned paper ballots.

• Approximately 2 percent of all Presidential ballots are spoiled or unmarked (residual votes).

• The incidence of residual votes is highest for voters in counties using punch cards and electronic machines and is lowest for voters in counties using lever machines, optically scanned paper ballots, and hand-counted paper ballots.

• The same pattern holds once we statistically control for all features of individual counties (including county literacy rates and income), the year of the election, total turnout, shifts in technology, and other candidates on the ballot.

• Optically scanned ballots are a viable alternative to older technologies. We see room for improvement with electronic machines, especially the newer touch screen technologies.

• We find the performance of punch cards alarming: punch cards are an established technology and the residual vote rate of this technology is nearly double that of alternatives.

RESIDUAL VOTES ATTRIBUTABLE TO TECHNOLOGY

AN ASSESSMENT OF THE RELIABILITY OF EXISTING VOTING EQUIPMENT

The Caltech/MIT Voting Technology Project [1]
Version 2: March 30, 2001 [2]

American elections are conducted using a hodge-podge of different voting technologies: paper ballots, lever machines, punch cards, optically scanned ballots, and electronic machines. And the technologies we use change frequently. Over the last two decades, counties have moved away from paper ballots and lever machines and toward optically scanned ballots and electronic machines. The changes have not occurred from a concerted initiative, but from local experimentation. Some local governments have even opted to go back to the older methods of paper and levers.

The lack of uniform voting technologies in the U.S. is in many ways frustrating and confusing. But to engineers and social scientists, this is an opportunity. The wide range of different voting machinery employed in the U.S. allows us to gauge the reliability of existing voting technologies. In this report, we examine the relative reliability of different machines by examining how changes in technologies within localities over time explain changes in the incidence of ballots that are spoiled, uncounted, or unmarked—or in the lingo of the day the incidence of "over-" and "undervotes." If existing technology does not affect the ability or willingness of voters to register preferences, then incidence of over- and undervotes will be unrelated to what sort of machine is used in a county.

We have collected data on election returns and machine types from approximately two-thirds of the 3,155 counties in the United States over four Presidential elections, 1988, 1992, 1996, and 2000. The substantial variation in machine types, the large number of observations, and our focus on Presidential elections allows us to hold constant many factors that might also affect election returns.

The central finding of this investigation is that manually counted paper ballots have the lowest average incidence of spoiled, uncounted, and unmarked ballots, followed closely by lever machines and optically scanned ballots. Punchcard methods and systems using direct recording electronic devices (DREs) had significantly higher average rates of spoiled, uncounted, and unmarked ballots than any of the other

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[1] The Caltech/MIT Voting Technology Project is a joint venture of the two institutions. Faculty involved are Michael Alvarez (Caltech), Stephen Ansolabehere (MIT), Erik Antonsson (Caltech), Jehoshua Bruck (Caltech), Steven Graves (MIT), Nicholas Negroponte (MIT), Thomas Palfrey (Caltech), Ron Rivest (MIT), Ted Selker (MIT), Alex Slocum (MIT), and Charles Stewart (MIT). The principal author of this report is Stephen Ansolabehere; communications about this report can be directed to him at *sda@mit.edu.* We are grateful to the Carnegie Corporation for its generous sponsorship of this project.

[2] This version updates our initial report in three ways. First, we have expanded the data set considerably: increasing the number of valid cases from roughly 5500 to 8000. We have added complete data for several states, such as Kentucky, Massachusetts, and Vermont, and nearly complete coverage of the available data from the 2000 election. Second, we present more detail about the data, such as yearly averages, and examine possible technology curves and other hypothesized relationships. Third, we incorporate more speculation about the performance of DREs. The next version of the report will integrate data from 1980 and from the 1980, 1990, and 2000 censuses, which will allow us to examine possible interactions between machine performance and demographic characteristics of county populations.

systems. The difference in reliabilities between the best and worst systems is approximately 1.5 percent of all ballots cast.

We view these results as benchmarks for performance. It is our hope that the information here is helpful to manufacturers as they improve equipment designs and to election administrators who may wish to adopt new equipment. Our results apply to broad classes of equipment; the performance of specific types of equipment may vary. Where possible we test for possible differences (such as different types of punch cards).

We do not attempt to isolate, in this report, the reasons for differential reliability rates, though we offer some observations on this matter in the conclusions. Our aim is measurement of the first order effects of machine types on the incidence of votes counted.

Machine Types and Their Usage

We contrast the performance of five main classes of technologies used in the U.S. today. The technologies differ according to the way votes are cast and counted.

The oldest technology is the *paper ballot.* To cast a vote, a person makes a mark next to the name of the preferred candidates or referendum options and, then, puts the ballot in a box.[3] Paper ballots are counted manually. Paper ballots enjoyed a near universal status in the U.S. in the 19th Century; they remain widely used today in rural areas.

At the end of the 19th Century, mechanical *lever machines* were introduced in New York State, and by 1930 every major metropolitan area had adopted lever machinery. The lever machine consists of a steel booth that the voter steps into. A card in the booth lists the names of the candidates, parties, or referenda options, and below each option is a switch. Voters flick the switch of their preferred options for each office or referendum. When they wish to make no further changes, they pull a large lever, which registers their votes on a counter located on the back of the machine. At the end of the voting day, the election precinct workers record the tallies from each of the machines. Lever machines automate both the casting of votes and the counting of votes through mechanical devices.

Punch card machines automated the counting process using the computer technology of the 1960s. Upon entering the polling place the voter is given a paper ballot in the form of a long piece of heavy stock paper. The paper has columns of small, perforated rectangles (or chads). There are two variants of the punch card—one, the DataVote, lists the names of the candidates on the card; the other (VotoMatic) does not. In the booth (for VotoMatics), the voter inserts the card into a slot and opens a booklet that lists the candidates for a given office. The voter uses a metal punch to punch out the rectangle beside the candidate of choice. The voter then turns the page, which lists the options for the next office and shifts the card to the next column of rectangles. When finished, the voter removes the card and puts it in the ballot box. At the end of the day, the election workers put the cards into a sorter that counts the number of perforations next to each candidate.

Optically scanned ballots, also known as "marksense" or "bubble" ballots, offer another method for automating the counting of paper ballots. The form of the optically scanned ballot is familiar to anyone who has taken a standardized test. The voter is given a paper ballot that lists the names of the candidates and the options for referenda, and next to each choice is small circle or an arrow with a gap between the fletching and the point. The voter darkens in the bubble next to the preferred option for each office or referendum, or draws a straight line connecting the two parts of the arrow. The ballot is placed in a box, and, at the end of the day, counted using an optical scanner. Some versions of this technology allow the voter to scan the ballot at the polling place to make sure that he or she voted as intended.

Direct recording electronic devices, DREs for short, are electronic versions of the lever machines. In fact, the first widely used electronic machine (the Shouptronic 1242) was modeled on the lever machine and developed by one of the main lever machine manufacturers. The distinguishing feature of a DRE is that an electronic machine records the voter's intentions, rather than a piece of paper or mechanical device. To the extent that there is a paper trail it is generated by the machine, not the voter. Electronic machines vary along a couple of dimensions, having to do with the interface. First, there are many devices used to register the vote: the interfaces are either push button (e.g., the Shouptronic) or touch screen (e.g., Sequoia Pacific's Edge or Unilect's Patriot) or key pads (see the Brazillian machine). Second, the ballot design is either full-faced or paginated. With full-faced ballots, common among

[3] How we mark ballots has changed over time. In the middle of the 20th Century, many states required that the voter cross out the options not chosen. See for example, The Book of the States, 1948.

push button equipment, the voter sees the entire ballot at once. With paginated systems, common among touch screen devices, the voter views a page for each office or question on the ballot. A voting session goes roughly as follows. Upon entering the polling place, the voter is given a card that is inserted into the machine to activate the individual voting session. When finished the voter touches the name on the screen to register his or her preference and, typically, the voter may review the entire session (or ballot) to check the vote. Like lever machines it is not possible to vote twice for the same office (i.e., overvote). Each electronic machine tallies the votes locally and the tallies, usually on a disc, are sent to a central location.

Each type of technology involves many variations based on specifications of manufacturers, ballot formats, and implementation. Our focus is on the five main types of machines, as we hope to learn which mode of voting looks most promising. In almost all states, county election officials decide which machinery to use, so counties are, almost everywhere, the appropriate unit of analysis. Some counties do not have uniform voting technologies. In these situations, municipalities and, sometimes, individual precincts use different methods. These counties are called *Mixed Systems.* They occur most commonly in Massachusetts, Michigan, Maine, New Hampshire, and Vermont, where town governments usually administer elections.

We examine the variation in usage across counties and over time. Our data on voting equipment come from the Election Data Services and from state, county, and municipal election officials. We appreciate the helpfulness of election administrators and the EDS in our data collection efforts.

The data do not distinguish centrally counted and precinct counting of ballots sufficiently well that we could estimate with confidence the difference in performance between central and precinct counting. Some states provide information about which administrative units count the ballots for some machine types. Precinct and central counting of optically scanned ballots became quite controversial in the Florida 2000 election.

Even without this additional level of detail, the pattern of equipment usage across the United States looks like a crazy quilt. Americans vote with a tremendous array of types of equipment. Table 1 displays the wide variation in machines used in the 1980 and 2000 elections. The first two columns present the average number of counties using various types of equipment in each year. The last two columns report the percent of the population covered by each type of technology in the 1980 and 2000 elections.

In the most recent election, one in five voters used the "old" technologies of paper and levers—1.3 percent paper and 17.8 percent levers. One in three voters use punch cards—31 percent of the VotoMatic variety and 3.5 percent of the DataVote variety. Over one in four use optically scanned ballots. One in ten use electronic devices. The remaining 8 percent use mixed systems.

Within states there is typically little uniformity. In some states, such as Arkansas, Indiana, Michigan, Pennsylvania, and Virginia, at least one county uses each type of technology available. The states with complete or near uniformity are New York and Connecticut with lever machines; Alaska, Hawaii, Rhode Island and Oklahoma with scanners; Illinois with punch cards; Delaware and Kentucky with electronics.

As impressive and dramatic have been the changes in technology over time. The third column of the table reports the percent of the 2000 electorate that would have used each machine type had the counties kept the technologies they used in 1980. The data are pretty clear: out with the old and in with the new. Optically scanned ballots and DREs have grown from a combined 3.2 percent of the population covered to 38.2 percent of the population covered. There has been little change in the mixed and punch card systems. Paper ballots have fallen from 9.7 percent of all people in 1980 to just 1.3 percent in 2000. Lever machines, by far the dominant mode of voting in 1980, covered 43.9 percent of the electorate. Today, only 17.8 percent of people reside in counties using lever machines.

A somewhat different distribution of voting technology across counties holds, owing to the very different population sizes of counties. Punch cards and electronic devices tend to be used in more populous counties, and paper ballots tend to be used in counties with smaller populations.

Table 1—Usage of Voting Equipment in the 1980 and 2000 Elections

	Percent of Counties Using Technology		Percent of 2000 Population Covered by Technology	
	1980	2000	1980	2000
Paper Ballots	40.4	12.5	9.8	1.3
Lever Machines	36.4	14.7	43.9	17.8
Punch Card:				
"VotoMatic"	17.0	17.5	30.0	30.9
"DataVote'	2.1	1.7	2.7	3.5
Optically scanned	0.8	40.2	9.8	27.5
Electronic (DRE)	0.2	8.9	2.3	10.7
Mixed	3.0	4.4	10.4	8.1

Three comments about the change in equipment are in order. First, this is an industry in flux. Between 1988 and 2000, nearly half of all counties adopted new technologies (1476 out of 3155 counties), and over the twenty-year period between 1980 and 2000, three out of five counties changed technologies. These changes have occurred without any federal investment.

Second, there is a clear trend toward electronic equipment, primarily scanners but also electronic voting machines. This trend, and the adoption of punch cards in the 1950s and 1960s, reflects growing automation of the counting of votes. Punch cards, optical scanners, and DREs use computer technology to produce a speedy and, hopefully, more reliable count. An influential 1975 report sponsored by the General Accounting Office and subsequent reports by the Federal Elections Commission called for increased computerization of the vote counts and laid the foundation for methods of certification.[4]

Third, voting equipment usage has a strongly regional flavor. The Eastern and Southeastern United States are notable, even today, for their reliance on lever machines. Midwestern states have a penchant for paper. And the West and Southwest rely heavily on punch cards. In 1980, almost all Eastern and Southeastern states used levers, and levers were rare outside this region. Notable exceptions were the use of paper in West Virginia and punch cards in Ohio and Florida. In 1980, Midwestern counties used hand counted paper ballots. Illinois was a notable exception with its use of punch cards. And in 1980, almost all counties along the pacific coast and in the Southwest used punch cards. Notable exceptions to the pattern were the use of levers in New Mexico.

This historical pattern of usage evidently had a legacy. As counties have adopted newer technologies over the last 20 years, they have followed some distinctive patterns. Counties tend to adopt newer technologies that are analogous to the technology they move away from. Optical scanning has been most readily adopted in areas that previously used paper, especially in the Midwest. Where counties have moved away from lever machines, they have tended to adopt electronic machines—for example, New Jersey, Kentucky, central Indiana and New Mexico. These tendencies are strong, but they are not iron clad. In assessing the performance of technology, we will exploit the changes in election results associated with changes in technology. This allows us to hold constant features of the states, counties, and their populations.

Residual Votes: A Yardstick for Reliability

Our measure of reliability is the fraction of total ballots cast for which no Presidential preference was counted. We call this the "residual vote."

A ballot may show no Presidential vote for one of three reasons. Voters may choose more than one candidate—commonly called an overvote or spoiled ballot. They may mark their ballot in a way that is uncountable. Or, they may have no preference. The latter two possibilities produce undervotes or blank ballots. The residual vote is not a pure measure of voter error or of machine failure, as it reflects to some extent no preference. Consequently we prefer the term residual vote instead of error rate or uncounted vote.

The residual vote does provide an appropriate yardstick for the comparison of machine types, even though it is not purely a measure of machine error or voting mistakes. If voting equipment has no effect on the ability of voters to express their preferences, then the residual vote should be unrelated to machine types. To measure

[4] See, Roy Saltman, *Accuracy, Integrity and Security in Computerized Vote-Tallying*, NBS SP 500-158, August 1988, NIST, Gaithersburg, MD. The report is available online at *www.nist.gov/itl/lab/specpubs/500-158.htm.*

such effects, we estimate the average residual vote associated with each machine type, and we assess whether these averages differ significantly across machine type. Averaging guards against idiosyncratic results, and measures what we expect to happen in a typical case.[5]

In our data, the residual vote in the average county equaled 2.3 percent.[6] In other words, in the typical U.S. county from 1988 to 2000, 2.3 percent of ballots casts did not register a Presidential preference, for whatever reason. Because county populations vary dramatically, this does not equal the fraction of people who cast an under- or overvote for president in these years. This figure is somewhat smaller: 2.1 percent of people who cast ballots did not register a Presidential preference. There is considerable variation around this average. Our aim in this report is to assess whether machine types explain a statistically noticeable amount of the variation around this national average residual vote.

We examine the residual vote instead of just the overvote because technology can enable or interfere with voting in many ways. Some technologies seem to be particularly prone to over voting, such as the punch card systems implemented in Florida in the 2000 election. Lever machines and DREs do not permit over voting. Some technologies may be prone to accidental undervotes. Lever machines either lock out a second vote or register no vote when the person switches two levers for the same office. Also, paper ballot are sometimes hard to count owing to the many ways that people mark their ballots. Finally, some technologies might intimidate or confuse voters. Many Americans are unaccustomed to using an ATM or similar electronic devices with key pads or touch screens, and as a result DREs might produce more under voting. Also, it may be the case that we react differently to paper than to machines. We are trained in school to answer all of the questions as best as possible, especially on standardized tests similar to the format used for optically scanned voting. Improper installation or wear and tear on machines may lead to high rates of under voting. In Hawaii in 1998, 7 of the 361 optical scanners failed to operate properly.

In-depth study of particular states and of contested elections may provide insight into the components of the residual vote or more specific problems related to voting equipment. A number of papers published on the Internet examine the effects of machine types on overvotes and on undervotes separately for the Florida 2000 election, and several Secretaries of State and State Election Divisions or commissions present analyses of their own state.

One important caveat is in order in this analysis. There are errors that we cannot count. There is no way to measure whether voters accidentally cast ballots for the wrong candidate. We know of no statistically acceptable measures of fraud. And we know of no studies that attempt to measure the incidence and magnitude of errors in the counting of votes produced by transcription errors or programming errors. Residual votes provides the best available measure of the extent to which technology enables or interferes with the ability of voters to express their preferences.

Many other factors may explain under- and overvoting beside machine types. Other prominent offices on the ballot, such as senator or governor, might attract people to the polls who have no intention to vote for president. A large turnout might make it difficult for election administrators to tend to voter education at the polls. Demographic characteristics of the county's electorate might explain the incidence of people prone to make mistakes. The wealth of the county might account for expenditures on election administration. New machinery might produce elevated levels of voter confusion, simply because people make mistakes more with unfamiliar tasks.

We examine total ballots cast and ballots cast for President in the 1988, 1992, 1996, and 2000 elections. The data cover approximately 2800 counties and municipalities, though not for all years. All told, there are approximately 7800 counties and municipalities for which we have been able to identify the machines used and to collect data on total ballots and Presidential ballots cast. As with the voting

[5] Some analyses focus on extreme cases—under- and overvotes in specific elections in particular counties. Indeed, much of the analysis of Florida falls into this category. Such case studies can be misleading, especially if they reflect outcomes peculiar to a locale, or a local machine failure. Another advantage of averaging is that it washes out the effects of typographical errors, which are inevitable in data, even official government reports.

[6] We exclude from the analysis all cases in which the official certified report shows more Presidential votes cast than total ballots cast, that is, cases with negative residual vote rates. We have tried to resolve all of these cases. They do not appear to be due to absentee votes or other votes being excluded. Instead, they appear to be typographical errors in the data reported by the counties and secretaries of state. This affects about 2 percent of the counties in our analysis. Including these cases changes the numbers reported, but does not affect the pattern of results that we observe.

equipment data, our data on elections returns come from the Election Data Services and from the relevant election commissions of particular states, counties, and municipalities. The large number of observations produces high levels of precision in estimating average residual vote rates associated with each machine type. Studies of one election in one state may not have yielded sufficiently large samples to determine whether there are significant differences across voting equipment.

We examine the Presidential vote in order to hold constant the choices voters face. Within each state one might also examine residual votes in Senate and governor races, with the caveat that these offices have higher "no preference" and thus higher residual votes.

We examine the data at the level of the county or municipality that reports the information. Within each of these jurisdictions, the same voting equipment is used and the administration of the election is under the same office (e.g., has the same budget, etc.). Counties and municipalities are a useful level of analysis because they allow us to hold constant where the equipment is used when we measure which equipment is used. This is of particular concern because equipment usage today is correlated with factors such as county size. We do not want to attribute any observed differences in reliability to equipment, when in fact some other factor, such as county demographics, accounts for the pattern.

To hold constant the many factors that operate at the county level, we exploit the natural experiment that occurs when locales change machinery. We measure how much change in the residual vote occurs when a county changes from one technology to another. The average of such changes for each technology type provides a fairly accurate estimate of the effect of the technology on residual voting, because the many other factors operating at the county level (such as demographic characteristics) change relatively slowly over the brief time span of this study.

To guard against other confounding factors, we also control for contemporaneous Senate and gubernatorial races on the ballot, total turnout, and year of the election.

RESULTS

Typical Counties and Typical Voters

A simple table captures the principle results of this investigation. Table 2 presents the average residual vote rate for each type of voting equipment. The first column of numbers is the average; the second column is the margin of error associated with this estimate; the third column is the median residual vote rate; and the final column is the number of observations (counties and years) on which the estimate is based. The average is the arithmetic mean residual vote across counties. The median is the residual vote such that half of all counties have lower values and half of all counties have higher values. A lower median than mean reflects skew in the distribution of the residual vote produced by a few cases with exceptionally high rates of under- and overvotes. These averages do not control for other factors, but they reveal a pattern that generally holds up to statistical scrutiny.[7]

Two clusters of technologies appear in the means and medians. Paper ballots, lever machines, and optically scanned ballots have the lowest average and median residual vote rates. The average residual voting rates of these technologies are significantly lower than the average residual voting rates of punch card and electronic voting equipment. The differences among punch card methods and electronic voting equipment are not statistically significant. Punch cards and electronic machines register residual voting rates for president of approximately 3 percent of all ballots cast. Paper ballots, lever machines, and optically scanned ballots produce residual voting rates of approximately 2 percent of all ballots cast, a statistically significant difference of fully 1 percent. Or to put the matter differently, the residual voting rate of punch card methods and electronic devices is 50 percent higher than the residual voting rate of manually counted paper ballots, lever machines, and optically scanned ballots. This pattern suggests that simply changing voting equipment, without any additional improvements, could lower the incidence of under- and overvoting substantially.

[7] The data in the table only include counties with positive residual vote rate. Approximately 2 percent of counties report negative numbers; these are the figures in the official certified vote. Including counties with negative residual vote rates changes the numbers slightly but does not change the results. Changing voting equipment, without any additional improvements, could lower the incidence of under- and overvoting substantially.

Table 2—Average Residual Vote By Machine Type

[In U.S. Counties, 1988–2000, Presidential Elections, Residual Vote]

Machine Type	County Average	Standard Deviation	Median	Percent of All Ballots	N
Paper Ballot	1.9	2.1	1.5	1.9	1,540
Lever Machine	1.9	1.7	1.4	1.7	1,382
Punch Card:					
"VotoMatic"	3.0	1.9	2.5	2.6	1,893
"DataVote"	2.9	2.7	2.0	2.4	383
Optically scanned	2.1	2.8	1.3	1.6	1,821
Electronic (DRE)	2.9	1.8	2.7	2.2	494
Mixed	2.2	1.8	1.7	1.5	283
Overall	2.3	2.2	1.8	2.1	7,796

Another take on the average reliability of equipment is the percent of all ballots cast for which no Presidential vote was registered. This is displayed in the fourth column of numbers: this is the weighted average of the county residual vote, in which we weight by total ballots cast in the county. All of the figures shrink toward zero but the same general pattern holds. In fact, optical scanning seems to do particularly well by this measure. Only 1.6 percent of all ballots cast with optical scanners showed an overvote or no vote over the years 1988 to 2000. Approximately, 1.8 percent of voters cast an overvote or no vote using paper ballots or lever machines. Slightly more than 2 percent of voters cast an overvote or no vote with punch cards or electronics.

To explore the robustness of the pattern further, we isolate specific years. Table 3 presents the residual vote rates for each year of our data.[8] The bottom row of the table presents residual vote as a fraction of all ballots cast in each year. The entries in the table are the residual vote as a fraction of all ballots cast using each type of technology in each year. It should be noted that year-to-year one expects more random variation in the numbers simply by chance. Every time someone votes on a machine they have a small chance of making a random error. Taking averages over many cases gives us a more precise measure of the typical behavior. This is especially true for categories of equipment for which there are relatively small numbers of observations, namely DataVote and Electronics.

Even with this statistical caveat, the yearly averages bear out the same general pattern as the overall averages. In each year, except perhaps 2000, paper ballots and lever machines on the whole have lower residual vote rates than the other technologies. In 2000, paper and levers had relatively low residual vote rates, but so too did scanners and electronics.

Electronics did relatively poorly in 1988, 1992, and 1996. 2000 was the banner year for electronics, but in that year paper ballots and optically scanned ballots had even lower average residual vote rates.

VotoMatic punch cards have consistently high average residual vote rates. In 1988, 1996 and again in 2000, punch cards had substantially higher rates of over- and undervotes than other available technologies. This is of particular concern because approximately one in three voters use punch cards. If election administrators wish to avoid catastrophic failures, they may heed the warning contained in this table and the last. It is the warning that Roy Saltman issued in his 1988 report. Stop using punch cards.

Electronic machines look similarly prone to high residual vote rates, except for 2000, which offers a glimmer of promise for this technology.

[8] We also present these yearly analyses to set the record straight. A story on *cnn.com* reports that different people looking at the same data can reach different conclusions. The story cites a separate analysis of the EDS data which suggests that electronics did particularly well in 1996. We have contacted EDS and have confirmed that the pattern of results in Table 3 is consistent with their data. Our data for 1996 come mainly from EDS. When we analyze just the EDS data, we arrive at the same pattern of means, with electronics producing a relatively high average residual vote.

Table 3—Residual Vote as a Percent of Total Ballots Cast By Machine Type and Year

[U.S. Counties, 1988–2000 Presidential Elections; Residual Votes as a Percent of All Ballots]

Machine Type	1988	1992	1996	2000
Paper Ballot	2.2	1.4	2.1	1.3
Lever Machine	2.0	1.5	1.7	1.7
Punch Card:				
"VotoMatic"	2.9	2.2	2.6	3.0
"DataVote"	3.7	2.4	2.1	1.0
Optically scanned	2.5	2.4	1.5	1.2
Electronic (DRE)	3.5	2.5	2.9	1.6
Mixed	2.1	1.4	1.5	2.7
Overall	2.5	2.0	2.1	2.0

Effects of Technology Adoption on Residual Vote Rates

Of course many other factors might explain the observed pattern, including features of the counties and specific elections. The difference between the county and population-weighted averages suggests that county size strongly affects residual vote rates: larger counties typically have lower residual vote rates than smaller counties. We clearly need to hold constant where equipment is used in order to gauge accurately the effects of equipment types on residual vote rates. There are certainly many other factors, such as county literacy rates, education levels, election administration expenditures, other candidates on the ballot, years in which shifts in technology occur.

We hold constant turnout, shifts in technology, other statewide candidates on the ballot, and all factors at the county and state level that do not change dramatically over the period of study, such as literacy rates. To hold these other factors constant we performed a multiple regression of changes in the residual voting rate at the county level on changes in the machine used at the county level, controlling for the year of the election, whether there was a switch in technology in a specific year in a given county, and the total vote in the county. This approach removes the effects of all factors that distinguish the counties, changes in turnout levels within counties, and some features of the election in the state.

In essence, our statistical approach is that of a "natural experiment." We observe within each county how residual votes change when counties change machine technologies. Between 1988 and 2000, slightly more than half of all counties changed their voting equipment.

The effect of specific technologies on residual votes is expressed relative to a baseline technology. We chose lever machines to serve as this baseline for the contrasts, because levers were the modal machines in 1988. The observed effects contrast the change in residual vote associated with a specific technology compared to a baseline technology. By making multiple comparisons (e.g., paper to lever, scanners to lever, etc.), we measure the relative performance of existing equipment.

We omit counties with Mixed Systems, as it is unclear exactly what technologies are in use. The exceptions are Massachusetts and Vermont, where equipment is uniform within towns: we have collected the information at the town level for these states.

Table 4 reports the observed difference between lever machines and other machine types, along with the "margin of error" (i.e., a 95 percent confidence interval) associated with the observed differences. The complete regression analyses are available upon request. Positive numbers mean that the technology in question has *higher* average residual vote than lever machines and negative numbers mean that the technology in question has lower average residual vote than lever machines. The wider the margin of error, the less certainty we have about the observed difference. A margin of error in excess of the actual effect means that the observed effect could have arisen by chance.

Table 4 presents results from two separate analyses. One analysis, presented in the first two columns, contains all valid cases. A second analysis, presented in the last two columns, trims the data of extreme cases. To guard against outliers and typographical errors, we omit the cases with lowest 5 percent of residual vote and highest 5 percent of residual vote.

Table 4 bears out the same patterns as Tables 2 and 3. After introducing considerable statistical controls, we reach the same conclusions about the relative performance of different equipment types. Two clusters of technologies appear in Table 3. Paper ballots, optically scanned ballots, and lever machines appear to perform no-

ticeably better than punch card methods and electronic devices. Paper might even be an improvement over lever machines and scanners.

Table 4—Which is Best?

[Residual Vote Attributable to Machine Type Relative to Lever Machines; U.S. Counties, 1988–2000 Presidential Elections]

Machine Contrast	All Counties		Excluding Extremes	
	Estimated Difference In % RV	Margin of Error (a)	Estimated Difference In % RV	Margin of Error
Paper Ballot v. Levers	–0.55	+/- 0.37	–0.19	+/- 0.19
Punch Card "VotoMatic" v. Levers	1.32	+/- 0.38	1.11	+/- 0.20
"DataVote" v. Levers	1.24	+/- 0.52	0.97	+/- 0.28
Optically scanned v. Levers	0.11	+/- 0.35	–0.05	+/- 0.19
Electronic (DRE) v. Levers	0.90	+/- 0.30	0.67	+/- 0.16
Number of Cases		7513		7078

(a) This is the 95 percent confidence interval for the estimated effect; the half-width of the confidence interval equals 1.96 s/vn, where s is the estimated standard error of the estimated coefficient for each machine type.

First consider the contrast between paper and levers. Looking at all counties (the first two columns of the table), the estimated effect of using paper ballots rather than lever machines of is to lower the residual vote rate by approximately one-half of 1 percent of all ballots cast (i.e., and estimated effect of - 0.55). This effect is larger than the margin of error of .37, so the effect is unlikely to have arisen by chance. Omitting extreme cases, the evident advantage of paper ballots over lever machines shrinks: the effect becomes two-tenths of 1-percent of ballots cast and this is not statistically different from zero difference between levers and paper.

Second consider optical scanning. The difference in the residual vote rate between scanners and levers is trivial once we hold constant where equipment is used, how many people voted, the year, other statewide candidates on the ballot, and technological changes. In both analyses, the difference between optically scanned ballots and lever machines is quite small and statistically insignificant. Levers and paper and scanned ballots appear to offer similar rates of reliability, at least as it is measured using the residual vote.

The third contrast in the tables is of punch cards to lever machines. Punch card methods produced much higher rates of residual voting. The VotoMatic variety of punch cards produced residual vote rates more than 1-percentage point higher than what we observe with lever machines. In our examination of all cases, punch cards recorded 1.3 percent of all ballots less than lever machines did. The estimated effect remains in excess of 1-percentage point even after we exclude the extreme cases. The DataVote variety of punch cards looks extremely similar to the VotoMatic variety. Because DataVote punch cards have the candidate's names on the card, they were widely believed to be superior to the VotoMatic cards. We find no evidence to support this belief.

A final contrast in the table is between DREs and lever machines. Electronic machines registered significantly higher residual vote rates than lever machines (and, by extension, paper ballots and optically scanned ballots), but DREs do not do as badly as punch cards. Direct Recording Electronic devices had a residual vote rate that was almost 1 percentage point higher than lever machines, holding constant many factors, including the county. In other words, a county that switches from levers to DREs can expect a significant rise in residual votes of approximately 1 percent of total ballots cast. Excluding extreme observations, the effect is somewhat smaller, two-thirds of 1 percent of all ballots cast. But that is still highly significant from a statistical perspective, and we find it to be a substantively large effect.

One final note about the estimated effect of the DRE performance is in order. Because this machine does not permit over voting, the observed difference in residual vote rates is due to a very significant rise in undervoting attributable to electronic devices.

We checked the robustness of our results in a variety of ways. We tried various transformations of the dependent variable, and we split the data into counties of different sizes (under 5000 votes, 5000 to 100,000 votes, and over 100,000 votes). The pattern of results is always the same.

Perhaps the most instructive check on the robustness of our analysis comes when we track changes in equipment usage over time. What happened in the counties that used levers in 1988 in the subsequent three presidential elections? Some of those counts continued to use their lever equipment over the succeeding three presidential elections. Approximately half decided to adopt other technologies and almost

all of those that changed went to either electronics or scanners. How did the residual vote rates in these counties compare to 1988?

Table 5—Counties Using Levers in 1988

[From 1988 to Current year (1992, 1996 or 2000)]

	Change in Residual Vote As % of All Ballots	Avg. Change in County Residual Vote	Median Change in County Residual Vote	N
Kept Levers	–0.21	–0.13	–0.25	520
To Scanners	–0.62	–0.18	–0.32	137
To DREs	0.55	0.73	0.83	250

Baseline Residual vote rate is 1.8 percent in 1988 for counties with lever machines.
Standard Deviation is approximately 0.16 for each group in the first column and 0.17 for each group in the second column.

The rows of Table 5 present three different sorts of counties. The first row shows counties that used lever machines in 1988 and stayed with levers in 1992, 1996, and 2000. The second row represents counties that had lever machines in 1988, but switched to optical scanning in one of the succeeding elections. The third row represents counties that had lever machines in 1988, but switched to DREs in one of the succeeding elections.

The columns of the table present the average change in the residual vote rate from 1988 to the current year. We then average over all years. Consider, for example, a county that had levers in 1988 and 1992, but scanners in 1996 and 2000. The first row includes the observed the change in the residual vote rate from 1988 to 1992 for such a county. The second row contains the average change in the residual vote rate from 1988 to 1996 and from 1988 to 2000, the two elections in which the county used scanners.

What happened in these histories? On average, counties that kept their lever machines saw a slight improvement in their residual vote rates from 1988 to 1992, 1996, and 2000. On average, counties that switched to scanners had their residual vote rates fall by even more than the counties that stuck with levers. On average, counties that switched to DREs saw their residual vote rates increase above the residual vote rate that they had in 1988. The difference between the increment in residual vote rate for counties that changed to scanners and counties that changed to DREs is fully 1 percent of total ballots cast.

What Explains the High Residual Vote Rate of DREs?

We were very surprised by the relatively high residual vote rate of electronic equipment. When we began this investigation we expected the newer technologies to outperform the older technologies. Considering some of the glowing reports about electronics following the 2000 election, we expected the DREs to do well. They did not, especially compared optically scanned paper ballots.

We are not pessimistic about this technology, however. It is relatively new, and we see this as an opportunity for improvement. In this spirit we offer six possible explanations for the relatively high residual vote rates of electronic voting machines.

First, the problems may reflect existing interfaces and ballot designs. The results might stem from differences between touch screens and push buttons or between full-face and paginated ballots (paper and levers are full faced).

Second, there may be a technology curve. As the industry gains more experience with electronics they may fix specific problems.

Third, we may be still low on the voter learning curve. As voters become more familiar with the newer equipment errors may go down. As more people use electronic equipment in other walks of life, such as ATM machines for banking, residual votes may drop.

Fourth, electronics may require more administrative attention, especially at the polling place, and thus be more prone to problems under the administrative procedures used in most counties.

Fifth, electronic equipment may be harder to maintain and less reliable than a piece of paper or a mechanical device. Power surges, improper storage, and software errors may affect DREs.

Sixth, the problem may be inherent in the technology. One speculation is that people behave differently with different technologies. Electronic machines may be simply a less human friendly technology.

There is simply too little data from existing equipment usage to say with confidence what exactly accounts for the relatively high residual vote rate of DREs that we observe. We observe approximately 480 instances of electronic machine usage. When we divide the cases according to features of the interfaces, there are too few

cases to gain much leverage on the questions of interface design. Half of the observations in our data are Shouptronic 1242 machines; another one-quarter are Microvote machines. These are push button, full faced machines. One-in-six are Sequoia AVC Advantage machines. There is not enough variety in machines used or enough observations to accurately measure whether some features of the interface explain the results. Careful, systematic laboratory testing may be required to identify the importance of the interface.

Year-by-year analysis casts some doubt on the notion that there is a voter learning curve. The residual vote rate does not fall steadily for counties using DREs, but jumps around. This variation may owe to the small number of observations in each year. Again, to resolve questions of possible learning or technology curves more detailed analyses and information beyond what we have collected will be required.

Conclusions

Paper ballots, lever machines, and optically scanned ballots produce lower residual vote rates on the order of 1 to 2 percent of all ballots cast over punch card and electronic methods over the last four Presidential elections.

Lever machines serve as a useful baseline: they were the most commonly used machines in the 1980s, the starting point of our analysis. The incidence of over- and undervotes with lever machines is approximately 2 percent of all ballots cast. The incidence of such residual votes with punch card methods and electronic devices is 40 to 70 percent higher than the incidence of residual votes with the other technologies.

We have not analyzed why these differences in residual votes arise. We believe that they reflect how people relate to the technologies, more than actual machine failures. State and federal voting machine certification tolerate very low machine failure rates: no more than 1 in 250,000 ballots for federal certification and no more than 1 in 1,000,000 ballots in some states. Certification serves as an important screen: machines that produce failure rates higher than these tolerance levels are not certified or used. We believe that human factors drive much of the "error" in voting, because the observed differences in residual voting rates that are attributable to machine types are on the order of 1 to 2 out of 100 ballots cast. Given the stringent testing standards for machinery in use, these differences are unlikely to arise from mechanical failures.

We have also not examined many details about the implementation of the machinery, such as manufacturer or precinct versus central counting of ballots or specific ballot layouts.

A final caveat to our findings is that they reflect technologies currently in use. Innovations may lead to improvements in reliability rates. In particular, electronic voting technology is in its infancy during the period we are studying, and has the greatest room for improvement. It seems the most likely technology to benefit significantly from new innovations and increased voter familiarity.

In the wake of the 2000 election, many state and local governments are reconsidering their choices of and standards for voting equipment. Many manufacturers are seeking to develop or improve machinery. This report identifies a performance standard in practice—an average residual vote not in excess of 2 percent of total ballots cast. With this benchmark in mind, we wish to call attention to the excellent performance of the optically scanned ballots, the best average performance of the newer methods, and especially to the older methods of voting—lever machines and paper ballots.

The CHAIRMAN. Thank you, Professor. You said the cost could range between $600 million and $2 billion depending on what technology was adopted. What would be the difference in those technologies? The effect—obviously, we are looking the cost effectiveness here. What would you view as a reasonable fix, at least in the short term?

Dr. ANSOLABEHERE. If I were an election administrator purchasing equipment, given what I have learned and seen and so forth, if I were to buy equipment today, based on what I believe about the performance of existing equipment, I would buy optically scanned precinct-based equipment, which would cost about $6 a voter to purchase. I would lease it, like Rhode Island did. That would spread the cost over many years.

That is what the $600 million figure would be.

The CHAIRMAN. What about touchscreen technology?

Dr. ANSOLABEHERE. The touchscreen technology clearly represents an improvement over the older DREs, which were pushbuttons. There would be a big panel and you would push a button next to the name. There are too few of those cases in existence as they have been tested in the field to get a really good read on the performance. There is Riverside County, which had a very good experience, and there is Beaver County, Pennsylvania, which had a horrible experience. So the whole gamut is out there with the touchscreens.

I think that that is one of the things where having some sort of testing before you go into the field with equipment where real voters are using the equipment and trying to——

The CHAIRMAN. What was the problem in Beaver County?

Dr. ANSOLABEHERE. I think their undervote rate was 10 percent.

The CHAIRMAN. With touchscreen technology?

Dr. ANSOLABEHERE. Touchscreen technology.

The CHAIRMAN. All we hear about is the Riverside experience. Interesting.

Dr. ANSOLABEHERE. Assembling these data are really painful, because you have to call every county in the United States, basically, to get it.

The CHAIRMAN. Well, I thank you.

Mr. Michel and Mr. Richardson, I would ask that in the process of your deliberations you would address this whole issue of—a couple of issues. One is, as I asked our previous witnesses, when the federal government gets involved with a cost-sharing procedure, which I think is probably something that is going to happen—I was interested in Secretary of State Willis' proposal of a $1-$1-$1 ratio—we always have a tendency in Congress whenever we start giving them money to set mandates and requirements.

Obviously, they would like to see everything done voluntarily. I am not sure that Congresswoman Lee would like to see everything done voluntarily by the various local authorities. So I hope you will address that aspect of this issue.

The other aspect of it I think is this whole issue of Internet voting. You know, in Arizona in our Democrat primary last cycle they had Internet voting. It was not real successful, but it was the first attempt at it. We just passed a law last year that made all transactions legal and binding the same as someone's signature on a legal paper document. So clearly it is a technology that I think we may want to make use of.

I think of the State of Oregon, where all voting is done by mail now. It is just a very brief step to allowing someone to vote over the Internet, if they are required to mail in their ballot. So I hope you will look at that whole issue as well.

Finally, I think the issue that drove this commission and this Committee and Congress and the American people is the inequity that exists. Clearly, evidence has been presented that is compelling that people from lower income areas of America are less likely to have their vote counted than people from more affluent areas.

Montgomery County might be the exception that makes the rule here, as our previous witness stated, Mr. Willis stated. But it really

is an inequity that I think should be the fundamental principle driving our efforts for electoral reform.

I thank you for your willingness to serve. I am absolutely certain that, with the kind of weight and gravity of your commission, that I think the Congress will clearly, and the administration will clearly, want to see your recommendations carefully scrutinized and put into law, I hope. I also hope that the results of your efforts will again highlight the importance of it. There is a belief, as I stated earlier, that this whole issue has sort of faded from the radar screen. I hope that is not the case, because it will pop right back up again November of the year 2002, and then we will receive some deserved responsibility and blame for not acting.

I want to thank you all for being here. Do you have any final comments you would like to make, Bob?

Mr. MICHEL. Well, only in a sense on the funding. We had quite a spirited debate in the very first hearing that we had down in Atlanta, on how much federal money would be available. Does that tend to diminish the states' action? They may say "We are going to wait on the federal government to bail us out of this thing." We of course, do not want that to happen.

I am glad to see not only Florida, but also Georgia, took a marked step in election reform. I think you are finding more and more state legislatures getting acclimated to doing that. If the publicity prompts some of the other legislatures to move, then I think we will eventually get a little better sense of feel about what that proper ratio ought to be. We want to encourage the states to do it with kind of seed money from the Feds, but we do not want them totally to rely on it.

We have had to make that decision any number of times in many other federal programs: What is the magic formula? I guess that is why we need as much testimony as we can from as divergent sources to get the right answer.

The CHAIRMAN. Once you find that formula, what degree of compliance or responsibility to the federal government and the American people should be exercised by the recipients of that funding?

Bill, do you have anything?

Mr. RICHARDSON. I agree with the Chairman. Senator, you really put your finger on the key issue: What is the federal and the state responsibility? I think Chairman Michel and our commission is heading in the direction of the federal government not being totally intrusive on the states, but if we can, to devise a system of incentives. I just want to keep an eye a little bit on what is happening. I know Congresswoman Lee has worked on this extensively.

My concern is what you also said and that is minority voters, elderly voters, low-income voters, on Indian reservations, how can we ensure that there is full voter participation? I think you have to have a little bit of oversight. Some states have taken some good initiatives. I mentioned Florida, I mentioned Georgia. So maybe a little combination of what Bob said is what is going to be needed.

The CHAIRMAN. Thank you.

Professor Ansolabehere.

Dr. ANSOLABEHERE. I just wanted to share one final cost, feature of the costs of paying for elections that fits with what we have heard earlier. That is that elections are a very high fixed cost kind

of enterprise. So from the election administrator or the county's perspective, there is a very high fixed cost per voter and there is a big economy of scale for a big city or for a high populace county. Very expensive and very difficult for rural counties to pay for election administration. We see that in the cost data very clearly.

So I think if there is some federal role maybe it does make sense to help rural counties in particular bear some of the costs.

The CHAIRMAN. It may make some sense to have a means testing or a priority for the lower income areas. In Santa Cruz County in the southern part of my state, the cost of upgrading the voting machines would be a huge part of the budget.

Do you have any comment, by the way, on the Internet voting issue?

Dr. ANSOLABEHERE. Well, I think the security experts in our group are most concerned about denial of service. They are most concerned about the Internet crashing during election night, not by the volume of the Internet——

The CHAIRMAN. Like during a brownout?

Dr. ANSOLABEHERE. Exactly. A lot of the security problems have been resolved and compared to the security of absentee voting currently it is probably an improvement.

The other problem is what we call scalability, which is with most voting systems it is very hard for one individual to commit large-scale fraud. One individual can maybe steal a couple ballots here or there, vote a couple of times on election day to commit fraud. With the Internet, there is the prospect of someone, some individual, committing a large-scale fraud.

There is a second issue here which does have to do with standards, and that is that all the electronic equipment upload the ballots electronically. So some of those interfaces are through the Internet already. So the Internet, to the extent that we are getting electronic equipment out there, is present either directly or in ballots being uploaded through modems. The prospect of some sort of security breach exists there.

But our security guys tend to be nervous about all sorts of things.

The CHAIRMAN. Given what hackers have been able to accomplish, I think it is a very legitimate concern.

I thank the witnesses and I really am appreciative of your presence here today. Thank you very much.

This hearing is adjourned.

[Whereupon, at 11:08 a.m., the hearing was adjourned.]

APPENDIX

PREPARED STATEMENT OF THE NATIONAL CONFERENCE OF STATE LEGISLATURES

The National Conference of State Legislatures has established a bipartisan Task Force on Election Reform to assist state legislatures in their efforts to improve election technology and administration. The Task Force is focusing its efforts in three areas:

• Restoring faith and public confidence in state election systems;

• Ensuring that election reform on the federal level complements state efforts, does not pre-empt state authority and allows states the ability to be innovative; and

• Providing states with important information on methods and best practices to address election reforms.

The NCSL Task Force will issue a report at the NCSL Annual Meeting in August 2001. In the interim, the Task Force has adopted the following recommendations for any federal election reform legislation:

• NCSL acknowledges that a national debate on election reform has begun and that any Congressionally mandated changes in elections processes necessarily will impact state and local elections. NCSL recognizes that state law controls the processes and the administration of matters pertaining to federal, state, and local elections. It logically follows that NCSL, as the national voice of the various state legislatures, should be at the center of this national debate.

• NCSL finds that most of the significant federal legislation introduced in the 107th Congress contains guidelines for the formation of an election commission or task force to examine election issues and to develop guidelines or mandates for federal elections which necessarily will affect state and local elections. NCSL recognizes Congress' desire to have a voice in the national debate on election reform and understands the formation of a federal commission or task force to provide such a voice may be inevitable. NCSL believes that it must be an equal partner within any such federal commission or task force because this effort must be a partnership among federal, state, and local officials.

• Should Congress move forward with election reform legislation that requires the formation of a federal commission or task force to examine election reform issues in the states, NCSL will lend its support to such effort only if state legislators are included in the composition of any such commission or task force.

• NCSL acknowledges that, due to events surrounding the last Presidential election, public confidence in the elections process must be restored. NCSL recognizes that states may need federal block grant funding to assist in the implementation of new and innovative election reform procedures. NCSL also believes that such funding should be based on broad principles, not upon specific mandates which would lead to a "one size fits all" approach to elections. Therefore, NCSL supports a block grant formula which awards money to states for broad-based purposes dealing with election reform, and opposes any funding mechanism which seeks to mandate specific requirements on the states.

• NCSL is of the opinion that the creation of another new agency to administer these block grants is unnecessary, believing that the Federal Elections Commission may be the most appropriate federal agency to administer any such federal block grant program.

• NCSL supports federal block grant funding to states for the following broad purposes:

• Improving election technology, systems and ballot design;

• Facilitating voter registration, verification and maintenance of voter rolls;

• Improving the accuracy and security of election procedures and vote counts;

• Educating citizens on representative democracy and election processes and systems;

• Providing greater access to voter registration and polling places especially for rural and disabled voters; and

• Providing training and education opportunities for elections personnel.

Overview of State Election Reform Legislation

On May 4, the Florida legislature passed what is by far the most sweeping election reform proposal passed in the states this year. The Florida bill, SB 1118, contains the following provisions:

• $24 million for new voting systems. The bill bans punch card machines and requires counties to purchase electronic or optical scan precinct-count equipment by 2002. The state will give smaller counties $7,500 per precinct for equipment purchase, and larger counties will get $3,750 per precinct.

• $6 million for counties to conduct voter education and poll worker recruitment and training.

• $2 million for the creation of a statewide voter registration database

The bill also:

• Requires the secretary of state to create a uniform ballot design to be used statewide.

• Requires data collection and reports of voter error (overvotes and undervotes).

• Establishes no-excuse absentee voting.

• Allows for provisional ballots, permitting a voter who claims to be registered but whose eligibility to vote cannot be determined at the polls on election day, to cast a ballot.

• Sets new deadlines for counties to submit election returns to the state.

• Creates uniform recount provisions.

• Requires the secretary of state to develop rules for determining voter intent.

• Creates uniform standards for voting by overseas citizens.

• Requires the secretary of state to set standards for and county election supervisors to implement voter education, including but not limited to registration, polling place and absentee balloting procedures, voter rights and responsibilities, sample ballots, and public service announcements.

• Sets standards for poll worker training.

• Eliminates the run-off primary.

• Requires a study of the feasibility of establishing uniform statewide polling place hours.

Other legislatures around the country have been busy with election reform as well. Nearly 1,600 bills have been introduced to date, and 130 have been signed into law as of May 4, 2001. 1,100 bills are pending in the 32 states where legislatures are still in session.

Some of the highlights of new election laws are:

Voting Systems

• Georgia passed SB 213, which requires the adoption of uniform election equipment throughout the state by 2004. Georgia will conduct a pilot project to test electronic touch-screen voting equipment in the 2001 municipal elections. They have established the 21st Century Voting Commission to oversee the pilot project and to advise the state on the selection of new voting equipment.

• The Maryland General Assembly has passed HB 1457 and SB 833 (both are currently awaiting gubernatorial action), which require the State Board of Elections, in cooperation with local boards of elections, to select and certify a new voting system to be used in all counties in the state. Under the Maryland plan, the state would pay for half the cost of acquiring and operating the new system, and counties would pay the other half.

• Idaho passed H 206 requiring that voting systems meet Federal Election Commission standards and undergo independent testing authorized by the National Association of State Election Directors.

Standards for Counting and Recounting

• Colorado passed SB 132, which expands the time allowed for recounts from 21 to 30 days, and stipulates that ballots must be recounted using the same procedures by which they were originally counted.

• Virginia passed HB 1843 and HB 2849, which require the State Board of Elections to provide standards for determining whether a ballot has or has not been voted for a candidate and for promoting a timely and accurate resolution of recount questions. Virginia also passed SB 986, which sets specific standards for reviewing punch card ballots that are not accepted by a counting machine because chads are not fully separated from the card.

• The Washington Legislature approved HB 1644 (currently awaiting gubernatorial action), which specifies uniform statewide procedures for recounts.

• Kansas passed SB 126, which specifies who pays for recounts in national and statewide races.

Registration

• The Colorado legislature passed HB 1307 (currently awaiting gubernatorial action), providing for the establishment of a computerized registration database.

• Indiana passed a similar measure, HB 1510 (awaiting gubernatorial action), creating an Internet-accessible statewide voter registration file.

• SB 213 in Georgia establishes a new process for removing deceased voters and convicted felons from voter registration lists.

• Kansas passed SB 127, enabling the secretary of state to create within the centralized registration database a category of inactive voters (voters who have failed to vote in two consecutive elections or who have failed to respond to confirmation mailings). The bill also permits county election officials to use Social Security Administration data to remove deceased persons from voter registration lists. Kansas also passed SB 63, requiring the use of the last four digits of voters' social security numbers in registration lists as a way of identifying registered voters.

• Montana passed HB 204, making it easier to remove inactive voters from registration rolls.

• South Dakota passed two bills which will completely revamp their system of voter registration. HB 1252 creates a centralized voter registration database in the secretary of state's office. HB 1009 creates a process for keeping the centralized voter database up-to-date by providing means of removing the names of voters who are deceased, who have been declared mentally incompetent or have been convicted and sentenced for a felony, and who fail to vote, update their registration, and fail to respond to confirmation mailings.

• Virginia passed a package of 11 bills to clean up their registration system.

By far the most common subject of bills this year is the establishment of task forces, study commissions, and interim committees. At least 75 bills proposing studies of election laws have been proposed in 28 states. The intense media and public scrutiny of election laws that has gone on since the drawn-out Presidential election last year has clearly placed pressure on legislatures to act. However, many states are finding that the issue is broader and more complex, and that solutions are more expensive, than they initially thought. Taking some time to study the situation is a pragmatic first step and can help states come to grips with the complexity of the issue. Some of the proposed studies are broad in nature, looking at election procedures as a whole; others are highly specific and propose studies of issues such as Internet voting, voting systems, recount procedures, and poll working training and recruitment. Newly passed legislative measures that propose election reform studies include:

• Georgia passed SB 213, which creates the 21st Century Voting Commission to study voting systems and recommend a new system for the state to adopt by 2004.

• Montana passed HJ 8, commissioning an interim study on election reform.

• Nebraska passed LB 67, which creates a six-member task force to conduct a 2-year study of the election process.

• North Dakota passed HCR 3039, which encourages the secretary of state to establish a committee to study election laws.

• Pennsylvania passed H.R. 14, creating a joint select committee to study the laws, practices and procedures of elections.

• Virginia passed HJ 681 and SJ 363, which create a joint subcommittee to study the state's election process and voting technologies.

1,100 bills are still pending in the 32 states whose legislative sessions haven't yet ended. A few states are considering sweeping election reform bills. These bills encompass everything from registration procedures to announcing election results, and everything in between. Most bills, however, focus on narrower topics. They tend to reflect problems that were highlighted in the 2000 elections, or are modeled after successful programs in other states. These include:

• Absentee voting.
• Ballot design.
• Modernizing voting equipment.
• Standards for counting votes and judging voter intent.
• Recount standards.
• Modifying the Electoral College.
• Poll worker recruitment, training and compensation.
• Registration procedures.
• Requiring voter ID at the polls.
• Alternative voting methods, such as Internet voting and mail ballots.
• Campaign practices.

PREPARED STATEMENT OF THE FEDERAL ELECTION COMMISSION

Mr. Chairman, Senator Hollings, members of the Committee, the Federal Election Commission (FEC) is pleased to submit this testimony for the record in connection with this very important hearing on federal election reform.

There has been considerable discussion about the need for federal assistance to the state and local election administrators responsible for acquiring, installing, operating and maintaining the nation's voting machinery. The 2000 Presidential election raised issues about both the adequacy of voting machines and the standards used by local election officials, who, in some cases, are not trained election administrators. Apparently, there is a general consensus the federal government could provide valuable and timely assistance to the states to improve their election administration. We believe the FEC is well positioned to provide that assistance.

The federal government already has taken steps to help state and local election officials make informed decisions about voting equipment. In response to requests from states for technical assistance, Congress authorized the FEC to develop national Voluntary Voting Systems Standards (VSS) for computer-based systems. These standards, first published in 1990, established minimum performance requirements for reliable voting systems. The FEC has established an Advisory Panel of election officials from around the country to assist with this and other election administration projects.

Despite limited funds, the FEC's Office of Election Administration (OEA) is in the process of updating the existing standards. In fact, the FEC began this modification of VSS in 1999, long before the 2000 election. The FEC plans to release Volume I (Technical Standards) of the updated VSS for public review and comment on June 29, 2001. Volume II (test criteria) will be released for public comment on October 31, 2001, with the FEC issuing the final updated standards (Volumes I and II) on April 12, 2002.

The VSS currently are being used in a national testing effort overseen by the National Association of State Election Directors (NASED), who have established a process for vendors to submit their equipment for evaluation under these national standards. States are free to adopt the VSS. Thirty six states have done so, either wholly or in part. The standards do not dictate a particular type of design for voting equipment; instead they measure the reliability of existing voting equipment, without stifling future innovation.

While establishing the VSS was a useful initial step toward raising the quality of voting systems, the problems in the 2000 election illustrate the need to expand the VSS in two crucial areas. First, the standards should be enhanced to address human interface with the voting system to prevent, for example, a poorly designed ballot from causing confusion at the polling place. Thoughtful and logical ballot layout should use time-tested elements borrowed from the graphic and communication design communities to make voting a more natural, intuitive function. Second, the VSS should be expanded to include certain standards for operation, for example in the area of maintenance. While a machine may meet a particular standard when it is new, repeated use without proper maintenance can render a machine ineffective or useless. Other areas of interest to election officials include operational standards for testing and measuring performance of equipment, acquiring new systems, and security.

In addition to updating and expanding the VSS, the FEC also believes, the federal government should make a sustained commitment to help state and local election officials gather and compare data about the nature of any equipment failures that occur. As numerous witnesses have testified, the lack of consensus among the states about the pros and cons of punch-card, optical scan, and direct recording electronic (DRE) voting systems is fueled, in part, by insufficient comparative data. As members of the technology and design communities have noted, there is no formal mechanism for systematically reporting voting equipment failures. Until there is a national commitment to track the performance of voting equipment over time, voters and election officials will find it difficult to determine whether their jurisdiction's equipment is performing as well as it should.

For the Commission's efforts to update and enhance the existing standards to be successful, there must be participation from the interested public, including election officials and the technology and design communities. The contribution of citizen organizations also will be critical to the ultimate success of the standards. Setting standards essentially is a matter of identifying what works and what does not. And, it emanates from the collective experience of vendors and purchasers, of experts and end users.

With several Senate and House hearings held this week to address voting technology and election reform issues, we hope Congress will continue to examine how

the federal government can contribute to improving election systems nationwide. Coupled with an on-going commitment to gathering data on actual voting equipment performance, up-to-date standards can go a long way toward ensuring the quality of voting systems, while still allowing innovation and improvement to occur.

The FEC believes an objective, comprehensive approach is the best solution to the current issues about federal election administration. While an immediate response might be for Congress to provide federal funds to acquire new voting machinery, that approach alone would not address the establishment of ballot design standards and operation standards for testing and performance measurement of voting equipment, maintenance, acquisition procedures for voting systems, and system security practices.

The FEC has submitted a proposal to Congress which is designed to accomplish the objectives noted in this testimony as noted by several witnesses. We believe the most efficient way to accomplish these objectives for improving the nation's voting systems is to buildupon the work begun by the FEC's OEA. Any federal initiatives to improve election administration should be located at the FEC, both to leverage existing expertise and to build on existing relationships with state and local election officials. This is a critical advantage if swift and meaningful assistance to state and local officials is sought for future elections.

We have submitted for the record a copy of the Federal Election Commission's proposal for an enhanced FEC/OEA mission. It was prepared in response to the numerous calls for reform of election administration. This enhanced support for OEA is sought to assist state and local election administrators to develop election administration standards and guidelines.

We also submit for the hearing record various resolutions in support of the FEC's enhanced OEA budget request. Organizations that have adopted resolutions are:

- The Election Center.
- The National Association of State Election Directors.
- The National Association of Secretaries of State.
- The International Association of Clerks, Recorders, Election Officials and Treasurers.
- The Council of State Governments.
- The National Conference of State Legislatures.
- The National Association of Counties and the National Association of County Recorders, Elections Officials and Clerks.

We thank the Chairman and members of this committee for holding this hearing. The FEC welcomes any questions you may have.

January 31, 2001.

Hon. RICHARD B. CHENEY, *President of the Senate.*
S-212, the Capitol, Washington, DC 20510

DEAR MR. VICE PRESIDENT: The Federal Election Commission herewith transmits a supplemental fiscal year 2001 request for additional funds.

Specifically, the FEC is requesting $3 million in no-year funds and 3 FTE (6 staff for 50 percent of 2001). This proposal would provide for an enhancement of the FEC Office of Election Administration (OEA) mission. It is in response to the numerous calls for reform of election administration. This enhanced support for OEA is sought to assist state and local election administrators, who are responsible for administering federal elections, to develop election administration standards and guidelines. The FEC's current fiscal year 2001 funding level will not support this effort.

A copy of the formal supplemental budget request is enclosed.

Sincerely,

DANNY LEE MCDONALD,
Chairman.
DAVID M. MASON,
Chairman, Finance Committee.

FEDERAL ELECTION COMMISSION FISCAL YEAR 2001 SUPPLEMENTAL REQUEST

Pursuant to our authority as a concurrent submission agency, the Federal Election Commission (FEC) is seeking a fiscal year 2001 Supplemental Appropriation request for $3 million dollars in no-year funds (i.e., funds that would be available beyond September 30, 2001) and 3 FTE staff (6 staff for 50 percent of fiscal year 2001). This proposal for supplemental funding in fiscal year 2001 would provide for an enhancement of the FEC Office of Election Administration (OEA) mission. It is

in response to the numerous calls for reform of election administration. This enhanced support for OEA is sought to better assist state and local election administrators who are responsible for administering federal elections to develop operational standards.

There has been considerable discussion of the need for federal assistance to the state and local election administrators responsible for acquiring, installing, operating and maintaining the nation's electoral machinery. The 2000 Presidential election raised issues with regard to both the adequacy of the voting machines and the standards, or lack thereof, used by local election officials, who in some cases are elected political officials and are not necessarily trained election administrators.

FEC ROLE

OEA was created under 2 U.S.C. § 438(a)(10), which mandates that the Federal Election Commission serve as a national clearinghouse with respect to the administration of federal elections. The FEC has staffed OEA with recognized election experts who have extensive experience in election administration. Moreover, the FEC's Commissioners are themselves well-versed in a variety of issues that confront election administrators. Prior to their service at the FEC, several Commissioners had substantial experience in election administration and other election issues, including selecting and testing voting equipment for both urban and rural areas, supervising the resolution of contested Congressional elections, and practicing election law in the area of recounts. Federal initiatives in improving election administration should be located at the FEC to leverage this expertise and to build on existing relationships with state and local election officials. This is a critical advantage if rapid action is desired and if meaningful assistance to state and local officials is to be provided for future elections. The proposal also avoids creating any new, duplicative bureaucracy.

The OEA staff serves as an objective moderator, brokering the interests of issue groups such as the disabled community with the interests of election officials and political office holders. They have experience working with the vendors of voting machines as well as with the election officials and state officers responsible for acquiring and operating voting machinery. OEA has worked with many groups of election officials and has chaired numerous meetings with election administrators to address a variety of issues, including polling place accessibility, Internet voting, and the Voting System Standards. OEA has participated in the implementation of federal initiatives in election administration, such as the Polling Place Accessibility for the Elderly and Handicapped Act and the National Voter Registration Act ("Motor Voter"), and has been engaged in a multiyear project to revise voluntary Voting Systems Standards (VSS), which represent technical standards for voting equipment. As a result of these efforts, OEA has gained the confidence of the election community by working closely with local and state officials on these collaborative efforts.

FEC PROPOSAL

An objective, comprehensive approach is the best solution to the current issues regarding administering federal elections. The FEC proposal is designed to address both short-term and long-term issues. While an immediate response might be to provide federal funds to acquire new voting machinery, that approach would not address the establishment of operational standards for the testing and performance measurement of voting equipment, acquisition procedures for voting systems, system security practices, and ballot preparation and design.

The FEC proposal is designed to accomplish five objectives:

• Enhance the existing voluntary voting system performance standards (VSS) that provide election officials with testing and measurement criteria to verify the performance, accuracy, reliability, and security of election systems. The VSS are currently being updated by OEA, with completion expected by the end of calendar year 2001 (funded with existing fiscal year 2001 money). The enhancements would expand existing standards and test criteria to address design/performance features that optimize ease of use and minimize voter confusion.

• Extend the scope of the voluntary standards beyond testing and measurement to include operational standards for acquisition, installation, testing, training, administration and maintenance of both existing and new automated voting systems. Develop standards for other management issues such as planning for and administering elections; system security practices; ballot design and preparation; public education; contested elections; and recounts. Provide up to date information and assistance for issues such as ballot access, reprecincting, and absentee and early voting. Establish and disseminate information on best practices in election administration.

• Complete a census of existing election systems.

• Identify the needs and resource requirements of local and state election officials, to assure that the most pressing needs are addressed, and that best practices are widely disseminated.

• Design grant program criteria by which federal funds could be distributed to state and local jurisdictions should Congress decide to provide funds for the replacement of voting systems or for other election administration needs.

The most efficient way to meet these objectives to improve the nation's voting systems is to buildupon the work already accomplished by the FEC's OEA. Ongoing funding will be required in future years to ensure that all aspects of the VSS are kept up-to-date.

FY 2001 SUPPLEMENTAL PROPOSAL

This supplemental proposal requests $3.0 million in no-year funds. Work would begin on enhancing the VSS (beyond the update of the VSS funded by existing fiscal year 2001 funds) and on developing the operational standards in fiscal year 2001. The gathering of information regarding the needs and resource requirements of state and local election officials and the development of the proposals for research would occur in fiscal year 2001. In addition to any supplemental funds remaining after fiscal year 2001, the fiscal year 2002 and later Budget Requests would contain funds for continuing work on the operational standards and for a comprehensive educational and information outreach program to widely disseminate the enhanced VSS, the operational standards, and other OEA elections administration efforts. Finally, if Congress determines to enact a grant program to provide federal financial assistance to state and local election officials, OEA would administer the grant program.

The $3.0 million would be spent as follows:

1. Development of Election Operations Standards—$1,100,000. Enhance and expand the VSS standards to establish operational standards for the procurement, installation, testing, operation, and maintenance of voting systems; develop standards for system security, ballot design and preparation, public education, training, polling place access and absentee processes. These new standards would focus on election planning and the vote tabulation process and would be designed to assist election officials in correctly setting up and operating the voting systems during elections. Some of this money also would be used to expand the existing qualification test criteria to address design/performance features that optimize ease of use and minimize voter confusion. The standards would be consolidated in a best practices in election administration document.

2. Update and Develop OEA Publications—$300,000. Update and develop publications addressing current election issues, including elections and recounts, absentee/early voting options, and contested elections. The FEC also would explore developing models for administering elections, and models for ballot design, as well as models governing the conduct of elections and the counting of votes. The emphasis of this project would be to disseminate needed information to local election officials and provide extensive training opportunities. In future FYs, OEA staff and contractors would conduct workshops at various locations to present the materials and models and to provide training sessions for state and local officials on best practices in elections administration. The scope of the outreach and training envisioned is far beyond the ability of OEA within the limits of current funding levels and would be part of the additional funding requested for these projects in fiscal year 2002.

3. Identify Needs and Resource Requirements of Local and State Election Officials—$450,000. A major portion of these funds would be used for OEA to meet with state and local election officials to determine their resource requirements and to obtain their guidance on election policy issues that can be incorporated into the development of election operations standards. In addition to its existing Advisory Panel of State and local election officials, OEA would also consult with groups such as the National Association of State Election Directors (NASED), National Association of Secretaries of State (NASS), International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT), and the Election Center to ensure that there is broad participation and support for the development of new standards or proposed best practices and model procedures. This initiative would allow election officials to compare and share solutions for election problems developed by other election jurisdictions and officials.

4. Design Grant Program Criteria to Provide Federal Funds to State and Local Jurisdictions—$500,000. This project would establish an OEA data base on the election systems in use in all local jurisdictions. This would allow estimates to be developed for the cost of replacing existing voting systems nationwide with systems that

meet the standards for improved performance. The FEC would recommend to Congress a grant program, including proposed criteria for the distribution of funds. If a grant program were established, the funds to cover the grants would be sought in future budgets.

5. Additional OEA staff—$650,000. Funding would be used to hire 3.0 additional FTE (6 staff for 50 percent of fiscal year 2001): a Senior Level Administrator; 2 project managers to administer the project; a technical position to provide technical advice on the contracts and assist with the workshops; a conference and workshop planner and coordinator; and one clerical position employee. The six additional staff would cost $262,000 in fiscal year 2001. The remaining $388,000 would be used to support the conferences for consultation with state and local election administrators. Estimated budget:

Personnel—$262,000
Travel—$100,000
Printing—$125,000
Postage—$ 25,000
Conference expenses—$ 50,000
Equipment, etc.—$ 63,000
Rent $25,000

The requested travel and printing in fiscal year 2002 and future years would be used to disseminate the new standards to state and local election officials through a series of workshops starting in fiscal year 2002. OEA anticipates holding a conference in fiscal year 2002 to introduce the updated VSS to election officials.

FY 2001 VSS PROJECTS AND FISCAL YEAR 2002 FUNDING

The projects proposed above are in addition to the current VSS updates that OEA plans to complete by December 2001. Budgeted fiscal year 2001 funds will be used to enhance the current VSS and to hold Advisory Panel meetings on the VSS updates, as well as to consult with elections officials in initiating the development of operational standards. In fiscal year 2002, OEA will hold a conference to introduce the revised VSS to the election administration community. When the operational standards are completed, fiscal year 2002 funds will be used to undertake a comprehensive educational outreach program to widely and aggressively disseminate the new standards.

In sum, the proposed course of action is as follows: complete VSS updates with current fiscal year 2001 funds; use the fiscal year 2001 Supplemental (no-year funds) to expand VSS technical standards and develop operational standards, undertake an assessment of elections administration resources and a census of current elections systems, and design grant program criteria; complete the operational standards and initiate comprehensive educational and dissemination program in fiscal year 2002 (with some of the no-year fiscal year 2001 funds and the funds requested in the Full fiscal year 2002 Budget); and implement any enacted grant program in fiscal year 2002 and future fiscal years.

FEDERAL ELECTION COMMISSION
WASHINGTON, D.C. 20463

OFFICE OF THE CHAIRMAN

March 27, 2001

The Honorable Richard B. Cheney
President of the Senate
United States Senate
S-212, the Capitol
Washington, D.C. 20510

Dear Mr. Vice President:

Pursuant to provisions of the Federal Election Campaign Act (FECA), the Federal Election Commission (FEC) herewith transmits its FY 2002 Budget Request of $47,671,000 and 375 FTE for consideration by Congress. This budget request is submitted concurrently to the Office of Management and Budget. See 2 U.S.C. §437d(d).

While the FEC is aware of the general budgetary climate, and has striven to reach agreement with OMB on our budget request, we did not reach agreement for the FY 2002 request. Therefore, we must independently make a special appeal to pursue the staff and resources necessary to fulfill our statutory mission. And, depending upon the scope of campaign finance reform legislation under consideration, the FEC could face significant additional resource needs.

Our request is $6,260,000 and 18 FTE greater than the amount included in the OMB's recommendation of $41,411,000 and 357 FTE. The OMB budget for the FEC is inadequate to fund operations even at the Current Services level because no provision is made for increases in non-salary costs, and it fails to fully cover mandatory pay and health benefit increases. Our estimate of the cost of a true Current Services level for FY 2002 is $42,797,500 for 357 FTE. In addition, by freezing non-salary cost levels, the OMB budget would foreclose the opportunity for the FEC to assist state and local election officials to develop operational standards to address a variety of election administration issues.

Our request represents a continuation of funding from FY 2001, as accurately adjusted to cover inflation, federal COLAs, and the cost of implementing our Information Technology (IT) Strategic Plan. In addition to such Current Services level, we are requesting $4,873,500 and 18 FTE for programmatic increases in FY 2002, which includes resources to enhance the Office of Election Administration (OEA) mission.

These initiatives would enhance the existing and planned Voting Systems Standards (VSS) and address other election administration issues, including acquisition of new voting systems, administering elections, training election workers, ballot design, and public education.

Furthermore, this budget request will allow the FEC to build upon the many accomplishments made in the past several fiscal years. A number of initiatives were a direct response to the PricewaterhouseCoopers Technology and Performance Audit and Management Review of the FEC ("the PwC Audit"). Several other initiatives were undertaken by the Commission to improve productivity and better utilize resources or were in response to legislative requirements. Significant FEC successes include:

- Mandatory Electronic Filing Program. The first mandatory electronic filings were received for the monthly reports due on February 20, 2001. Of the 605 reports received for the February 20 filing, 440 reports were filed electronically. Only one committee required to file electronically submitted a paper report. More than 1,000 committees filed electronically during the 2000 election cycle under the voluntary electronic filing program.

- Administrative Fine Program. This program was implemented with the July Quarterly Reports due on July 15, 2000. As of March 12, 2001, the Commission has made public its final determination in 48 cases and has collected civil money penalties totaling $63,230. In addition, the percentage of reports filed late in the later stages of the 1999-2000 election cycle decreased when compared with the two previous election cycles. For example, 11% of the 2000 Year-End Reports were filed late, while 24% were filed late for the 1998 and 22% for the 1996 Year-End reporting periods.

- Campaign Cycle Reporting. The new rules became effective for the reporting periods beginning after December 31, 2000. Corresponding revisions to the reporting forms went into effect at the beginning of this year. These news rules simplify candidate committee record-keeping and increase the usefulness of the disclosure database.

- Implementation of a state filing waiver program. This program allows state election offices to apply for and receive a waiver for maintaining paper copies of reports at state offices, by making the FEC reports available online. The FEC provides states with surplus computer equipment. This program relieves state offices of filing and maintenance burdens, relieves committees of duplicative state filing, and maintains or increases the level of state disclosure. The new rules to implement this program took effect on June 7, 2000. To date, 47 states or similar jurisdictions have been granted a filing waiver and are therefore included in the program.

- Development of a pilot Alternative Dispute Resolution (ADR) program. This program promotes compliance with the FECA by encouraging settlements for eligible respondents in lieu of the traditional enforcement or litigation processes. The program began on October 1, 2000. As of March 1, 2001, the ADR Office concluded eight agreements based on seven complaints filed with the Commission. Settlements were obtained in an average of 91 days from the time matters were referred to the ADR Office. Civil penalties from the eight agreements totaled approximately $17,800.

- Establishment of a program to allow the agency to focus more resources on the Title 2 audit-for-cause program. Commencing with the audits of the 2000 cycle candidate committees, we plan to conduct 40-45 Title 2 "for cause" audits per election cycle as opposed to an average of 20-25 over the three election cycles from 1992-1996. While we increased the Title 2 audits in the 1998 cycle, the 2000 cycle represents the first time the FEC has a true "stand alone" Title 2 audit capability that will not lose most of its resources to the statutory Title 26 audits during presidential election cycles.

- Implementation of the Case Management System (CMS) in OGC, after completing an extensive design and development process, making the system operational. This included extensive training and input of legacy data into the system. The CMS will now provide case tracking, case management, and time reporting for OGC programs.

- Over the last several years the Commission has embarked on an effort to improve timeliness of enforcement actions, and to increase the percentage of the caseload actively worked. To augment its traditional enforcement efforts, the Commission has implemented an ADR Program, an administrative fine program, case management, and an Enforcement Priority System (EPS). The goal of all initiatives has been to focus limited enforcement resources on the more substantive cases, to increase the percentage of cases activated, and to improve the ratio of cases closed with substantive Commission action compared to those dismissed with no action. As a result there were significant improvements in enforcement in recent FY's: Over 50 percent of cases were activated (FY 1998-2000), an improvement over the average of 40 percent from FY 1995-1997; the ratio of active to inactive pending cases on average improved to over 50 percent in FY 1999; and, a dramatic increase in cases closed with substantive action, from roughly 40 percent in FY 1999 to approximately 75 percent in FY 2000.

- The Commission successfully completed revisions to the FEC regulations to permit the institution of the voluntary, then the mandatory, electronic filing program; the administrative fine program; election cycle reporting; state filing waiver program; and the coordination rules.

- Migration of the FEC legacy databases to new, Y2K compliant technology through a newly procured IT contract for basic IT services.

- Continuation of the migration of FEC IT systems to a client server environment, and building the technological foundation for the client server system.

The Commission also transmits its FY 1999-2000 Performance Report, its revised FY 2001-2007 Information Technology Strategic Plan, its FY 2001-2007 Strategic Plan, and its FY 2002 Performance Plan, in accordance with the Government Performance and Results Act (GPRA). In addition, included in the submission is our most recent status report to Congress on the PricewaterhouseCoopers recommendations. The foregoing summarizes the FEC FY 2002 budget request. I urge you to consult our more detailed Budget Justification. It contains several charts depicting how our budget request would be allocated and how it compares with previous years.

Again, the Commission strongly urges the full support of our FY 2002 budget request. We are ready to answer any questions you may have and to work with you in securing sufficient funding for the Commission in FY 2002.

Sincerely,

Danny L. McDonald
Chairman

National Association of State Election Directors
Resolution in Support of Federal Election Commission
Appropriation Request

Adopted February 4, 2001

WHEREAS, the National Association of State Election Directors acknowledges the important role that the Office of Election Administration of the Federal Election Commission plays in elections in the United States;

WHEREAS, the Office of Election Administration assists state and local election officials as a national clearinghouse for election administration;

WHEREAS, there is a need to accelerate the updating of the Voluntary Federal Voting System Standards that were published in 1989;

WHEREAS, voluntary standards should be developed to address operational functions associated with voting systems, including such functions as acquisition, installation, testing, training, administration, and maintenance of existing and new systems;

WHEREAS, the Federal Election Commission has submitted a funding request to Congress for the Office of Election Administration that includes a $3 million supplemental appropriation and $2.5 million appropriation increase for FY 02.

Now, THEREFORE BE IT RESOLVED that the National Association of State Elections Directors supports the budget request for the Office of Election Administration submitted by the Federal Election Commission to update the Voluntary Federal Voting System Standards and to develop additional operational standards for new and existing voting systems.

BE IT FURTHER RESOLVED that the National Association of State Election Directors urges Congress to appropriate the supplemental funding at the earliest possible time.

BE IT FURTHER RESOLVED that the National Association of State Election Directors by adoption of this resolution neither supports nor opposes the retention of the Office of Election Administration within the Federal Election Commission.

Ann McGeehan, President

Secretariat:
The Council of State Governments
444 North Capitol Street, N.W. Suite #401, Washington DC 20001
Phone (202) 624-5460 • Fax (202) 624-5452 • E-mail: dscott@csg.org • www.nased.org

National Association of Secretaries of State
Resolution to Support the FEC Budget Requests

Adopted February 6, 2001

WHEREAS, the National Association of Secretaries of State acknowledge the important role that the Office of Election Administration of the Federal Election Commission plays in elections in the United States;

WHEREAS, the Office of Election Administration assists state and local election officials as a national clearinghouse for election administration;

WHEREAS, there is a need for an update to the Voluntary Federal Voting System Standards;

WHEREAS, standards should be developed to address operational standards for acquisition, installation, testing, training, administration, and maintenance of existing and new systems;

WHEREAS, the Federal Election Commission has submitted a funding request to Congress to update the voluntary voting system performance standard;

Now, THEREFORE BE IT RESOLVED that the National Association of Secretaries of State supports the budget request of the Office of Election Administration of the Federal Election Commission to update the Voluntary Federal Voting System Standards and to develop additional standards for new and existing voting systems.

Hall of States, 444 N. Capitol Street, N.W., Suite 401, Washington, DC 20001
(202) 624-3525 (202)624-3527 Fax
www.nass.org

RESOLUTION

(Federal Election Commission)

WHEREAS, the American electoral process has come under the most intense scrutiny ever in the wake of the 2000 Presidential Election;

WHEREAS, every facet of the American electoral process is a subject for discussion, from ballot preparation to ballot accessibility, from poll worker training to the schooling of election administrators, from the counting of ballots to the non-counting of ballots;

WHEREAS, a restoration of the American voters faith in the electoral process is of immediate and tantamount importance;

WHEREAS, federal legislation addressing election reform continues to grow in number and scope each day, producing theories, solutions and remedies;

WHEREAS, programs are now in place that have the ability to offer insight into the concerns brought on by the Presidential Election, such as the Federal Election Commission's Office of Election Administration;

AND WHEREAS, the Federal Election Commission's Office of Election Administration, has long been a non-partisan resource for state and local election officials through its 20-member Advisory Panel, through its periodicals on all facets of election administration and through its pioneering of voting system standards;

BE IT THEREFORE RESOLVED THAT:

The International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT), in one voice from its 1500 members nationwide, endorses Congressional legislation intended to study election reform;

AND FURTHER, asks Congress to utilize the resources in place through the Federal Election Commission's Office of Election Administration, its vast amount of archived data on election administration and the expertise readily available through its Advisory Panel;

AND FURTHER, asks Congress, through its proposed federal legislation on election reform, to expand the resources of the Office of Election Administration in budget and staff, enabling the OEA to bring about the reform that the nation now awaits;

AND FURTHER, that IACREOT stands ready as a resource organization to assist Congress in any study of election reform proposed by the new Congress, and its members are available individually to answer any and all questions.

APPROVED AND ADOPTED on this 20th day of January, 2001, at the Mid-Winter Meeting of the International Association of Clerks, Recorders, Election Officials and Treasurers, in Billings, Montana.

Gerald A. Gibson, President

Robert Parten, Secretary

The Council of
State Governments
Washington Office

General Counsel & Director
Jim Brown

President
Governor, Dirk Kempthorne, ID

Chair
Senator Manny Aragon, NM

Executive Director
Daniel M. Sprague

Washington Office
Hall of the States
444 N. Capitol Street, N.W.
Suite 401
Washington, DC 20001
(202) 624-5460
FAX (202) 624-5452
E-mail: dcinfo@csg.org

Headquarters Office
2760 Research Park Drive
P.O. Box 11910
Lexington, KY 40578-1910
(859) 244-8000
FAX (859) 244-8001
E-mail: info@csg.org
Internet: www.csg.org

Eastern Office
5 World Trade Center
Suite 9241
New York, NY 10048
(212) 912-0128
E-mail: csge@csg.org

Midwestern Office
641 E. Butterfield Road
Suite 401
Lombard, IL 60148
(630) 810-0210
E-mail: csgm@csg.org

Southern Office
3385 Lenox Road
Suite 1050
Atlanta, GA 30326
(404) 266-1271
E-mail: slc@csg.org

Western Office
121 Second Street
4th Floor
San Francisco, CA 94105
(415) 974-6422
E-mail: csgw@csg.org
Denver, CO
(303) 572-5454

CSG EXECUTIVE COMMITTTEE

RESOLUTION

IN SUPPORT OF FEDERAL ELECTION COMMISSION APPROPRIATION REQUEST

WHEREAS, the National Association of State Election Directors acknowledges the important role that the Office of Election Administration of the Federal Election Commission plays in elections in the United States;

WHEREAS, the Office of Election Administration assists state and local election officials as a national clearinghouse for election administration;

WHEREAS, there is a need to accelerate the updating of the Voluntary Federal Voting System Standards that were published in 1989;

WHEREAS, voluntary standards should be developed to address operational functions associated with voting systems, including such functions as acquisition, installation, testing, training, administration, and maintenance of existing and new systems; and

WHEREAS, the Federal Election Commission has submitted a funding request to Congress for the Office of Election Administration that includes a $3 million supplemental appropriation and $2.5 million appropriation increase for FY 02.

NOW THEREFORE BE IT RESOLVED that the Council of State Governments supports the budget request for the Office of Election Administration submitted by the Federal Election Commission to update the Voluntary Federal Voting System Standards and to develop additional operational standards for new and existing voting systems.

BE IT FURTHER RESOLVED that the Council of State Governments urges Congress to appropriate the supplemental funding at the earliest possible time.

BE IT FURTHER RESOLVED that the Council of State Governments by adoption of this resolution neither supports nor opposes the retention of the Office of Election Administration within the Federal Election Commission.

Adopted this 7th Day of April, 2001 at the
CSG Spring Task Force and Committees Meetings
In Santa Fe, New Mexico

State Senator Manny Aragon, New Mexico
CSG Chair

The Council of
State Governments
Washington Office

General Counsel & Director
Jim Brown

President
Governor, Dirk Kempthorne, ID

Chair
e Senator Manny Aragon, NM

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Washington Office
Hall of the States
444 N. Capitol Street, N.W.
Suite 401
Washington, DC 20001
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FAX (202) 624-5452
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Headquarters Office
2760 Research Park Drive
P.O. Box 11910
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Internet: www.csg.org

Eastern Office
5 World Trade Center
Suite 9241
New York, NY 10048
(212) 912-0128
E-mail: csge@csg.org

Midwestern Office
641 S. Butterfield Road
Suite 401
Lombard, IL 60148
(630) 810-0210
E-mail: csgm@csg.org

Southern Office
3355 Lenox Road
Suite 1050
Atlanta, GA 30326
(404) 266-1271
E-mail: sic@csg.org

Western Office
121 Second Street
4th Floor
San Francisco, CA 94105
(415) 974-5422
E-mail: csgw@csg.org
Denver, CO
(303) 572-5454

CSG EXECUTIVE COMMITTEE

RESOLUTION ON

VOTING EQUIPMENT STANDARDS

WHEREAS, reliable and accurate voting equipment is necessary to insure an accurate and fair election in every state and territory;

WHEREAS, every state, territory, or local government will benefit from a set of technical standards for durability and accuracy against which to judge the voting equipment they purchase;

WHEREAS, the Federal Election Commission's Office of Election Administration established core standards for accuracy and durability in 1990;

WHEREAS, states were invited to adopt these standards voluntarily; and

WHEREAS, the National Association of State Election Directors, the Federal Election Commission's Office of Election Administration, and The Election Center have worked jointly over the past decade to implement the vision of a national voluntary testing program for election equipment; and

WHEREAS, 32 states have voluntarily adopted some form of state-wide testing program which election equipment must pass prior to purchase, many incorporating the Independent Testing Authority program of NASED.

THEREFORE BE IT RESOLVED that The Council of State Governments strongly encourages every state to adopt some sort of mandatory testing program for election equipment in order to insure to the greatest extent possible that the equipment, and equipment support, will be of the highest quality to insure the quality and accuracy of the election process.

Adopted this 7th Day of April, 2001 at the
CSG Spring Task Force and Committees Meetings
In Santa Fe, New Mexico

State Senator Manny Aragon, New Mexico
CSG Chair

LAW AND JUSTICE COMMITTEE

NCSL Special Task Force on Elections Reform
Final Recommendations
May 7, 2001

1. NCSL acknowledges that a national debate on election reform has begun and that any Congressionally mandated changes in election processes necessarily will impact state and local elections. The NCSL Task Force recognizes that state law controls the processes and the administration of matters pertaining to federal, state, and local elections. It logically follows that NCSL, as the national voice of the various state legislatures, should be at the center of this national debate.

2. NCSL finds that most of the significant federal legislation introduced in the 107th Congress contains guidelines for the formation of an election commission or task force to examine election issues and to develop guidelines or mandates for federal elections which necessarily will affect state and local elections. NCSL recognizes Congress' desire to have a voice in the national debate on election reform and understands the formation of a federal commission or task force to provide such a voice may be inevitable. NCSL believes that it must be an equal partner within any such federal commission or task force because this effort must be a partnership among federal, state, and local officials.

   Should Congress move forward with election reform legislation that requires the formation of a federal commission or task force to examine election reform issues in the states, NCSL will lend its support to such effort only if state legislators are included in the composition of any such commission or task force.

3. NCSL acknowledges that, due to events surrounding the last presidential election, public confidence in the election process must be restored. NCSL recognizes that states may need federal block grant funding to assist in the implementation of new and innovative election reform procedures. NCSL also believes that such funding should be based on broad principles, not upon specific mandates which would lead to a "one size fits all" approach to

elections. Therefore, NCSL supports a block grant formula which awards money to states for broad-based purposes dealing with election reform, and opposes any funding mechanism, which seeks to mandate specific requirements on the states.

4. NCSL is of the opinion that the creation of another new agency to administer these block grants is unnecessary, believing that the Federal Elections Commission may be the most appropriate federal agency to administer any such federal block grant program.

5. NCSL supports federal block grant funding to states for the following broad purposes:

- Improving election technology, systems and ballot design;
- Facilitating voter registration, verification and maintenance of voter rolls;
- Improving the accuracy and security of election procedures and vote counts;
- Educating citizens on representative democracy and election processes and systems;
- Providing greater access to voter registration and polling places especially for rural and disabled voters; and
- Providing training and education opportunities for elections personnel.

Excerpt from the Report of the NACO/NACRC Commission on Election Standards And Reform, 2001

Funding for administration (program 2) should be distributed to local election jurisdictions based upon measures of election activity and financial need[i]. This money would come in every year without application.

We recommend that eligibility for either program be contingent upon a state having on file with its chief election officer a plan for providing equal opportunity to its citizens to vote and have their votes counted.

For assistance with mailing (program 3) the Commission has adopted recommendations of the National Association of Secretaries of State which would create a new "Elections Class" of postage which will be rated at 50 percent of the rate of first class mail and include all entitlements and services of the first class mail designation.[ii] And further, that if the Postal Service changes the name or resignation of first class mail that the Elections Class will automatically be tied to any successors of what is not termed first class mail.

Research and dissemination of information. The FEC Office of Election Administration already has the responsibilities to conduct or sponsor research on the administration of elections and to disseminate information. We recommend increased funding for these functions. We also recommend that the Office undertake the following projects:

- An immediate completion of the update and continuing maintenance of Federal Voting Systems Standards.
- Research on vote residuals associated with different voting systems,
- Research on the ways in which voting equipment does or does not accommodate various disabilities.
- Research on best operational practices for election and voter registration offices,
- Creation of a central repository of information on voting equipment problems and solutions reported by election officials.
- Evaluation of the practicality of demonstrating the use of voting equipment in the polling place by such devices as continuous loop video.
- Collection and dissemination for use by state and local offices of educational materials for key audiences, e.g. voters, the press, poll workers, election officials.

Administration. Administration and awarding of grants should be separate from any agency that has enforcement responsibilities for compliance with voting and elections laws. Responsibility for these programs should lie with the Office of Elections Administration whether it remains with the FEC or is made a separate agency.

Military and overseas voting. Fourteen states count military/overseas ballots received after the election as long as they are postmarked on or before election day. The problem is that some ballots arrive without postmarks or with illegible postmarks. While this problem is not unique to the military, we recommend that the Department of Defense address the issue to reduce future confusion over the counting insofar as possible.

Resolutions of the Election Center Elections Reform Task Force

(Note: The following resolutions were passed by the full Task Force on February 7, 2001, at its meeting in Savannah, Ga. They are included here with reports of Task Force subcommittees for reporting purposes but did not originate from a subcommittee.)

OFFICE OF ELECTIONS ADMINISTRATION (OEA)

Task Force supports a supplemental appropriation to the OEA (or a successor agency) in the current fiscal year for the purposes of accelerating the update of the NASED Voting Systems Technical Standards, and beginning the development of management standards and operational procedures.

The OEA should be adequately funded and staffed on an ongoing basis consistent with its mission to provide support to elections administrators through the development and maintenance of technical and operational standards, studies, reports, statistical data collection and dissemination, technical assistance and the solicitation and collection of best practices from around the nation.

The OEA should be specifically acknowledged in federal law along with the position of director of the OEA and the Advisory Panel of State and Local Election Officials.

FEDERAL VOTER ASSISTANCE PROGRAM (FVAP)

The Federal Voter Assistance Program (or a successor agency) should be adequately funded and staffed to provide support and assistance to both voters and local elections officials in assuring the voting rights of military and overseas Americans are protected and exercised in a timely and complete manner. A formalized process for input of local elections officials should be developed similar to the current process used with the OEA.

FEDERAL LEGISLATION

Task Force supports separation of the issues of Campaign Finance Reform and Elections Administration Reform in Congressional legislation.

Any federal funds that may be appropriated for the election system should be appropriated to the states with provisions for equitable treatment of all states. Such funds should be available on a matching basis of not more than 25% local match, with provisions for no match grants in areas of economic hardship.

Any program that provides federal funds should recognize that funds can be used for purposes of improving the elections system for the benefit of America's voters including, but not limited to management and administrative improvements, training, operational improvements, voter registration improvements and equipment purchases and upgrades.

JOHN T. WILLIS
SECRETARY OF STATE

STATE OF MARYLAND
OFFICE OF THE SECRETARY OF STATE

May 15, 2001

The Honorable John McCain
241 Russell Senate Office Building
United States Senate
Washington DC 20510

Dear Senator McCain:

It was a pleasure to appear before the Senate Commerce, Science, and Technology Committee hearing on May 8, 2000 to discuss solutions to the problems highlighted by the 2000 elections. Your efforts to ensure that the momentum for election reform continues in the United States Congress are commendable and significant. In addition to some of the solutions outlined in my written statement and the enclosed Summary, I have taken the opportunity to respond in this letter to some of your questions and reactions during the hearing.

As I stated in my written and oral testimony, the federal government should provide financial assistance in a cooperative partnership with the state and local officials responsible for the administration of elections. An annual appropriation from the U.S. Congress to each state of $1.00 per individual of voting age to assist in the necessary improvements of the voting systems, equipment, and procedures used in the conduct of elections is suggested as reasonable and appropriate. Any federal funds authorized for these purposes can be conditioned on meeting certain standards (as you suggested) such as the adoption and implementation of the existing and updated Voluntary Federal Voting System Standards. Federal funds should also be allowed to reimburse those states which make improvements to equipment, voting systems, and election procedures after January 1, 2001.

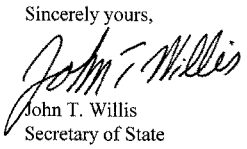
Another appropriate role of the federal government in election reform would be providing funds for the research and development of technology to be used in voting systems, voter registration databases, and election related equipment and for the testing of voting systems and equipment. Local jurisdictions, and most states, do not have the financial or technical resources to conduct the required research and development and thoroughly test the technology proposed for use in the election process. As voting system technology evolves, federal funding for the continuous updating of the Voluntary Federal Voting Systems Standards is also critical.

As you noted during the hearing, there are great disparities in the voting systems used across the country, with poorer and more rural counties often having antiquated and unreliable voting systems. The point I was endeavoring to make during the hearing about Montgomery County, Maryland, was that even an affluent, educated, urban/suburban county will experience difficulties with an old, central count punchcard voting system. Voting systems **do** make a difference in the accuracy of recording the preferences of the citizen-voters.

Not only are there disparities in the quality of voting systems among jurisdictions but these disparities are often magnified by the higher per voter cost of elections and voting systems paid by poorer and rural jurisdictions compared to the per voter costs paid by larger, wealthier suburban and urban jurisdictions. The Maryland Special Committee on Voting Systems and Elections Procedures found that smaller, more rural counties pay significantly more per voting age population than the larger, suburban counties and recommended legislation, recently enacted, that allows for the selection and statewide procurement of a voting system, where economies of scale can be achieved and cost disparities among jurisdictions can be reduced. With the anticipated technological advancements in voting systems and equipment, Maryland is likely to be leasing its uniform statewide voting system which will also lower costs for the state and counties in the short term.

Because the current discussion on election reform is centered on the most important relationship under our constitutional structure of government – the relationship between individual citizens and their representatives in government, your efforts to secure Congressional action are greatly appreciated. Should you have any further questions about my comments and the materials submitted or if I can be of any assistance to the Senate Commerce Committee, please do not hesitate to contact me.

Sincerely yours,



John T. Willis
Secretary of State

SUMMARY OF PROPOSED ELECTION REFORM SOLUTIONS

Recommendations for the U.S. Congress

1. Annual appropriation from the U.S. Congress to each state of $1.00 per individual of voting age to assist in the necessary improvements of the equipment, voting systems, and procedures used in the conduct of federal, state, and local elections.

    - Allow federal funds to reimburse those states which make improvements to equipment, voting systems, and procedures after January 1, 2001.

2. Annual appropriation from the U.S. Congress for continuous updating of the existing Voluntary Federal Voting Systems Standards as voting system technology evolves.

3. Encourage states to adopt and implement the Voluntary Federal Voting Systems Standards by conditioning federal funds for states on their adoption and implementation.

4. Authorize official election documents to be mailed with first class handling at the third class postal rate.

5. Assist in the research and development of technology used for voting systems, equipment, and election procedures.

6. Provide funding for the testing of current and future voting systems and equipment.

7. Encourage states to develop statewide voter registration databases.

8. Encourage state and local officials to collect and report election results and voter turnout in a consistent and comparable format.

Recommendations for State and Local Governments

1. Implement a uniform statewide voting system or uniform statewide criteria for the voting systems used in the state. (Maryland recently adopted Senate Bill 833 and House Bill 1458 which authorizes the Maryland State Board of Elections to select a uniform voting system for polling place voting and a uniform voting system for absentee voting.) Suggested voting system criteria should include:

    a. Present the voter with a ballot where it is easy to recognize all races, candidates, and issues.
    b. Properly record a voter's ballot choices by preventing overvoting and unintentional undervoting.

c. Provide the voter with an opportunity to review the ballot choices and, if necessary, correct any ballot errors prior to casting the vote.
d. Provide individuals with disabilities the ability to cast a secret ballot and the ability to verify the votes cast.
e. Provide the voter with the highest degree of secrecy as practicable when casting a ballot.
f. Allow for precinct count of votes as well as future electronic linkage to a central location to facilitate reporting.

2. Implement a statewide voter registration database with links to the local election officials.

3. Share voter registration lists with neighboring states to ensure that voter registration lists are accurate.

4. Authorize "provisional ballots" or "challenge ballots" which provide voters with the opportunity to vote at the polling place if errors were made in the voter registration process. (Maryland recently adopted Senate Bill 740 and House Bill 1457 which authorized provisional ballots.)

5. Place computers in each polling place to assist election judges and poll workers with the election administration. The computer should have access to the statewide voter registration system to ensure that the voter is at the correct polling place and could be used to verify the signature on the voter authority card signed at the polling place with the signature on the voter registration application originally submitted by the voter.

6. Implement statewide recount provisions. (The Maryland State Board of Elections adopted statewide regulations for recount procedures for each voting system used in the state. See Code of Maryland Regulations 33.12.01 *et seq.*)

7. Require statewide reporting to the Chief Election Official in the State with common definitions and reporting formats. (See Md. Ann. Code art. 33, § 11-401.)

DIVISIONS:
Archives
Corporate Filings
Elections
Information Technology
Limited Partnership
Management Services
Notary Public
Political Reform
Uniform Commercial Code

BILL JONES
Secretary of State
State of California

EXECUTIVE OFFICE
(916) 653-7244
1500-11th STREET
SACRAMENTO, CA 95814

Testimony of the Honorable Bill Jones
California Secretary of State

Submitted to the U.S. Senate Committee on Commerce, Science and Transportation
May 8, 2001

Mr. Chairman and members of the Committee, I appreciate this opportunity to submit testimony to you for your review and consideration about the elections process in California. During the last six years, we have substantially reformed and modernized the election management and voting procedures in pursuit of our goal of 100 percent voter participation and zero tolerance for voter fraud.

California has approximately 15.6 million voters and more than 25,000 voting precincts for statewide elections. The size of this electorate itself poses tremendous challenges to election officials. But, by taking advantage of various procedural and technological innovations, we have been able to improve the efficiency of our elections, improve voter turnout and deploy new voting technologies which have served as a model for the rest of nation.

This success was only possible because a great deal of groundwork had been laid beforehand. And because the elections process is ever dynamic, I will outline steps that can be taken in California to further improve the process. Let me begin by briefly reviewing three areas where people and technology, carefully integrated and smoothly functioning, can prevent voter disenfranchisement at one extreme and voter frustration with the elections system at the other.

The three areas are:
- **Voter Registration**
- **Voting**
- **Vote Tabulation**

VOTER REGISTRATION

The first step in the creation of fair and efficient elections is the creation and maintenance of a clean and reliable voter roll. In 1995, the League of Women Voters and other organizations estimated that California's 58 individual county voter rolls were clogged with 10-20% deadwood – meaning that voters who had died or moved away still

remained on the voter file, creating the potential for fraud, increased costs for election officials and an artificially depressed voter turnout.

In California, we have made voter file maintenance a priority and have removed more than two million ineligible voters from the active rolls since 1996.

The deadwood identification and removal was accomplished through several new reforms which will also prevent the future accumulation of ineligible voters on the rolls.

First, we included a field to capture to driver's license number of voters on the voter registration affidavit. With 15.6 million names and an extremely mobile population, we needed a unique identifier to cut down on unnecessary duplication and reduce the potential for fraud while saving substantial tax dollars at the same time.

As we were assembling a list of unique identifiers for each voter, we also began the development of our new electronic statewide voter file, CALVOTER, which links the voter files of all 58 counties into one database, allowing us to prevent duplicate registration as voters move from one county to another.

You may be aware that the most recent Federal Elections Commission study in 1997 on the subject said that only 10 states had real-time, online access to a database like CALVOTER. 16 states have no statewide database at all. In addition to its role in the voter roll maintenance, the networks also allow the vote totals from our 58 counties to be sent electronically to the Secretary of State on election night.

CALVOTER also enabled us to implement our Voter Integrity Plan which allows for the routine tracking of illegal cross-county double voting or illegal voting by felons. Information obtained through CALVOTER has led to successful investigations and convictions of individuals who have committed voter fraud.

While the unique identifier was placed on the voter registration affidavit and the statewide voter file was being developed, we also worked with the counties to aggressively take steps to identify and remove deadwood from their files. Specifically, we encouraged counties to mail a postcard to registered voters who had not cast a ballot in the last two federal elections and asked them to confirm their residence and willingness to remain on the active voter rolls. Voters who did not return the postcard were placed on inactive status, but to avoid the potential for disenfranchisement, were not completely removed from the voter file.

Counties have also been asked to enact a variety of other voter file maintenance tools such as the buyback of sample ballots which were marked undeliverable by the post office and the coordination with county jury commissioners to identify individuals who refuse to serve on jury duty because they are not citizens of the United States.

In addition to revising the framework for our voter registration processes, we have also embarked on the most ambitious voter registration program in our state's history.

Working with local election officials, the media, employers, educators and community organizations, we have developed a program to contact potential voters during every aspect of their daily lives to promote registration and voting.

We have also asked the State Legislature to provide funding for a paid media campaign to reach non-voters, but to date, the state has not appropriated funds for this purpose.

VOTING

In California, counties may only utilize voting systems that have been certified for use by the Secretary of State. The Secretary only certifies a system after it has been reviewed by two independent testing laboratories. One review ensures that the hardware and software of a voting system are compliant with federal election standards and the other review ensures the system is in compliance with California law.

Since 1999, California has approved four new touch-screen voting systems and decertified 45 obsolete voting technologies.

Legislation currently pending in Sacramento would appropriate $300 million for a Democracy Fund that would provide three-to-one matching funds for counties to modernize their voting equipment.

In addition to leading the nation in the deployment of new voting technology, we have also led in the review of potential new voting systems, such as the possibility of one day casting ballots over the Internet. The California Internet Voting Task Force Report laid out a four-stage process for the evolution of on-line voting that has subsequently been embraced by virtually all other organizations who have studied the issue, including the National Science Foundation. Although voting over the Internet from the comfort of one's home or office is not likely to be secure in the foreseeable future, the parameters for judging the security of such a system are available in our Internet Voting Feasibility Study (available on the Internet at http://www.ss.ca.gov/executive/ivote/).

The Internet has also recently opened up the possibility of electronic voter fraud in traditional elections. During the 2000 election cycle we investigated, for the first time, criminal complaints of votes being auctioned and/or traded over the Internet. We, unfortunately, will have to prepare for an even greater misuse of the Internet in the next election cycle.

In addition to improving voting technologies to ensure that all votes are properly recorded, California is one of 10 states that takes advantage of the provisional ballot for voters who do not appear on the rolls at their polling place for a variety of possible reasons. The ability for voters to cast a provisional ballot virtually eliminates the possibility that a voter can be shut out of the polling place on election day. During the

official canvass that follows election day, the circumstances for the voter's exclusion from the voter rolls are researched and the election official determines whether or not the voter is entitled to have the provisional ballot counted. Although only 10 states currently use this kind of ballot, it should be standard across the nation.

The complexities introduced to the polling place as the result of the provisional ballot and new voting technologies necessitate that a sufficient number of well trained poll workers are available to staff the precincts on election day. To help provide counties with an ample supply of volunteer workers, we have developed a new student poll worker program that allows 16 and 17 year old high school students in good academic standing to participate as poll workers – the response has been extremely positive for the students, the election officials and the veteran poll workers who welcome the assistance.

In addition to election day reform, California has also led the nation in voter education through our statewide and local ballot pamphlets and our extensive Internet presence. Through the pamphlets mailed to their home and the information on our web site, voters can read arguments for and against each ballot proposition, impartial policy and fiscal analysis of each ballot measure and review statements by candidates for statewide office. Through the web site, voters can also search and review campaign contribution and expenditure data through our on-line filing system.

VOTE TABULATION

As mentioned earlier, in California, the Secretary of State certifies the voting systems that counties are permitted to purchase. The primary voting systems in California include: punch-card ballots, optical scan ballots and touch-screen voting machines. In 1999, we decertified 45 obsolete systems, some dating back to the 1950s and requiring vacuum tubes to operate.

The certified systems are tested by two independent laboratories to ensure compliance with state law and the Federal Election Commission's standards.

Each certified voting system is mandated by state law to have procedures for its operation during a manual recount of the vote. The last general election demonstrated the necessity of having uniform statewide manual recount procedures in place before an election and to give them the force of law. Since 1991, for example, California has had such a uniform manual recount standard for pre-scored punch card voting systems.

We have found too that it is vital for the Secretary of State to maintain a continuous communication and interaction with elections officials around the state. We regularly provide them with memoranda outlining statewide guidelines for processing voter registration cards, absentee ballots and a myriad of other topics. Our election staff is connected directly to the statewide elections community through conferences and meetings and daily contact by phone, fax, and email.

THE FUTURE OF THE ELECTORAL PROCESS IN CALIFORNIA

The great truth of the November 2000 election is that even good elections systems can be improved. I proposed a 10 Point Election Reform Plan to build on the excellent aspects of the elections process in California and address some outstanding problems.

The centerpiece of this Election Reform Plan is a $230 million Democracy Fund which counties can use to upgrade their voting systems using newer technology like optical scan ballots or touch screen computers. We are working closely with Speaker of the California Assembly Robert Hertzberg on his expanded proposal for $300 million, which also includes a matching fund of $3 for every $1 a county contributes to the fund.

I believe that funds like this in states, or through one of the measures now making their way through Congress, will provide the financial resources for counties to fairly tailor their voting systems to the needs of their voters.

There is a tremendous interest in new voting technology. We sponsored an Election Technology Exposition in January and drew 40 vendors of innovative voting systems and nearly 400 attendees, largely made up of county elections officials. If states are the laboratories of democracy, counties are the bedrock of that experimentation. We should encourage innovation and creativity to deal with the challenges of elections in the 21st century.

One of the great challenges, as the last election also made clear is to focus and increase the amount of voter education and outreach – including education on how to properly cast a ballot on a given voting system. We have asked for $10 million for such efforts this coming year in California. We may require additional funds. The more voters are confident and comfortable with going to the polls and using the voting systems, the more democracy prospers.

There are specific proposals in our Election Reform Plan directed at the process itself. These include restricting political campaigns from collecting completed absentee ballot applications. There was a record 3.2 million absentee ballot requests for the November 2000 election and this trend will only grow. Campaigns collecting these applications often delay sending them to elections officials and this delays voters obtaining their absentee ballots. The practice of campaigns harvesting absentee ballot applications and delaying their eventual return to election officials should end.

We have also proposed changes to the National Voter Registration Act or "Motor Voter" to make it more practical in real world elections. These changes would include using digitized (not to be confused with digital) signatures to automate registration address changes through the Department of Motor Vehicles.

Two particular proposals in the Election Reform Plan would safeguard the vote. First, require identification at the polls. This is simple, safe, and fair. A fundamental right

is at stake and if we must show identification to rent a video or cash a check, we ought to protect the vote at least as much. The second reform is to curb the release of exit polling data. I submitted testimony to the House of Representatives Committee on Energy and Commerce in February that is highly critical of the 'rush to judgment' exit polling data release causes. It is empirically demonstrable that this practice of calling elections based on exit polls discourages voters, especially on the West Coast.

I have personally urged the television network executives to restrain the release of exit polling data and all 50 Secretaries of State have joined in the same request. This is one reform for the next election that must be addressed. It can be implemented in many ways from uniform polling closing, the embargo of exit poll results until 11 p.m. EST or extending Daylight Savings Time on the West Coast to lessen the time difference on Election Day between the East and West Coasts. I believe from my conversations with the television network executives that they are not flatly opposed to careful, thoughtful reform of their Election Night coverage.

I look forward to elections in this new century with much optimism. The linked enormous potentials of our voters, elections officials, and empowering technology will be a great chapter in the continuing success of the noble experiment in popular government not only in California, but the rest of the nation.

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BILL JONES
Secretary of State
State of California

EXECUTIVE OFFICE
1500 11th Street, 6th Floor
Sacramento, CA 95814
(916) 653-7244
(916) 653-4620 FAX
www.ss.ca.gov

Secretary of State Bill Jones' 10-Point California Election Reform Plan

1. **Democracy Fund:** Secretary Jones will work to establish a $230 million capital outlay fund that counties may draw from to purchase updated voting technology, including precinct voting systems, vote counting software and absentee ballot processing equipment.

2. **Election Technology Exposition:** The Secretary of State will invite election technology vendors to demonstrate cutting-edge election equipment at an Elect-Tech Expo early next year. The exhibitors will demonstrate how technology is revolutionizing voter registration, public outreach, education and vote counting systems. In addition, Internet voting and the results of the shadow elections conducted in November will be highlighted.

3. **Codify Uniform Recount Guidelines:** Recount procedures were developed and implemented by the Secretary of State and county election officials more than a decade ago. Secretary Jones will work to put these common-sense uniform guidelines into state law.

4. **Restrict Campaigns' Role in the Collection of Completed Applications for Absentee Ballots:** In recent years, campaigns have collected completed absentee ballot applications from voters and forwarded those applications to election officials. Because of the delays this causes in the delivery of ballots to voters, applications should be sent ***directly*** to the election official from the voter.

5. **Notify Voters If Absentee Ballot is Not Counted:** Require counties to notify voters if their ballot is not counted for any reason (i.e.; ballot received after election day, unsigned envelope, etc.)

6. **Motor Voter Reforms:** Secretary Jones will work with election officials and the Department of Motor Vehicles to improve the procedures used to process registration forms collected at the DMV. Reforms will include a revision of the DMV registration form, use of digitized signatures to automate the registration process and the possible inclusion of the social security number on the registration form for election purposes only.

7. **Voter Outreach and Education:** The state has not allocated funds to help educate voters about the deadlines for registering to vote or the voting process itself. The Secretary has asked for a $10 million allocation for a voter education campaign.

8. **Voter File Security and Maintenance:** Require counties to complete mandatory voter file maintenance procedures such as: obtaining address updates through the US Post Office, comparing undeliverable mail to the voter rolls, mailing to voters who have not voted in two federal elections, and working with jury commissioners to remove the names from the voter rolls of individuals who declined to serve on jury duty because they are non-citizens.

9. **Precinct Voting Reform: ID at the Polls** Californians are required to show identification when they board a plane or rent a video -- the same simple safeguard should be required when exercising the right to vote.

10. **Exit Polling Reform:** Secretary Jones will continue to work with the National Association of Secretaries of State and Network News Executives to develop a comprehensive agreement to prevent the release of exit polling data from affecting the results of an election.

NEWS RELEASE

California Secretary of State Bill Jones

BJ00:124

FOR IMMEDIATE RELEASE
Wednesday, November 22, 2000

CONTACT: Beth Miller
Alfie Charles
916/653-6575

SECRETARY OF STATE BILL JONES UNVEILS
10-POINT CALIFORNIA ELECTION REFORM PLAN
Calls California Election System Model for the Nation;
Steps Can Be Taken To Ensure Continued Openness, Accuracy and Security

SACRAMENTO – Calling California's election system a model for the nation in terms of current election procedures, Secretary of State Bill Jones today issued a renewed call for the additional reforms necessary to ensure that California remains on the cutting edge of implementing the best elections technology and continues to administer the most accessible, accurate and secure elections in the country.

"California's general election on November 7th demonstrated again that our system of selecting men and women to serve us in government is functioning superbly, but recent events elsewhere in the nation have demonstrated that a very good system can be improved," said Jones.

"As with the reforms that we've been able to implement successfully on a bipartisan basis and with the help of our elections officials across the state, we believe that the addition of these needed reforms will provide an additional level of security to an already tight process while continuing to provide increased access and accountability to California's voters," Jones added.

In his quest to make a good system even better, Secretary Jones today unveiled a 10-point California election reform plan to address some identified vulnerabilities in the present system.

The centerpiece of Jones' plan includes the establishment of a $230 million **Democracy Fund,** a capital outlay fund that counties may draw from to purchase updated voting technologies, including precinct voting systems, vote counting software and absentee ballot processing equipment.

Other reforms outlined by Jones include: inviting election technology vendors to demonstrate cutting-edge election equipment at an **Election Technology Exposition** early next year to demonstrate how technology is revolutionizing voter registration, public outreach, education and vote counting systems. In addition, Internet voting and the results of the shadow elections conducted in November will be highlighted. **Codifying Uniform Recount Guidelines** that were developed and implemented

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by the Secretary of State and county election officials over the past 10 years. **Restricting Campaigns' Role in the Collection of Completed Applications for Absentee Ballots** to curb delays in the delivery of ballots to voters by requiring that applications be sent ***directly*** to the election official from the voter.

Additional reforms call for counties to **Notify Voters if absentee ballots are not counted** for any reason such as ballots that are received after Election Day or envelopes that are returned unsigned by the voter, etc.

Secretary Jones also called for election officials and the Department of Motor Vehicles to improve the procedures used to process registration forms under the **Motor Voter Law.** Reforms will include a revision of the DMV registration form, use of digitized signatures to automate the registration process and the possible inclusion of the social security number on the registration form for election purposes only.

Jones said he will continue his pursuit for funds to conduct a **Voter Outreach and Education effort** commensurate with the size and diversity of the state. Previous requests by the state for funds to help educate voters about the deadlines for registering to vote or the voting process itself have been unsuccessful. Jones said he will again ask for a $10 million allocation for a comprehensive voter education campaign.

Before any consideration can be given to permanent all-mail elections in the state, Jones reiterated the need for mandatory **Voter File Security and Maintenance procedures** be conducted by the counties. Although many counties are already hard at work doing such procedures as obtaining address updates through the US Post Office, comparing undeliverable mail to the voter rolls, mailing to voters who have not voted in two federal elections, and working with jury commissioners to remove the names from the voter rolls of individuals who declined to serve on jury duty because they are non-citizens, Jones called for the establishment of routine procedures to ensure files are maintained on an on-going basis.

One **Precinct Voting Reform** reiterated by Jones included a call for uniform presentation of voter **ID at the Polls.** Californians, Jones said, are required to show identification when they board a plane or rent a video and called for the same simple safeguard to be required when exercising the right to vote.

Finally, Jones called for **Exit Polling Reform,** saying he will continue to work with the National Association of Secretaries of State and national network news executives to develop a comprehensive agreement to prevent the release of exit polling data from affecting the results of an election.

A complete listing of past reforms implemented by Secretary Jones as well as the 10-point California Election Reform Plan is available on line at www.ss.ca.gov or by calling the Secretary of State's Press Office at 916/653-6575.

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FACT SHEET

California Secretary of State Bill Jones

Reforming the Election Process in California (1995-Present)

Voter Registration

- **Deadwood Removed from the Voter Rolls**
  In 1996, local election officials were given the ability to mail to non-voters and place registrants who have not voted in two federal general elections on "inactive" status. More than 1.5 million ineligible voters have been taken off the active voter rolls through this process.

- **Driver's License Number Requested on Voter Registration Card**
  Allows local election officials to distinguish between voters with similar names when cleaning the voter rolls.

- **CALVOTER Network Established to Create a Database of all 58 County Voter Rolls**
  Statewide computer network allows election officials to check for and remove duplicate voter registrations across county lines.

- **Crackdown on Voter Registration "Bounty Hunters"**
  The majority of the 190 cases referred to district attorneys by the Secretary of State's Election Fraud Investigations Unit were for the prosecution of individuals who committed voter registration or petition fraud.

- **Motor Voter Implemented in California**
  Since 1995, millions of Californians have either registered or re-registered to vote while conducting transactions through the Department of Motor Vehicles. Unfortunately, we also receive hundreds of complaints each election from voters who have not had their voter registration information promptly sent to county election officials by DMV.

- **Internet Voter Registration**
  California has offered a downloadable registration form for years. During the two months prior to the 2000 presidential election, more than 40,000 voters took advantage of a new web form that allowed voters to complete a registration card on-line which was then printed and mailed to the voter for a signature through the Office of State Printing.

- **Unprecedented Voter Outreach Program**
  In cooperation with the public, private, business, ethnic and civic organizations that comprise the Advisory Committee on Voter Outreach and Participation, the Secretary of State has developed a comprehensive program to contact potential voters during every aspect of their daily lives to promote registration and voting. More than 65,000 voters were registered statewide during the state's Midnight Madness voter registration drive on October 10, 2000.

1500 11th Street ◆ Sacramento, CA 95814 ◆ 916/653-6575 ◆ Internet: http://www.ss.ca.gov

Voting

- **Touch-Screen Voting Systems**
  Four different touch-screen voting systems have been approved by the Secretary of State. Eight counties have used the systems for early voting and Riverside county has deployed the technology in all of its polling places.

- **Internet Voter Education**
  California leads the nation in providing voters with election information via the Internet. In California voters can register to vote, download a form to request an absentee ballot, locate their polling place, read the voter information guide, research campaign contributions and view live election results on-line.

- **On-Line Campaign Finance Disclosure**
  Hundreds of millions of dollars raised and spent by campaigns are disclosed through the Secretary of State's web site prior to election day.

- **Internet Voting Task Force and Feasibility Study**
  After a year of research and discussion from the nation's foremost experts on elections and data security, Secretary Jones' Internet Voting Task Force released their landmark Report on the Feasibility of Internet Voting in January, 2000.

Vote Tabulation

- **The Secretary of State's CALVOTER Network Allows Counties to Electronically Transmit Results Directly to the Secretary of State on Election Night**
  With the new statewide network linking all 58 counties with the Secretary of State, vote totals are sent to Sacramento electronically rather than by phone and fax.

- **Standardized Vote Counting Procedures Among all 58 Counties**
  To ensure uniformity of the law across county lines, the Secretary of State regularly provides county election officials with memoranda outlining the statewide guidelines for the processing of voter registration cards, ballots or other issues that arise during the conduct of an election.

- **Certification of Voting and Vote Counting Equipment**
  Before counties can purchase voting systems, the systems must be certified by the Secretary of State. Prior to certification, the systems undergo testing by two independent laboratories to ensure that they are in compliance with state and federal standards and law.

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