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FINAL ECONOMIC BASE STUDY FOR PACIFIC COUNTY

AUG 15 1977

Prepared By

Human Resources Planning Institute

Prepared For

PORT OF WILLAPA HARBOR
RAYMOND, WASHINGTON

Washington State Dept. of Ecology.

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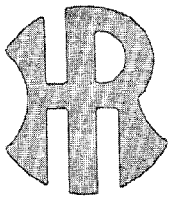

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ECONOMIC BASE STUDY

OF

PACIFIC COUNTY

Prepared By

HUMAN RESOURCES PLANNING INSTITUTE

Prepared For

PORT OF WILLAPA HARBOR
RAYMOND, WASHINGTON

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I. INTRODUCTION

The following report is an economic base study of Pacific County, Washington. This document should be read in conjunction with the Comprehensive Data Book for Pacific County.

A. PURPOSE

The purpose of this study is to provide planners in Pacific County a concise description with detailed support data of the economy of their area. Information on the industry and labor force of the County will provide the knowledge with which to isolate and define deterrents to economic stability and will allow the efficient assessment of economic assets with which the County economy may be developed more fully.

B. SCOPE

The study will describe the economy of Pacific County using updatable data sources wherever possible. The industries of the County will be defined in terms of their employment, payrolls, seasonality, value and capital facilities. In addition the characteristics of the un- or under-employed labor force of the County will be discussed. To maintain report brevity while still providing the detail of data necessary to assess the County economy, the report will only include summary tables of economic data. Detailed tables, which show how published data was manipulated, as well as the summary tables used in this report, will be compiled into a Comprehensive Data Book of Pacific County. This Data Book should allow technicians within the County the information necessary to update the data in future years.

Economic trends, both in the report and in the Comprehensive Data Book, will be provided from 1970 to the most current year available.

C. OVERVIEW OF THE STUDY AREA

Pacific County, located in the southwestern corner of Washington State, is bordered on the south by the Columbia River and on the west by the Pacific Ocean. The Raymond-South Bend area and the Long Beach Peninsula are Pacific County's major economic centers. Raymond, the County's most populous city, and South Bend, the county seat, are located on the Willapa River at the head of Willapa Harbor. The Long Beach Peninsula is located about 48 miles south and west of Raymond-South Bend and has an economic base supported primarily by fishing and tourism.

The Pacific County economy relies heavily on forestry and fishing. Logging, lumber and wood products manufacturing, fishing, seafood processing and the services supported by tourism are the major employers. With the exception of lumber and wood products manufacturing, industry in Pacific County, due to the cyclical nature of its resource base, is highly seasonal.

Pacific County is divided between north County and south County. This division is not only geographic, but has economic and demographic definition. Therefore, where applicable, the individual discussions which follow will describe the differences between north and south Pacific County.

II. TOTAL POPULATION

Total population in Pacific County remained relatively constant from 1970 to 1976 at about 15,800 people. This figure is an estimate by the Washington State Office of Program Planning and Fiscal Management (OPPFM). Human Resources Planning Institute (HRPI) conducted a telephone survey in Pacific County in September, 1976. The survey revealed that total county population at that time was about 16,100 people. The discrepancy between HRPI and OPPFM figures is minimal. However, to the extent that a discrepancy exists, it is likely due to construction activity in the County which was at its height during September, as well as to a few remaining summer residents.

According to the 1970 Census of Population, Pacific County population was about 80 percent rural. There are four incorporated towns in the County, Raymond, South Bend (the County seat), Ilwaco and Long Beach. These incorporated places account for about 41 percent of the total County population with the remaining 59 percent in unincorporated suburban or rural portions of the County.

A. AGE

The age distribution of the Pacific County population is dissimilar to that of the State of Washington in all age groupings. According to the 1970 Census of Population for Washington (see Comprehensive Data Book (CBD) Table II-2-a), Pacific County has higher percentages of older people and lower percentages of younger people than the State. For example, in 1970 about 59 percent of Pacific County's population was under the age of 45, compared with about 70 percent in the State, while about 41 percent of the County's

population was 45 years and older, compared with the State's 30 percent. Two primary forces are responsible for this difference in State and County age distributions: (1) Young people are moving away to seek or accept jobs elsewhere due to insufficient employment opportunities in Pacific County; and, (2) the County, especially the southern part, is attracting relatively large numbers of older people, who are moving to Pacific County to retire.

Updated age and sex distributions are not available from State sources. Although the HRPI telephone survey in Pacific County is not a readily updatable source, it is the only recent source of age and sex distributions of the population. Survey results indicate only a minimal change from 1970 to 1976 in County age distribution. The percentage of people between 16 and 24 years is lower than in 1970, while the percentage of people between 25 and 34 years is slightly higher. The percentage of people 65 years and older, as shown in the survey, is 16.6 percent compared to 15.3 percent in 1970. In other words, the trend of younger persons moving away from and older persons moving into the County has been accentuated since 1970. The rest of the age groupings did not change more than a tenth of a percent (See CDB Table II-2-a).

Survey results also recorded age distributions for people in the Raymond telephone exchange (north Pacific County), and the Ilwaco and Naselle telephone exchanges (south Pacific County). As expected, the age distributions of people in the Raymond telephone exchange are comparable to the County-wide distribution with 59 percent under 45 years of age and 41 percent 45 years and older. People in the Ilwaco telephone exchange are relatively

older than the County average. In the Ilwaco exchange about 53 percent of the people are under 45 years of age, while 47 percent are 45 years and older. Ilwaco and the Long Beach Peninsula have attracted large numbers of older people moving into the area to retire. People in the Naselle exchange are younger than the County average with 69 percent under the age of 45 and 31 percent 45 years and older.

SUMMARY OF AGE DISTRIBUTIONS

Pacific County
September 1976

Years	Telephone Exchanges			
	Raymond	Ilwaco	Naselle	Pacific County
Under 45	59%	53%	69%	59%
45-up	41%	47%	31%	41%

Source: Excess Labor Resources, Pacific County, Telephone Survey, HRPI, September, 1976.

For more detail on age distributions within Pacific County, see CDB Tables II-2-a through II-2-d.

B. SEX

According to the 1970 Census, the sex distribution in Pacific County is 50 percent males and 50 percent females which is similar to that of the State in 1970. The County and State sex distribution by age grouping was also

comparable with only one exception. Of those people 65 years and older, 43 percent were men in the State, while 49 percent were men in the County.

The HRPI survey showed lower percentages of men in all age groups, with the exception of men 65 years and older, in 1976. This shift is probably a result of the logic of the telephone survey rather than an actual shift in age distribution. See CDB Tables II-2-a through II-2-d for 1976 age and sex distributions for Pacific County and the three telephone exchanges surveyed within Pacific County.

C. RACE

In 1975, minorities in Pacific County accounted for about three percent (481 persons) of total County population. This compares with the State of Washington where minorities are about seven percent of total State population (See CDB Table II-3). Native Americans account for the majority of Pacific County's minority population. Most of these people live in the northwestern part of the County.

The HRPI survey did not sample for minority population distributions.

D. INCOME

Based on the 1970 Census of Population, General Social and Economic

Characteristics, families derive income from the following sources:[1]

- Wages and salaries
- Non-farm self-employment
- Farm self-employment
- Public assistance or welfare
- Other income (including interest, dividends, property rentals, gambling gains, etc.)

Summary Table 1 presents the number of families who derive income from each source, as well as the mean income derived from each source for families in Pacific County.

The following matrix illustrates the problem which must be analyzed:

	Mean Income From a Given Source	Percentage of Total Families
High	A	B
Low	C	D

[1] Census of Population, General Social and Economic Characteristics, Washington, Department of Commerce, Bureau of the Census, 1970, Table 124, page 49-308, Type of Income of Families. Comprehensive Data Book Table II-4-2 - II-4-c.

SUMMARY TABLE 1

FAMILY INCOME BY TYPE

Washington State and Pacific County
1970

	Washington State			Pacific County		
		% Total Families	% Total Income		% Total Families	% Total Income
All Families	862,542	100.0		4,357	100.0	
Mean Income All Sources	11,510			9,408		
Total Income	9,928,540,000		100.0	40,990,000		100.0
1. Wage & Salary Income						
Number of Families	751,509	87.1		3,383	77.6	
Mean Income	$10,473			$8,454		
Total Income	7,870,550,000		79.3	28,600,000		70.0
2. Non-Farm Self-Employed						
Number of Families	104,787	12.1		812	18.6	
Mean Income	$8,133			$7,214		
Total Income	852,230,000		8.6	5,840,000		14.2
3. Farm Self-Employment						
Number of Families	34,380	4.0		218	5.0	
Mean Income	$3,801			$4,442		
Total Income	130,680,000		1.3	970,000		2.4
4. Social Security Income						
Number of Families	151,406	17.6		1,267	29.1	
Mean Income	$1,732			$1,850		
Total Income	262,240,000		2.6	2,340,000		5.7
5. Pub. Assist. or Welfare						
Number of Families	44,605	5.2		191	4.4	
Mean Income	$1,326			$1,270		
Total Income	59,150,000		0.6	240,000		0.6
6. Other Income						
Number of Families	375,344	43.5		1,913	43.9	
Mean Income	$2,008			$1,566		
Total Income	753,690,000		7.6	3,000,000		7.3

Source: Census of Population, General Social and Economic Characteristics, Washington, Department of Commerce, Bureau of the Census, 1970, Table 124, Page 49-308.

As indicated by the above matrix, four combinations are possible:

1. Mean income from a given source is high and the percentage of families deriving income from that source is high. (A + B)
2. Mean income from a given source is low and the percentage of families deriving income from that source is low. (C + D)
3. Mean income from a given source is high, and the percentage of families deriving income from that source is low. (A + D)
4. Mean income from a given source is low and the percentage of families deriving income from that source is high. (C + B)

The two combinations which serve to better the economic conditions of an area are combinations 1 and 2, while 3 and 4 are not as desirable.

Pacific County families, for the most part, fall under the more undesirable combinations. The following discussion provides more detail on mean incomes by source and percent of families deriving income from a given source.

Mean income from wages and salaries is higher than the mean income from other income sources. In 1970, mean income from wage and salaries for families in the County was $8,454; 78 percent of Pacific County families derived income from this source. Statewide, 87 percent of families derived a mean income of $10,473 from wages and salaries. In other words, when compared to the State, a smaller percentage of County families derived income from wages and salaries, the source of highest mean incomes. In addition, the mean income from wage and salaries is lower in the County than in the State.

Income from non-farm self-employment was also lower in the County than for the State ($7,214 and $8,133, respectively). Non-farm self-employment includes much of the fisheries, services and retail trade employment. In Pacific County about 19 percent of families derived income from non-farm self-employment, compared to about 12 percent statewide. In other words, in this category, Pacific County has a larger percentage of people deriving lower average incomes when compared to a statewide average.

Average income from public assistance or welfare is slightly lower in the County than in the State. It is interesting to note, however, that a smaller percentage of County families (four percent) derive income from this source than do families statewide (five percent). This is probably due to the relative ease of accessing public assistance agencies in urban areas, as well as the social stigma associated with public assistance in rural areas.

Both social security income and income from farm self-employment are higher on the average in Pacific County than for the State. These types of income, on the average, however, are far below the average income from major sources such as wage and salary income. As such they serve to bring down the average income from all income sources. For instance, even though the County average social security income is $1,850 compared to the State's $1,732, the County has 29 percent of its families receiving social security income compared to the State's approximate 18 percent. Pacific County, then, has a very high percentage of families receiving retirement income which is much lower than overall average income.

Two major factors are important in explaining the County's relatively lower incomes. First, there is a high percentage (relative to the State) of self-employment in the County in such industries as services, retail trade, fishing, logging and farming. These people derive lower mean incomes on the average than self-employed people in the rest of the State. This is due in large part to the absence of self-employed professional and technical people in the County compared to the State. Second, Pacific County has a high percentage of social security recipients due to the large percentage of people over 65 years of age. Although the mean income from social security is higher in Pacific County than it is for the rest of the State, it is still much lower than the average income from all income sources. As such, the high percentage of families receiving social security income serves to bring down the overall average income.

The seasonality of most of the important industries in Pacific County is also a contributing factor to lower reported wages. This problem is caused by the method of reporting employment to Employment Security. Employment Security samples the work force one week out of each month (the week including the 15th) and adjusts the reported employment to reflect employment for the whole month. If the number of people working during the sample week is unusually high, employment for the month will be high and vice-versa. In addition, the sample does not distinguish between part-time and full-time workers or between temporary and permanent workers. Consequently, a lower average payroll per worker results when dividing industry payroll by average monthly employment in an area which is relatively more seasonal than the State.

E. POPULATION PROJECTIONS

Summary Table 2 presents population projections published by different sources: OBERS Series E, Bonneville Power Administration, Pacific County Preliminary Land Use Plan, and Pacific Northwest Bell. Population projections from the State of Washington Office of Program Planning and Fiscal Management (OPPFM) are out of date and are felt by that office to be too inaccurate to publish. OPPFM is currently making new projections for counties in Washington, which should be available in Spring, 1977. The new projections should be obtained at that time and compared to the population projections which follow.

Population projections published in the 1971 Preliminary Land Use Plan for Pacific County forecast County population to grow from 15,796 in 1970 to 17,240 in 1975. Population estimates for 1975 show County to be about 15,900. Based on this observation as well as discussions with the Pacific County Regional Planner, it is felt that these projections overstate future population levels in Pacific County.

The Bonneville Power Administration (BPA) published population projections in 1973. BPA historically projects higher populations than actually occur. BPA projected Pacific County to grow to 16,400 persons by 1975. There is general concurrence that OPPFM population estimates for 1975 are accurate for Pacific County at about 15,900 people. It is probable that the BPA population projections through 1980 are overstated.

SUMMARY TABLE 2

POPULATION PROJECTIONS

Pacific County
1970-2000

	1970	1975	1980	1985	1990	1995	2000
Based on OBERS, Series E for WR Subarea 1715[1]	15,796	15,690	15,580	15,740	15,910	15,940	15,960
Bonneville Power Administration	15,796	16,400	17,500	18,500	19,250	20,190[2]	21,090[2]
Office of Program Planning and Fiscal Management	(New projections will be available in Spring, 1977. Old projections felt to be too inaccurate to publish.)						
Preliminary Land Use Plan	15,796	17,240[2]	18,555	20,395[2]	22,100	23,545	25,120[2]
Pacific Northwest Bell	15,796	15,900	16,300	16,600	16,900	17,200[2]	17,500[2]

[1]Based growth rate derived from a linear regression of population projections for OBERS Water Resource Subarea 1715.
[2]Extrapolated based on linear regression of respective population projections.

Sources: OBERS Projections, Series E Population, Volume 3, Water Resources Regions and Subareas, U. S. Water Resources Council, Washington, D.C., 1972.

Population, Employment and Housing Units Projected to 1990, Washington, U. S. Department of the Interior, Bonneville Power Administration, February, 1973.

Population and Household Trends, 1975-1990, Pacific Northwest Bell, April, 1976.

Preliminary Land Use Plan, Pacific County, Washington, Pacific County Regional Planning Council, July, 1971. Page III-4.

OBERS, Series E, published in 1972, projects population for Water Resources Subarea (WRS) 1715 which includes Pacific and Grays Harbor Counties. The growth rates derived from WRS 1715 were applied to Pacific County population. Using this method, Series E projects Pacific County population to decline from 15,796 in 1970 to 15,580 in 1980. After 1980 a slow rate of growth is forecast and County population in 2000 is projected to be 15,960. OBERS, Series E projections incorporate a zero population growth assumption which cause projections of population to be very low. These projections do not reflect an accurate picture of expected population growth in Pacific County.

In April of 1976 Pacific Northwest Bell (PNB) published population projections to 1990 for counties in Washington. PNB estimated 1975 population in Pacific County to be 15,900. Population in 1980 is expected to reach 16,300 reflecting an average annual rate of growth from 1975 to 1980 of about 0.5 percent. PNB projections appear to be the most accurate projections currently available assuming present trends do not change significantly. However, the County should obtain the official State projections from OPPFM for comparison when they become available, since they have been an accurate and useful data source in the past.

III. TOTAL EMPLOYMENT

A. EMPLOYMENT BY INDUSTRY

Two major sources report employment (by industry) for counties. The primary sources for Washington counties are: (1) U. S. Census; and, (2) Washington State Employment Security. Washington State Department of Employment Security publishes two sets of employment data. The first reports only the actual employment covered by the Employment Security Act. The second reports estimated total employment; that is, covered employment, as well as uncovered employment. Normally, this second publication is used in describing employment by industry. However for Pacific County, in several years, the estimates of total employment were less than covered employment, which by definition is impossible. For this reason discussions of employment by industry use actual covered employment data. This procedure is recommended until such time as Employment Security is able to make accurate total employment estimates.

One exception will be made to the procedure of using covered employment data. Much of government employment is not covered by the Employment Security Act and, therefore, is not reflected in those data. A special technique will be used to estimate government employment. The technique is explained in Section IV-H, GOVERNMENT.

According to covered employment statistics from Washington State Employment Security, Pacific County's major employing industries are manufacturing (lumber and wood products and food processing), trade and services (see Summary Table 3). In 1975 approximately 36 percent of the total

SUMMARY TABLE 3

EMPLOYMENT BY INDUSTRY[1]

Pacific County
1970-1975

	1970[2]	% of Cov. Emp.	% of Manf./ Non-Manf. Emp.	1971	% of Cov. Emp.	% of Manf./ Non-Manf. Emp.	1972	% of Cov. Emp.	% of Manf./ Non-Manf. Emp.	1973	% of Cov. Emp.	% of Manf./ Non-Manf. Emp.	1974	% of Cov. Emp.	% of Manf./ Non-Manf. Emp.	1975	%of Cov. Emp.	% of Manf/ Non-Manf. Emp.
Total Employment	3,463	100.0		4,520	100.0		4,642	100.0		4,675	100.0		4,649	100.0		4,526	100.0	-
Agriculture, Forest and Fisheries	-	-	-	123	2.7	-	120	2.6	-	138	3.0	-	176	3.8	-	174	3.8	-
Manufacturing	1,812	52.3	100.0	1,792	39.6	100.0	1,880	40.5	100.0	1,862	39.8	100.0	1,785	38.4	100.0	1,612	35.6	100.0
Food Processing	471	13.6	26.0	516	11.4	28.8	470	10.1	25.0	478	10.2	25.7	472	10.2	26.5	450	9.9	27.9
Lumber and Wood	1,296	37.4	71.5	1,230	27.2	68.6	1,362	29.3	72.4	1,330	28.4	71.4	1,255	27.0	70.3	1,109	24.5	68.8
Printing & Publish.	25	0.7	1.4	22	0.5	1.2	24	0.5	1.3	26	0.6	1.4	31	0.7	1.7	33	0.7	2.1
Other	20	0.6	1.1	24	0.5	1.3	24	0.5	1.3	28	0.6	1.5	27	0.6	1.5	20	0.4	1.2
Non-Manufacturing	1,651	47.7	100.0	2,605	57.6	100.0	2,642	56.9	100.0	2,675	57.2	100.0	2,688	57.8	100.0	2,740	60.5	100.0
Contract Cons.	104	3.0	6.3	110	2.4	4.2	119	2.6	4.5	133	2.8	5.0	111	2.4	4.1	108	2.4	3.9
Trans; Comm; Util.	196	5.7	11.9	207	4.6	7.9	214	4.6	8.1	204	4.4	7.6	216	4.6	8.0	202	4.5	7.4
Trade	733	21.2	44.4	759	16.8	29.1	762	16.4	28.8	731	15.6	27.3	726	15.6	27.0	761	16.8	27.8
FIRE	73	2.1	4.4	76	1.7	2.9	91	2.0	3.4	107	2.3	4.0	111	2.4	4.1	116	2.6	4.2
Services	322	9.3	19.5	320	7.1	12.3	349	7.5	13.2	401	8.6	15.0	436	9.4	16.2	487	10.8	17.8
Government	-	-	-	1,120	24.8	43.0	1,100	23.7	41.6	1,090	23.3	40.7	1,080	23.2	40.2	1,060	23.4	38.7
Not Else. Classified	223	6.4	13.5	13	0.3	0.5	7	0.2	0.3	9	0.2	0.3	8	0.2	0.3	6	0.1	0.2

[1]Includes a special data manipulation explained in Section IV-H to include approximately 850 uncovered government workers.

[2]Totals and percentages of totals do not include government employment.

Note: Percentages may not sum due to rounding.

Source: Employment and Payrolls in Washington State by County and by Industry, Industries covered by the Employment Security Act, Washington State Employment Security, Fourth Quarter Report, Nos. 97-117, 1970-1975.

work force of Pacific County was employed in manufacturing. This compares with about 23 percent statewide. The predominant manufacturing industry is lumber and wood products which alone accounts for about 25 percent of total covered employment. Food processing accounts for over ten percent of total covered employment. Government employment in the County is about 23 percent of total covered employment. This figure cannot be compared to government employment statewide, due to the special estimation of government employment explained in Section IV-H. Pacific County's other two major employing industries are trade, which accounts for 17 percent, and services, which accounts for 11 percent of total covered employment. These are comparable to percentages in trade and services, statewide.

Probably the single most important point which should be made with regard to Pacific County employment is the seasonality or variability of its most important industries. A simple measure of seasonality can be shown by the standard deviation of monthly employment within a given year. Standard deviation is the square root of the variance around a mean (average). Using standard deviation to show seasonality provides an intuitive interpretation of variance, since it is based on the same units as the variable being analyzed. One standard deviation of employment in a given industry will be expressed as a percent of total employment in that industry.

In 1975 total employment in Pacific County was 4,526 and one standard deviation of total employment was 448. The standard deviation, then, indicates that total employment varied by $\pm$ 448 workers or about $\pm$ ten percent of the total employment throughout 1975. Total employment for Washington State in 1975 was 1,058,011

and one standard deviation ± 28,590. The standard deviation for the State then, was ± 2.7 percent of total employment. The discrepancy between Pacific County's ten percent standard deviation and the state's 2.7 percent can be assigned in major part to the relative seasonality or variability of employment in Pacific County industries. See Summary Table 4 for a comparative display of percent standard deviations by industry from 1970 through 1975 for the State of Washington and Pacific County.

Lumber and wood products is not subject to significant seasonality. However, it is a major employing industry and is dominated by one firm. As such, work stoppage due to an annual plant overhaul, a strike, or fire hazard in the timber cutting areas will cause most of the industry to come to a halt.

Food processing is a highly seasonal industry due to the nature of the various fisheries. Although the processing plants for the most part are open year-round, a worker qualified for oyster shucking during the oyster season will not always be interested or able to work as a crab shaker during crab season. Finally, services and retail trade have a year-round work force to serve the needs of the resident population. However, summer tourism causes fluctuations in employment, especially in the southern part of the County.

Total payrolls in Pacific County decreased from $44.6 million in 1971 to $42.6 million in 1975 (1971 is used instead of 1970 because government

SUMMARY TABLE 4
STANDARD DEVIATION OF EMPLOYMENT

Washington State and Pacific County
1970-1975

One Standard Deviation As A Percentage Of Average Annual Employment

	Washington State						Pacific County					
	1970	1971	1972	1973	1974	1975	1970	1971	1972	1973	1974	1975
Total Employment	1.5	2.5	3.4	3.6	3.5	2.7	5.6	7.9	6.6	6.3	5.8	9.9
Agriculture, Forestry, Fisheries	13.3	17.3	16.9	15.0	14.7	28.4	15.9	20.3	26.4	19.8	18.5	17.3
Manufacturing	4.8	1.7	4.3	3.7	3.2	1.8	5.9	8.6	6.0	4.6	4.0	13.7
Food Processing	7.7	9.2	8.5	9.7	10.8	10.6	9.5	10.7	14.3	11.7	9.0	14.3
Lumber & Wood	4.0	7.5	6.3	4.5	5.3	7.6	5.5	10.9	4.4	3.0	3.0	19.7
Printing & Publishing	1.1	0.7	1.3	1.3	0.8	0.4	5.0	7.7	14.1	8.7	10.0	6.1
Other	9.0	2.3	5.7	3.0	2.4	2.3	9.7	17.6	10.2	14.4	17.1	10.0
Non-Manufacturing	1.7	2.7	3.1	3.9	3.6	2.9	11.3	10.6	12.1	8.3	9.7	12.0
Construction	7.2	11.9	11.6	9.8	8.8	10.0	23.5	27.1	27.9	16.4	15.6	15.0
Trans., Comm., & Utilities	2.1	1.8	2.9	2.7	2.9	3.0	11.1	10.2	10.4	8.9	6.4	8.0
Trade	1.4	3.2	3.6	3.5	4.3	3.9	12.5	14.0	14.1	12.0	11.4	13.3
Fire	1.0	1.5	2.0	2.0	1.7	2.0	2.9	8.5	8.5	13.2	5.2	2.6
Services	1.5	1.9	2.4	2.5	3.6	1.6	13.4	14.8	15.9	13.2	15.8	18.6
Government	-	1.3	1.4	1.8	2.2	1.6	-	6.0	5.6	2.5	3.8	5.1

Source: Human Resources Planning Institute, Computed from Washington State Covered Employment data

payrolls were not reflected until 1971. See Section IV-H, GOVERNMENT, for a discussion). This decline is due in major part to declines in both employment and in average payroll per worker in some of the County's higher wage-paying industries.

Average annual total payroll per worker in Pacific County was consistently lower than that of the State of Washington over the period from 1970 to 1975. In 1975 average payroll per worker was $9,405 in Pacific County compared with $10,763 for the State (see Summary Table 5). The County's position relative to the State is similar in most industries (with the major exceptions of lumber and wood products and government). The specific reasons vary from industry to industry; however, the primary causes are Pacific County's seasonality of employment, its relative lack of unionization, and the minimal skill requirements of personnel in most of its industries. Individual industry profiles will discuss specific causes in more detail.

The industry profiles which follow in Section IV will provide a more detailed discussion of each industry in Pacific County. A specific industry will be described in terms of its employment and employment seasonality, payroll, value and capital facilities.

SUMMARY TABLE 5

AVERAGE ANNUAL PAYROLL PER WORKER

Washington State and Pacific County
1970-1975
(in constant 1975 dollars)

Industry	Washington State						Pacific County					
	1970	1971	1972	1973	1974	1975	1970	1971	1972	1973	1974	1975
Total	10,784	10,849	10,889	10,948	10,598	10,763	8,926	9,866	10,144	9,975	9,556	9,405
Agriculture, Forest, & Fish	N/A	7,857	8,275	9,398	8,602	8,761	N/A	8,146	8,628	9,889	7,996	8,540
Manufacturing	13,254	12,874	13,185	13,219	12,925	13,408	10,635	10,810	11,366	11,184	10,373	10,760
Food Processing	10,827	10,807	11,181	11,110	10,955	11,073	6,228	6,094	6,135	5,870	5,977	5,994
Lumber & Wood	12,086	12,121	12,539	12,700	12,329	12,463	12,389	12,957	13,333	13,269	12,216	12,918
Printing & Publishing	11,250	11,276	11,682	11,563	11,057	11,018	4,428	3,871	4,798	4,190	4,111	4,587
Other	14,146	13,684	13,922	13,896	13,581	14,305	8,503	8,538	8,772	9,301	8,698	8,546
Contract Construction	14,397	14,298	14,230	14,333	13,909	14,358	10,973	11,288	11,378	11,305	10,794	9,798
Trans., Comm., & Utilities	12,923	13,116	13,868	13,934	13,265	13,661	10,066	9,908	11,390	11,590	9,994	9,658
Trade	8,645	7,461	8,744	8,724	8,499	8,481	6,043	5,963	6,295	5,996	5,922	5,906
Finance, Insurance, & Real Estate	10,045	9,981	9,950	9,808	9,472	9,483	7,684	8,336	7,911	6,983	7,797	7,484
Services	7,750	7,825	7,935	7,960	7,804	7,957	4,348	4,527	4,659	4,742	4,889	4,886
Government	-	12,746	12,669	12,991	12,453	12,675	-	12,667	12,425	12,341	12,753	12,190
Not Elsewhere Classified	10,623	10,242	14,840	10,439	9,295	8,150	9,571	10,320	11,719	10,802	9,825	10,759

Note: N/A - not available
Source: Employment & Payrolls in Washington State by County and by Industry, Washington State Employment Security, 1970 No. 97, 1971 No. 101, 1972 No. 105, 1973 No. 109, 1974 No. 113, 1975 No. 117.

B. OCCUPATIONS OF EMPLOYED PERSONS

The Census of Population is the primary source of data on the occupations of employed persons. Although the figures for total number of people employed from the Census do not agree with like figures from Employment Security due to different reporting techniques, the percentages of people in given occupations should be accurate.

According to the 1970 Census, Pacific County's major occupational categories are craftsmen and foremen, operatives, except transport, laborers, except farm, and service workers, except private household.[1] Laborers, operatives, and craftsmen/foremen account for about 46 percent of the Pacific County work force. This compares with about 29 percent statewide for those occupations. Laborers, operatives and craftsmen/foremen make up the majority of the employment in Pacific County's manufacturing and fishing industries. Service workers in the County account for 14 percent of total employment compared with approximately 12 percent service workers for the state. The County's 14 percent service workers, together with about five percent sales workers, make up the majority of employment in the services and retail trade industries. The remaining 35 percent of the County work force is categorized as professional/technical (8.4%), managerial/administrative (7.4%), clerical (9.4%), transport equipment operatives (5.1%), farmers, farm managers, laborers and foremen (3.6%), and private household workers (1.4%). Comprehensive Data Book (CDB) Table III-1

[1] Census of Population, General Social and Economic Characteristics, Washington, U. S. Department of Commerce, Bureau of the Census, 1970. CDB Table III-1.

shows occupations of employed persons in 1970 for Pacific County and the State of Washington. Occupations of the un- or under-employed people in Pacific County will be discussed in Section V of this report.

IV. INDUSTRY PROFILES

The following sections provide detailed discussions of each of Pacific County's major industries. Each industry profile includes a description of employment trends in the industry, seasonality of industry employment, and industry payroll trends. The data provided on these topics are compared with statewide averages and trends and discrepancies will be noted and explained. In addition the industry profiles will include, where available and applicable, a value measure of the industry and a discussion of the industry's capital facilities.

A. AGRICULTURE

Due to poor soil conditions, Pacific County has very little land suitable for agriculture. The number of acres in farmlands declined from 38,945 in 1969 to 34,570 in 1974 (or from 6.7 percent of Pacific County's total of 581,250 acres in 1969 to six percent in 1974).[1] Most of this farmland is used for beef or dairy cattle farming. The primary agricultural activity is the growing and harvesting of cranberries. In addition, there are several small rhododendron nurseries on the Long Beach Peninsula.

The following discussion will describe the employment, payrolls, value and capital facilities associated with this industry.

1. Employment and Payroll

Published sources of employment data aggregate employment associated with agriculture with that of forestry and fisheries. Throughout the major portion of this report, data on employment covered by the Employment Security Act from the Washington State Department of Employment Security is being used. However, because so many of the workers in agriculture and fisheries are not covered by the Act, this source is not appropriate for the following discussion. Therefore, although employment in agriculture, forestry, and fisheries is shown in Summary Table 3, data on farm operators from the Census of Agriculture will be used as a surrogate for employment in this industry. According to the Census of Agriculture, there were 298 farm operators in 1969 in Pacific County. Of these 254 (85 percent) were full owners, 40 (13 percent) were part owners, and four (one percent) were

[1] Census of Agriculture, United State Department of Commerce, Bureau of the Census, 1969 and preliminary, 1974. Comprehensive Data Book Tables IV-A-2-a and IV-A-2-b.

tenants. The total number of farm operators declined only slightly by 1974 to 290, of which 253 (87 percent) were full owners, 31 (11 percent) were part owners, and six (two percent) were tenants.

Based on these figures, employment in agriculture is remaining relatively stable or declining slightly. The following will describe the conditions of specific farming activity.

a. Cranberries

There are 86 cranberry growers in Pacific County and almost 1,000 acres of cranberry bogs. Of these, 34 growers and 430 acres of bogs are located on the Long Beach Peninsula. Cranguyma Farms at Long Beach is the largest single grower in the County with 120 acres in production and thirty acres of new plantings. The remainder of the growers are located in the Grayland-North Cove area in the northwestern corner of the County.[1]

The Pacific County cranberry growers account for 54 percent of the total cranberry harvest in Washington State. The remaining 46 percent of the growers are located in Grays Harbor County. Together, Pacific and Grays Harbor Counties account for six percent of the nation's total cranberry production.

About 98 percent of the Washington cranberry growers belong to

[1] Leadbetter Point Environmental Assessment, Washington State Parks and Recreation Commission, April, 1974.

the Ocean Spray growers cooperative. The remaining growers sell primarily to health food stores.

b. Livestock

As stated, most of the farmland in Pacific County supports dairy or beef cattle farming. Of the 34,570 acres of farmland in the County, a minimum of 7,776 and a maximum of 19,580 is used for pasture. This acreage includes 7,776 acres of cropland used for pasture only and 11,804 acres of woodland including woodland pasture. These figures indicate a decline from 1969 when there were 9,718 acres of cropland used for pasture only and 15,753 acres of woodland, including woodland pasture.[1]

Dairy farming, which was once the County's most important agricultural activity, declined from 1964 to 1969 when it became an increasingly poor investment for small farmers. However, from 1969 to 1974, although more small farmers sold out or shifted to some other agricultural activity, this sector of the industry appeared to remain relatively stable. According to the Census of Agriculture, although dairy farms declined from 50 in 1969 to 46 in 1974, the number of milk cows increased from 1,269 in 1969 to 1,300 in 1974. One of the largest dairy farms on the west coast is located near Chinook, in the southwestern corner of the County; however, most of the dairy farming is located inland.

[1] Census of Agriculture, United States Department of Commerce, Bureau of the Census, 1969 and preliminary 1974. Comprehensive Data Book, Tables IV-A-2-a and IV-A-2-b.

Beef cattle farming is located primarily on the diked tidelands around Willapa Bay with only one producing beef farm in the south near Long Beach. Beef cattle production declined steadily from 2,963 cattle (165 farms) in 1964, to 2,554 (101 farms) in 1969, to 2,402 (127 farms) in 1974.[1] See Comprehensive Data Book (CDB) Tables IV-A-2-a and IV-A-2-b for data on agriculture in Pacific County.

One standard deviation of employment in agriculture, forestry, and fisheries was about 17 percent of total agricultural employment in 1975. The figures on percent standard deviation (presented in Summary Table 4) are based on covered employment. For this reason the percent standard deviation is not a reliable measure for seasonality of agriculture.

Cranberry production is a seasonal operation which begins in late September or early October and ends in early November. Industry technology, developed during World War II and later refined, has eliminated much of the labor which was once necessary for cranberry harvest.[2] The industry's seasonality, therefore, does not affect employment to any great degree. In fact, employment in cranberry farming helps soften the impact of summer tourism. Cattle farming, both dairy and beef, are year-round operations. As such the agricultural industry in Pacific County does not contribute significantly to the seasonality of the economy.

Data on the payrolls associated with agriculture are available primarily from the covered employment and payroll data from Employment Security.

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[1] Census of Agriculture, United States Department of Commerce, Bureau of the Census, 1969 and preliminary 1974. Comprehensive DAta Book, Tables IV-A-2-a and IV-A-2-b.

[2] Leadbetter Point Environmental Assessment, Washington State Parks and Recreation Commission, April, 1974.

These data are not considered to have an accurate basis. The following section on value of agricultural products will provide a reliable and updatable number, which may be used in the absence of actual payroll data.

2. Value of Agricultural Products

According to the Census of Agriculture there were $3,490,000 of agricultural products sold in 1974 in Pacific County. In constant 1975 dollars, the value of agricultural products sold in 1969 was $5,097,000 (see Summary Table 6). This represents an average annual decrease of -7.26 percent in value of product. The average value per farm of products sold decreased from $17,104 in 1969 to $12,034 in 1974 representing an average annual decline of -6.79 percent. These declines in value are due both to a decrease in quantity of product, as well as to a decrease in the value of the product.

3. Capital Facilities

According to the Census of Agriculture, there were 290 farms on 34,570 acres of farmland in Pacific County in 1974. The average size of each farm, then, was 119 acres. In 1969 the average size of farms in the County was 138 acres. The value of land and buildings grew from $18.5 million in 1969 to $23.7 million in 1974. The average value of land and buildings per farm increased from $62,184 in 1969 to $81,631 in 1974.[1]

The estimated market value of farm machinery and equipment was about $3.0 million in 1969 and $3.8 million in 1974.[2] This value included 365

[1]Shown in current 1969 and 1974 dollars since no appropriate index was identified for adjusting to constant dollars.

[2]Adjusted to 1975 constant dollars using the Consumer Price Index from U.S. Department of Commerce, Statistical Abstract of the U.S., 1975.

SUMMARY TABLE 6

VALUE OF AGRICULTURAL PRODUCTS SOLD

Pacific County
1969 and 1974
(in constant 1975 dollars)[1]

	1969	1974
Crops, Including Nursery Products and Hay	$2,520,000	$1,271,000
Forest Products	203,000	231,000
Livestock, Poultry and Their Products	2,364,000	1,988,000
Total Value of Agricultural Products Sold	5,087,000	3,490,000
Average Value per Farm	$ 17,070	$ 12,034

[1]Adjusted to constant 1975 dollars using the Wholesale Price Index from the Statistical Abstract of the United States, 1975.

Source: Census of Agriculture, United States Department of Commerce, Bureau of the Census, 1969 and Preliminary 1974. Adjusted to 1975 constant dollars using the Wholesale Price Index from Statistical Abstract of the United States, 1975.

motortrucks (including pickups) and 286 wheel tractors, or a decline of 48 farm vehicles since 1969.

B. FISHING

Fishing is an important part of the Pacific County economy. This industry transcends the north-south County division witnessed in several other industries. Major species landed at Pacific County ports are Chinook and Coho salmon, Albacore tuna and shellfish, such as crab, oysters and shrimp. It is difficult to obtain data on this industry. For this reason, the information provided below does not conform completely to the detail provided in other industry profiles but will, to the extent possible, describe the employment, payroll, value and capital facilities associated with fishing industry.

1. Employment and Payroll

Published sources of data on fisheries employment do not reflect accurately the number of people employed in the industry. Arnold Shotwell, an Environmental Planner in Pacific County, is presently preparing a management study for Willapa Bay. In the course of his study he has determined that about 330 residents of Pacific County derive all or part of their income from fishing. Another approximate 900 out-of-county people have licenses to troll in Pacific County fisheries. Neither of these groups of people include the people employed in the harvest of Pacific oysters. Apart from these numbers, the data on fisheries employment is only available from the Census or from Employment Security both of which aggregate fisheries employment with agriculture and forestry. Although, estimates could be made from these sources, it is felt that the more accurate data, which

will soon be available from Mr. Shotwell, will be more useful to County planners.

2. Quantity and Value of Harvest

The major species landed at Pacific County ports are salmon, tuna, shrimp, oysters and crab. The following discussion describes the geographic orientation of specific fisheries, as well as the quantity and value of the fishery.

a. Oyster production has traditionally been Willapa Bay's most valuable economic resource and is harvested between October and June. The Pacific oyster, originally imported from Japan, is most commonly produced. Oysters production takes place in both north and south Pacific County; however, the major activity occurs in the northern part of Willapa Bay in north Pacific County. In 1974, 1,495,000 pounds of Pacific oysters were reported at north Pacific County ports, while 652,000 pounds were reported at south County ports. This total of 2,147,000 pounds is a decline from the oyster harvest in 1972 of 3,637,000 pounds County-wide.

Although detailed data was not available back to 1970, sources in Pacific County say that oyster production dropped by half after 1970 when the larger producers determined it to be more profitable to import and can Korean oysters. Local oyster beds were harvested only minimally and the remaining local oysters are now oversized. In addition, there is a shortage of new oyster seed. This problem has not yet been resolved.

With the exception of 1971 when the County oyster production was only 34 percent of the total State oyster harvest, Pacific County's oyster harvest accounts for about 50 percent of the State harvest (see Summary Table 7). Summary Table 8 shows the Pacific County harvest and value of the harvest for all fisheries from 1971 through 1974. This data was compiled by HRPI from detailed data of landings by port collected by Washington State Department of Fisheries.

Although data by port were available, they could not be reported without disclosing confidential information on individual businesses. The first year of data collection in this form was 1971, so that the significant shift from local oyster production to imported oysters in not observed. Data for 1975 is still in the process of being published. Comparable data for north and south Pacific County ports, as well as the State of Washington are available in the Comprehensive Data Book (CDB) Tables IV-B-1, IV-B-2, and IV-B-3.

The value of oyster production in Pacific County in 1974 was about $2,525,000. This is a decline from 1972 when the value of oyster production was $3,674,000.[1] The value for oysters reflects the value at the plant which includes labor and transportation, rather than the value on the ground. Although the latter figure would compare more closely to the values shown in other fisheries, it would be an estimate. The value at the plant is used because it is an

[1]Adjusted to constant 1975 dollars using the Consumer Price Index for fish from the Statistical Abstract of the United States for 1975.

SUMMARY TABLE 7

PACIFIC COUNTY FISHERIES HARVEST AND VALUE AS A PERCENT
OF WASHINGTON STATE HARVEST AND VALUE

1971-1974
(in percent)

Specie	1971		1972		1973		1974	
	Harvest	Value of Harvest	Harvest	Value of Harvest	Harvest	Value of Harvest	Harvest	Value of Harvest
Salmon-Total	7.4	7.5	9.2	9.4	4.9	5.6	6.2	6.0
Chinook	12.3	9.8	13.0	13.2	15.8	17.7	10.8	11.5
Coho	22.8	23.7	15.4	14.9	5.9	5.4	9.8	11.2
Chum	8.3	6.3	6.4	5.4	5.8	5.2	7.5	6.9
Other	-	-	-	-	-	-	-	-
Albacore Tuna	34.1	34.2	35.1	35.4	46.1	45.9	63.2	63.5
Miscellaneous Fish	0.5	0.6	0.9	1.1	1.6	1.2	2.1	2.3
Shellfish-Total	34.0	32.8	35.2	40.6	41.8	43.7	52.3	48.9
Dungeness Crab	43.2	41.2	36.4	36.5	39.3	38.6	42.9	43.1
Oysters	34.1	31.9	50.0	48.3	50.0	48.9	53.4	51.1
Shrimp	-	-	14.6	13.7	56.2	50.6	75.2	70.0
Other	0.3	0.3	0.9	1.1	1.0	0.9	0.4	0.3
Total	10.2	13.1	14.0	20.3	12.3	13.4	18.1	19.4

Source: Human Resources Planning Institute, Compiled from data from Washington State Department of Fisheries

actual number, however, it reflects about twice the "off-vessel" value used in other fisheries. These data are available through Washington State Department of Fisheries.

b. Shrimp harvest in Pacific County began only recently in 1972-73. The Pacific County shrimp harvest grew from nothing in 1971 to 244,000 pounds or about 15 percent of the State harvest in 1972 to 6,988,000 pounds or about 75 percent of the State harvest in 1974 (see Summary Table 7).

The dollar value generated by the shrimping industry experienced similar growth over the period. In 1972 the value of the shrimp harvest was $48,000. The value increased to $1,285,000 in 1974.[1] The industry should continue to increase at a rapid rate for another couple of years and then, assuming present attempts to regulate the fishery are successful, it should level off to some sustainable yield.

One particular concern of the shrimping industry is the bar crossing from deepwater into Willapa Bay. Although the boats in the shrimping fleet only draw about 12 feet, and the mean lower low water (MLLW) depth at the bar is 17 feet, during rough water the boats have difficulty avoiding deep troughs and hitting bottom. The industry has not resolved this problem yet.

Summary Table 8 shows the shrimp harvest and value of harvest in

[1]Adjusted to constant 1975 dollars using the Consumer Price Index for fish from the Statistical Abstract of the United States for 1975.

Pacific County Ports
1971-1974
(in thousands of pounds and constant 1975 dollars)

Species	1971 Harvest	1971 Value of Harvest	1972 Harvest	1972 Value of Harvest	1973 Harvest	1973 Value of Harvest	1974 Harvest	1974 Value of Harvest
Salmon - Total	3,983	$2,246	3,112	$2,326	2,860	$3,279	2,850	$2,156
Chinook	1,006	671	984	843	1,697	2,203	964	857
Coho	2,835	1,531	1,520	1,188	768	773	1,497	1,128
Chum	142	44	608	295	395	303	389	171
Other	*	*	-0-	-0-	*	*	-0-	-0-
Albacore Tuna[1]	1,799	853	5,699	2,719	6,663	3,341	11,361	4,419
Misc. Fish	256	49	461	84	855	114	1,321	197
Shellfish - Total	8,110	3,603	8,410	6,206	7,707	4,805	11,549	5,325
Dungeness Crab	5,762	1,774	4,507	2,478	1,798	1,211	2,402	1,513
Oysters	2,338	1,827	3,637	3,674	2,838	2,974	2,147	2,525
Shrimp	-0-	-0-	244[2]	48[2]	3,044	615	6,988	1,285
Other	10	2	22[2]	6[2]	27	5	12[2]	2[2]
Grand Total	14,148	6,751	17,682	$11,335	18,085	$11,539	27,081	$12,097

[1]Only includes south County catch due to disclosure restrictions.

[2]Only includes south County catch, none of this specie was caught in the north this year.

*Insignificant catch.

Source: HRPI, Compiled from data from Washington State Department of Fisheries.

Pacific County from 1971 to 1974. See Section IV-B-2-a, for a discussion of the detail and availability of fisheries data.

c. The Dungeness crab fishery in Pacific County runs from December through September and normally accounts for about 40 percent of the Washington State harvest. Approximately 50 percent of the County crab harvest is landed at north County ports. According to the Leadbetter Point Environmental Assessment, about 20 to 25 percent of the crabs are caught in the Willapa Bay estuary with the remainder being caught off-shore.[1]

About 5.8 million pounds of crab were harvested in Pacific County in 1971. The harvest fell to about 1.8 million in 1973 and then, increased again in 1974 to 2.4 million pounds. The productivity of Dungeness crabs is highly cyclical and may fluctuate by 50 percent from year to year. Reasons for these fluctuations are not completely understood. Depending on the fishery's productivity in a given year, however, fishermen will shift in or out of the fishery, accordingly.

The value of the Pacific County Dungeness crab fishery grew from about $0.31 per pound in 1971 to $0.70 per pound in 1974 (see Summary Table 8).[2] Total value fluctuated with the size of catch from a high in 1972 of about $2.5 million to a low in 1973 of $1.2 million. As shown in Summary Table 7 the value of the crab harvest

[1]Leadbetter Point Environmental Assessment, Washington State, Parks and Recreation Commission, April, 1974.

[2]Adjusted to constant dollars using the Consumer Price Index for Fish from the Statistical Abstract of the United States for 1975.

in Pacific County accounted for about 40 percent of the crab harvest value statewide.

d. The landings of Albacore tuna at Pacific County ports increased steadily from 1971 to 1974. In 1971 about 1.8 million pounds were landed; landings increased to six and seven million pounds in 1972 and 1973 and in 1974, 11 million pounds of tuna were landed in Pacific County (see Summary Table 8).

The percent of the total State tuna harvest landed in Pacific County also increased over the period, from 34 percent in 1971 to 63 percent in 1974 (see Summary Table 7).

Tuna landings have increased slightly faster at north County ports than at southern ports. Although much of the tuna landed in Pacific County is processed elsewhere, the significant increases in landings provide income in terms of moorage fees and transportation.

The value of the County tuna harvest has also shown substantial gains. From about $853,000 in 1971, the value of the tuna harvest has grown to about $4.4 million. During this period the "per pound" value of tuna increased from $0.47 in 1971 to $0.50 in 1973 and then dropped to $0.39 in 1974. In other words the increase in total value is due primarily to increasing size of catch and not to increased value per pound. This condition is likely to change in the near future due to a recent move to restrict the number of porpoises which may be

caught inadvertently in the tuna nets. This restriction will necessarily cause the price of tuna to increase and consumer demand to shift to substitutes in the short run. This probable situation, together with the naturally fluctuating productivity of the fishery, will likely have a negative effect on the tuna industry over the next few years.

e. Salmon, including Chinook, Coho, and Chum, are landed primarily at south Pacific County ports starting in late June through November. Pacific County salmon landings declined steadily from a total of about four million pounds in 1971 to about 2.8 million pounds in 1974 (see Summary Table 8). Pacific County's share of Washington State salmon landings also declined over the period. Coho, the County's most important specie of salmon, decreased from 23 percent of the State harvest in 1971 to ten percent in 1974. The County's Chinook salmon increased slightly as percent of the State's total Chinook harvest, from 12 percent in 1971 to 16 percent in 1973. This share, however, decreased again in 1974 to less than 11 percent (see Summary Table 7).

The percentage of salmon landed at Pacific County ports is a relatively minor part of the total Washington State harvest. However, the Willapa Basin provides over 630 miles of streams in which salmon migrate, spawn and rear.[1] The figures for landings

[1] Leadbetter Point Environmental Assessment, Washington State, Parks and Recreation Commission, April, 1974.

in Pacific County do not reflect those salmon originating from Willapa which are caught by fishermen from other areas who troll offshore.

The value of the salmon catch in Pacific County increased from about $2.2 million in 1971 to about $3.3 in 1973 and then decreased in 1974 to $2.2 million (see Summary Table 8). From 1971 the steady decline in fishery productivity was compensated by rising market value of the salmon catch. The "per pound" price of salmon increased from $0.56 in 1971 to $1.15 in 1973. Conversely, the decline in value of harvest in 1974 was a result of a decrease in the value of salmon to $0.76 per pound. These shifts in the value per pound are a direct result of increases in the demand for meat substitutes, when beef prices inflated nationwide.

Fluctuations of salmons landings, together with overfishing, cause salmon fishing to be unstable as a commercial enterprise. Artificial rearing techniques, however, are being more widely employed and production and value of salmon are expected to rise.[1]

[1] Leadbetter Point Environmental Assessment, Washington State, Parks and Recreation Commission, April, 1974.

C. MANUFACTURING

The Pacific County economy is heavily dependent on manufacturing for employment and income. Although employment in manufacturing has been declining in Pacific County since 1970, both absolutely and as a percent of total employment, manufacturing employment still accounted for more than 36 percent (1,680 workers) of total employment in 1975. Washington State's manufacturing employment accounts for about 23 percent of total which is comparable to the average nationwide.

Manufacturing in Pacific County is centered in two major industries, lumber and wood products and food processing. In 1975, employment in lumber and wood products accounted for about 68 percent of total manufacturing employment, food processing employment accounted for 28 percent, with the remaining four percent disbursed over other manufacturing activities.

Value added by manufacture is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas. Value added is derived by subtracting the total cost of materials from the value of shipments. The resulting amount is then adjusted by the net change in inventories between year beginning and year end. The final amount is roughly equal to the total wages paid by the industry for the year, plus a return on the investment in plant and facilities.

According to the 1972 Census of Manufacturers, there were 62 manufacturing establishments in Pacific County. The value added by manufacturing increased from $19.8 million in 1967 to $26.8 million in 1972 (see Summary Table 9).[1]

[1] Adjusted to constant 1975 dollars, using the Wholesale Price Index from the Statistical Abstract of the United States, 1975.

SUMMARY TABLE 9

VALUE ADDED BY MANUFACTURING

Pacific County
1967 and 1972
(in constant 1975 dollars)[1]

	1967	1972
All Manufacturing	$19.8	$26.8
Lumber and Wood Products	$14.3	$22.4
Difference[2]	$ 5.5	$ 4.4

[1]Adjusted to constant 1975 dollars using the Wholesale Price Index from the Statistical Abstract of the United States for 1975.
[2]Includes food processing, as well as any other minor manufacturing activities.

Source: Census of Manufacturers, United States Department of Commerce, Bureau of the Census, 1967 and 1972.

This increase represents an average annual growth of about 6.24 percent due almost totally to growth in the value added in lumber and wood products. The following sections describe the food processing and lumber and wood products industries of Pacific County in more detail, providing industry specific information on employment seasonality and payrolls, value added, and capital facilities.

1. Food Processing

Food processing is an important component of the Pacific County economy. Besides lumber and wood products, it is the County's only other major manufacturing activity. Food processing in Pacific County is almost exclusively limited to seafood processing. Seafood is processed and sold fresh, frozen, canned and smoked. Major species processed include oysters, Dungeness crab, salmon, and to a lesser extent, clams, shrimp and sturgeon. Other food processing activities in the County include a small dairy in Raymond, a cranberry screening plant in Long Beach, which only operates during the cranberry harvest, and a custom meat slaughter and cutting operating in South Bend.

a. Employment and Payroll

The food processing industry employed an average of 450 persons during 1975 (see Summary Table 3). This represented 9.9 percent of total covered employment in Pacific County and nearly 28 percent of all manufacturing employment. The relative importance of food processing as a source of employment in Pacific County appears to be declining. In 1971, food processing employed 11.4 percent of total covered employment.[1] By 1975, its share of total employment had dropped to 9.9 percent of the total. In other words, even though food processing employment (in absolute terms) has remained relatively stable, the industry has not kept pace with the growth of total employment within the County.

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[1] 1970 data is not used for comparison since government employment is not reflected in the total for that year.

Food processing is one of the most seasonal industries in Pacific County. Since it employs a significant portion of the work force, a factor of seasonality is built into the County economy, which is difficult to counterbalance. In 1975, one standard deviation of employment in food processing was 14.3 percent of total food processing employment (see Summary Table 4). This compares with the percent standard deviation of food processing employment statewide of 10.6 percent in 1975. With the exception of 1972 (when the standard deviation was also 14.3 percent of total food processing employment in the County) and 1975, the seasonality of the food processing industry in Pacific County is not significantly greater than for the industry, statewide. The greater seasonality of industry employment in Pacific County, when it does occur, is largely a result of the fluctuating nature of fisheries productivity.

In order to meet the local processing employment requirements, the food processing industry needs a labor force which is larger than its average monthly employed work force. Several factors are important in explaining this situation: First, as shown in Section IV-B, FISHING, the seasons for various fisheries overlap each other. As a result, workers are not always available to shift from the processing of one specie to another. Second, the skills necessary to process various species differ, so that the person qualified as an oyster shucker is not necessarily qualified as a crab shaker. Finally, many workers are only providing supplementary family income or are working in an off-season to a specific commercial fishery and are not interested, for

whatever reason, in working in a full-time, permanent position.

Total covered payroll in the food processing industry increased from about $2.9 million in 1970 to $3.1 million in 1971 and then declined to $2.7 million in 1975 (see Summary Table 5).[1] This decline was due to a decline in the food processing work force, discussed above, as well as to a decline in the average payroll per worker. The average annual payroll per worker was $6,228 in 1970. Although it fluctuated slightly over the period, payroll per worker in 1975 was $5,994. Statewide, food processing payroll per worker also fluctuated slightly, but ended up increasing from $10,827 per worker per year in 1970 to $11,073 in 1975. Therefore, not only did food processing payroll per worker decline in Pacific County, while it increased statewide, but the average annual payroll per worker in Pacific County was less by more than 40 percent than the average for the State. No one factor is solely responsible for this situation. The following discussion describes the primary reasons involved:

First of all seafood processing is more labor intensive and is considered to require fewer skills than other kinds of food processing. Food processing workers in Pacific County, therefore, cannot keep pace with the average payroll per worker statewide which includes those workers processing the farm products of eastern Washington.

[1] Adjusted to constant 1975 dollars using Consumer Price Index, All Items, from the Statistical Abstract of the United States for 1975.

Second, a large percentage of food processing workers are persons who are providing supplementary family income. Many of these people are only interested in part-time, temporary work and will accept lower wages in order to collect unemployment benefits in the off-season months.[1]

Third, and possibly the most important reason, is a problem caused by the method of reporting employment to Employment Security. Employment Security samples the work force one week out of each month (the week including the 15th) and adjusts the reported employment to reflect employment for the whole month. If the number of people working during the sample week is unusually high, employment for the month will be high and vice-versa. In addition, the sample does not distinguish between part-time and full-time workers or between temporary and permanent workers. Consequently, when dividing industry payroll by average monthly employment in an area which is relatively more seasonal than the State, where workers start and quit with greater frequency, a lower average payroll per worker results.

For a comparative illustration of average annual payroll per worker for the State and Pacific County, see Summary Table 5.

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[1] Per conversations with Arnold Shotwell, Environmental Planner in Pacific County, which were generally supported by findings of the HRPI telephone survey.

b. Value Added by Food Processing

Value added for food processing is not listed in the Census of Manufacturers for Pacific County. The Census of Manufacturers supposedly reports industries which have 450 employees or more in a given county. According to Washington State Employment Security, Pacific County has had at least 470 employees in food processing since 1970, so there appears to be an oversight on the part of the Bureau of the Census. It would be advisable to bring this to the attention of the Bureau.

The value added by food processing in Pacific County may be estimated by subtracting the value added by lumber and wood products from total value added. This difference slightly overstates the value added by food processing since it also includes the value added by printing and publishing or other minor manufacturing activities which take place in the County.

The estimated value added by food processing declined from $5.5 million in 1967 to $4.4 million in 1972 (see Summary Table 9). Fishing and, therefore, food processing, suffer from year-to-year fluctuations in the quantity of the harvest. It is possible, therefore, that this decline is only a result of a relatively poor fisheries harvest year.

Value added per worker in food processing also declined from 1967 to 1972. Employment remained stable while value added decreased; it is possible that the employment reporting problem discussed with

regard to average payroll per worker, is having a similar affect on the value added per worker, due to the fact that part-time or temporary workers are not differentiated from full-time, permanent employees.

c. Capital Facilities

There are 11 food processing plants in Pacific County. Most of these plants process seafood; however, in addition, there is a cranberry screening plant, a custom meat slaughtering plant and a small dairy. A major portion of the seafood processing plants process oysters. The oyster plants are old and deteriorating. This is due in major part to the fact that oyster processing has had no technical innovations and the equipment used 40 years ago is still used today. In addition, as has been stated, the industry is labor intensive and as such the relative importance of capital facilities is diminished.

2. Lumber and Wood Products

Lumber and wood products manufacturing is Pacific County's most important industry. It employs the largest percentage of people, pays the highest wage and is one of the least seasonal industries in the County economy.

With the exception of four small logging firms in Naselle, the industry is centered in the Raymond-South Bend area.

The following discussion will describe this industry's employment, payroll, value added and capital facilities.

a. Employment and Payroll

Employment in lumber and wood products has been declining since 1972, both in absolute terms and as a percentage of total employment. From 1,362 workers (29 percent of total employment) in 1972, industry employment declined to 1,109 (24 percent) in 1975 (see Summary Table 3). This decline in industry employment is being experienced regionally and nationally, as the industry becomes increasingly capital intensive.

The lumber and wood products industry is dominated by one firm in Pacific County. As such, when there is a labor dispute or a plant closure for annual maintenance, employment is severely affected. Standard deviation is being used in this report as a measure of employment seasonality. It is an extremely sensitive measure which will indicate variability of employment. In 1975 one standard

deviation of employment in lumber and wood products was almost 20 percent of average annual industry employment (see Summary Table 4). This was the highest percent standard deviation of any industry in the Pacific County economy in that year. The percent standard deviation in previous years seldom exceeded four or five percent. In conversations with Weyerhaeuser it was determined that in one month of 1975 there was a general plant closure for annual maintenance. In other words, the high percent standard deviation in 1975 in lumber and wood products was not due to seasonality, but rather to the variability of industry employment due to the dominance of one firm.

Total covered payrolls for lumber and wood products are the highest of any industry in Pacific County. In 1975 the lumber and wood products payroll accounted for 34 percent of total covered payrolls in the County. This percentage, however, is much lower than it was in 1971 when lumber and wood products payrolls accounted for 48 percent of total payrolls in the County (see Summary Table 5).[1]

The average annual payroll per worker in lumber and wood products is also the highest of all County industries. In 1970, average payroll per worker was $12,389; this figure increased to a high of $13,333 in 1972 and then declined to $12,918 in 1975.[2] Lumber and

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[1] 1970 data is not used since government payrolls are not reflected in that year and it is, therefore, not comparable.

[2] Adjusted to constant 1975 dollars using the Consumer Price Index, All Items, from the U. S. Department of Commerce, Statistical Abstract of the United States, 1975.

wood products is the only industry in Pacific County which has an average payroll per worker which exceeds that of Washington State for the same industry. The average annual payroll per worker in lumber and wood products for Washington State was $12,086 in 1970 and $12,463 in 1975. The fluctuations within this period were similar to those experienced in Pacific County.

Despite labor-saving technology, lumber and wood products employment should remain relatively stable in the future due to increased production.

b. Quantity and Value of Timber Harvest

According to the Timber Harvest Report, between 1970 and 1974 about 95 percent or more of the timber harvested in Pacific County came from privately-owned forest land.[1] The next largest ownership harvested was State forest land, which varied between one and six percent of total harvest over the period. In 1974, of the total 432,993 thousand board feet (Mbf) of timber harvested, 425,650 Mbf came from privately-owned land (see Summary Table 10). The major species of timber harvested in Pacific County are hemlock, Douglas fir, cedars, and Sitka spruce. In 1974 almost 95 percent of the private timber harvested was from these species.

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[1] Timber Harvest Report, Washington State, Department of Natural Resources, 1970-74.

SUMMARY TABLE 10

TIMBER HARVESTED - ALL OWNERSHIPS

Pacific County
1970-1974
(in percent)

	1970	1971	1972	1973	1974
Private Lands	97.6	96.1	94.0	95.9	98.3
State Lands	2.4	3.7	5.9	3.9	0.9
Other Public Non-Federal	-	-	-	0.3	0.8
Other Federal[1]	-	0.2	*	-	-
Total	100.0	100.0	100.0	100.0	100.0

[1]Not including United States Forest Service or Bureau of Indian Affairs lands.
*Insignificant cut.

Note: Percentage may not sum due to rounding.

Source: Human Resources Planning Institute, based on statistics from Timber Harvest Report, State of Washington, Department of Natural Resources, 1970-1974.

The value added by lumber and wood products manufacturing grew from $14.3 million in 1967 to $22.4 million in 1972.[1] More important, however, the industry accounted for 72 percent of total value added by manufacturing in 1967 and grew to almost 84 percent of total value added in 1972 (see Summary Table 9). This supports the fact that although industry employment and payrolls are declining, the productivity of the industry is increasing.

c. Capital Facilities

According to the Washington Mill Survey conducted by the Department of Natural Resources, Pacific County has two sawmills, eight shake and shingle mills and four export wood products mills. Both sawmills have a barker, chipper, planer, and a kiln. Of the other mills, two have chippers and five have burners.

Conversations with sources at Weyerhaeuser's Raymond office indicate that the company's installations in Pacific County are well maintained. Weyerhaeuser is presently in the process of developing and finalizing capital plans for 1977. These plans will include plant improvements responding to environmental legislation, as well as to production efficiency. In early 1977, the company will close a shingle mill in Raymond which will affect about 30 jobs.

[1] Adjusted to constant 1972 dollars using the Wholesale Price Index, Wood Products, from the Statistical Abstract of the United States for 1975.

3. Other Manufacturing

Other manufacturing activities in Pacific County consist of local newspapers (printing and publishing), some small machine shops in South Bend, a boat builder and a trophy manufacturer in Ilwaco, and a manufacturer of concrete products in Chinook.[1]

Employment in other manufacturing is minimal; however, it increased steadily from 45 people in 1970 to 58 people in 1974. In 1975 employment declined to 53 employees accounting for 11 percent of total employment or three percent of total manufacturing employment (see Summary Table 3).

Historically, other manufacturing has shown a relatively high degree of variability in employment. However, in 1975, the percent standard deviation of other manufacturing (including printing and publishing) was low compared with other industries as well as to its own historical trend of percent standard deviation (see Summary Table 4).

Average annual payroll per worker increased slightly for printing and publishing workers from $4,428 in 1970 to $4,587 in 1975 and for other manufacturing workers from $8,503 in 1970 to $8,546 in 1975. These rates compare to statewide averages in 1975 of $11,018 per worker in printing and publishing and $14,305 per worker in other manufacturing (see Summary Table 5).[2] The State's average is higher in printing and publishing due primarily to larger corporations located in metropolitan areas

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1 Directory of Washington Manufacturers 1974, Washington State Department of Commerce and Economic Development, Trade Development Division.

2 Adjusted to constant 1975 dollars using the Consumer Price Index, All Items, from the U. S. Department of Commerce, Statistical Abstract of the U.S., 1975.

of the State which require greater skills.

Manufacturing (without printing and publishing) statewide includes aerospace and other transportation equipment manufacturing, where wages are higher and employment is not seasonal.

As shown, other manufacturing sectors in Pacific County are small and are relatively unimportant to the County economy at the present time.

D. TOURISM

Tourism, as an industry, is not broken out by county in any serial publication, such as the Census. This is due primarily to the fact that tourism actually overlaps the service and retail trades industries. The employment and dollars accruing to tourism are, therefore, difficult to identify with certainty and are easily subject to double accounting.

In order to provide some estimate of employment and payrolls accruing to tourism in a form which can be updated with relative ease, the following technique will be employed:

ESTIMATING TECHNIQUE-TOURIST INDUSTRY EMPLOYMENT AND PAYROLLS

The tourist industry is assumed to consist of auto dealers/service stations and eating/drinking places, retail trade and amusement/recreation and hotel/other lodging places services. Due to the nature of the industry, employment is highly seasonal. The influx of tourists to Pacific County starts in about May of each year and phases out in September and October. The biggest tourist months are July, August and September. Because of the availability of payroll data on a quarterly basis, the tourist season, for purposes of estimating employment and payroll, will be defined as the third quarter of each year (July through September). Based on data available monthly on covered employment and payrolls by industry from Washington State Employment Security, average monthly employment will be calculated for the three-month summer tourist season (Column 1, Average Monthly Employment, Summer, Comprehensive Data Book (CDB) Table IV-D-1. Average monthly employment will also be computed for the nine-month off-season (Column 2, Average Monthly Employment, Off-Season, CDB, Table IV-D-1).

Column 2 will be subtracted from Column 1. The difference is assumed to be that employment associated with tourism (Column 3, Average Monthly Employment, Tourism, CDB, Table IV-D-1).

Next, the Average Summer Wage Per Worker is computed by dividing third quarter payrolls by third quarter average monthly employment (Column 4, Average Summer Wage Per Worker, CDB Table IV-D-1).

Multiplying Column 3 by Column 4 produces the annual payroll associated with the tourist industry (Column 5, Tourism Payroll, CDB, Table IV-D-1).

The only exception to this estimation technique is made for the "hotel and other lodging places" sector of the services industry. Few people stay in hotels, motels, campgrounds, etc. in the area in which they reside. Therefore, hotels and other lodging places employment should accrue in total to the tourist industry. Employment and payrolls associated with the tourist industry are shown in detail in CDB Table IV-D-1, 1970-1975.

Overall, the estimated employment and payrolls are felt to be understated. The figures include the effects of increased economic activity in other industries during the summer, however, they do not include employment in the tourist season fringe months of May and October, self-employment not covered by Employment Security, or tourist-related employment in such industries as food processing. The estimation technique will be used since Pacific County planners can update the figures relatively easily and because the estimation will show industry trends. However,

development of the tourist industry will be important to the economy of the County over the next decade. This development would be greatly facilitated by a special study which would determine the actual economic contribution made by the tourist industry and which would develop a methodology for the on-going collection of a relevant data base.

The tourist industry in Pacific County is centered in the southern part of the County on the Long Beach Peninsula. According to a 1970 Battelle Northwest study in the Long Beach area, clamdigging, beachcombing, charter boat fishing, and driving on the beach are important tourist activities.[1] These and various other activities result in tourist expenditures on lodging, food, gas and entertainment while visiting Pacific County. The following discussion will describe the estimated employment and payrolls associated with tourism, the value of tourism to the Pacific County economy, and the capital facilities associated with the industry.

1. Employment and Payroll

Estimated employment in the tourist industry in Pacific County averaged about 358 persons per month during the months of July, August and September of 1975. This employment converts to 90 people on a year-round basis (358 people x 3 summer months ÷ 12 months of the year). As such, industry employment accounted for three percent of total non-manufacturing employment in Pacific County in 1975 (or two percent of

[1]The Future of the Long Beach Peninsula Seashore, Battelle Northwest, for Pacific County Commissioners and the Washington State Parks and Recreation Commission, June, 1970.

total employment). It is perhaps more revealing to view tourist industry employment on an average monthly basis for only the three summer months. During the summer months of 1975, for instance, tourist industry employment increased to about 13 percent of total non-manufacturing employment or seven percent of total employment.

As indicated in Summary Table 11, tourist industry employment is made up of two sectors of the services industry, amusement/recreation and hotels/other lodging places, and two sectors of retail trade, auto dealers/service stations and eating/drinking places.[1] The major employer of these four sectors is hotels and other lodging places which accounted for 51 percent of tourist industry employment in 1970. This share has increased since 1970, probably due to an increase in establishments. The percent share of tourist industry employment commanded by eating and drinking places has declined from about 44 percent in 1970 to about 32 percent in 1975. This decline is probably due in large part to a rise in the use of recreational vehicles, such as camper-vans, which accommodate easy and cheaper meal preparation.

Total tourist industry employment increased from 251 people in 1970 to 358 people in 1975 (in average monthly employment for the three summer months). Growth in industry employment was slow from 1972 to 1974 due in major part to the gas shortages experienced nationwide. Total employment increased significantly from 290 people in 1974 to 358 in 1975. This increase is explained in part by the addition of a new

[1]Amusement and recreation services includes the employment in the important charter boat fishing industry.

SUMMARY TABLE 11

SUMMARY OF EMPLOYMENT AND PAYROLL

Pacific County Tourist Industry
1970-1975

	1970		1971		1972		1973		1974		1975	
	Employment[1]	Payroll[2/3]	Employment[1]	Payroll[2/3]	Employment[1]	Payroll[2/3]	Employment[1]	Payroll[2/3]	Employment[1]	Payroll[2/3]	Employment[1]	Payroll[2/3]
Services												
Amusement and Recreation	28	$29,320	27	$37,030	25	$32,080	37	$44,920	44	$64,950	84	$150,780
Hotels and Other Lodging Places	104	63,300	104	61,510	135	87,650	122	95,410	155	162,670	184	156,400
Retail Trade												
Auto Dealers and Service Stations	8	13,340	18	27,710	17	27,860	8	13,910	15	26,970	24	41,710
Eating and Drinking Places	111	111,780	126	128,010	104	113,850	111	119,760	76	80,380	116	126,210
Total	251	$217,740	275	$254,260	281	$261,440	278	$274,000	290	$334,970	358	$475,100

[1]Average monthly employment during summer tourist months.
[2]Average monthly summer employment-multiplied by average summer (three month) payroll.
[3]Adjusted to constant 1975 dollars using CPI Index for Health and Recreation, Other Goods and Services from the Statistical Abstract for the United States, 1975.

Source: Estimated by HRPI using data from Employment Payrolls in Washington State by County and Industry, Industries Covered by the Employment Security Act, No. 117, 1975.

120-unit hotel in Long Beach, but probably more importantly by a recovery of the tourist industry in general after the gas shortage.

The tourist industry in Pacific County (or more specifically on the Long Beach Peninsula) is similar to the industry in general, with respect to its extreme seasonaltiy. However, little can be done to stabilize the seasonal fluctuations since the industry is responding to the natural cycles of sport fisheries, as well as to people's ability and desire to travel during the summer when the weather is nice and children are out of school.

The seasonality of the tourist industry is supported by the percent standard deviation of employment in the services and retail trade industries. In 1975 one standard deviation in services employment was 19 percent of total employment in that industry. Similarly, the standard deviation in retail trade employment was 13 percent of total employment in that industry (see Summary Table 4). As measured by percent standard deviation these industries are some of the most seasonal industries in the economy.

Based on the estimating technique described at the beginning of this section, payrolls in the tourist-related industries grew from 217,740 in 1970 and to 475,100 in 1975.[1] This growth in total tourism payrolls represents a substantial average annual increase of 13 percent.

[1]Adjusted to constant 1975 dollars using the CPI Index for Health and Recreation, Other Goods and Services from the Statistical Abstract of the United States, 1975.

Tourist industry payroll, however, only accounts for about one percent of total payrolls in Pacific County.

2. Value of Tourism

The value of the tourist industry in Pacific County is difficult to estimate. Statistics are available which estimate the value for various components of the industry, such as hunting, fishing, lodging and kindred services. However, these data are not prepared in a comparable form which would allow one to simply sum the value of each component. In addition, one must choose whether to evaluate the value of recreation activity to the tourist or the value of such activity to the economy.

In the following discussion the value of tourism to the Pacific County economy will be presented based on data published by the Travel Division of the Washington State Department of Commerce and Economic Development. Travel expenditure statistics by County were first developed by the Department in 1974. Data for 1975 has recently been published and the Department expects to continue its annual publication.

The Department estimated lodging expenditures to be, on an average, 62 percent of retail expenditures for hotels and other lodging place services which include associated services such as restaurants, service stations, and laundries. This percentage was applied to taxable retail sales for hotels/motels in Pacific County available quarterly from

the Washington State Department of Revenue.[1] Results from the 1972 National Travel Expenditure Study indicated that an average of 11 percent of expenditures by travelers in Washington goes for lodging Applying 11 percent to the estimated lodging expenditure figures, then, will yield total travel expenditures.

Summary Table 12 presents travel expenditure data, computed in the above fashion, for Pacific County for 1974 and 1975.[2] In 1974 total travel expenditures in Pacific County were estimated to be $10.8 million. This figure increased to $12.0 million in 1975. A more revealing statistic is the percent travel expenditures are of local retail sales. In 1974 travel expenditures accounted for 23.9 percent of local retail sales. This percentage increased in 1975 to 24.5 percent, indicating the growing importance of the tourist industry to the Pacific County economy.

Travel expenditures per capita in Pacific County grew from $685 in 1974 to $756 in 1975. Pacific County ranked sixth of the 39 counties in Washington for travel expenditures per capita.

The above figures on total travel expenditures are felt to be the most accurate on an industry-wide basis and the data base is available with which to update the statistics yearly.

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[1]Quarterly Business Review, Washington State Department of Revenue.

[2]The dollar figures are shown in current dollars, since no applicable price index could be identified to update the figures to constant dollars.

SUMMARY TABLE 12

DISTRIBUTION OF TRAVEL EXPENDITURES

Pacific County
1974 and 1975

Year	Lodging Expenditures Millions of $	Total Travel Expenditures Millions of $	% of Local Retail Sales	% of Total Expenditures	Travel Expenditures Per Capita (Dollars)
1974	1.2	10.8	23.9	1.1	685.00
1975	1.3	12.0	24.5	1.3	756.00

Source: Distribution of Travel Expenditures, Washington State Department of Commerce and Economic Development, Travel Division, 1976.

Activities which contribute to the tourist industry such as clamdigging, hunting, camping, sightseeing, etc. have values which can be estimated. Attempts are being made currently to make these value estimates; the attempts, however, are not organized under any one agency and the techniques and methodologies employed differ by activity. The scope of this study does not allow a discussion on a broad range of individual tourist activities which would not yield comparable statisitics. However, the importance of sports fishing in Pacific County, in terms of both direct and indirect income generated, and the availability of data warrant a special, albiet brief, discussion of sport fishing.

Sports fishing, especially deep-sea charter boat fishing, is an important part of the tourist industry on the Long Beach Peninsula. The Washington Salmon Sport Catch Report available from punch card returns from the Washington State Department of Fisheries (1971-1974), gives statistics on

- number of marine salmon (by species) caught and marine angler trips by marine area
- number of freshwater salmon caught by stream
- number of marine salmon caught by marine area and by angler residence

These statistics are presented in CDB Tables IV-D-2-a through IV-D-2-d. Statistics for 1975 have not yet been published; however, based on a telephone conversation with Gene Nye, Department of Fisheries, there were 308,475 sport salmon caught in Pacific County in 1975. Sport salmon average about six or seven pounds each and based on prices received by commercial

fisherman ($1.00 to $1.20 per pound) the wholesale value of the sport salmon catch in about $2.5 million.

Additional data on tourist-related activities are available through the Washington State Game Department, the U.S. Department of the Interior, Bureau of Outdoor Recreation, the Washington State Interagency Committee on Outdoor Recreation, the Travel Division of the Washington State Department of Commerce and Economic Development (DC and ED), Washington State Department of Fisheries, and the Washington Association of Conservation Districts. At the present time, no data exist, with the exception of that presented from DC and ED, which prepares and consolidates tourist expenditures by activity type by county.

3. Capital Facilities

The development of a viable tourist industry in Pacific County has been retarded, at least in part, by the large number of small, aging or obsolescent tourist accommodations.

The Department of Social and Health Services (DSHS) listed 79 licensed hotels and motels in Pacific County in 1972. Of those, 53 has less than 10 units, 21 had 11 to 25 units, and only three had more than 25 units. The licensed establishments had a total of 769 units, of which 29 units were without bath (see CDB Table IV-D-3).

Since 1972 the largest new tourist facility to be constructed is the 120-unit Chatauqua Hotel. This facility lacks a meeting room suitable for conferences and conventions, but plans to add on in 1977 or 1978.

Although the number of lodging units has increased, in May 1976, DSHS listed 74 hotels and motels, of which 71 were currently licensed, indicating that several of the older hotels and/or motels have gone out of business since 1972.

In addition to service and retail trade establishments, such recreation facilities as golf courses, beaches and youth camps are relevant. The Washington Association of Water Conservation Districts made an inventory of private outdoor recreation facilities by county in Washington State in 1974. Data for Pacific County were obtained through the Cooperative Extension Service in Pullman, Washington and a copy of the detailed listing is presented in the Comprehensive Data Book, Table IV-D-4. Summary Table 13 summarizes these data. Campgrounds and trailer parks are the primary types of private recreation facilities.

Summary Table 14 presents public recreation acreage by ownership.[1] The State and federal governments are the largest owners of public recreation land in Pacific County.

Finally, Summary Table 15, Recreation Land by Type, shows the number of acres of land in Pacific County associated with 13 of the 21 area types defined in the Washington Statewide Comprehensive Outdoor Recreation and Open Space Plan, (SCORP), 1973.[2] According to SCORP, there were 47,287 acres of recreation land, both private and public, developed and undeveloped, in Pacific County in 1971. This acreage

[1] Washington Statewide Comprehensive Outdoor Recreation and Open Space Plan, Interagency Committee for Outdoor Recreation, Vol. II, May, 1973.
[2] Ibid.

SUMMARY TABLE 13

INVENTORY OF PRIVATE OUTDOOR RECREATION FACILITIES

Pacific County
1974

Type	Number
Campground	66
Field Sports Areas	1
Golfing Facilities	2
Historic and Archeological Sites	1
Hunting Areas	2
Picnic Areas	1
Recreation Resorts	1
Rodeo, Zoo, Outdoor Theater, etc.	2
Trails	1
Water Sports Areas	3
Total	80

Profit-Oriented Facilities - 71

Non-Profit Facilities - 9

Source: Inventory of Private Outdoor Recreation Facilities, Washington Association of Water Conservation Districts, 1974. Available from Cooperative Extension Service, Pullman, Washington.

SUMMARY TABLE 14

INVENTORY OF PUBLIC RECREATION LAND

Pacific County
1971

Local Agencies	Acres
City	62
County	114
Port District	23
State Agencies	
Department of Game	909
Department of Natural Resources	1778
Institutions of Higher Education	523
Parks and Recreation	3276
Federal Agencies	
Bureau of Land Management	4
Bureau of Sport Fisheries and Wildlife	9608

Source: Washington Statewide Comprehensive Outdoor Recreation and Open Space Plan, (SCORP), Interagency Committee for Outdoor Recreation, Vol. II; May, 1973.

SUMMARY TABLE 15

RECREATION LAND BY TYPE

Pacific County
1971

Area Types	Acres
Private	16,300
Small Urban Recreation	50
Large Urban Recreation	16
Regional Recreation	1,965
Forest	1,778
Wildlife Habitat	1,694
Freshwater Shoreline	38
Saltwater Shoreline	485
Urban Malls and Squares	*
Wetlands	9,608
Historical/Cultural	686
Small Urban School Sites	5
Water Bodies	14,662
Lakes/Ponds	20
Rivers	923
Streams/Creeks	657
Pacific Coast	12,862
Total Recreation Land	47,287

*Insignificant Acreage
Source: Washington Statewide Comprehensive Outdoor Recreation and Open Space Plan, Interagency Committee for Outdoor Recreation, Vol. II; May, 1973.

represents about eight percent of the total acreage in the County.

Much of Pacific County's recreation land is un- or under-developed at the present time. Private investors, however, are viewing the potential of the tourist industry in Pacific County more seriously. The feasibility of facilities such as a convention center on the Long Beach Peninsula and campgrounds in the northern part of the County is presently under study. Development of the tourist industry in Pacific County holds the promise of improving the economy of the County while at the same time maintaining the area's environmentally sensitive character. Further, more organized study of this industry is warranted. Studies should be initiated which will produce an acceptable list of public and private recreational development, develop criteria with which to prioritize projects, determine the feasibility of individual projects, seek sources of funding, and prepare a workable time table for implementation.

E. SERVICES

The services industry in Pacific County is made up primarily of establishments offering such services as lodging, automotive repair, amusement and recreation and legal services. Due to the greater degree of tourism which takes place in the southern part of the County, the number of service establishments in that area constitutes a major percentage of the total County industry.

The following discussion will describe the industry's employment, payroll, value of receipts and capital facilities. The primary data sources which will be used are Washington State Employment Security for covered employment and payrolls and the Census of Selected Services.

1. Employment and Payroll

According to quarterly reports of covered employment from Washington State Employment Security (1970-75), employment in the services industry in Pacific County grew from about 320 employees in 1970 to 500 employees in 1975. This increase represents an average annual growth over the six year period of about 7.1 percent making services the fastest growing industry in the economy. With the exception of 1975, services employment has accounted for about nine to ten percent of total employment in Pacific County. In 1975, the industry's percent share of total employment grew to about 13 percent (see Summary Table 3). Growth in services employment is being experienced nationwide as leisure time and real personal income continue to rise.

Services employment is extremely seasonal in Pacific County due to the impact of tourism in the southern portion of the County. Such amenities as deep sea fishing, clamdigging and the various other attractions of the ocean beaches draw visitors from all over the Northwest who need gas, lodging and food. The standard deviation of service employment shown as a percent of total industry employment was about ± 19 percent in 1975 (see Summary Table 4). In 1970 a standard deviation was ± 13 percent of total service industry employment. The increase in the standard deviation of employment is indicative of the growth in tourist-related service employment over the 1970-75 period. See Section IV-D, TOURISM, for a more detailed discussion of tourism employment.

According to covered payroll statistics from Washington State Employment Security, the average annual payroll per worker in the service industry grew from $4,348 in 1970 to $4,886 in 1975 (see Summary Table 5).[1] These figures compare with average annual payroll per worker in services for Washington State of $7,750 in 1970 and $7,957 in 1975. No one factor is solely responsible for the discrepancy in per-worker payroll between the County and the State. The extreme seasonality of the industry contributes. Many of the workers hired during the summer months, work only part-time. The wages accruing to these people are part-time wages. However, the method of counting workers serves to reduce the average payroll per worker. Although this procedural condition holds true all over the state, the fluctuation in summer-time employment as shown by the percent standard

[1]Adjusted to 1975 dollars using the Consumer Price Index, All Items, U. S. Department of Commerce, Statistical Abstract of the United States, 1975.

deviation is not as great statewide. See Section II-D for a more detailed discussion of average payroll per worker.

Total annual services payroll grew from $1.4 million in 1970 to about $2.4 million in 1975. Based on this calculation, the service industry payroll accounted for about six percent of total payrolls in Pacific County in 1975.

2. Value of Receipts

Data on the value of receipts for the service industry are taken from the Census of Selected Services. Although this census does not give detail on all service establishments, it is the best source of data available. Selected services for which detail is provided are: hotels, motels, trailer parks and campgrounds; automotive repair services; amusement and recreation services, including motion pictures; and, legal services.

According to the 1972 Census of Selected Services, receipts from all service establishments equalled $3,645,000. About 31 percent (or $1,123,000) of receipts were generated by establishments in Raymond, with the remaining 69 percent coming from the rest of Pacific County. The major portion of these remaining receipts can be attributed to the service establishments on the Long Beach Peninsula.

The selected services of greatest importance are hotels and other lodging places and amusement and recreation. Of the total $1,036,000 in receipts

for hotels and other lodging places in 1972, (28 percent of receipts from all service establishments) 93 percent or $964,000 were generated by establishments outside Raymond. Receipts for amusement and recreation were not disaggregated by geographic location due to disclosure; however, it may be assumed that a similar or higher percentage of the $692,000 in receipts for this sector were generated by establishments outside of Raymond.

For a more detailed listing of receipts by selected service, see Comprehensive Data Book, Table IV-E-2.

3. Capital Facilities

As with the value of receipts for the service industry, the best available source of data is the Census of Selected Services. See Section IV-E-2 for a description of this data source.

According to the 1972 Census of Selected Services, there were 206 service establishments in Pacific County. Seventy-three percent, or 151 establishments were located outside of Raymond. It may be assumed that the major portion of these 151 establishments are located on the Long Beach Peninsula.

Hotels and other lodging places accounted for about 30 percent (62 establishments) of the service establishments in the County. About 94 percent of the hotels and other lodging places were located outside of Raymond. For

a more detailed listing of service establishments in Pacific County, see CDB Table IV-E-2. A 1972 survey of hotel-motel accommodations, conducted by the Washington State Department of Social and Health Services (DSHS), showed 79 hotel/motel establishments in Pacific County. It is difficult to say which report is more accurate; the results of the DSHS survey are presented in CDB Table IV-E-3.

Growth in the number of service establishments has occurred and will probably continue to occur primarily on the Long Beach Peninsula. One of the newest and largest establishments is the 120-unit Chautauqua Hotel in Long Beach.

In addition, business interests in the Ilwaco-Long Beach area are presently trying to determine the feasibility of a convention center in the area. Probably the most significant deterrent to the growth in tourism and therefore, in services, has been the remoteness of Pacific County from large population centers. With the growing desire of people to be in a more natural setting, however, the remoteness of the County could be a plus to the services industry in the long-run.

F. WHOLESALE AND RETAIL TRADE

The wholesale and retail trade industry in Pacific County consists primarily of retail trade, both in terms of employment and number of establishments. The following discussion of trends in employment, payroll, value of the industry, and capital facilities will relate primarily to retail trade. Data, however, will be presented for the whole industry, unless otherwise stated.

Retail trade includes establishments such as food stores, eating and drinking places, gasoline stations, and apparel stores. As with services, a major percentage of trade establishments are in southern Pacific County on the Long Beach Peninsula. This is due to the greater incidence of tourism in that area.

The primary data sources used in following discussion of the trade industry are the Census of Retail Trade, the Census of Wholesale Trade and Washington State Employment Security.

1. Employment and Payroll

According to the Covered Employment and Wages reports published by Washington State Employment Security, the trade industry in Pacific County has experienced relatively stable employment from 1970 to 1975 see Summary Table 3). In 1970 the industry employed about 730 people; employment grew to about 760 workers in 1971 and 1972. Employment declined again in 1973 and 1974 to about 730 workers and increased to about 760 in 1975. These

fluctuations in average annual employment do not account for more than four percent of industry employment and are not considered significant.

The trade industry is a major employer in Pacific County accounting for about 17 percent of total County employment. The industry is a tourist-related industry, and as such, is one of the most seasonal industries in the County economy. Between 1970 and 1975, the percent standard deviation of employment varied between 12 and 14 percent of trade employment. The percent standard deviation of trade employment statewide varied between one and four percent over the same period (see Summary Table 4).

According to covered payroll statistics from Washington State Employment Security the average payroll per worker in the Pacific County trade industry was $6,043 in 1970, $5,963 in 1971, $6,295 in 1972, $5,996 in 1973, $5,922 in 1974, and $5,906 in 1975 (see Summary Table 5).[1] These fluctuations are probably due to the fact that the only retail trade sector which is well unionized is chain food stores. Cost-of-living increases in other sectors are probably erratic and do not keep pace with increases in the cost of living. As shown in Summary Table 5, the average payroll per worker in Washington State exhibited similar trends from 1970 to 1975.

According to Washington State Employment Security, Covered Employment and Wage reports, total payroll for the trade industry in constant 1975 dollars

[1]Adjusted to constant 1975 dollars using the Consumer Price Index. All Items from the Statistical Abstract of the United States, 1975.

grew from about $4.4 million in 1970 to about $4.5 million in 1975.[1/2] In 1975 the trade industry payroll accounted for about 11 percent of total payrolls in Pacific County.

2. Value of Sales

The best measure for the value of the wholesale and retail trade industry is the value of sales. The Census of Wholesale Trade and the Census of Retail Trade are the data sources which will be used in the following discussion.

The value of sales in wholesale and retail trade grew from $42,040,000 in 1967 and to $43,431,000 in 1972.[3/4] Wholesale trade accounted for $8,209,000 in 1967 and $8,430,000 in 1972 or about 20 percent of total sales in both years. Due to disclosures problems, sub-County detail is not available for wholesale trade.

Retail trade sales were $33,831,000 in 1967 and $34,901,000 in 1972, accounting for 80 percent of total trade sales over the period.[4] Comparable detail for retail sales in Raymond is available for both 1967 and 1972.

Retail sales in Raymond declined from $15,264,000 (45 percent of total retail sales) in 1967 to $14,533,000 (42 percent of total retail sales) in 1972. Conversely, the remainder of Pacific County grew in the value of

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[1] Employment and Payrolls in Washington State by County and by Industry, Industries Covered by Employment Security Act, Employment Security, Washington State, 1970-75.

[2] Adjusted to 1975 dollars using Consumer Price Index, All Items from Statistical Abstract of the United States, 1975.

[3] Adjusted to constant 1975 dollars using the Wholesale Price Index from the Statistical Abstract of the United States, 1975.

[4] Adjusted to constant 1975 dollars using the Consumer Price Index from the Statistical Abstract of the United States, 1975.

retail sales, from $18,566,000 (55 percent of total retail sales) in 1967 to $20,368,000 (58 percent of total retail sales) in 1972. This geographic shift in respective shares of total retail sales is consistent with the growing importance of the Long Beach Peninsula for recreation and tourism (see Summary Table 16).

3. Capital Facilities

According to the Censuses of Wholesale and Retail Trade there were 230 trade establishments in Pacific County in 1972. The number of wholesale trade establishments remained constant at 24 from 1967 to 1972. The number of retail trade establishments increased by 12 establishments, from 194 (89 percent) in 1967 to 206 (90 percent) in 1972.

Comparable detail for sub-County areas is not available for wholesale trade due to disclosures problems. However, the Census of Retail Trade indicates that the number of retail establishments in Raymond increased from 52 in 1967 to 56 in 1972. The number of establishments in the remainder of Pacific County increased from 142 in 1967 to 153 in 1972. From 1967 to 1972, the respective shares of total retail establishments of Raymond and the rest of Pacific County remained constant at 27 percent and 73 percent, respectively (see Summary Table 16).

SUMMARY TABLE 16

WHOLESALE AND RETAIL TRADE

NUMBER OF ESTABLISHMENTS AND SALES

Pacific County and Raymond
1967 and 1972

	Retail Trade		Wholesale		Total Trade	
	Estab.	($1,000) Sales	Estab.	($1,000) Sales	Estab.	($1,000) Sales
1972 - Pacific County	206	$34,901	24	$8,530	230	$43,431
Raymond	56	14,533	N/A	N/A	N/A	N/A
Remainder of County	153	20,368	N/A	N/A	N/A	N/A
1967 - Pacific County	194	33,831	24	8,209	218	42,040
Raymond	52	15,264	N/A	N/A	N/A	N/A
Remainder of County	142	18,566	N/A	N/A	N/A	N/A

Source: Census of Retail Trade, United States Department of Commerce, Bureau of the Census, 1967 and 1972.

Census of Wholesale Trade, United States Department of Commerce, Bureau of the Census, 1967 and 1972.

G. TRANSPORTATION

The economic data on transportation industry is aggregated with the communications and utilities industries. Together the three industries (TCU) only play a minor role in terms of overall County employment. Transportation, especially waterborne transportation, has experienced some changes in recent years which could affect the Pacific County economy. The following discussion, therefore, will describe the TCU industry with the primary focus on transportation.

1. Employment and Payroll

Employment in TCU accounted for only 4.5 percent of total employment in Pacific County in 1975. Industry employment has fluctuated slightly since 1970, but overall has remained relatively stable averaging about 207 employees on an average annual basis (see Summary Table 3). Transportation accounts for about 35 percent (or 70 employees) of total TCU employment on the average (communications is the largest employing sector of TCU).[1] The transportation industry in Pacific County is made up primarily of trucking, warehousing, railroad and waterborne commerce employment. Railroad employment is not reflected by the employment figures since it is not covered by the Employment Security Act.

Employment associated with waterborne commerce, such as longshoremen, has been reduced in recent years due to the decision by the Corps of Engineers to discontinue deep-draft dredging of Willapa River and Harbor. Weyerhaeuser,

[1]Covered employment data from Washington State Employment Security.

the major deep-draft shipper out of the Port of Willapa Harbor, has transferred all of its shipping to Grays Harbor. This decision by the Corps could have an affect on other future waterborne activities of Willapa River and Harbor. The State's new shrimp fishing industry presently lands most of its catch at Willapa Bay ports. However, if channel conditions at the bar to Willapa Bay become more unstable, the industry could decide to transfer to another port with more reliable navigation conditions.

Trucking is probably the largest employing sector of transportation in Pacific County. (This is difficult to verify, however, since total employment estimates for Pacific County are inaccurate). The lumber and wood products industry has historically required trucks to transport logs from the forest to the mills. However, in addition, export logs which in the past were shipped out of the Port of Willapa Harbor by water, are now being trucked to the Port of Grays Harbor for export to Pacific Rim countries.

Railroad employment in Pacific County is minimal but important. Weyerhaeuser ships much of its lumber by rail to inland states. Even this operation, however, is reduced from what it used to be since the cost of rail shipping has increased to the point that Weyerhaeuser can no longer compete with the Canadians for east coast lumber markets.

One standard deviation of employment in TCU in 1975 was eight percent of total TCU employment (see Summary Table 4). This figure is much reduced

from the early 1970's when one standard deviation was ten or 11 percent of industry employment. The standard deviation for Washington State TCU is only one to three percent, normally. This divergence between State and County indicates industry employment in Pacific County is relatively more erratic.

The average payroll per worker in TCU in Pacific County fell from about $10,100 in 1970 to $9,700 in 1975. Throughout the period payroll per worker was less than the statewide average which increased from about $12,900 in 1970 to $13,700 in 1975 (see Summary Table 5). The decline in payroll per worker, as well as the relatively low payroll per worker in Pacific County, is likely a result of the comparative lack of industry unionization in the County when compared to Washington State.

Total payrolls in TCU reflect the decrease in average worker payrolls and declined from about $1.97 million in 1970 to $1.95 million in 1975.[1] In 1975 TCU payrolls accounted for about five percent of total payrolls in Pacific County.

[1]Adjusted to constant 1975 dollars using the Consumer Price Index, All Items, U.S. Department of Commerce, Statistical Abstract of the U.S., 1975.

H. GOVERNMENT

Government employment has special data problems which require this industry to be disaggregated into federal, state and local government employment.

The different levels of government have different coverage under Employment Security. Federal government employment is totally covered by its own federally-funded employment insurance program. Most of State government employment is covered by the Washington Employment Security Act; however, participation in the program is optional and there are still certain workers, such as part-time or temporary help at State colleges, which are not covered. Very little local government employment is covered. Again, the program is optional and most city and county agencies, in addition to local schools, have opted not to cover their employees. State and local government were only given the option to provide coverage for their employees in January of 1971. For this reason, government employment data will only be provided back to 1971.

Washington State Department of Employment Security publishes two sets of employment data. The first, Covered Employment and Wages, reports only the actual employment covered by the Employment Security Act. The second, Total Non-Agricultural Wage and Salary Employment, reports estimated total employment; that is, covered employment, as well as uncovered employment. Normally, this second publication is used in describing employment by industry. However, for several different years in Pacific County the estimates of total employment were less than covered employment.

which by definition is impossible. For this reason discussions of employment by industry use actual covered employment data.

For a discussion of government employment however, since so much of it is uncovered, a combination of total and covered employment statistics must be used. Total government employment from the Total Non-Agricultural Wage and Salary Employment report will be used. From this figure, covered federal government employment (which is totally covered) will be subtracted. Although State government employment is not totally covered, the primary people who are not covered are part-time and temporary employees of State colleges. Pacific County does not have a significant number of these people. Therefore, covered State government employment will be assumed to closely approximate total State employment and will also be subtracted from total government employment. The balance will equal local government employment. Summary Table 17 presents government employment from 1971 to 1975 computed using the above technique. With the exception of lumber and wood products manufacturing, government is the single largest employing sector in the Pacific County economy. Total government employment declined from 1,120 (25 percent of total employment) in 1971 to 1,060 (23 percent of total employment) in 1975. This represents an average annual decrease of -1.37 percent.

The following discussion describes the employment associated with federal, state, and local government.

SUMMARY TABLE 17

GOVERNMENT EMPLOYMENT

Pacific County
1971-1975

	1971	1972	1973	1974	1975
Total Government[1]	1,120	1,100	1,090	1,080	1,060
Federal Government[2]	34	34	36	37	37
State Government[2]	213	218	204	197	202
Local Government[3]	873	848	850	846	821

[1]Using government employment from Total Non-Agricultural Wage and Salary Workers Report, 1971-75.

[2]Using Federal and State government employment from Covered Employment and Wages Report, 1971-75.

[3]Balance after subtracting Federal and State government employment from Total Government Employment.

Source: HRPI, computed from Washington State Department of Employment Security data.

1. Federal Government

Federal government employment in Pacific County is minimal. From 34 employees in 1971, federal government employment increased to 37 in 1975. These people accounted for about three percent of total government employment over the period (see Summary Table 17).

2. State Government

Although declining slightly, Washington State government employment accounted for about 19 percent of total government employment over the period from 1971 to 1975. From 213 people in 1971, Washington State government employment declined to 202 workers in 1975 (see Summary Table 17).

3. Local Government

City and County government account for the major portion of total government employment in Pacific County over the period from 1971 to 1975. Employment in this sector of government fell by about 50 workers, from 873 (78 percent of total government employment) in 1971 to 821 (77 percent of total government in 1975).

As shown in Summary Table 4 , one standard deviation of government employment in Pacific County is 5.1 percent of total government employment in 1975. This compares to 1.6 percent in 1975 for the State of Washington.

The percent standard deviations for both the State and County understate the seasonality of government employment, since teachers, who are not reflected by this statistic, are not employed during the summer months. The County, however, still shows greater seasonality in government employment than the State. This is because the percentage of total government employment held by year-round federal and State employees is lower in Pacific County than it is statewide.

Average annual payroll per worker for the three levels of government is shown in Summary Table 18. According to these statistics government employees are among the highest wage earners in the County. In 1975 average annual payroll per worker was $12,190 for all levels of government, $12,200 for federal government, $11,495 for State government and $12,361 for local government.[1]

Average annual payroll per worker for all levels of government is the only statistic which may be compared to a statewide average. As shown in Summary Table 5, average annual payroll per worker for all government employees in Pacific County was comparable to payroll per worker for government workers statewide. The comparability of payscale between government employees in Pacific County and the State is due to common salary schedules on both the State and federal levels.

[1]Adjusted to 1975 constant dollars using the Consumer Price Index, All Items, from the Statistical Abstract of the United States, 1975.

SUMMARY TABLE 18

GOVERNMENT PAYROLL

AVERAGE ANNUAL PAYROLL PER WORKER

Pacific County
1971-1975
(in 1975 constant dollars)

	1971	1972	1973	1974	1975
Total Government	12,667	12,425	12,341	12,753	12,190
Federal Government	12,205	12,941	12,947	12,018	12,200
State Government	10,885	10,997	11,626	11,167	11,495
Local Government	13,120	12,772	12,510	13,155	12,361

Source: Washington State Department of Employment Security.

Total payroll in government was $12,921,529 in 1975.[1] This represents 30 percent of total payrolls for all industries (see Summary Table 19 Comprehensive Data Book Table III-2).

[1]Adjusted to 1975 constant dollars using the Consumer Price Index, All Items, from the Statistical Abstract of the United States, 1975.

SUMMARY TABLE 19

TOTAL GOVERNMENT PAYROLLS

Pacific County
1971-1975
(in 1975 constant dollars)

	1971	1972	1973	1974	1975
Total Government	14,187,211	13,667,924	13,451,303	13,773,696	12,921,529
Federal Government	414,984	440,005	446,080	444,678	451,404
State Government	2,318,467	2,397,446	2,371,709	2,199,888	2,322,033
Local Government	11,453,760	10,830,473	10,633,514	11,129,130	10,148,092

[1]Using average annual covered payroll per worker multiplied by estimated total government employment.

[2]Using average annual covered payroll per worker multiplied by covered government employment.

Source: Washington State Department of Employment Security.

I. Other Industry

Other industry in Pacific County includes finance, insurance, and real estate (FIRE), forestry, contract construction, and industry not elsewhere classified.

FIRE includes such establishments as banks and other financial institutions, insurance companies, and real estate offices. In 1975 FIRE employed 116 people and accounted for about three percent of total employment. Average payroll per worker in 1975 was $7,484 compared with about $9,483 for FIRE employees statewide. This discrepancy is due largely to the fact that headquarters for most of the firms in this industry are located outside Pacific County.

Forestry includes such activities as reforestation services, the operation of timber tracts, tree farms and forest nurseries, as well as the gathering of gums, bark, needles and pine cones. Logging is not included in this industry classification, but rather as a part of lumber and wood products. Forestry employment is aggregated with that of agriculture and fisheries. The accuracy of these data is highly questionable. Since the industry is of minimal importance to the County economy, no attempt was made to estimate employment or payrolls associated with forestry.

Contract construction employment declined from a high of 133 employees in 1973 to 108 in 1975. This industry is one of the most seasonal in the economy. Although the percent standard deviation of employment in contract construction was higher in the County than for the State,

this industry is highly seasonal everywhere. Average payroll per worker in 1975 was $9,658 in Pacific County compared with $13,661 statewide. This discrepancy is due to a relatively high percentage of non-union construction labor in the County compared with the State.

Industry, not elsewhere classified, includes such activities as mining and private household services. In 1970 this category included some government employment and employed 223 people. In 1971 when the option of coverage under the Employment Security Act was extended to state and local governments, employment in industry, not elsewhere classified, dropped to 13 people. After 1971 employment continued to decline and in 1975 there were only six people in this category.

In 1975, other industry employed a maximum of 404 people (assuming the 174 people in agriculture, forestry and fisheries were all employed in forestry) or about nine percent of total Pacific County employment.

V. UNEMPLOYMENT

Unemployment in Pacific County has been a persistent economic condition for many years. The following section describes this situation based on data from published sources. In addition, and one of the most important components of this study, this section reports the results of the HRPI Telephone Survey which was conducted to determine the characteristics of the excess labor resources of Pacific County.

A. UNEMPLOYMENT RATE

In analyzing unemployment rates in an area, a distinction must be made between long and short term fluctuations. In the long term, a persistent shortage of jobs will cause out-migration from any given area. This population shift will reduce the size of the labor force and cause unemployment to decline. Conversely, a persistent shortage of workers will cause an upward pressure on wage rates and attract in-migrants seeking job opportunities and/or high wages.

Consequently, the unemployment rate can be a misleading indicator of economic well-being. Areas with inflated economies could have high unemployment due to a rapid in-migration of workers with expectations of good job opportunities. A depressed area, on the other hand, might have low unemployment due to an out-migration of persons seeking employment elsewhere.

The unemployment rate for Pacific County was lower than the Washington State average from 1970 to 1972. In 1973, the State and County rates were comparable at 7.9 and 8.0 percent, respectively. From 1974 through 1976 the State rate was less than that of the County. The figures shown in Summary

Table 20 for 1975 are preliminary. They indicate Pacific County's unemployment rate to be 11.1 percent compared with the State's 8.6 percent. Both of these figures are high relative to the respective rates in preceeding years and will probably be considerably lower when revised for final publication.

The divergence of unemployment rates between the State and the County can be explained in large part by fluctuations in aerospace employment in the Seattle-Everett SMSA. The aerospace industry terminated close to 60,000 people from 1969 to 1971. This action was reflected in the unemployment rate statewide which rose to 10.1 percent in 1971. During this recessionary period, the unemployment rate for Pacific County was lower than the State rate. As the aerospace industry began to recover after 1972, unemployment declined for Washington State to about seven or eight percent. Although Pacific County's rate remained relatively constant (with the exception of 1975 which is a preliminary figure and is felt to give an inaccurate reflection of actual conditions), however, its position worsened relative to the State.

The HRPI Survey, which will be discussed in greater detail in Section V-B, sampled the information necessary to compute unemployment rates for the County as well as for the three sub-areas which were sampled. (These sub-areas are the Raymond, Ilwaco, and Naselle Telephone Exchanges). Summary Table 21 presents the unemployment rates for Pacific County and the sub-areas of the County. As shown, in September, 1976, when the Survey was conducted, the unemployment rate was 9.0 percent in Pacific County, 8.0 percent in the Raymond area, 11.3 percent in the Ilwaco area, and 7.3 percent in the Naselle area.

SUMMARY TABLE 20

UNEMPLOYMENT

State of Washington and Pacific County
(in percent)

	Unemployment Rate						
	1970	1971	1972	1973	1974	1975[1]	1976[2]
State of Washington	9.1	10.1	9.5	7.9	7.2	8.6	7.8
Pacific County	8.8	8.5	8.2	8.0	7.9	11.1	8.2

[1] Preliminary estimate made in 1st quarter, 1975.

[2] Month of September, 1976.

Source: Washington State, Department of Employment Security, Research and Statistics Section.

SUMMARY TABLE 21

UNEMPLOYMENT

Pacific County and Raymond, Ilwaco, and Naselle Telephone Exchanges
September, 1976
(in percent)

	Unemployment Rate
Pacific County	9.0
Raymond Telephone Exchange	8.0
Ilwaco Telephone Exchange	11.3
Naselle Telephone Exchange	7.3

Source: Excess Labor Resources, Pacific County, Telephone Survey, Human Resources Planning Institute, September, 1976.

The greater detail, which is available as a result of the Survey, helps to identify with more certainty the cause of the County's unemployment. The area of highest unemployment is the Ilwaco area. In that area, a major portion of employment is seasonal. Industries such as fishing, food processing, and tourism (which impacts services and trade) are the mainstays of the economy. The unemployment rate in Raymond is lower at 8.0 percent. The seasonality of food processing employment in the Raymond area is mitigated by the relatively stable nature of the wood products industry, as well as the year-round employment associated with the County government functions. Services and trade employment, as a result, is more stable. Unemployment in the Naselle area is the lowest of all areas in the County at 7.3 percent. The Naselle area is relatively unpopulated, so that the low rate of unemployment does little to affect the overall County rate.

High unemployment in Pacific County, then, is primarily a result of the extreme seasonality of some of the County's most important industries. This seasonality requires a pool of excess labor to meet employment peaks when the seasonal employment requirements of various industries overlap. The following section discusses the characteristics of this un- or under-employed population in Pacific County.

B. CHARACTERISTICS OF THE UNEMPLOYED

This section will report the results of the HRPI Telephone Survey pertaining to the characteristics of the un- or under-employed population of Pacific County. This survey (conducted in September, 1976) was employed as one of the few means available of determining the characteristics of the "excess labor resources" of Pacific County. Excess labor resources includes not only the resources of the unemployed population, but the resources of those people who are employed only part-time or temporarily and who wish to find full-time and/or permanent employment. The information provided by the Survey and described below is available only through the conduct of a similar survey of Pacific County. One of the most useful results of the Survey is that all the information gathered is available for sub-areas of the County. Three telephone exchanges, Raymond, Ilwaco and Naselle, were surveyed and the results from each area were maintained separately from the others.

Such information as past or current (for the part-time or temporarily employed) employment experience by occupation, education, skills and special licenses was collected for males and females by age for the three sub-County areas. The following paragraphs report the results.

1. Employment Experience (by age and sex)

Fourteen occupations were used in categorizing the employment experience of the excess labor resources of Pacific County:

- Professional-Technical
- Managerial-Administrative
- Sales Worker
- Fisheries Harvestor
- Craftsmen, Kindred Workers
- Machine Operators
- Transport Equipment Operators
- Laborer-Non-Farm
- Farm Worker
- Service Worker
- Private Household Worker
- Clerical
- Food Processor
- Other

The past job experience of excess labor resources in Pacific County was distributed quite differently between males and females. The primary category of unemployed men was non-farm laborers. From a total of 790 unemployed men, 31 percent (242 men) had past jobs as laborers. Fishermen made up about 15 percent (116 men) of the unemployed men. Men employed as service workers, craftsmen, and food processors, therefore accounted for about 30 percent or between eight and 12 percent, each.

The largest age group of unemployed men was 16 to 24 years. Three hundred and sixteen men or 40 percent of all men were between 16 and 24 years old.

The primary categories of unemployed women in Pacific County were service workers and clerical workers. Three hundred and thirty-four women (26 percent) had past experience as service workers, while 296 (23 percent) had worked as secretaries or clerks.

Other major occupational categories for women were sales workers (13 percent) and food processors (15 percent).

Like men, many young women between the ages of 16 and 24 years were unemployed and looking for work. However, the largest group of unemployed women was between the ages of 45 and 54 years. This latter group accounted for 24 percent (309 women) of the unemployed women.

Unemployed men in the Raymond Telephone Exchange had past experience as non-farm, laborers (43 percent), food processors (16 percent), and fisheries harvestors (eight percent). As with men County-wide, the largest age group of unemployed men in Raymond, was between the years of 16 and 24.

Women in the Raymond Exchange were distributed among service workers (29 percent), clerical workers (26 percent), food processors (15 percent), and professional-technical workers (12 percent). The largest group of unemployed women was between 45 and 54 years of age.

Unemployed men in the Ilwaco Exchange were non-farm laborers (29 percent), service workers (17 percent) and fisheries harvestors (17 percent) and craftsmen and kindred workers (10 percent). The relatively large number of unemployed male service workers in the Ilwaco area, when compared with the Raymond area, was a direct effect of the tourist industry on the Long Beach Peninsula. Again, the largest group of unemployed men in the Ilwaco area was between 16 and 24 years of age.

Women in the Ilwaco area were unemployed primarily from clerical work (24 percent), service work (21 percent), sales (18 percent) and food processing (11 percent). The largest age groups of unemployed women were the 16-24, and 55-64 year age groups.

The Naselle Exchange area is a relatively unpopulated area, and the unemployed people are so few as to not be distributed among the occupational categories. Unemployed men were primarily fishermen (27 percent), craftsmen (27 percent), and machine operators (18 percent). Primary age groups of unemployed men were 16-24, 45-54, and 55-64 year age groups.

There were 150 unemployed women in the Naselle area. These women were service workers (41 percent), food processors (31 percent), clerical workers (14 percent), or sales workers (14 percent). Although the age distribution of unemployed women is relatively even in the Naselle area, the largest group was 16-24 years of age.

The actual data for occupational distributions for each of these areas are presented in Comprehensive Data Book (CDB) Tables V-1, V-1-a, V-1-b and, V-1-c.

CDB Tables V-2, V-2-a, V-2-b and V-2-c present data for Pacific County and the Raymond, Ilwaco and Naselle Telephone exchanges, respectively, on "other" occupational skills of the un- or under-employed population. The question which was asked on the survey was, "Other than licenses and certificates, do you have any skills which might help you get particular kinds of work?" The responses included many varied and, sometimes, obscure skills which were written down directly by the interviewers. The responses were later hand-tabulated into the same 14 occupational categories which were used for describing employment experience. For men, the major "other" occupation categories are professional-technical and service workers. The same is true of women with the addition of a propensity of clerical skills. The percentage of people with professional-technical skills is an indication of the degree of people in the County who have college degrees which are not being used. There are many people with teaching certificates, for instance, who are either unemployed or who are working in jobs which do not require a college education.

The following section reports the education levels of the County's excess labor resources.

2. Education

Forty-seven percent of the un- or under-employed men in Pacific County do not have high school diplomas. Forty-one percent have high school diplomas or have earned high school equivalency. The remaining 12 percent of the unemployed have college degrees.

The unemployed women in Pacific County have a relatively higher level of education than the men. Twenty-six percent do not have high school diplomas; 64 percent have a high school diploma or high school equivalency; and, 11 percent have college degrees.

Part of the reason there is high degree of people who have not achieved a high school diploma is due to the population which was surveyed. The telephone survey included anyone over the age of 16 years. Many of the people on the lower end of this range have not yet finished high school.

The education levels of people in the Raymond, Ilwaco, and Naselle telephone exchanges followed the same trends as witnessed County-wide. See CDB Table V-3 for detailed information on the education levels of people in the defined sub-areas of Pacific County.

VI. REVENUES AND EXPENDITURES

The following discussion describes taxation (revenues) and expenditures as a fraction of personal income. There are alternative ways to discuss this information; however, these alternatives either distort the ability of taxpayers to adequately finance programs or do not adjust for varied population levels. A comparison of government financing at the state and county level using a personal income adjustment avoids these distortions.

Information presented in this section is based on data from the Census of Governments.[1] Comprehensive Data Book Tables VI-1-a and VI-1-b give the detailed revenue and expenditure data from which statistics shown in Summary Table 22 were derived.

In 1972, the latest year data is available, expenditures per $1,000 of personal income exceeded revenues by $11 in Pacific County. Statewide, expenditures per $1,000 of personal income exceeded revenues by only $3.1. These excesses in spending are financed by a combination of federal transfer payments and net increases in state and local government debt.

A. REVENUES

1. State Government Taxation

Washington is the only state in the Northwest without an income tax. Instead, a sales tax ranging to 0.8 percent is collected by the Department of Revenue for use by local governments. Sales tax collections barely

[1] Census of Governments, Vol. 4, No. 5, Compendium of Government Finances, U.S. Department of Commerce, 1971-72.

SUMMARY TABLE 22

GENERAL REVENUE AND EXPENDITURES PER 1,000 DOLLARS OF PERSONAL INCOME

State of Washington and Pacific County
1972

	State of Washington[1]	Pacific County[2]
General Revenue	108.2	110.5
Intergovernmental	41.7	38.6
State	37.2	34.7
Local	66.5	71.9
Taxes	41.9	45.2
Charges & Misc.	24.6	26.7
General Expenditures	111.3	121.5
Education	51.6	73.1
Highways	9.9	2.7
Public Welfare	0.04	0.6
Health & Hospital	5.0	9.8
Other	44.76	35.3

[1]Based on Total Personal Income of $15,579.1 million.
[2]Based on Total Personal Income of $66,263.0 thousand.

Source: Human Resources Planning Institute, compiled from data from U.S. Department of Commerce, Census of Governments, Vol. 4, No. 5, Compendium of Government Finances.

kept up with personal income gains between 1960 and 1972 despite three increases in the tax rate. This is a predictable feature of the sales tax since most services are exempt from this form of taxation. Budgetary pressures may be anticipated in Washington due to this heavy reliance on the inelastic sales tax.

Revenues from state government sources were $34.7 per $1,000 of personal income in Pacific County. These compare with $37.2 per $1,000 for Washington State.

2. Local Government Taxation

Local governments within Washington heavily rely on property taxes for operating revenue. Equitable distribution of the burden of this tax is difficult to achieve since property may be held for a long time by the same party allowing no observation of actual market values. A statewide reevaluation program was completed in 1973 which greatly improved the uniformity of property tax assessments.

In Pacific County property taxes were $42.3 per $1,000 of personal income accounting for 94 percent of local taxes. Statewide, property tax collections were $34.3 per $1,000 of personal income and accounted for about 82 percent of local taxes.

3. Other Revenue

Other revenue is attained in substantial portion from highway tolls, educational tuition fees, permit fees, and parking meter collections. Intergovernmental transfers is another source of revenue and with the recent decentralization of federal programs, local governments are increasingly eligible for direct funding from the federal government. Grants-in-aid and revenue sharing are still a comparatively small percentage of total federal aid to state and local governments. These federal transfers are important, however, because they are not earmarked for specific programs and may be used to meet needs as identified by the recipients. Finally, bond sales provide both short and long term financing. Bonds sold for short-term financing are an insignificant portion of government indebtedness in Washington. Long-term obligations in the form of revenue bonds, however, are primarily responsible for Washington's rank of fourth nationally in governmental debt per capita.

Other revenue in Pacific County in 1972 was $33.5 per $1,000 of personal income compared with $36.7 per $1,000 statewide.

B. EXPENDITURES

Education is the largest expenditure category of the state and local governments in Washington. In Pacific County $73.1 per $1,000 of personal income were expended for education accounting for 60 percent of total expenditures. More than two-thirds of education expenditures are

made by local school systems for wages and salaries. Even as operating costs and personnel levels increased from 1960 to 1972, stabilizing school attendance permitted decreases in annual additions to capital facilities.

Most of the highway budget (about two-thirds) in Washington finances additional construction. Highway expenditures and tax collections on motor fuels and vehicles represent the largest single attempt by the state to match tax collections with an expenditure category. In 1972, $2.7 per $1,000 were spent on highways compared to the state's $9.9.

In 1960 Washington funded social programs at rates above the national average. Between 1960 and 1972, however, increases in public assistance and health care programs rose faster nationally than in Washington State so that national expenditures per capita in this category slightly exceed those for the state.

Pacific County expenditures on public welfare and health care significantly exceeded spending per $1,000 of personal income statewide, primarily due to the large percentage of elderly people. In 1972 County expenditures were $10.4 per $1,000 compared to $5.04 per $1,000 statewide.

Other expenditure categories, including police and fire protection and sewage treatment, accounted for $35.3 per $1,000 (or 29 percent) in Pacific County. This compares to $44.8 per $1,000 (or about 40 percent) for Washington State.

C. GENERAL DEBT

General debt outstanding in 1972 in Pacific County was $33.0 per $1,000 of personal income. Of this amount, $29.5 was long term debt. Comparable debt figures for Washington State were $111.8 per $1,000 for the general debt, of which $107.8 was long term debt. These figures indicate that in terms of outstanding debt, Pacific County is in a relatively better position than other Washington State counties.

VII. DESCRIPTION AND ASSESSMENT OF SELECTED ECONOMIC IMPROVEMENT PLANS

The following section will describe and assess several plans which are directed toward developing the economy of Pacific County. Certain of these plans suggest programs which further develop existing industries in terms of employment and income, while others address the problem of employment seasonality and suggest programs which would provide year-round employment.

None of the plans are at a stage where an actual location has been chosen for construction. Until this locational decision is made, the surrounding environment, for which impacts will be assessed, cannot be identified. The assessment of the development plans, therefore, is necessarily very general in scope.

A. DEVELOPMENT OF THE TOURIST INDUSTRY

As leisure time, income and educational levels have risen nationally, people's propensity to travel and recreate has increased. Together with a greater environmental awareness nationwide, much of this activity has become synonomous with visitation to remote areas. Pacific County's abundant natural and unspoiled resources make the County a prime area for accelerated growth in visitors seeking a wilderness experience.

This trend has economic and cultural significance to Pacific County. Tourism generates dollars which flow into labor intensive service industries. Yet the industry does not exhaust natural resources.

Therefore, if well managed, the tourist industry may generate employment and income benefits, and at the same time be compatible with the desires of Pacific County residents to maintain the natural beauty and quality environment of their County.

The following paragraphs describe and assess two specific plans which could aid in developing the tourist industry in Pacific County.

1. Direct Transportation Link Between the Long Beach Peninsula and Grays Harbor County Ocean Beaches

Currently, one of the primary deterrents to tourism in Pacific County is the remoteness of the area. The following strategy discusses the development of a ferry system between Ocean Shores in Grays Harbor County and Nahcotta in Pacific County. The tourist industry in Grays Harbor County is much more developed than that of Pacific County. The industry supports several large hotel-motel complexes, especially at Ocean Shores, as well as numerous smaller facilities all along the ocean beach up to the Quinault Indian Reservation. Many times during the summer months, these facilities are so full that visitors are forced to drive back to Aberdeen-Hoquiam to find overnight accommodations. It is a near certainty that these people would much prefer to be staying on the ocean and that they have little concern for what county they are in.

If a reliable ferry service was available between the ocean beaches of Grays Harbor County and the Long Beach Peninsula in Pacific County, the Pacific County tourist industry could expect to receive considerable "spillover" of Grays Harbor County ocean beach tourists. In fact, it is possible that once the regional tourist population is aware of such a service, it would prefer the less crowded beaches in Pacific County and merely pass through Grays Harbor County to the Long Beach Peninsula (this latter situation, of course, would only be short-term until Pacific County ocean beaches reach capacity).

Economic Assessment

A ferry service connecting the ocean beaches of Pacific and Grays Harbor Counties would aid the development of the tourist industry of Pacific County. This development would have a beneficial effect on the County economy by inducing a more rapid growth in tourism and, therefore, in tourist expenditures.

A problem which often accompanies a large tourist influx is the inability of the resident population to finance adequate water and sewage facilities to meet peak demand during tourist season. Federal regulations exist which assure water quality, so that the problem is one of economics. There is potential that this problem could impede growth of tourist industry development on the Long Beach Peninsula. Further development of the summer tourist industry would also serve

to exacerbate the existing problem of seasonal employment in Pacific County, which is especially pronounced on the Long Beach Peninsula.

Another possible cost of such a transportation link would be the loss of Oregon and California visitors from Pacific County to areas north, including Grays Harbor County ocean beaches and the Olympic Peninsula. Overall, however, establishing a more direct transportation route from the Long Beach Peninsula to beaches in Grays Harbor County is expected to result in a net benefit to the Pacific County economy.

Environmental Assessment

The tourist industry, out of self-preservation, is one of the industries most compatible with the concept of a quality environment. The trend in the tourist industry nationwide is toward activities which afford a greater opportunity to appreciate the natural physical environment. Therefore, the development of this industry necessarily requires minimizing potential damage to the physical environment. For this reason, the impact to the physical environment of initiating a ferry service between the Long Beach Peninsula and the ocean beaches of Grays Harbor County is expected to be minimal.

Ferry terminals would need to be constructed, which construction might cause short-term disruption of the marine environment. Such construction, however, providing it complied with all the applicable regulations, would

be allowed under Sections 16.40 or 16.60 (conservancy shoreline or rural shoreline, respectively) of the Shoreline Master Plan for Pacific County.

In the past there has been a direct relationship between people and pollution; as an area attracts more and more people (especially tourists), it also becomes more littered and aesthetically unpleasing. Although there is considerable probability that littering will occur to some extent, two forces are at work which will serve to minimize the negative effects: First, as stated, it is in the interest of the tourist industry to maintain a clean, aesthetically pleasing environment; second, the population in general is developing a greater awareness of, as well as a desire to maintain, a quality environment.

The potential of a plan to provide a transportation link between the Long Beach Peninsula and Grays Harbor County is considered to be excellent. Some minor political problems could arise between Pacific and Grays Harbor County over the transfer of expenditures from the latter to the former. However, this problem should not be insolvable.

It is suggested that a formal market feasibility study of a ferry system between the two counties be conducted. This study would analyze the economic costs and benefits of such an action to the Pacific County economy and would constitute the first step of a complete assessment of the project. Subsequent studies should be undertaken to provide a careful analysis of the economic impact on Grays Harbor County, as well

as the impacts to the physical environment of Pacific and Grays Harbor Counties.

2. Develop a Small Boat Basin and Water Sports Area on Willapa River near Raymond-South Bend

The northern part of Pacific County is abundant in natural resources, which are well-suited to development for recreation. To date, little has been done to develop the Willapa River for recreation. For this reason, and due to the overwhelming attraction of the ocean beaches 50 miles south, northern Pacific County has virtually no tourist industry. With well-planned development of the area's water resources, this situation need not be the case.

A plan to build a small boat basin on the Willapa River is one which has been conjectured for several years. To date, however, the only formal study of the demand for moorage facilities for small pleasure craft in Pacific County is a 1973 report by the Corps of Engineers.[1]

According to this report, there are 35 permanent moorage spaces for pleasure craft at Tokeland Small Boat Basin, five spaces for pleasure craft at Nahcotta Mooring Basin and six pleasure craft spaces at Bay Center Mooring Basin. According to the Corps of Engineers report, unfulfilled demand for moorage spaces in Willapa Bay will increase from

[1] Pleasure Boating Study, Grays Harbor and Willapa Bay Washington, U.S. Army, Corps of Engineers, Seattle District, April, 1973.

1,132 in 1975 to 2,090 in 1995.[2] Unfulfilled demand for moorage spaces in the Raymond-South Bend area will increase from 232 in 1975 to 415 in 1995. To date, although the demand has been identified, no funds have been authorized for the Corps to study the feasibility of a new small boat basin in the Willapa Bay area.[3]

Economic Assessment

A small boat basin and attending water sports area in the Raymond-South Bend area would constitute one of the first steps in developing the water resources of northern Pacific County for recreation. Based on the demand forecasts prepared by the Corps of Engineers, such an action would be beneficial to the area economy. Expenditures would come (at least initially) primarily from area residents and, therefore, would be somewhat more predictable than tourist expenditures. However, in the long run, the overall concept of development of the water resources of northern Pacific County for recreation will contribute to the development and growth of a viable tourist industry.

Environmental Assessment

The construction of a small boat basin and the introduction of more pleasure craft to Willapa River and its tributaries could have some negative impacts on the surrounding physical environment. These include

[2]Figures include Raymond-South Bend, Tokeland-Cape Shoalwater, Bay Center, Nahcotta-Long Beach, and Naselle-South Bay.
[3]Per conversation with Steve Foster, Chief, Navigation and Coastal Planning, Seattle District, Corps of Engineers.

disruption of marine life during construction, encroachment on ecologically sensitive marine habitat, and possible carelessness of pleasure boaters with motor oil and other pollutants.

The location of such a facility is controlled by the Shoreline Master Plan for Pacific County to preclude possible construction in an environmentally sensitive area. Careful planning and research, as well as existing environmental regulations, are expected to eliminate or significantly mitigate any adverse impacts resulting from such an action.

The potential of a small boat basin to provide a net positive contribution to the Pacific County economy is excellent both in the short and long term. The following studies are suggested to provide proper forward planning: (1) An update of the Corps of Engineers demand forecasts for moorage spaces; (2) a market feasibility study to analyze the economic costs and benefits of the action; and, (3) a detailed environmental assessment of the action to assure the maintenance of the ecological balance of Willapa River.

Numerous plans, in addition to 1 and 2 above, can be conceptualized, which would aid the growth of the tourist or recreation industry: Renovation of the inn at Tokeland to provide a first class hotel/restaurant; more and better facilities for camping (in northern Pacific County); hiking trails and water sports areas; etc. However, these plans do not address the problem of employment seasonality, which is

prevalent in so many industries of Pacific County. In an attempt to respond to this problem, the following section discusses the types of projects which would provide year-round employment.

B. DEVELOPMENT OF ECONOMIC ACTIVITIES PROVIDING YEAR-ROUND EMPLOYMENT

No one industry has the potential of providing significant numbers of year-round jobs. The type of economic development upon which Pacific County must depend in the long run for year-round employment will be small development projects in all industries. These projects individually will not solve the County's seasonality problem, but together might be the first step in providing the opportunity of year-round employment to the un- or under-employed population of Pacific County.

The Washington State Department of Commerce and Economic Development is currently working on such projects as a convention center on the Long Beach Peninsula, a hardwood manufacturing plant in north Pacific County, and to a lesser extent, the development of oyster seed and razor clam seed hatcheries. The following will discuss each of these projects briefly.

1. Convention Center

The convention center would be located on the Long Beach Peninsula. Most conventions occur in the winter or winter-fringe months. During the summer months, the convention center would be used to support the

tourist industry and, thereby, would provide employment virtually year-round. This type of employment is especially desirable in the southern part of the County, where employment is much more subject to seasonality than the rest of the County. Most of this employment would require few skills and be relatively low-paying work.

During construction of the convention center, there could be short-term noise and air pollution. The location of the center will determine the extent to which long-term negative impacts to the surrounding marine resources will occur. However, enforcement of the Shoreline Master Plan for Pacific County should assure the protection of environmentally sensitive areas.

2. Hardwood Manufacturing Plant

Alder is presently being logged in Pacific County and transported to Oregon plants for manufacture. The Washington State Department of Commerce and Economic Development is attempting to attract private investors into northern Pacific County to build a plant to manufacture furniture components. Wood products manufacturing employment is non-seasonal and wages are relatively high (see Section IV-C-2, Lumber and Wood Products). Any successful action which is taken to aid the growth of this industry in Pacific County would benefit the County economy.

The actual location of a hardwood manufacturing plant will determine the extent to which short-term (during construction) and long-term (operation) disruption to the surrounding environment will occur. Again, enforcement of the Shoreline Master Plan should preclude plant siting in environmentally sensitive areas. Operational factors, such as possible waste outfalls into water bodies and leachate from chip piles, which are potentially degrading to marine resources, are also subject to environmental regulations. The extent to which most of these concerns pose environmental problems will depend on the proximity of the plant to a water body.

Logging hardwood in Pacific County should not increase due to plant construction, since logs are already being supplied to mills in Oregon. Logging, however, has historically caused bank erosion and siltation problems along the rivers of Pacific County. To the extent that any additional logging would occur as a result of the plant, logging practices specified under the Forest Practices Act should be strictly enforced.

3. Seed Hatcheries (Aquaculture)

The development of seed hatcheries requires a capital investment which is high, relative to the employment generated. If the economic feasibility of such an action could be solved (possibly by converting existing facilities), year-round employment would be provided in an industry

which is necessarily compatible, not only with the maintenance, but with the enhancement of the quality of marine environment.

The above plans would all provide year-round employment. Each would, therefore, benefit the County economy in that respect. Each of the plans would have varying degrees of potential impact to the physical environment. A plan to promote aquaculture should be a relatively impact-free endeavor, while a hardwood manufacturing mill should be monitored closely to assure its compatibility with the surrounding environment. As these plans progress and become better formulated, economic feasibility studies and detailed environmental assessments should be conducted.

C. CONCLUSIONS

Pacific County has a resource-based economy. Timber, fisheries and the natural resources which support tourism are the primary sources of a major portion of employment and income accruing to the County. As such, in assessing various development strategies for Pacific County, it should be kept in mind that any plan which adversely affects the physical environment will very probably have an adverse affect on the overall County economy in the long run.

The plans discussed throughout this section are only examples of the types of development which could aid in improving the Pacific County

economy. Before actively initiating any of these plans, County planners should develop criteria with which they may prioritize development projects. Pacific County is in an enviable position of still having an unscarred physical environment with which to develop compatible industries such as tourism and aquaculture. The planning and special studies suggested will help the County avoid costly, unplanned development by providing a basis for informed management and investment decisions.

VIII. SUMMARY AND CONCLUSIONS

Pacific County has a resource-based economy. Its major industries are lumber and wood products manufacturing, fishing, seafood processing, and tourism. With the exception of lumber and wood products manufacturing, employment in these industries is highly seasonal and relatively low-paying compared with the rest of Washington.

The lumber and wood products industry, located in northern Pacific County, is not subject to seasonality, although plant shut-downs do occur as a result of labor strikes and annual maintenance closures. Labor unions in the lumber and wood products industry are strong in Pacific County and the average payroll per worker is slightly higher here than in the rest of Washington.

The fishing and seafood processing industries transcend a north-south County distinction, although certain species of fish are more prevalent in one part of the County than another. Important species of commercial fish are Chinook and Coho salmon, Albacore tuna, Pacific oysters, Dungeness crab, and shrimp. The shrimp fishery, in particular, grew from nothing to almost seven million pounds harvested over a three-year period. Shrimp landings at Pacific County parts account for over 75 percent of the total state harvest.

Food processing is almost totally dependent on the fishing industry. With the exception of a cranberry screening plant, a dairy, and a

custom slaughter house, seafood is the only type of food processed. Seafood processing is the most labor intensive of the food processing industries. Therefore, it pays the lowest wages.

Fishing and seafood processing are both highly seasonal industries due to the cyclical nature of fisheries, as well as fisheries productivity. Fishermen and seafood processing workers cross fisheries to some extent; however, conflicting seasons and varied skill requirements prevent this from solving the seasonal unemployment so prevalent in these industries.

The tourist and tourist-related industries exist primarily in southern Pacific County. Attractions such as deep sea fishing, clamming, and ocean beaches draw tourists from all over the Northwest. The industry, due to its orientation to fisheries and other natural resources, as well as to people's desire and ability to travel during the summer, is highly seasonal. Tourist-related industries, such as services and retail trade, are labor intensive and pay low wages.

Overall then, the Pacific County economy is based on industries, which in major part, are seasonal and which pay low wages. This situation is particularly true in the southern part of the County, where the added influence of tourism exacerbates the problem. In the North, tourism is negligible, and the year-round high wages of government

and the lumber and wood products industries dilute the seasonality of seafood processing and fishing.

Unemployment in Pacific County is a persistent problem, which is due in great part to the seasonality of industry in the County. The significant contribution of seasonality to high unemployment was supported by the results of the telephone survey conducted by Human Resources Planning Institute. The survey showed unemployment rate for the County to be nine percent. The northern part of the County, which is less seasonal than the County as a whole, was eight percent and the southern part of the County around the Long Beach Peninsula was 11.3 percent.

The HRPI survey determined the characteristics of the un- or underemployed population of Pacific County. In general, "excess labor resources" in the County are unskilled or semi-skilled. Unemployed men are mostly in the 16 to 24 year age group and have past work experience as laborers and service workers. Unemployed women fall into to two age categories, 16 to 24 years and 45 to 54 years. Women had past work experience as service workers, clerks/secretaries, sales people, and food processing.

The past and current job experience together with educational levels indicated that many people were not working or could not find employment in fields for which they are educated. Twelve percent of the

excess labor resources had college degrees; a larger percentage had partially completed college.

Economic development suitable to the economy of Pacific County consists of projects like small boat basins, campgrounds, hiking and scenic trails, fish seed hatcheries, and convention centers. The interrelationship of the economy and the physical environment requires the development of compatible industries, like aquaculture and tourism, which will not jeopardize the sensitive ecological balance and which, therefore, will not jeopardize the economic stability of the County.

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