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Alaska OCS
Socioeconomic
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Alaska Outer
Continental
Shelf Office

# Navarin Basin
# Statewide & Regional Demographic & Economic Systems Impacts Forecast

The United States Department of the Interior was designated by the Outer Continental Shelf (OCS) Lands Act of 1953 to carry out the majority of the Act's provisions for administering the mineral leasing and development of offshore areas of the United States under federal jurisdiction. Within the Department, the Bureau of Land Management (BLM) has the responsibility to meet requirements of the National Environmental Policy Act of 1969 (NEPA) as well as other legislation and regulations dealing with the effects of offshore development. In Alaska, unique cultural differences and climatic conditions create a need for developing additional socioeconomic and environmental information to improve OCS decision making at all governmental levels. In fulfillment of its federal responsibilities and with an awareness of these additional information needs, the BLM has initiated several investigative programs, one of which is the Alaska OCS Socioeconomic Studies Program (SESP).

The Alaska OCS Socioeconomic Studies Program is a multi-year research effort which attempts to predict and evaluate the effects of Alaska OCS Petroleum Development upon the physical, social, and economic environments within the state. The overall methodology is divided into three broad research components. The first component identifies an alternative set of assumptions regarding the location, the nature, and the timing of future petroleum events and related activities. In this component, the program takes into account the particular needs of the petroleum industry and projects the human, technological, economic, and environmental offshore and onshore development requirements of the regional petroleum industry.

The second component focuses on data gathering that identifies those quantifiable and qualifiable facts by which OCS-induced changes can be assessed. The critical community and regional components are identified and evaluated. Current endogenous and exogenous sources of change and functional organization among different sectors of community and regional life are analyzed. Susceptible community relationships, values, activities, and processes also are included.

The third research component focuses on an evaluation of the changes that could occur due to the potential oil and gas development. Impact evaluation concentrates on an analysis of the impacts at the statewide, regional, and local level.

In general, program products are sequentially arranged in accordance with BLM's proposed OCS lease sale schedule, so that information is timely to decisionmaking. Reports are available through the National Technical Information Service, and the BLM has a limited number of copies available through the Alaska OCS Office. Inquiries for information should be directed to: Program Coordinator (COAR), Socioeconomic Studies Program, Alaska OCS Office, P. O. Box 1159, Anchorage, Alaska 99510.

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# STATEWIDE AND CENSUS DIVISION DEMOGRAPHIC AND ECONOMIC SYSTEMS, NAVARIN BASIN (SALE 83) IMPACT ANALYSIS

Prepared for

Bureau of Land Management
Alaska Outer Continental Shelf Office

Prepared by

Gunnar Knapp, Ed Porter, and Brian Reeder
Institute of Social and Economic Research
University of Alaska
March, 1983

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## ABSTRACT

This study examines economic and population impacts of the proposed Outer Continental Shelf (OCS) petroleum development of the Navarin Basin (Sale 83). The study begins with historical baseline analyses of the population and economies of the State of Alaska and the Aleutian Islands. Next, base case projections of conditions in the absence of OCS development are proposed. Subsequently, the impacts of OCS development are examined. The projections were done using the MAP and SCIMP models developed at the University of Alaska's Institute of Social and Economic Research.

In the base case, statewide population increases to over 590 thousand by the year 2010. In the 1.2 Bbbl oil discovery case, the maximum percentage impact upon statewide population is 3 percent, or 16,800, in 1993. The Aleutian Islands' base case resident population is predicted to rise from 3,654 in 1980 to 8,348 in 2000 due to growth in the bottomfish industry. The maximum increase in population is 281, or 4 percent, in 1996.

The maximum impact upon Aleutian Islands' resident employment is 12 percent (291) in 1996. The maximum impact upon Aleutian Islands' nonresident or enclave employment is 45 percent (770) in 1989 during the construction of OCS facilities.

# I. INTRODUCTION

This study discusses the economic and demographic effects of the proposed Outer Continental Shelf (OCS) petroleum development in the Navarin Basin. The Navarin Basin is located in the western Bering Sea. A lease sale for this area is scheduled for March 1984 (Sale 83).

The analysis of the study is carried out both for the state of Alaska as a whole, and for the Aleutian Islands census division. Chapter II provides a historical review of the statewide and Aleutian economies. Chapter III discusses the projection methodology, which is based on the MAP and SCIMP models developed at the University of Alaska's Institute of Social and Economic Research. Chapter IV discusses the basic assumptions about the structure of the statewide and regional economies, the independent factors which would determine economic growth in the absence of the lease sale, and the direct impacts of the sale. Chapter V discusses the statewide base case and impact projections, and Chapter VI discusses the Aleutian Islands base case and impact projections. Finally, Chapter VII briefly reviews the results of the study. Supporting materials are provided in the appendixes.

# II. STATEWIDE AND ALEUTIAN ISLANDS GROWTH: A HISTORICAL REVIEW

This chapter provides a historical review of economic growth for the state of Alaska and for the Aleutian Islands.

## The Statewide Economy

At the risk of oversimplification, the economic history of Alaska can be summarized as one of resources, defense, disaster, more resources, and government. Prior to World War II, interest in the state focused largely on natural resource exploitation, primarily based on furs, fish, and hard rock minerals. World War II and the cold war aftermath lead to a sizable military-government involvement in the state, both in terms of population and economic activity.

The advent of statehood found an economy reflecting a narrowly based private sector, largely dependent upon limited natural resource activity, and a large federal civilian and military presence. In 1960, for example, federal civilian wages and salaries accounted for 25 percent of the total civilian wage bill, while state government (5.9 percent) and local government (5.1 percent) made up an additional 11 percent of total wage and salary payments. When military payrolls are included, 42.5 percent of wage and salary income was accounted for by government.

Discovery of the Swanson River oil field in 1957 had done much to raise expectations about future economic prospects, but it was not until major discoveries in Cook Inlet during 1965 that the oil and gas industry became firmly established and significant levels of production were assured. The emergence of petroleum resources as a significant factor in the Alaska economy considerably improved the potential for private sector development and, more importantly, helped to shore up the extremely shaky fiscal base of state government.

For the mid and latter part of the decade of the 1960s, it was to be natural disaster that provided much of the impetus for economic growth. The Good Friday earthquake of 1964 resulted in a major reconstruction effort which supported levels of economic activity that probably would not have been achieved otherwise. A second disaster, of lesser statewide magnitude but of great consequence for the Fairbanks region, was the flood of 1967. Disaster relief and reconstruction funds, followed later by flood control projects, provided a needed boost for the region's economy.

Discovery of oil at Prudhoe Bay in 1968 marks the beginning of the latest phase of Alaska economic history. Development of the supergiant field, construction of the oil pipeline, and the related flows of revenue to state government are providing the impetus for sustained economic growth and diversification that should carry the state well into the 21st century.

Against this backdrop, we can now look more specifically at several important dimensions of growth and change in the Alaska economy. As suggested earlier, there are certain key measures of economic activity that are central to the analysis. Personal income and employment data provide insight into the overall growth of the economy and changes in the composition of economic activity. In addition, these data can be used as general indicators of changes in economic well-being over time. An important corollary variable is population growth. It is also instructive to review aggregate measures of production for the economy.

In addition to these general measures of economic activity, there are several specific attributes of the economy that need to be considered. These include such topics as secular and seasonal unemployment, the structure of costs and prices, and the role of state government with respect to determining overall economic activity. Finally, we must consider issues related to potential future economic activity. We now turn to specific measures of the economy.

## PRODUCTION

Data measuring the gross value of production by industrial classification are not available for recent years. However, various measures of the value of output for selected industries have been compiled and are presented in Table 1. Except for agriculture, the industries reflect the primary "export base" components of the private sector economy.

Table 1. Value of Production for Selected Industries
Various Years, 1960-1979
(millions of current dollars)

| Industry | Agriculture | Forestry | Fisheries | | | | Oil & Gas | | Federal Government Outlays in Alaska (FY) | Total Government Spending in Alaska (FY) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Value to Fishermen | | | Wholesale Value | Crude Oil | Dry Gas | | |
| Year | | | Salmon | Shellfish | Total | | | | | |
| 1960 | 5.6 | 47.3 | 33.6 | 3.1 | 40.9 | 96.7 | 1.2 | .03 | 155.8 | N.A. |
| 1961 | 5.7 | 48.0 | 35.7 | 5.1 | 46.5 | 128.7 | 17.7 | .129 | N.A. | N.A. |
| 1962 | 5.7 | 52.3 | 42.1 | 7.1 | 58.4 | 131.9 | 31.2 | .467 | N.A. | N.A. |
| 1963 | 5.3 | 54.1 | 31.3 | 9.6 | 46.9 | 109.0 | 32.7 | 1.1 | N.A. | N.A. |
| 1964 | 5.6 | 61.0 | 41.4 | 10.0 | 56.8 | 140.9 | 33.6 | 1.7 | N.A. | N.A. |
| 1965 | 5.3 | 57.5 | 48.3 | 14.5 | 70.1 | 166.6 | 34.1 | 1.8 | 533.7 | N.A. |
| 1966 | 5.3 | 71.2 | 54.2 | 17.6 | 81.9 | 197.3 | 44.1 | 6.3 | N.A. | N.A. |
| 1967 | 5.2 | 80.6 | 24.6 | 18.3 | 48.8 | 126.7 | 88.2 | 7.3 | N.A. | N.A. |
| 1968 | 4.9 | 89.2 | 49.5 | 27.9 | 79.9 | 191.7 | 186.7 | 4.4 | N.A. | N.A. |
| 1969 | 4.3 | 101.0 | 40.6 | 20.8 | 68.1 | 144.2 | 214.5 | 12.7 | N.A. | N.A. |
| 1970 | 5.2 | 93.7 | 68.0 | 20.5 | 97.5 | 213.9 | 232.8 | 18.2 | 728.7 | N.A. |
| 1971 | 5.0 | 103.5 | 51.4 | 25.0 | 85.5 | 198.7 | 234.3 | 18.0 | 852.9 | N.A. |
| 1972 | 6.0 | 82.3 | 45.3 | 33.6 | 92.4 | 185.7 | 221.7 | 18.0 | 989.4 | N.A. |
| 1973 | 7.0 | 131.4 | 60.1 | 61.4 | 142.4 | 283.0 | 239.6 | 19.5 | 1018.6 | 1592 |
| 1974 | 8.1 | 154.7 | 65.7 | 62.8 | 144.8 | 254 | 347.4 | 22.5 | 1135.9 | 1730 |
| 1975 | 9.2 | 133.5 | 55.3 | 55.4 | 129.4 | 293 | 364.6 | 42.8 | 1326.8 | 2000 |
| 1976 | 8.8 | 149.5 | 118.0 | 96.5 | 239.6 | 452 | 318.8 | 60.5 | 1368.1 | 2226 |
| 1977 | 9.9 | 179.3 | 171 | 157 | 349 | 723p | 988.9 | 66.6 | 1544.9 | 2524 |
| 1978 | 9.2 | N.A. | 238p | 272p | 543p | 1118p | 2701.5 | 89.6 | 1753.0 | 2845 |
| 1979 | 9.1p | N.A. | 317p | 231p | 606p | 1243p | 5493.6p | 91.5 | 1932.2 | 3147e |

p = preliminary
e = estimate
N.A. = not available

SOURCE: See Table 1 Notes

Table 1 Notes

The data are primarily obtained from selected tables in The Alaksa Economy: Year-End Performance Report 1978 (Alaska Department of Commerce and Economic Development, Division of Economic Enterprise; Juneau, Alaska) and Alaska Statistical Review (Alaska Department of Commerce and Economic Development, Division of Economic Enterprise; Juneau, Alaksa, 1980). The latter source is a preliminary report. Specific sources for each column of the table follow.

Agriculture: page B-13 Alaska Statistical Review (ASR). Value of sales is approximately 74 percent of value of production, with the balance being used on farm.

Forestry: Data from 1960-1971 are from Alaska Statistical Review (1972), p. 90, and reflect total end product value. For 1972-1977, the data are from the 1978 Year End Performance Report and reflect only forest product exports. Here the series are not comparable, but individually reflect growth in the periods in question. Comparable series are not available over the full period.

Fisheries: Data for 1972-1975 are from the 1978 Year End Performance Report, p. 58. 1976 data are from Alaska Catch and Production: 1976 (Alaska Department of Fish and Game). 1977-1979 data are from ASR (1980). 1960-1971 data are from ASR (1972) p. 74. Data for 1960-71, 1976-79 are comparable. Data for 1972-75 represent approximately 92 percent of total wholesale value.

Oil and Gas: ASR (1980) p. B-3. It should be noted that these data do not include value added in transportation and here reflect approximate wellhead value.

Federal Government Outlays in Alaska: 1960-1977 data are from 1978 Year End Report, p. 105. 1978-1979 data are from ASR (1980), p. E-2. Data are for fiscal year ending in given calendar year.

Total Government Spending in Alaska: Data from ASR (1980) p. E-1. The total is net of intergovernmental transfers.

Data on federal and total government expenditures have also been included for comparative purposes. Furthermore, a large portion of federal government outlays indirectly reflects an export of goods and services by the private sector economy of Alaska.

Fisheries and petroleum have clearly dominated growth in the value of production in the private sector. Value of catch to fishermen has grown at an average annual rate of 15 percent over the period, and wholesale value has grown almost as rapidly (14.4 percent), reflecting both the substantial growth of shellfishing and rising product prices. When deflated by the consumer price index (which is appropriate if we are interested in implicit purchasing power), the value of catch grew at almost 10.3 percent and the wholesale value by 9.5 percent. Crude oil and natural gas percentage growth rates are relatively meaningless since the base in 1960 is negligible, but their significance is obvious. It is also worth noting that in 1978 (the last year for which data are available) production of minerals other than oil and gas and sand and gravel amounted to 18.4 million dollars, or about 0.6 percent of the total value of mineral production. Neither has there been any significant change in the value of this dimension of mining over the past two decades. In deflated dollars, federal government expenditures have grown at about 9.3 percent.

Government expenditures are not directly comparable to the value of production in other industries since they reflect not only government production (wages and salaries) but purchases of goods and services

and transfer payments to individuals. However, in another sense these expenditures do reflect a measure of demand for production of goods and services throughout the economy as a whole and underscore the continuing importance of government spending in the economy.

Of particular significance in overall government spending is the role of state government spending. The state fiscal history can roughly be divided into three periods: early post-statehood, Prudhoe Bay sale to pipeline completion, and Prudhoe Bay production.

During the first period, federal government grants, both statehood transition grants and others, were an important component of state government revenues. The relative decline in federal grants were more than offset by revenues linked to general economic growth and the development of Cook Inlet petroleum resources, but expenditures were constrained by available revenues.

The $900 million Prudhoe Bay lease sale in the fall of 1969 ushered in the second period and led to an immediate doubling of state government expenditures. Growth in expenditures continued rapidly, although still constrained by available revenues and the rapidly diminishing balance of the lease sale. The third period is marked by the commencement of production from Prudhoe Bay; and, for the first time, the state has significant potential surplus revenues.

The rapid expansion of revenues since 1969 has resulted in a closely correlated growth of state government expenditures. This is reflected not only in expanding state government employment and wages but also by total government expenditures for purchases of goods and services and transfers to local government. The net result has been that state government spending (both directly and through local government) has assumed a significant role in the overall determination of economic activity in Alaska. This is a pattern which will prevail for some time into the future.

In summary, the role of natural resources in the growth of the Alaska economy has been dominated by fisheries and petroleum. Forest products have remained regionally important, primarily for Southeast Alaska, but have not demonstrated significant growth. Agriculture has remained stagnant, and, in real terms, the value of production has declined. Government has remained a major force in the economy, with state and local government increasing in relative proportion to total government.

## EMPLOYMENT, UNEMPLOYMENT, AND WORK FORCE

Analysis of employment, unemployment, and work force data is important for several reasons. First, since labor is one of the key factors of production, employment data provide a general indicator of the growth and composition of production over time. The main deficiency with these data for such purposes is that they ignore changes in factor proportions over time and differences in factor proportions between

industries. This omission is particularly important in industries that are highly capital-intensive, such as the petroleum industry. Also, since these data are based on job counts, they do not reflect actual man hours of production and, hence, provide only an approximate measure of labor input.

Second, work force data, in conjunction with total employment data, determine unemployment. It is instructive to observe the patterns of unemployment over time and in response to changes in total economic activity. Third, the data are useful in measuring seasonal patterns of economic activity and how this may have changed over time.

Tables 2 and 3 provide summary data on employment, labor force, and unemployment for selected years over the 1960-1978 period. Total employment over this period grew at an annual average rate of 4.9 percent. However, substantial variation in the growth rate is evident. From 1960-1973, the rate was 3 percent; while for 1974-1978 (reflecting the pipeline boom) the rate was 8.6 percent. The growth of the civilian labor force shows a similar pattern, although increasing at a slightly higher rate. The result of this is that total unemployment has grown at about 7 percent per year over the period and the unemployment rate has also increased.

TABLE 2. CIVILIAN EMPLOYMENT, UNEMPLOYMENT AND LABOR FORCE
1960, 1965, 1970-1978, BY BROAD INDUSTRY CLASSIFICATION
(IN THOUSANDS)

| | 1960 | | 1965 | | 1970 | | 1971 | | 1972 | | 1973 | | 1974 | | 1975 | | 1976 | | 1977 | | 1978 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Civilian Labor Force | 73.6 | | 89.8 | | 91.6 | | 97.7 | | 103.6 | | 109.1 | | 125.6 | | 156.0 | | 168.0 | | 174.0 | | 181.0 | |
| Total Unemployment | 5.9 | | 7.7 | | 6.5 | | 8.0 | | 8.6 | | 9.3 | | 9.9 | | 10.8 | | 14.0 | | 16.0 | | 20.0 | |
| % of Total Labor Force | 8.0% | | 8.6% | | 7.1% | | 8.2% | | 8.3% | | 8.5% | | 7.9% | | 6.9% | | 8.3% | | 9.2% | | 11.0% | |
| Total Employment | 67.7 | | 82.1 | | 85.1 | | 89.6 | | 95.0 | | 99.9 | | 115.7 | | 145.3 | | 154.0 | | 158.0 | | 161.0 | |
| | Emp. | % | Emp. | % | Emp. | % | Emp. | % | Emp. | % | Emp. | % | Emp. | % | Emp. | % | Emp. | % | Emp. | % | Emp. | % |
| Nonagricultural Wage and Salary Employment | 56.9 | 100.0 | 70.5 | 100.0 | 92.5 | 100.0 | 97.6 | 100.0 | 105.4 | 100.0 | 111.2 | 100.0 | 129.7 | 100.0 | 163.7 | 100.0 | 173.5 | 100.0 | 166.0 | 100.0 | 163.2 | 100. |
| Mining | 1.1 | 1.9 | 1.1 | 1.6 | 3.0 | 3.2 | 2.4 | 2.5 | 2.1 | 2.0 | 2.0 | 1.8 | 3.0 | 2.3 | 3.8 | 2.3 | 4.0 | 2.3 | 5.0 | 3.0 | 5.6 | 3. |
| Contract Construction | 5.9 | 10.4 | 6.5 | 9.2 | 6.9 | 7.5 | 7.4 | 7.6 | 7.9 | 7.5 | 7.8 | 7.0 | 14.1 | 10.9 | 25.9 | 15.8 | 30.2 | 17.4 | 19.5 | 11.7 | 12.2 | 7. |
| Manufacturing | 5.8 | 10.1 | 6.2 | 8.8 | 7.8 | 8.4 | 7.8 | 8.0 | 8.1 | 7.7 | 9.4 | 8.5 | 9.6 | 7.4 | 9.6 | 5.9 | 10.3 | 5.9 | 10.9 | 6.6 | 11.5 | 7. |
| Food Processing | 2.8 | 4.9 | 3.0 | 4.3 | 3.7 | 4.0 | 3.6 | 3.7 | 3.7 | 3.5 | 4.6 | 4.1 | 4.3 | 3.3 | 4.3 | 2.6 | 5.1 | 2.9 | 5.5 | 3.3 | 6.3 | 3. |
| Logging, Lumber, Pulp | 2.2 | 3.9 | 2.3 | 3.3 | 2.8 | 3.0 | 2.8 | 2.9 | 2.8 | 2.7 | 3.2 | 2.9 | 3.6 | 2.8 | 3.4 | 2.1 | 3.2 | 1.8 | 3.5 | 2.1 | 1.8 | 1. |
| Transportation, Communications Public Utilities | 6.8 | 12.0 | 7.3 | 10.4 | 9.1 | 9.8 | 9.8 | 10.0 | 10.0 | 9.5 | 10.4 | 9.4 | 12.4 | 9.6 | 16.5 | 10.1 | 15.8 | 9.1 | 15.6 | 9.4 | 16.4 | 10. |
| Trade | 7.7 | 13.5 | 10.0 | 14.2 | 15.4 | 16.6 | 16.1 | 16.5 | 17.1 | 16.2 | 18.3 | 16.5 | 21.1 | 16.3 | 26.2 | 16.0 | 27.6 | 15.9 | 28.5 | 17.2 | 28.8 | 17. |
| Finance, Insurance, Real Estate | 1.4 | 2.5 | 2.2 | 3.1 | 3.1 | 3.4 | 3.2 | 3.3 | 3.7 | 3.5 | 4.2 | 3.8 | 4.9 | 3.8 | 6.0 | 3.7 | 7.1 | 4.1 | 7.8 | 4.7 | 8.2 | 5. |
| Services | 5.6 | 9.8 | 7.5 | 10.6 | 11.4 | 12.3 | 12.5 | 12.8 | 14.0 | 13.3 | 15.2 | 13.7 | 18.3 | 14.1 | 25.1 | 15.3 | 27.7 | 16.0 | 27.4 | 16.5 | 27.6 | 16. |
| Government | 22.7 | 39.9 | 29.7 | 42.1 | 35.5 | 38.5 | 38.0 | 38.9 | 41.7 | 39.6 | 42.8 | 38.5 | 45.3 | 34.9 | 49.5 | 30.2 | 49.7 | 28.6 | 50.7 | 30.5 | 52.2 | 32. |
| Federal | 15.6 | 27.4 | 17.4 | 24.7 | 17.1 | 18.5 | 17.3 | 17.7 | 17.2 | 16.3 | 17.2 | 15.5 | 18.0 | 13.9 | 18.3 | 11.2 | 17.9 | 10.3 | 17.7 | 10.7 | 18.1 | 11. |
| State | 3.9 | 6.9 | 7.0 | 9.9 | 10.4 | 11.2 | 11.7 | 12.0 | 13.3 | 12.6 | 13.8 | 12.4 | 14.2 | 10.9 | 15.5 | 9.5 | 14.1 | 8.1 | 13.9 | 8.4 | 14.3 | 8. |
| Local | 3.2 | 5.6 | 5.3 | 7.5 | 8.1 | 8.8 | 9.0 | 9.2 | 11.2 | 10.6 | 11.9 | 10.7 | 13.1 | 10.1 | 15.8 | 9.7 | 17.6 | 10.1 | 19.1 | 11.5 | 19.8 | 12. |

Table 2 Notes

Sources of data: 1960, 1965 ASR (1972) p. 16. It should be noted that the "labor force" data are actually work force data for these two years and are not directly comparable with the data for 1970-1978. The basic difference between the two series is that work force estimates are based on job counts and, hence, a worker may be counted more than once if holding two or more jobs. Labor force estimates are supposed to eliminate this double counting. Thus, the work force data for 1960 and 1965 somewhat overstate the actual number of employed.

In 1970-1978, labor force and total employment estimates are obtained from Alaska Labor Force Estimates by Area (Alaska Department of Labor), various years.

Non-agricultural wage and salary data are obtained from the Statistical Quarterly (Alaska Department of Labor) for the various years.

TABLE 3. INDEX OF SEASONAL VARIATION IN NONAGRICULTURAL EMPLOYMENT: SELECTED YEARS 1960-1978

| | 1960 | 1965 | 1970 | 1972 | 1974 | 1976 | 1978 |
|---|---|---|---|---|---|---|---|
| Total Nonagricultural Employment | 39.4 | 30.6 | 22.7 | 24.6 | 32.0 | 23.1 | 14.0 |
| Contract Construction | 156.2 | 91.7 | 69.5 | 77.6 | 108.2 | 64.7 | 47.2 |
| Manufacturing | 136.3 | 116.3 | 107.9 | 105.2 | 70.8 | 78.2 | 86.5 |
| Food Processing | 211.5 | 195.2 | 196.3 | 175.3 | 100.6 | 112.0 | 125.0 |
| Trade | 20.8 | 20.0 | 15.6 | 14.8 | 25.1 | 13.5 | 12.0 |
| Services | 28.4 | 17.2 | 10.7 | 16.2 | 26.8 | 13.3 | 17.8 |
| Unemployment Rate, All Industries | 117.5 | 74.4 | 59.2 | 65.1 | 82.3 | 45.8 | 30.0 |
| Labor Force | 28.2 | 26.5 | 21.8 | 21.0 | 27.1 | 21.2 | 12.0 |

SOURCE: Compiled from Statistical Quarterly (Alaska Department of Labor), selected years. Seasonal variation is measured as the high month minus the low month divided by average annual figure, stated as a percent. Unemployment data are from Labor Force Estimates (Alaska Department of Labor), various years.

It is also worth noting that during the pre-pipeline period the unemployment rate was relatively stable and that the somewhat higher rates of 1977 and 1978 reflect in large part a readjustment to a more normal post-pipeline period. These data clearly illustrate the openness of the Alaska labor market. Large variations in the demand for labor are primarily met by significant in- and out-migration and by changes in labor force participation rates. As a consequence, the long-run rate of unemployment is quite stable and the simple expansion of economic activity has little effect in terms of reducing unemployment. The second block of data in Table 2 provides annual average employment data by broad industry classification. In addition to illustrating the sustained growth of employment and production in all industry categories, these data also indicate relative changes in the significance of specific industries.

Employment in mining is the one basic sector industry that has increased its share of total employment. The federal government share has declined substantially over the period, while both state and local government have grown, with much of the growth in state government employment occurring during the 1960s and the early 1970s. Local government growth lagged state government in the early years, but by 1975 local government employment exceeded state government employment. Of particular interest is the growth of support sector activity, including trade, finance, insurance and real estate, and services. This growth reflects a steady diversification of support sector activity and the process of import substitution in response to increasing

market size, growth of incomes, and opportunities for specialization. In short, the data reflect a general maturation of the economy.

It is also of interest to consider changes in seasonal patterns of economic activity. Table 3 summarizes seasonal activity in selected industries, as well as for total nonagricultural wage and salary employment, labor force, and unemployment. Seasonal variation is measured as the high month minus the low month divided by the average annual figure for the respective variable. Because of secular growth in the variables, the index tends to overstate seasonality for any given year, but for comparative purposes, over time, the index is satisfactory.

The data reflect two important dimensions of the Alaska economy. First, seasonality varies drastically from industry to industry, with construction and manufacturing (especially food processing) showing the greatest seasonal swings. Second, while significant seasonality remains in all industry, there has been a major reduction over time.

In summary, the data on labor force, employment, and unemployment illustrate several important features of the Alaska economy. First, while growth has been uneven, aggregate economic activity has increased substantially since statehood. Contract construction, mining, and support sector industries grew rapidly during pipeline construction. With the exception of contract construction, levels of employment achieved at the peak of pipeline construction have generally been sustained or have increased.

Second, structural change that reflects a general maturing of the economy has occurred, as evidenced by the increased share of total employment accounted for by-support sector activity, including trade, finance, insurance and real estate, and services. Coupled with the greatly reduced dependence of the state on federal government activity and the growth of petroleum and fisheries, the data indicate a general broadening and diversification of economic activity.

Third, in addition to sustained secular growth, there has been a marked decrease in seasonal swings in economic activity. In part, this reflects the relative growth of industries with smaller seasonal variations. In addition, construction and fish processing seasonality have also reduced substantially.

Finally, the relative stability of unemployment rates over time clearly indicates the openness of the Alaska labor market. The generally higher than national average unemployment rates have not responded to aggregate economic expansion historically and probably will not in the future.

PERSONAL INCOME

Personal income measures that part of the total value of production that accrues to individuals and includes: wage and salary income; other labor income; proprietor's income; income from dividends, interest, and rent; and personal transfer payments. While deficient in many respects as a measure of economic well-being, it is nevertheless

a useful indicator of the degree to which individuals share in the total benefits of production. Table 4 presents estimates of personal income for Alaska, by major source, for selected years covering the period from 1960 through 1978.

Personal income has grown steadily over the entire period, at an average annual rate of 11.3 percent, while for the pipeline period the growth was about 17 percent per year. Wage and salary income accounted for the majority of personal income throughout the period, averaging 80 percent. In contrast, about 68 percent of U.S. personal income is accounted for by wages and salaries. Proprietor income as a share of total personal income has declined somewhat; while that of dividends, interest, and rent has increased modestly. The share accounted for by transfer payments has increased substantially but still remains well below the national figure of 12.6 percent. The data also generally confirm the relative changes in the composition of industry activity that were observed in the employment data.

The growth of aggregate personal income in Table 4 reflects not only aggregate growth of production but also the influence of inflation. Table 5 presents aggregate personal income in both current and constant dollars. Growth of constant dollar personal income has been significant and has averaged 7.8 percent per year. During the 1974-1977 period, the growth was even more dramatic at 11.8 percent in real terms. The combined effects of inflation and the plateauing of economic activity following completion of pipeline construction have resulted in a slight decline in real personal income in 1978.

TABLE 4. PERSONAL INCOME BY MAJOR COMPONENT:
ALASKA, SELECTED YEARS 1960-1978

(millions of current dollars)

| COMPONENT | 1960 | | 1965 | | 1970 | | 1975 | | 1978 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | $ | % Total | $ | % Total | $ | % Total | $ | % Total | $ | % Total |
| Wages & Salary | 567.9 | 84.1 | 778.2 | 88.8 | 1293.9 | 84.7 | 3620 | 85.0 | 3954.9 | 80.6 |
| Private, Total | 281.5 | 41.7 | 463.2 | 52.8 | 773.1 | 50.6 | 2771 | 65.1 | 2907.2 | 59.2 |
| Mining | 10.3 | 1.5 | 14.3 | 1.6 | 54.2 | 3.5 | 116 | 2.7 | 248.4 | 5.1 |
| Contract Construction | 77.3 | 11.5 | 98.0 | 11.2 | 140.2 | 9.2 | 1095 | 25.7 | 537.8 | 11.0 |
| Manufacturing | 47.1 | 7.0 | 59.7 | 6.8 | 90.9 | 5.9 | 161 | 3.8 | 260.9 | 5.3 |
| Fisheries | 17.7 | 2.6 | 22.9 | 2.6 | 31.4 | 2.1 | 46.2 | 1.1 | 100.5 | 2.0 |
| Forest Products | 8.4 | 1.2 | 22.8 | 2.6 | 38.6 | 2.5 | 64.8 | 1.5 | 50.0 | 1.0 |
| Support Sector | 142.1 | 21.1 | 265.3 | 30.3 | 457.4 | 29.9 | 1364 | 32.0 | 1817.0 | 37.0 |
| Government | 286.6 | 42.5 | 376.0 | 42.9 | 593.6 | 38.8 | 993 | 23.3 | 1301.8 | 26.5 |
| Federal Civilian | 104.7 | 15.5 | 137.6 | 15.7 | 195.1 | 12.8 | 308 | 7.2 | 383.2 | 7.8 |
| Military | 136.0 | 20.1 | 143.9 | 16.4 | 225.7 | 14.8 | 258 | 6.1 | 287.5 | 5.9 |
| State & Local | 45.9 | 6.8 | 94.4 | 10.8 | 172.9 | 11.3 | 427 | 10.0 | 631.0 | 12.9 |
| Proprietors' Income | 50.1 | 7.4 | 62.1 | 7.1 | 73.9 | 4.8 | 143 | 3.4 | 260.5 | 5.3 |
| Dividend, Interest & Rent | 33.0 | 4.9 | 52.1 | 5.9 | 81.4 | 5.3 | 220 | 5.2 | 333.4 | 6.8 |
| Transfer Payments | 24.0 | 3.6 | 34.2 | 3.9 | 79.3 | 5.2 | 274 | 6.4 | 358.3 | 7.3 |
| TOTAL | 675.0 | 100.0 | 876.6 | 100.0 | 1528.5 | 100.0 | 4257 | 100.0 | 3907.1 | 100.0 |
| Less | | | | | | | | | | |
| Cont. for Soc. Ins. | 11.0 | | 22.3 | | 49.2 | | 172.0 | | 223.5 | |
| Residence Adj. | 31.5 | | 45.9 | | 67.1 | | 637.0 | | 314.6 | |
| Resident Personal Income | 632.5 | | 900.2 | | 1412.2 | | 3447.0 | | 4369.0 | |

Table 4 Notes

SOURCE: Major components of the table are obtained from U. S. Department of Commerce, Bureau of Economic Analysis reports of personal income by state. Wages and salary figures (row 1) include wage and salary plus other labor income components of personal income. Except for 1960, the private, total row and subcomponents thereunder, contain wage and salary income, other labor income, and proprietors' income. Total income is the sum of the wages and salary row plus proprietors' income; dividends, interest and rents; and transfer payments. Resident personal income is equal to total income less contribution for social insurance and the residence adjustment.

TABLE 5. ALASKA RESIDENT ADJUSTED PERSONAL INCOME IN CURRENT AND CONSTANT 1979 DOLLARS - 1960, 1965, and 1970-1978

| | Millions of Dollars of Personal Income, Total | | Per Capita Personal Income | |
|---|---|---|---|---|
| | Current $ | Constant 1979 $ | Current $ | Constant 1979 $ |
| 1960 | 632.5 | 1,470.6 | 2,797 | 6,503 |
| 1965 | 858.4 | 1,982.8 | 3,168 | 7,318 |
| 1970 | 1,411.9 | 2,700.3 | 4,644 | 8,882 |
| 1971 | 1,557.2 | 2,954.8 | 4,939 | 9,372 |
| 1972 | 1,698.5 | 3,036.4 | 5,234 | 9,631 |
| 1973 | 2,001.5 | 3,570.0 | 6,046 | 10,784 |
| 1974 | 2,436.7 | 3,822.9 | 7,138 | 11,199 |
| 1975 | 3,527.7 | 4,493.5 | 9,673 | 12,321 |
| 1976 | 4,194.8 | 5,421.4 | 10,274 | 13,278 |
| 1977 | 4,313.4 | 5,346.5 | 10,455 | 12,959 |
| 1978 | 4,369.0 | 4,875.2 | 10,849 | 12,106 |
| | Average Annual Percent Growth | | | |
| | 11.3 | 7.8 | 6.9 | 3.5 |

SOURCE: Current dollar personal and per capita income from U.S. Department of Commerce, Bureau of Economic Analysis. Deflated by Anchorage Consumer Price Index, U.S. Department of Labor.

There are two other dimensions of personal income that are particularly important in assessing individual economic well-being: per capita income and the distribution of income. Table 5 includes data on the growth of per capita personal income in real and current dollars.

Real per capita income from 1960-1973 grew at an average annual rate of 4 percent. The 1973-1978 period, encompassing pipeline construction and the post-boom readjustment, shows rapid expansion until 1976 and then a substantial drop during 1977 and 1978. The net growth over the period is only 2 percent per year. Two points are worth noting in this respect. First, the rapid expansion of activity occurred during a period of high national inflation and was of sufficient magnitude to lead to additional regional inflation in the Alaska economy. Thus, the real value of per capita income growth was greatly diminished. Second, the rapid expansion of total economic activity had only a minimal effect in raising per capita income, again reflecting the ease of entry into the Alaska labor market.

Data on the distribution of personal income are not available for recent years, but it is instructive to look at the pattern of wages over time. Table 6 presents data on relative wages, by industry, for selected years over the 1965-1978 period.

TABLE 6. DISTRIBUTION OF RELATIVE WAGE RATES, BY INDUSTRY, FOR ALASKA, SELECTED YEARS, 1965-1978

| Industry | 1965 | 1970 | 1976 | 1978 |
|---|---|---|---|---|
| Total Nonagriculture Wage and Salary | 100 | 100 | 100 | 100 |
| Mining | 147 | 164 | 140 | 193 |
| Contract Construction | 165 | 169 | 210 | 157 |
| Manufacturing | 106 | 99 | 73 | 93 |
| Food Processing | 97 | 78 | 55 | 71 |
| Logging, Lumber, and Pulp | 115 | 124 | 96 | 119 |
| Other Manufacturing | 112 | 110 | 83 | 109 |
| Transportation, Communication, and Public Utilities | 115 | 114 | 105 | 128 |
| Wholesale Trade | 127 | 117 | 94 | 111 |
| Retail Trade | 78 | 70 | 50 | 62 |
| Finance, Insurance, Real Estate | 88 | 81 | 62 | 81 |
| Services | 74 | 72 | 78 | 75 |
| Government | 91 | 97 | 74 | 97 |
| Federal | 91 | 100 | 70 | 94 |
| State | 91 | 96 | 79 | 111 |
| Local | 91 | 93 | 72 | 89 |

SOURCE: Computed from average monthly wage data from the Statistical Quarterly (Alaska Department of Labor), selected years. Relative wages are the respective industry wage divided by the average wage for all industries x 100.

The numbers reflect the ratio of the average monthly wage for the respective industry divided by the average monthly wage for all non-agricultural wage and salary employment. The data must be interpreted with caution since several factors are at work that may account for year-to-year variability. First, the average monthly wage data reflect both straight time and overtime earnings and are thus sensitive to variation in the ratio of straight time to overtime work.

Second, the average monthly wage is computed by dividing total wages by average monthly employment; and average monthly employment, in turn, reflects both full- and part-time work. Thus, the employment data are only an approximation of man hours worked. We are also looking at fairly aggregate data. Some of the variation within industries may be accounted for by changes in composition of activity within the broad industry classifications.

The data first indicate the growing disparity of average wage rates, which would suggest a trend toward a less equal distribution of income. More significant are the changes that occurred at the peak of pipeline construction in 1976. Major distortions in the structure of wages are present, and this suggests that the distribution of benefits during a boom is not uniform, but rather that a small segment of the economy appears to reap a large proportion of the gains. This feature of boom economics is further demonstrated by an analysis of changes in real wages over the 1973-1976 period.

Table 7 shows average monthly wages, by broad industry classification, deflated by the Anchorage consumer price index (CPI). Use of the Anchorage CPI is dictated because there is no statewide index. Hence, the deflation is subject to some error since price changes are not uniform throughout Alaska. As an approximation, however, the data are adequate.

It is clear that drastic differences exist among industries and that the economic benefits of rapid economic expansion tend to be concentrated in a select few industries. A major portion of income implied in the growth of construction wages was also earned by nonresidents or temporary resident employees. With the exception of business services, all components of the support sector and government badly lagged the average growth of wages and, implicitly, relative income. Federal government and finance, insurance, and real estate real wages actually declined.

While much of the inflation that occurred during the period is attributable to national inflation, significant regional inflation resulting from pipeline construction activity also occurred. Prior to pipeline construction, the Anchorage CPI had been growing at a less rapid rate than the U.S. CPI. However, during pipeline construction, this relationship was reversed, and the Anchorage CPI grew more rapidly. After the pipeline, however, the inflation rate in Anchorage again fell below that of the United States. Except for periods of



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TABLE 7. CHANGE IN REAL AVERAGE MONTHLY WAGE 1973-1976, ALASKA (1973 DOLLARS)

| Industry | Average Wage 1973 | Average Wage 1976 | Average Wage Percent Change |
|---|---|---|---|
| Total Nonagriculture Wage and Salary | $1,006 | $1,424 | 12.3% |
| Oil and Gas Mining | 1,661 | 2,068 | 7.6 |
| Contract Construction | 1,635 | 2,985 | 22.2 |
| Manufacturing | 961 | 1,041 | 2.7 |
| Transportation, Communication, and Public Utilities | 1,141 | 1,494 | 9.4 |
| Wholesale Trade | 1,177 | 1,341 | 4.4 |
| Retail Trade | 687 | 709 | 1.1 |
| Finance, Insurance, Real Estate | 897 | 884 | - 0.5 |
| Services | 751 | 1,107 | 13.8 |
| Hotels, Motels, Lodging | 527 | 537 | 0.6 |
| Business Services | 732 | 1,706 | 32.6 |
| Government | 1,024 | 1,047 | 0.7 |
| Federal | 1,062 | 1,002 | - 1.9 |
| State | 992 | 1,132 | 4.5 |
| Local | 1,003 | 1,024 | 0.7 |

SOURCE: Computed from average monthly wage data, Statistical Quarterly (Alaska Department of Labor), selected years.

relative boom in Alaska, consumer prices have tended to rise noticeably slower in Anchorage than outside Alaska. Over the long run, this will tend to narrow price differentials between Alaska and the Lower 48 states. Table 8 presents relative rates of growth in the Anchorage and United States CPIs for selected years, and clearly illustrates this pattern.

As one final indication of income distribution patterns, a distribution relating percentage of total wage and salary income to percentage of employment has been constructed for 1965 and 1978 (see Figure 1). The distribution was constructed by ranking industries according to average monthly wage. The percentage of total employment and total wage income accounted for by the respective industry was then computed. The cumulative employment and income percentages were then plotted, yielding the typical Lorenz-type distribution figure.

A comparison of the two distributions reveals a clear shift toward a less uniform distribution of income. This shift is probably accounted for by two factors. First, as indicated earlier, there has been a sizable increase in the share of total activity accounted for by support sector industries, and these industries generally have lower than average wage rates. Second, there has been a substantial growth in the range of relative wages between industries over time.

TABLE 8. RATES OF CHANGE FOR THE ANCHORAGE AND U.S. CONSUMER PRICE INDEX, SELECTED YEARS, 1960-1981

| | 1960-1970 | 1970-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|
| Anchorage | 1.8 | 4.1 | 13.3 | 12.3 | 6.5 | 5.8 |
| United States | 2.8 | 5.6 | 12.0 | 7.6 | 5.3 | 6.5 |

| | 1977-78 | 1978-79 | 1979-80 | 1980-81 |
|---|---|---|---|---|
| Anchorage | 6.3 | 9.4 | 8.9 | 7.5 |
| United States | 7.7 | 11.5 | 13.0 | 10.7 |

SOURCE: Derived from the Bureau of Labor Statistics reports on Anchorage and United States CPIs.

FIGURE 1. DISTRIBUTION OF WAGE AND SALARY INCOME
ALASKA, 1965 and 1978

SOURCE: See text.

In summary, real personal income has shown sustained growth over the entire 1960-1978 period, both in aggregate and per capita terms. The growth has not been uniformly distributed, however, and the wage component has become less uniform over time. This was particularly evident during pipeline construction and supports the hypothesis that the benefits of pipeline construction were largely concentrated in a few sectors.

POPULATION

The remaining dimension of growth to be considered is population. Changes in population are divided into two components, natural increase (or decrease) and in/out-migration. Natural population growth results from an excess of births over deaths and is, hence, determined by birth and death rates.

Alaska exhibits both the highest birth rate and the lowest death rate in the United States; and as a result, the rate of natural population increase is the highest in the United States. This phenomenon is largely accounted for by the relative youthfulness of the population, with over 34 percent of the population between the ages of 14 and 30. This age group has both the highest fertility rate and the lowest death rate.

Net migration (in-migration minus out-migration) is the second factor contributing to population change. Many factors influence the migration decision; but for the Alaska case, it appears that (with the

exception of military-related migration) migration occurs largely in response to economic opportunity. In the aggregate, relative rates of unemployment and relative wage differentials in Alaska and elsewhere should be important in determining the migration decision. At the individual level, the economic component of the decision is related to the expected gain resulting from the move. Basically, this is the expected wage differential times the probability of getting a job, less the cost of making the change. Thus, either a change in relative wage rates or relative employment opportunities can influence the decision.

That migration is sensitive to economic opportunity is clearly demonstrated by patterns of migration that occur during and after pipeline construction. Data summarizing population and changes in population for Alaska for the years 1965 through 1978 are presented in Table 9. Both the relative stability of natural increase and the volatility of net migration are clear. Natural increase has averaged about 1.5 percent per year; while large variations, even in pre-pipeline years, are evident in the net migration component.

Table 10 presents the age distribution of Alaska in juxtaposition to the overall U.S. age distribution. As would be expected, the middle age groups are significantly larger in Alaska than for the United States as a whole; almost 34 percent of the Alaska population is

TABLE 9. ALASKA POPULATION AND COMPONENTS OF CHANGE: 1965-1978

(thousands)

| Year | Total | Natural Increase | Total Change | Net Migration |
|---|---|---|---|---|
| 1965 | 265.2 | 5.7 | 10.2 | 4.5 |
| 1966 | 271.5 | 5.3 | 6.3 | 1.0 |
| 1967 | 277.9 | 5.0 | 6.4 | 1.4 |
| 1968 | 284.9 | 5.1 | 7.0 | 1.9 |
| 1969 | 294.6 | 5.6 | 9.7 | 4.1 |
| 1970 | 302.4 | 6.1 | 7.8 | 1.7 |
| 1971 | 312.9 | 5.9 | 10.6 | 4.7 |
| 1972 | 324.3 | 5.5 | 11.4 | 5.9 |
| 1973 | 330.4 | 5.1 | 6.1 | 0.9 |
| 1974 | 351.2 | 5.6 | 20.8 | 15.2 |
| 1975 | 404.6 | 5.9 | 53.4 | 47.5 |
| 1976 | 413.3 | 6.3 | 8.7 | 2.4 |
| 1977 | 411.2 | 6.8 | - 2.1 | - 8.9 |
| 1978 | 407.0 | 6.7 | - 4.3 | -11.0 |
| 1979 | 406.2 | 7.4 | - .8 | - 8.2 |
| 1980 | 400.5* | | - 5.7 | |

*U.S. Census figure for 1980, so comparability is more difficult.

SOURCE: Alaska Department of Labor

TABLE 10
ALASKA POPULATION BY AGE, 1980

| Age Cohort | Total | Alaska Age Distribution (% of Total) | U.S. Age Distribution (% of Total) |
|---|---|---|---|
| 0 - 4 | 38,777 | 9.68 | 7.21 |
| 5 - 9 | 84,917 | 8.72 | 7.37 |
| 10 - 14 | 34,166 | 8.53 | 8.05 |
| 15 - 19 | 36,980 | 9.23 | 9.34 |
| 20 - 24 | 45,058 | 11.25 | 9.40 |
| 25 - 29 | 48,452 | 12.10 | 7.29 |
| 30 - 34 | 41,916 | 10.46 | 7.75 |
| 35 - 39 | 31,182 | 7.79 | 6.16 |
| 40 - 44 | 22,570 | 5.63 | 5.15 |
| 45 - 49 | 18,355 | 4.58 | 4.89 |
| 50 - 54 | 15,801 | 3.95 | 5.16 |
| 55 - 59 | 12,592 | 3.14 | 5.13 |
| 60 - 64 | 8,095 | 2.02 | 4.45 |
| 65 + | 11,530 | 2.88 | 11.28 |

SOURCE: U.S. Department of Commerce, 1980 Census of Population: Age, Sex, Race, and Spanish Origin by Regions, Divisions and States: 1980, PC 80-S1-1, p. 4-5.

between ages 20 and 35, where the comparable figure for the United States is less than 25 percent. This age group is extremely mobile, and accounts for a good deal of the migration that occurred during the pipeline boom.

In summary, Alaska's natural population growth is substantially above that of the nation as a whole. Furthermore, the response of migration to economic opportunity is clearly evident. Once again, this emphasizes the openness of the Alaska labor market.

## The Aleutian Islands Census Division

The Aleutian Islands Census Division encompasses all of the Aleutian Islands, the Pribilof Islands, and the Alaska Peninsula from Port Heiden west. This is the definition used by the 1970 Census and the Alaska Department of Labor Statistical Quarterly (the 1980 Census used a slightly different definition).

The economy of the Aleutian Islands Census Division in no sense reflects a cohesive, functional economic area. This economic area is composed of several relatively isolated communities and Federal government military installations. Private sector activity is almost totally dependent upon utilization of the abundant fish resources and includes both harvesting and processing. Harvesting of fur seals on St. Paul Island ~~is also~~ until recently was an important local activity. Minor amounts of sheep ranching also occur in the region. Military installations at Shemya and Adak, as well as elsewhere in the region, swell the population, employment, and income figures for the census division but have no perceptible links with other economic units within the census division.

### PRODUCTION

Basic sector private production is mostly composed of fisheries-related activity. Both commercial fishing and processing are widely dispersed throughout the region, although processing is more highly concentrated in the eastern portion of the census division. Tables 11 through 13 provide summary data on commercial fishing. In Table 11 the salmon, shellfish, total catch, and value of catch to fishermen

TABLE 11. CATCH AND VALUE TO FISHERMEN,
ALEUTIAN ISLANDS CENSUS DIVISION
1970 TO 1976, SELECTED YEARS

(catch in million pounds; value in million dollars)

| Year | Salmon | | Shellfish | | Total[1] | |
|---|---|---|---|---|---|---|
| | Pounds | Value | Pounds | Value | Pounds | Value |
| 1976 | 20.910 | 7.155 | 154.262 | 61.032 | 175.921 | 69.029 |
| 1973 | 6.993 | 1.815 | 60.966 | 25.135 | 71.261 | 29.243 |
| 1970 | 28.695 | 5.102 | 44.082 | 9.108 | 74.540 | 14.793 |

[1]Totals include minor amounts of other fish. There is also an unreconciled discrepancy for the weight of shellfish in Table 14 and Table 15 for 1973.

SOURCE: Alaska Catch and Production (Alaska Department of Fish and Game, Division of Commercial Fisheries), selected years. Data prior to 1970 not available on a comparable basis.

TABLE 12. SHELLFISH HARVEST, ALEUTIAN ISLANDS CENSUS DIVISION, 1962, 1965-1976

(millions of pounds)

| Year | Kingcrab | Dungeness | Tanner | Shrimp | Total |
|---|---|---|---|---|---|
| 1962 | 6.840 | - | - | - | 6.840 |
| 1965 | 50.704 | .017 | - | - | 50.717 |
| 1966 | 63.993 | .025 | .000 | .000 | 64.018 |
| 1967 | 61.990 | .000 | .003 | .000 | 61.993 |
| 1968 | 53.060 | .953 | .142 | 4.375 | 58.530 |
| 1969 | 39.895 | 1.380 | 1.662 | 2.657 | 45.594 |
| 1970 | 35.408 | .717 | 3.558 | 4.399 | 44.082 |
| 1971 | 53.997 | .022 | 2.307 | 5.228 | 61.554 |
| 1972 | 52.957 | .000 | 4.054 | 14.891 | 71.902 |
| 1973 | 56.620 | .201 | 6.183 | 18.947 | 81.951 |
| 1974 | 66.812 | .061 | 13.998 | 31.245 | 112.116 |
| 1975 | 70.002 | .004 | 12.592 | 20.504 | 103.102 |
| 1976 | 82.943 | .000 | 30.202 | 41.117 | 154.262 |

SOURCE: Alaska Catch and Production: Commercial Fisheries Statistics (Alaska Department of Fish and Game, Division of Commercial Fisheries), various years. Areas included are South Alaska Peninsula, Aleutians East-Unalaska, Aleutians West-Adak, and Bering Sea. These boundaries are not strictly comparable to the census division boundaries, but are adequate for present purposes.

TABLE 13. SHELLFISH HARVEST, BY AREA, SELECTED YEARS 1962 - 1976
(millions of pounds)

South Peninsula

| Year | King Crab | Dungeness | Tanner | Shrimp | Total |
|---|---|---|---|---|---|
| 1967 | 16.9 | - | .0 | - | 16.9 |
| 1972 | 4.2 | - | 3.9 | 14.8 | 22.9 |
| 1976 | .7 | - | 7.3 | 37.4 | 45.4 |

Aleutians East-Unalaska

| Year | King Crab | Dungeness | Tanner | Shrimp | Total |
|---|---|---|---|---|---|
| 1967 | 27.1 | - | - | - | 27.1 |
| 1972 | 10.7 | - | .0 | .1 | 10.8 |
| 1976 | 11.4 | - | .5 | 3.7 | 15.6 |

Aleutians West-Adak

| Year | King Crab | Dungeness | Tanner | Shrimp | Total |
|---|---|---|---|---|---|
| 1967 | 12.5 | - | - | - | 12.5 |
| 1972 | 16.2 | - | - | - | 16.2 |
| 1976 | .4 | - | .1 | - | .5 |

Bering Sea

| Year | King Crab | Dungeness | Tanner | Shrimp | Total |
|---|---|---|---|---|---|
| 1967 | 4.4 | - | - | - | 4.4 |
| 1972 | 21.9 | - | .1 | - | 22.0 |
| 1976 | 70.4 | - | 22.3 | - | 92.7 |

Area Totals

| | S. Peninsula | | Aleutians-E. | | Aleutians-W. | | Bering Sea | | Total |
|---|---|---|---|---|---|---|---|---|---|
| Year | Total | % | Total | % | Total | % | Total | % | |
| 1967 | 16.9 | 27.8 | 27.1 | 44.5 | 12.5 | 20.5 | 4.4 | 7.2 | 60.9 |
| 1972 | 22.9 | 31.8 | 10.8 | 15.0 | 16.2 | 22.5 | 22.0 | 30.6 | 71.9 |
| 1976 | 45.4 | 29.4 | 15.6 | 10.1 | .5 | .3 | 92.7 | 60.1 | 154.2 |

SOURCE: Alaska Catch and Production (Alaska Department of Fish and Game, Division of Commercial Fisheries), selected years.

are indicated for recent years. The data clearly show the rapid increase in both the value and volume of shellfish harvested in the region.

A longer-run view of shellfish harvest is shown in Table 12 and highlights the growth in the diversity of shellfish caught. In particular, both tanner crab and shrimp have provided much of the growth in the shellfish harvest, helping to offset significant declines in king crab catches that occurred during the late 1960s and early 1970s. Finally, Table 17 provides data on the disparities of catch within areas of the region and how these have changed over recent years. Significant declines in king crab harvests in all areas are noted, with the exception of the Bering Sea which has more than offset the declines in other areas. Tanner crab and shrimp have been increasingly important for the South Peninsula and Aleutian-East areas.

In short, major changes in the pattern of harvests, both regionally and by species, have occurred. The South Peninsula and Bering Sea areas show overall gains and the Aleutian-East and Aleutian West areas show net declines. These patterns are also indicated by the percentage shares of total shellfish harvest shown in Table 13.

A second, important dimension of understanding commercial fishing in the Aleutian economy is an analysis of who does the fishing. Data on this point is fragmentary and is presented in Table 14. The king crab

TABLE 14. RESIDENCE OF BOATS AND GEAR LICENSE HOLDERS FISHING THE ALEUTIANS

| Proportion of King Crab Catch Value by Boat Residence | | Proportion of Salmon Catch by Residence of Gear License Holder | |
|---|---|---|---|
| Place | Percentage | Place | Percentage |
| Kodiak | 26.8 | Kodiak | 41.5 |
| Alaska Peninsula | 4.0 | Aleutians | 20.0 |
| Dutch Harbor | 4.3 | South Central Alaska | 3.2 |
| Out of State | 64.9 | Anchorage | 2.6 |
| | | Other Alaska | 7.1 |
| | | Non-resident | 19.2 |
| | | Unknown | 6.5 |

SOURCE: King Crab: Western Alaska King Crab: Draft Fishery Management Plan (North Pacific Fishery Management Council, Anchorage; Council Review Draft, May 1980). Derived from data on page 30.

Salmon: Derived from Table 9-8, Measuring The Socioeconomic Impacts of Alaska's Fisheries, by George W. Rogers, et al, (Institute of Social and Economic Research; April 1980).

and shellfish industry tends to be dominated by nonresident boats and crews, and the area of concentration for these vessels is the Bering Sea. Much of the remainder of the catch is accounted for by Kodiak-based boats.

The information on the salmon harvest is even less precise since the region covered is southwest Alaska (the Aleutian Census Division plus Kodiak). It is assumed, with some uncertainty, that the regional proportions apply to the Aleutians.

The overall picture that emerges is one in which the bulk of the commercial fishing in the Aleutians is carried out by fishermen and vessels which are not resident to the Aleutians. More precise information would be desirable but is simply not available.

A final dimension of commercial fishing to be considered is that of employment. No systematic, periodic estimates of commercial fishing employment are made for the Aleutians (nor for the rest of the State). Estimates for the 1969 through 1976 period, however, have been compiled for the State and regions (Rogers, 1980) and in turn have been used to estimate employment in the Aleutians for 1978. This has resulted in an estimate of 756 for average annual employment in commercial fishing. Of these, 251 are estimated to be residents of the Aleutian Islands Census Division.

The procedure used to develop these estimates was to compute the ratio of the 1978 to 1976 catch, by species (salmon, shellfish), and apply this ratio to the Rogers' estimates of employment for 1976. Since his employment estimate was for the southwest region, it was then necessary to allocate to the Aleutians the total employment thus estimated. This was accomplished by apportioning total employment on the basis of

Aleutian to total southwest region catch and implies uniform productivity throughout the southwest region. The result of these manipulations is an estimate of total Aleutian Islands commercial fishing employment. The estimate of resident employment was developed using ratios presented in Table 14. It goes without saying that these estimates of employment are very approximate and subject to considerable error.

The second major component of the fishing industry in the Aleutians is processing. The present structure of the processing industry reflects a mix of shore-based and floating processors engaged in canning and freezing. The trend is toward freezing an increasing proportion of the catch.

A tally of processor permits for 1980 compiled from Alaska Department of Fish and Game records indicates seven shore-based facilities at Dutch Harbor; two at Sand Point; and one each at King Cove, False Pass, Squaw Harbor, and Port Moller. Some of these permits may cover firms that are only buying fish for transshipment.

Several floating processor permits are held as well: Dutch Harbor (4), Sand Point (1), and False Pass (1). In addition, some 31 permits are held that allow for floating processors to operate throughout the region. Not all permit holders necessarily utilize their permits, and several may actually be nothing more than buyers. It is clear, however, that processing is geographically well dispersed throughout the Aleutians.

Employment data for processing is available for the Aleutians Census Division from the Statistical Quarterly (Alaska Department of Labor). For 1978, 1,621 was the average annual employment in manufacturing, which for the Aleutians is largely synonymous with fish processing. As is the case with commercial fishing, it is important to determine what proportion of the employment was held by residents of the region.

Data regarding this question are fragmentary. In conversations with industry and local government people, it was estimated that somewhere between 5 and 15 percent of the employment was held by residents. A second source of information is The Recommended Community Development Plan: City of Unalaska, Alaska (Trick, Nyman, and Hayes: November 1977). According to this study, 72 out of 875 basic sector jobs (1976) were held by residents, and these jobs were primarily in fish processing. This would indicate that about 8.2 percent of processing jobs were held by residents. Community profiles prepared by the Arctic Environmental Information and Data Center for King Cove, False Pass, and Akutan also contain data that tend to support the above sources regarding resident to nonresident ratios.

Using what appears to be a reasonable estimate of the resident share of processing jobs, 10 percent, then 162 of 1,621 jobs were held by residents. The remainder (1,459) were held by nonresidents. Of these, almost all were from outside of Alaska.

Significant seasonal variation exists in processing employment, although to a much lesser degree than is generally the case in the salmon industry. For 1978, average employment for the four quarters was, respectively: 1,255 (January-March), 1,782 (April-June), 1,649 (July-September), and 1,798 (October-December). The low first quarter, followed by substantial gains in the second through fourth quarters, is typical of recent years. Available data do not indicate how seasonal patterns may vary between residents and nonresidents.

The second element of basic sector production in the Aleutians is Federal government and national defense-related activity. Major installations are located at Adak, Shemya, and Cold Bay. The largest of these is the naval station at Adak. According to data supplied by the Office of Information, Alaska Air Command, there are 1,781 active duty military and civilian defense-related personnel at Adak, as well as 1,400 dependents. These figures do not include additional civilian personnel associated with nondefense activity such as officers' clubs, post-exchanges, etc. Shemya and Cold Bay do not have resident dependents, and military and civilian defense-related personnel number approximately 490. Table 15 summarizes military and related federal civilian employment data for the census division as a whole for 1978.

While the military presence is numerically large, its economic impact on the economy of the Aleutians is negligible. The units are largely self-supporting and the only identifiable ties with the Aleutian or Alaska economy are transportation services provided by Reeve Aleutian

TABLE 15. MILITARY AND RELATED FEDERAL-CIVILIAN EMPLOYMENT AND WAGES, ALEUTIAN ISLANDS CENSUS DIVISION, 1978

| | Employment | Wages (thousands) |
|---|---|---|
| Military and Related Civilian Employment | 3,939 | 45,952 |
| Military Personnel (Active Duty) | 3,453 | 38,950 |
| Military-Related Federal Civilian Employment | 486 | 7,072 |
| PX and NAF (Largely Part-time)[1] | 330 | 1,875 |
| Other Military Related Federal Employment | 156 | 5,127 |

[1]Post exchange and nonappropriate fund activities, including officers' clubs, etc.

SOURCE: Numbers: Basic Economic Statistics of Alaska Census Divisions (Alaska Department of Commerce and Economic Development, Division of Economic Enterprise: November 1979).

Airways (RAA) and some contract construction. One benefit that does result from the military contracts with RAA is the feasibility of providing more frequent air service to other communities in the Aleutians. Contract construction work at the military installations is generally carried out by non-Aleutian based firms, either from Alaska or out-of-state.

In summary, basic sector production in the Aleutians is almost entirely related to fisheries resources or Federal government military-related activity. Fisheries activity has shown substantial growth but

is still largely dominated by non-Aleutian resident participants. The military presence, while substantial, has no significant relationships with the rest of the census division.

## EMPLOYMENT, UNEMPLOYMENT, AND LABOR FORCE

Analysis of employment in the Aleutians is important for the same reasons that it was important at the statewide level. Table 16 summarizes average monthly employment for the Aleutian Census Division for the years 1965-1978. Over the period, total employment has grown substantially at an average annual rate of 5.9 percent. This growth has been largely dependent upon growth of the fisheries industry and State and local government. Employment in fish processing grew at an average annual rate of 14.1 percent, while State and local government grew at a rate of 8.5 percent. Federal government employment, primarily related to national defense, fluctuated considerably over the period but has shown no appreciable growth. The same is true for contract construction and transportation, communications, and public utilities. The support sector components of wholesale-retail trade; finance, insurance, and real estate; and services have also expanded as would be expected. Finance, insurance, and real estate grew at an average annual rate of 18.9 percent, although much of this growth occurred after 1973. Services grew at 22.7 percent over the period, but this growth rate must be interpreted with caution. The data for early years were not reported in the Statistical Quarterly (the source document) because of disclosure rules and, hence, were estimated. The large variation in this series also raises the question of inconsistency in the data, possibly due to classification difficulties.

TABLE 16. AVERAGE CIVILIAN MONTHLY EMPLOYMENT
ALEUTIAN ISLANDS CENSUS DIVISION, 1965-1978

| Industry | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Construction | 174 | 54 | 137 | 125 | 142 | 195 | 285 | 187 | 181 | 180 | 235 | 221 | 116 | 140 |
| Manufacturing | 292 | 411 | 422 | 471 | 349 | 476 | 657 | 610 | 675 | 851 | 783 | 991 | 1130 | 1621 |
| Transportation, Communications, and Utilities | 83 | 55 | 51 | 46 | 57 | 45 | 61 | 41 | 93 | 93 | 87 | 88 | 38 | 31 |
| Wholesale Retail | 117 | 138 | 152 | 138 | 134 | 136 | 125 | 124 | 142 | 137 | 148 | 149 | 110[e] | 101[e] |
| Finance, Insurance and Real Estate | 4[e] | 4[e] | 4[e] | 1[e] | 5[e] | 7[e] | 7[e] | 8[e] | 7[e] | 12 | 27 | 32 | 37 | 38 |
| Services | 12[e] | 13[e] | 108[e] | 232[e] | 268 | 143 | 240 | 82 | 47 | 33 | 20 | 93 | 150 | 171 |
| Federal Government | 678 | 707 | 633 | 550 | 523 | 528 | 574 | 640 | 704 | 813 | 626 | 618 | 569 | 682 |
| State, Local Government | 128 | 138 | 157 | 160 | 174 | 168 | 178 | 206 | 227 | 257 | 316 | 330 | 287 | 371 |
| Total[1] | 1494 | 1526 | 1714 | 1835 | 1727 | 1721 | 2178 | 1982 | 2186 | 2473 | 2349 | 2621 | 2474 | 3155 |

e = estimated.

[1]Total includes minor amounts of mining and miscellaneous employment for some years.

SOURCE: Statistical Quarterly (Alaska Department of Labor).

Independent series on wholesale and retail trade are not available for the entire period. For those years in which retail trade data were available, there is steady growth indicated. Wholesale trade appears to be a much higher proportion of total wholesale-retail trade than is the case statewide, and this is apparently linked to wholesale trade activity associated with fisheries. There may also be problems with the industrial classification of wholesale trade.

Firms may engage in both buying or processing of fish and also wholesaling of fish or fish products. The firm's industrial classification would depend on which activity was of greater proportional significance, and this may change from year-to-year. The result is that the wholesale-retail sector reflects a strong mix of basic and support sector activity. In conjunction with possible industrial classification problems, this would account for the apparent lack of growth in this sector.

There is one significant omission in the employment data; this is employment in commercial fishing. Such employment is not included in the Statistical Quarterly data, and as indicated above, a consistent series is not available elsewhere. Estimated commercial fishing employment for 1978, however, was 756. If we include this figure with total reported employment of 3,155, the commercial fishing employment accounted for about 19 percent of total employment for 1978. Commercial fishing plus processing employment amounts to 61 percent of total employment.

A second issue of concern relates to the residency of job holders. Table 17 presents estimates of resident and nonresident employment for 1978. The resident/nonresident breakdown for commercial fishing and processing has already been explained. Allocation of the remainder of employment has been accomplished as follows: State and local government is assumed to be resident employment, as is also the case for transportation, communications, and public utilities; finance, insurance, and real estate; and services. Federal government civilian employment was divided between defense-related and other Federal government activity. Defense-related employment was assigned to the nonresident category (in the sense that incomes earned had no impact on the Aleutian economy), while other Federal government employment was treated as resident employment.

Retail trade was assumed to reflect resident employment. Wholesale trade includes both resident and nonresident employment, and one-half of the employment in wholesale was treated as resident. This division was based on discussions of wholesale trade activity in the Aleutians with the Alaska Department of Labor.

The final industry of concern is contract construction. In conversations with several labor unions and contractors who operate in the Aleutians, it was clear that the vast majority of construction workers in the Aleutians are not residents of the area. Based on a synthesis of these conversations, it was estimated that 5 percent of contract

TABLE 17. ALEUTIAN ISLANDS CENSUS DIVISION
ESTIMATED RESIDENT AND NON-RESIDENT
EMPLOYMENT, 1978

| Industry | Resident | Non-Resident | Total |
|---|---|---|---|
| Commercial Fishing | 251 | 505 | 756 |
| Manufacturing | 162 | 1459 | 1621 |
| Construction | 7 | 133 | 140 |
| Transportation, Communication, and Utilities | 31 | -0- | 31 |
| Wholesale/Retail | 89 | 12 | 101[e] |
| Finance, Insurance, and Real Estate | 38 | -0- | 38 |
| Services | 171 | -0- | 171 |
| Federal Government Civilian, Military-Related | -0- | 484 | 484 |
| Other Federal Government | 198 | -0- | 198 |
| State Government | 88 | -0- | 88 |
| Local Government | 283 | -0- | 283 |
| Total | 1318 | 2593 | 3911 |

e = estimated.

SOURCE: Commercial fishing; see text on production. Manufacturing total from Statistical Quarterly; see text on production for allocation. Federal government civilian military related; Table 18. All other data on tables from Statistical Quarterly (Alaska Department of Labor). For division of allocation to resident and nonresident, see text.

construction employment in the Aleutians was accounted for by residents. The remainder was divided as follows: Anchorage (65 percent), southcentral Alaska (15 percent), the rest of the State (10 percent), and non-Alaska (10 percent). While this breakdown is necessarily an approximation, it does reflect the collective judgment of a wide variety of participants in contract construction in the Aleutians.

Using the above delineation of employment between resident and nonresident, it appears that just under 34 percent of the civilian employment in the Aleutians is held by residents. The remaining 66 percent is held by nonresidents. Available data do not permit us to estimate comparable breakdowns of employment for other years, and it is not possible to speculate on how the ratio of resident-to-nonresident employment may have changed over time.

Summary data on labor force, unemployment, and employment for 1970-78 are presented in Table 18. It should be noted that the employment data in this table are not consistent with the data of the previous tables. First, the present table does not include estimates of commercial fishing employment. Second, the data reflect the number of job holders, whereas the previous tables reflect numbers of jobs. The data are also supposed to be resident adjusted, although the resident employment estimate is substantially above that obtained in the previous table.

Of particular interest are the data on unemployment and the unemployment rate. Given the seasonal variation in total activity, the rates are suprisingly low. This would suggest that several factors are at work. First, a high degree of seasonal migration is present. Second, Aleutian residents may tend to drop out of the labor force when employment opportunities are not present. Third, the data include a large proportion of government employment which tends to be seasonally stable.

TABLE 18. ALEUTIAN ISLANDS CENSUS DIVISION: CIVILIAN RESIDENT LABOR FORCE, TOTAL EMPLOYMENT, AND UNEMPLOYMENT 1970-1975

| Year | Labor Force | Employment | Unemployment | Unemployment Rate (%) |
|---|---|---|---|---|
| 1970 | 1688 | 1575 | 113 | 6.7 |
| 1971 | 2041 | 1930 | 111 | 5.4 |
| 1972 | 1880 | 1763 | 117 | 6.2 |
| 1973 | 2109 | 1945 | 164 | 7.8 |
| 1974 | 1968 | 1830 | 138 | 7.0 |
| 1975 | 2371 | 2207 | 164 | 6.9 |
| 1976 | 2302 | 2147 | 155 | 6.7 |
| 1977 | 2102 | 1964 | 138 | 6.6 |
| 1978 | 2343 | 2196 | 147 | 6.3 |

SOURCE: Alaska Labor Force Estimates by Area (Alaska Department of Labor) various years.

A 1978 survey of potential labor force and employment of the Aleut population in the Aleutian region indicates that published data on unemployment may considerably understate the actual situation. Table 19 presents a summary of the survey results. Of the potential labor of 575, only 278 were employed; only 222 earned $5,000 or more for that year; and 297 were not employed.

This implies an unemployment rate of 51.7 percent. This probably overstates the "true" rate since only those of the potential labor force actually employed or seeking employment should be included in the labor force figures used to determine employment rates. There is no way to tell what proportion of the potential labor force would actually seek employment if employment opportunities were available, but it appears that substanial real unemployment exists that is not reflected in published statistics.

In summary, considerable growth in employment in the Aleutians has been evident. This has occurred mainly in response to growth of fisheries-related activity. This growth has also led to growth of employment in the support sector. While historical data are not available to indicate trends, nonresident employment accounts for a dominant proportion of total employment. It also appears that the Native Aleut population has not participated fully in the employment opportunities reflected by overall growth in total employment. Whether this is by choice or due to other reasons is not known.

TABLE 19. REPORT OF LABOR FORCE 1978
COMPILED BY BUREAU OF INDIAN AFFAIRS
ANCHORAGE AGENCY

| | | Total | Male | Female |
|---|---|---|---|---|
| a. | Total Aleut population within the Aleutian region | 2,139 | 1,155 | 984 |
| b. | Total under 16 years of age included on line "a" | 963 | 520 | 443 |
| Resident Population of Working Age within the Aleutian Region | | | | |
| c. | Total 16 years and over (a minus b) | 1,176 | 635 | 541 |
| d. | 16-24 years | 447 | 241 | 206 |
| e. | 25-34 years | 235 | 127 | 108 |
| f. | 35-44 years | 212 | 114 | 98 |
| g. | 45-64 years | 212 | 114 | 98 |
| h. | 65 years and over | 70 | 38 | 32 |
| i. | Not in labor force (16 years and over) Total (j+k+l+m) | 601 | 243 | 357 |
| j. | Students (16 years and over, including those away at school) | 364 | 196 | 167 |
| k. | Men, physically or mentally disabled, retired, institutionalized, etc. | 47 | 47 | |
| l. | Women for whom no child care substitutes are available | 133 | | 133 |
| m. | Women, housewives, physically or mentally disabled, institutionalized, etc. | 57 | | 57 |
| n. | Potential labor force (16 years and over) (c minus i) | 575 | 392 | 183 |
| o. | Employed, Total (p+q) | 278 | 185 | 93 |
| p. | Employed, earning 5,000 or more a year (all jobs) | 222 | 148 | 74 |
| q. | Employed, earning less than 5,000 a year (all jobs) | 56 | 37 | 19 |
| r. | Not employed (n minus o) | 297 | 207 | 90 |

SOURCE: Tribal Specific Health Plan (Aleutian-Pribilof Islands Association Health Department, undated).

## PERSONAL INCOME

Personal income data for the Aleutian Census Division have been compiled for the years 1965-1978 and are presented in Table 20. Growth in current dollar total personal income has been at a rate of about 7.4 percent per year, while per capita income has grown at about 7.2 percent per year. When measured in constant dollars, however, the growth has been substantially less. Real per capita income grew at 1.4 percent, while real total personal income grew at 1.6 percent over the period.

Several aspects of the data suggest that the numbers be interpreted with caution. First, the Anchorage Consumer Price Index was used to deflate the personal income series since no more specific index is available. Hence, the adjustment is only approximate. Second, a large proportion of the income is related to military and federal civilian employment directly linked to military activity. Since this income does not enter the Aleutian economy in any meaningful sense, its inclusion is misleading in terms of considering overall economic activity.

Third, while the Bureau of Economic Analysis (BEA) which compiles the data makes a resident adjustment, there is some question as to the validity of the adjustment. In particular, it is not clear to what extent the adjustment captures the effects of commerical fishing and processing incomes flowing out of the region. Finally, an analysis of

TABLE 20. PERSONAL INCOME BY PLACE OF RESIDENCE: ALEUTIAN ISLANDS CENSUS DIVISION, 1965-1978

| | Current Dollars | | Constant (1978) Dollars | |
|---|---|---|---|---|
| | Total (millions) | Per Capita | Total (millions) | Per Capita |
| 1965 | 33.951 | 4,721 | 70.207 | 9,763 |
| 1966 | 36.093 | 4,735 | 71.818 | 9,422 |
| 1967 | 38.886 | 4,727 | 75.750 | 9,208 |
| 1968 | 41.688 | 5,256 | 79.149 | 9,979 |
| 1969 | 43.677 | 5,484 | 79.296 | 9,956 |
| 1970 | 53.671 | 6,627 | 93.763 | 11,577 |
| 1971 | 50.655 | 6,447 | 86.255 | 10,978 |
| 1972 | 49.968 | 6,580 | 83.267 | 10,965 |
| 1973 | 60.849 | 8,235 | 95.746 | 12,958 |
| 1974 | 66.084 | 8,280 | 91.949 | 11,520 |
| 1975 | 72.717 | 9,250 | 89.995 | 11,448 |
| 1976 | | | | |
| 1977 | 79.765 | 9,932 | 87.638 | 10,912 |
| 1978 | 85.734 | 11,619 | 85.734 | 11,619 |

SOURCE: Current dollar income figures from U.S. Department of Commerce, Bureau of Economic Analysis. Constant dollar figures deflated by authors, using Anchorage Consumer Price Index.

transfer payments reported for the region shows sizable amounts related to federal military and related civilian employment that probably had no effect on the Aleutian economy.

For these and other reasons, we have attempted to develop an estimate of personal income for 1978 that more accurately reflects the sources and disposition of personal income for the region. These estimates are shown in Table 21.

## TABLE 21. ALEUTIAN ISLANDS PERSONAL INCOME, 1978
## BY SECTOR, COMPONENTS, AND GEOGRAPHIC DISPOSITION

| Income From / To | Support Sector | Contract Construction | Commercial Fishing | Fish Processing | Fed. Gov. Civilian | Fed. Gov. Military | State & Local Govt. | Total |
|---|---|---|---|---|---|---|---|---|
| ENDOGENOUS HOUSEHOLDS: TOTAL ALLOCATED BY INDUSTRY | | | | | | | | |
| Wages & Salaries | 3.715 | 0.381 | 0 | 2.353 | 3.022 | 0 | 5.206 | 14.677 |
| Other Labor Income | 0.695 | 0.071 | 0 | 0.440 | 0 | 0 | 0 | 1.206 |
| Proprietors' Income | 0.951 | 0.098 | 12.250 | 0 | 0 | 0 | 0 | 13.299 |
| UNALLOCATED COMPONENTS: | | | | | | | | |
| Dividends, Interest, and Rents | | | | | | | | 0.317 |
| Transfer Payments | | | | | | | | 3.501 |
| OUT OF REGION: | | | | | | | | |
| Wages & Salaries | | | | | | | | |
| Anchorage | 0 | 4.709 | 0 | 0 | 0 | 0 | 0 | 4.709 |
| Southcentral | 0 | 1.087 | 0 | 0 | 0 | 0 | 0 | 1.087 |
| Rest of State | 0 | 0.725 | 0 | 0 | 0 | 0 | 0 | 0.725 |
| Rest of World | 0.275 | 0.725 | 0 | 21.173 | 5.867 | 40.584 | 0 | 68.624 |
| Other Labor Income | | | | | | | | |
| Anchorage | 0 | 0.881 | 0 | 0 | 0 | 0 | 0 | 0.881 |
| Southcentral | 0 | 0.203 | 0 | 0 | 0 | 0 | 0 | 0.203 |
| Rest of State | 0 | 0.136 | 0 | 0 | 0 | 0 | 0 | 0.136 |
| Rest of World | 0.051 | 0.136 | 0 | 3.958 | 0 | 0 | 0 | 4.145 |
| Proprietors' Income | | | | | | | | |
| Anchorage | 0 | 0 | 0.780 | 0 | 0 | 0 | 0 | 0.780 |
| Southcentral | 0 | 0 | 33.600 | 0 | 0 | 0 | 0 | 33.600 |
| Rest of State | 0 | 0 | 2.130 | 0 | 0 | 0 | 0 | 2.130 |
| Rest of World | 0 | 0 | 56.870 | 0 | 0 | 0 | 0 | 56.870 |
| UNALLOCATED, OUT OF REGION: | | | | | | | | |
| Dividends, Interest, and Rents | | | | | | | | |
| Rest of World | | | | | | | | 1.623 |
| Transfers | | | | | | | | |
| Rest of World | | | | | | | | 4.813 |
| TOTAL | 5.687 | 9.152 | 105.630 | 27.924 | 8.889 | 40.584 | 5.206 | 213.326 |

SOURCE: See text on personal income.

As shown in the table, we have indicated personal income sources by type, accruing from the broad industrial classifications designated at the top of the table. The left hand column of the table indicates the estimated breakdown of income to resident and nonresident recipients. Inclusion of the military and related civilian federal income as nonresident is a judgmental decision based on the fact that these incomes do not appear to enter the general income stream of the Aleutian economy, but rather reflect enclave activity.

While much of the basis for allocating income has already been established in preceding sections of this study dealing with the Aleutians, there are several points that need to be expanded. In general, data on wages and salary income were obtained from the Statistical Quarterly for appropriate years. The Bureau of Economic Analysis data on "other labor income" were apportioned to specific private sector industries on a proportional basis and then assigned to either resident or nonresident categories in proportion to resident/nonresident wage and salary incomes. Dividends, interest, and rent were allocated to residents and nonresidents on the basis of total wage and salary income. Total transfer payments were adjusted to assign military transfers (except for veterans' pensions) to the nonresident category. In addition, 10 percent of federal civilian retirement payments were assigned to residents, with the remainder assigned to nonresidents. With the exception of these adjustments, the remainder of transfer payments were assigned to residents.

Proprietor's income is the income of self-employed and unincorporated enterprises. A large portion of this component for the Aleutians should reflect commercial fishing income, and it was felt that BEA figures did not adequately reflect this income. An estimate of noncommercial fishing proprietor's income was made by assuming that the proportion of proprietor's income to wage and salary plus other labor income was the same for the State as for the Aleutians. This led to an estimate of noncommercial fishing proprietor's income of 4.1 million dollars.

Proprietor's income from commercial fishing was based on the value of catch. No reliable data exist on net profits from commercial fishing. It has been estimated, however, that about 35 to 40 percent of the value of catch is reflected in labor income (Scott, Prospects for a Bottomfishing Industry in Alaska); hence, 35 percent of the value of catch has been used to estimate proprietor's income. This figure has been used in conjunction with the estimated 1978 southwest region value of catch to estimate proprietor's income, as shown in the table, and was allocated by factors established in Table 18.

In general, the data for 1978 show total personal income of 213.3 million. Of this total, residents who are part of the nonenclave economy of the region accrued 33 million dollars. Of the 180 million dollars accruing to nonresidents, about 46.5 million dollars represent wage and salary payments to military personnel and related federal civilian employees, with the remainder (133.9 million dollars) going to other nonresidents.

In terms of the regional allocation of the 180 million dollars, about 6.4 million dollars flowed to the Anchorage region; while 34.9 million dollars went to the southcentral region (primarily Kodiak), with an additional 3.0 million dollars going to the rest of the State. About 136.1 million dollars primarily from commercial fishing and defense-related activities appeared to flow outside the State. Thus, while total personal income was substantial, over 84 percent of the income created by production in the Aleutians flowed out of the Aleutian region. These are indeed very high leakages and present a different picture of the Aleutian economy than that indicated by the BEA personal income data.

In addition to the analysis of total and per capita income, it is again appropriate to consider the distribution of income. Recent data on income distribution are not available, but the Bureau of Indian Affairs prepared an estimate of the 1974 distribution of income which is presented in Table 22. The distribution is shown for both Native and white families. Median income for the two groups is similar, and both are well below the statewide figure of 12,443 dollars for the same year. The greatest disparity between Native and white families appears in the under-5,000 dollar groups, with 26 percent of the Native families and 13.8 percent of white families with incomes below 5,000 dollars. It should be noted that the non-Native families include military personnel, whose incomes tend to flatten the distribution somewhat; whereas for the Native distribution, the under-5,000 dollar and over-15,000 dollar income categories are proportionately more important.

TABLE 22. FAMILY INCOME: NUMBER AND PERCENT OF NATIVE AND WHITE FAMILIES BY INCOME LEVELS - ALEUT CORPORATION AREA

| | Native | | White | |
|---|---|---|---|---|
| | No. of Families | Percent | No. of Families | Percent |
| Under 1,000 | 7 | 2.1 | 0 | 0 |
| 1,000-1,999 | 16 | 4.9 | 6 | 1.0 |
| 2,000-2,999 | 13 | 4.0 | 7 | 1.1 |
| 3,000-3,999 | 30 | 9.2 | 31 | 4.9 |
| 4,000-4,999 | 19 | 5.8 | 45 | 7.1 |
| 5,000-5,999 | 20 | 6.1 | 55 | 8.7 |
| 6,000-6,999 | 26 | 8.0 | 65 | 10.3 |
| 7,000-7,999 | 25 | 7.7 | 63 | 10.0 |
| 8,000-8,999 | 21 | 6.4 | 72 | 11.4 |
| 9,000-9,999 | 18 | 5.5 | 37 | 5.9 |
| 10,000-11,999 | 40 | 12.2 | 88 | 13.9 |
| 12,000-14,999 | 31 | 9.5 | 102 | 16.2 |
| 15,000-24,999 | 56 | 17.1 | 43 | 6.8 |
| 25,000-49,999 | 5 | 1.5 | 17 | 2.7 |
| 50,000 | 0 | - | 0 | 0 |
| Median Income | $8,357 | | $8,604 | |

SOURCE: Tribal Specific Health Plan (Aleutian-Pribilof Islands Association Health Department, undated).

## POPULATION

Aggregate population data for 1960 and the years 1970-78 are presented in Table 23; it includes total resident and civilian population and military population. Considerable variation in the military population is evident; although for most of the period, it averaged a little over 3,000. For recent years, it has been somewhat lower, dropping to 1,655 in 1978. Total civilian population has shown a steady increase, attributable to both natural increase and net in-migration. Table 28 shows the component of change in both civilian and military population over the 1970-78 period. Civilian population has grown at about 4.8 percent, with natural increase accounting for 47 percent of the total increase. The remainder is accounted for by net in-migration.

Table 24 provides data on population by community and by Native and non-Native components. The data totals are not in strict agreement with the other population data presented but do provide a generally accurate picture of the population distribution in the census division, with major nongovernment-based communities at King Cove, Sand Point, St. Paul, and Unalaska. It is no coincidence that (with the exception of St. Paul) these are the major centers of commercial fishing activity in the Aleutians.

TABLE 23. ALEUTIAN ISLANDS CIVILIAN AND TOTAL RESIDENT POPULATION: 1960, 1970-1978

| | Total Resident Population | Total Civilian Population | Military |
|---|---|---|---|
| 1960 | 6,011 | 2,633 | 3,378 |
| 1970 | 8,057 | 4,368 | 3,689 |
| 1971 | 7,896 | 4,285 | 3,611 |
| 1972 | 7,245 | 4,634 | 2,611 |
| 1973 | 6,914 | 3,994 | 2,920 |
| 1974 | 7,714 | 4,506 | 3,208 |
| 1975 | 7,086 | 4,208 | 2,878 |
| 1976 | 8,282 | 5,300 | 2,982 |
| 1977 | 7,686 | 4,896 | 2,790 |
| 1978 | 8,000 | 6,345 | 1,655 |

TABLE 28. ALEUTIAN ISLANDS: COMPONENTS OF POPULATION CHANGE, 1970-78

| | |
|---|---|
| 1970 Population | 8,057 |
| Births | 1,106 |
| Deaths | 176 |
| Natural Increase | 930 |
| Net Migration | |
| Civilian | 1,047 |
| Military | - 2,034 |
| 1978 Population | 8,000 |

SOURCE: Alaska Department of Labor

TABLE 24. ALEUT REGION POPULATION BY COMMUNITY, 1977

| | Native | Non-Native | Total | Transient |
|---|---|---|---|---|
| Akutan | 69 | 5 | 74 | 360 - 800 |
| Atka | 92 | 3 | 95 | |
| Belkofski | 14 | - | 14 | |
| False Pass | 55 | 2 | 57 | 120 |
| King Cove[1] | 425 | 142 | 567 | 60 |
| Nelson Lagoon | 49 | 6 | 55 | |
| Nikolski | 56 | 2 | 58 | |
| Sand Point[1] | 490 | 339 | 829 | 65 |
| St. George | 175 | 9 | 184 | |
| St. Paul | 437 | 63 | 500 | |
| Unalaska | 168 | 557 | 725 | 700 - 3,000 |
| Other | 126 | 5,700[2] | 5,826 | |
| Total | 2,156 | 6,828 | 8,984 | 1,305 - 4,045 |

[1]City Manager's figures.

[2]Includes military population.

SOURCE: Tribal Specific Health Plan (Aleutian-Pribilof Islands Association Health Department, undated).

# III. METHODOLOGY

## Introduction

The remainder of this study develops projections of economic and demographic impacts of OCS lease sale 83, scheduled for March 1984 in the Navarin Basin. The projections are calculated using the MAP and SCIMP models developed at the University of Alaska's Institute of Social and Economic Research. The SCIMP model is used for projecting impacts for the Aleutian Islands, and the MAP model is used for projecting statewide impacts.

The procedure followed in using each model is roughly the same. Each model's projections are based on numerous assumptions about the structure of the economy and factors determining population growth, as well as assumptions about the exogenous or independent factors which will drive growth in the economy. The models do not predict the future; they merely calculate the consequences of the assumptions which are put into them.

Impact analysis, as carried out in the present study, is based upon a comparison of sets of economic and demographic projections, where one set is the standard or base case set. The base case serves as a frame of reference against which the economic and demographic changes resulting from the proposed OCS lease sale can be measured and evaluated.

There are two components of this process that are of particular concern. First is the question of the accuracy and consistency of the projections. Generally speaking, this is dependent upon the validity of the assumptions utilized regarding future economic growth of the exogenous variables and the projection methodology employed. More will be said on both of these points below.

The second concern relates to the degree of information contained in the projections. Specifically, do the projections contain the information that is necessary to adequately interpret and evaluate the impacts?

While aggregate data on economic and demographic variables generated using the projections methodology employed in this study will answer many questions, it must be recognized that there will be omissions as well.

At the root of impact analysis is the issue of how economic well-being, both individually and collectively, will be affected by the proposed action. Two major problems are associated with this process. First it is not possible to measure all impacts that will result from the lease sale. In part this is due to the volume of information that would be required and the inadequacy of the existing methodology to capture all effects at an acceptable level of cost.

The more serious problem is that many of the effects are not measurable. While reallocation of resources within the context of the functioning of the market, in response to economic change, is desirable from the perspective of efficiency, change on the order of magnitude implied by OCS activity may also lead to situations of market failure and the presence of externalities. These are often difficult to identify and are certainly difficult to measure.

Even if these effects could be isolated they are usually inseparable from a further problem, that of income redistribution. Changes in income distribution and the relative economic position of individuals resulting from OCS activity necessarily implies that there will be lossers and gainers and associated changes in economic welfare. These are problems that involve normative economic judgements and cannot be dealt with by impact analysis alone. In short, comparative impact analysis provides only part of the information necessary for decision making.

## The MAP Model

We can now turn to a discussion of the models utilized in developing the projections. At the statewide level, the MAP econometric model has been used. For documentation of the MAP model, see Goldsmith, Man-in-the-Arctic Program: Alaska Economic Model Documentation. The MAP statewide model is actually a system of models composed of economic, fiscal, and population models. The three are interdependent, as shown schematically in Figure 2.

FIGURE 2: The MAP Statewide Model

In essence, this states that the economic model receives input from the fiscal and population models, the fiscal model receives input from the economic and population models, and the population model utilizes input from the economic models, but not directly from the fiscal model. Thus, when we talk about the economic model we are really describing the interaction of three models. To simplify things somewhat we can describe the important linkages between submodels and then consider the economic model in more detail.

The population-economic model link is the source of population estimates that are of direct interest, and reflect both natural population change and migration induced by changes in economic conditions. The population estimates are also used by the economic model for purposes of computing various per capita values for economic variables.

The significant link with the fiscal model relates to the role of State government expenditures as a source of major economic stimulus to the aggregate level of economic activity. In turn, State government (and local government) expenditures are dependent upon two key factors, the overall level of economic activity and the level of activity in the petroleum industry. The system allows for a variety of policy choices regarding state government spending and is one of the key points to consider in assessing economic forecasts.

We can now turn to a consideration of the economic model component of the system.

The MAP model belongs to a class of econometric models that are known as disaggregate economic base models. In essence, economic activity is classified as either endogenous or exogenous (or basic). Exogenous activity determines the level of endogenous activity, and the specific relationships between the two components of economic activity are what make up the system of equations that are the econometric model. These models can be quite simple or rather complex, and the MAP model falls in this latter category.

As can be seen in Figure 3, determination of industrial production involves the impact of exogenous sector activity, which includes forestry, fisheries, agriculture and other manufacturing, as well as Federal government wages and salaries. Other exogenous sector activity includes the petroleum industry and components of contract construction such as major pipelines. State and local government expenditures may also be considered as exogenous for discussion purposes, although there is some interdependence between these expenditures and total economic activity. It should be noted that in constructing scenarios for forecasting or projection purposes it is primarily these exogenous variables that must be provided.

FIGURE 3. THE MAP STATEWIDE ECONOMIC MODEL

SOURCE: Man-In-The-Arctic Program Alaskan Economic Model Documentation (ISER, 1979).

These exogenous variables combine with demand from the support sector and endogenous construction to generate total industrial production. Industrial production, through a series of steps, determines employment and income, and finally real disposable personal income, which in turn is a determinant of support sector and endogenous construction economic activity. This means that aggregate production depends on both exogenously determined and endogenously determined economic activity, where endogenous activity depends on total activity. As such, the system is a simultaneous equation structure.

It should also be noted that certain other variables enter the model as well. In particular, wage rates are used in determining total wage and salary payments, where the wage rates are in part dependent upon U.S. wage rates, which are determined exogenously. It should also be observed that the model is particularly sensitive to the wage rates used.

## The SCIMP Model

For the Aleutian Islands Census Division projections have been developed using the small community population impact model (SCIMP). For documentation see Gunnar Knapp, "The Small Community Impact Model: Structure, Variable Definitions, and Input Assumptions," May 1982. Whereas the MAP model is classified as an econometric model, SCIMP is technically an accounting model. A system of equations describes the economic and demographic structure of the economic system. In turn parameters of the equations and a set of exogenous variable inputs

provide the numerical basis for utilizing the model for projection purposes. It is the determination of parameters for the model that distinguishes SCIMP from econometric models.

In an econometric model, parameters are typically determined by the application of econometric methods to historical time series or cross section data, and the parameter estimates are an integral component of the model. In the case of SCIMP the parameters are determined exogenously by a variety of means, including point estimates, assumptions based on other research, and in some instances by econometric estimation techniques. In other words, in SCIMP both the parameters and exogenous variable data are inputs, while in an econometric model the parameter estimates are an integral part of the model.

There are both advantages and shortcomings to this approach. On the positive side, SCIMP is generally applicable to small regional economies, rather than being region specific, as would be the case with an econometric model. This results in substantially more limited data requirements than is the case for a fully estimated econometric model. The shortcoming is also indicated by the less stringent data requirements. Specifically, the quality of the parameter estimates may not be as great as that obtained by econometric techniques.

# IV. MODEL ASSUMPTIONS

This chapter discusses the assumptions used in running the MAP and SCIMP models. These include assumptions about the structure of the statewide and regional economies, the independent factors which would determine economic growth in the absence of OCS development, and the direct impacts of OCS development.

## MAP Model Assumptions

Four types of assumptions are required as the premises upon which a forecast of economic activity using the MAP statewide model is based. First, several assumptions about the performance of the national economy are required. Secondly, an assumption is required as to the number of tourists who will visit Alaska. Third, assumptions are required about employment in specific sectors and development projects. Finally, assumptions are required about state revenues and expenditure policies, which are major factors in the development of the Alaskan economy. This section describes these assumptions.

Inasmuch as Alaska is an open economy, developments in the state hinge at least in part on the performance of the national economy. In particular, three assumptions about the U.S. economy are required. First, a forecast of weekly earnings in the United States

is needed to estimate Alaskan wage rates. Second, insofar as most goods consumed in Alaska are imported from the Lower 48, the U.S. price level is an important determinant of Alaskan prices, so that estimates of such prices require some forecast of the U.S. consumer price index. Finally, insofar as the income differential between Alaska and the Lower 48 is a major determinant of migration between Alaska and the Lower 48, a forecast is required of real per capita disposable income in the United States.

In the base case, it is estimated that the growth in U.S. consumer prices slows to a long run rate of 7.5 percent by 1985, that the growth in average weekly earnings rises to a long run rate of 8.0 percent by 1985, and that real per capita personal income growth rises slightly to 2 percent annually by the mid-80s.

Assumptions concerning exogenous employment are of two types--those concerned with employment generated by specific projects affecting several industries simultaneously, and those concerned with the development of particular industries in the Alaskan economy.

With regard to specific industries, a modest level of growth is assumed in the base case. State subsidization results in expansion of agriculture in the state over the forecast period; traditional commercial fisheries and their associated processing employment maintain their current levels while a new bottomfishing industry

emerges in the state. Federal military employment is assumed to stay constant at its current level throughout the forecast period, while civilian federal employment grows slowly at its historical rate.

With regard to specific projects, several major sources of employment are included in the base case. In addition to the employment associated with existing major resource developments in Upper Cook Inlet, Prudhoe Bay field, and the TAPS pipeline, new discoveries of .75 billion barrels of oil and 1.625 trillion cubic feet of gas are assumed for acreage leased in the 1979 joint state-federal lease sale in the Beaufort Sea, while employment from unsuccessful exploration in areas leased in past federal lease sales 55, CI, and 60 is assumed to wind down quickly as leases are abandoned. Furthermore, several new developments are included in the base case, the most significant being construction of the Alaska Natural Gas Transportation System, assumed to begin operations in 1989. Other developments include construction of small hydroelectric projects at Tyee Lake and Terror Lake, development of a molybdenum mine in Southeastern Alaska by U.S. Borax, development of the Red Dog Mine in Northwestern Alaska, and construction of a major coal mining facility in the Beluga/Chuitna area of Cook Inlet. Finally, it is assumed that 1.85 billion barrels of oil and 3.73 trillion cubic feet of gas are discovered and developed as a consequence of ongoing exploration of the National Petroleum Reserve in Alaska (NPRA).

The final set of assumptions required for developing a base case forecast involves describing the course of future state government fiscal policy. With regard to revenues, the first quarter 1982 petroleum production revenue forecast, prepared by the Alaska Department of Revenue, was utilized. These revenues, however, are inadequate to finance expenditure growth at rates comparable to those of recent experience without provoking a state government fiscal crisis by the late '90s. On the other hand, major cuts in state spending, in particular, operating expenditures, are not especially plausible to expect in the face of accumulating petroleum revenues. Consequently, in the base case a two-phase expenditure policy is assumed over the forecast period. As long as the real per capita accumulated balances are growing, nominal expenditures grow at eight percent annually, approximately the growth rate required to maintain current per capita service levels. Once such balances begin to decline, however, capital expenditures are cut at a rate of ten percent annually, and the personal income tax is reintroduced with its historical structure. The combination of tax increases and capital budget cuts limits the decline in state government employment to a very small rate.

Table 25 summarizes these assumptions. For a more detailed description of the assumptions, see Appendix I.

TABLE 25. ASSUMPTIONS USED FOR MAP MODEL RUNS

| Assumptions | Description* |
|---|---|
| National Variables Assumptions | |
| U.S. Inflation Rate | Consumer prices rise at 7.5 percent annually after 1985. |
| Average Weekly Earnings | Growth in average weekly earnings rises to 8 percent annually by 1985. |
| Real Per Capita Income | Growth in real per capita income rises to 2 percent annually by 1985. |
| Tourism Assumptions | Number of tourists visiting Alaska rises at 4 percent annual rate from 505,400 in 1979 to over 1.1 million by 2000. |
| Fiscal Policy Assumptions | State revenue projections are based upon Department of Revenue projections published in March 1982. Operating expenditures are assumed to grow at a nominal rate of 8 percent, approximately the rate required to maintain real per capita expenditures. Capital expenditures also grow at a nominal rate of 8 percent until the per capita permanent fund balance begins to fall, after which they decline at an annual rate of 10 percent. |
| Basic Employment Assumptions | |
| Trans-Alaska Pipeline | Construction of 4 additional pumping stations provides 90 jobs through 1982; operating employment remains constant at 1,500. |
| Alaska Natural Gas Transportation System | Construction employment peaks at 10,589 in 1988. Long-term transportation and petroleum sector employment average 319. |
| Prudhoe Bay Petroleum Production | Construction employment on Prudhoe water flooding project peaks at over 1,000 in 1983. Permanent operating employment rises to 1,667 in 1983. |

TABLE 25. ASSUMPTIONS USED FOR MAP MODEL RUNS
(Continued)

| Assumptions | Description |
|---|---|
| Upper Cook Inlet Petroleum Production | Employment remains at 1979 level of 778. |
| National Petroleum Reserve in Alaska | Development and production from 5 oil fields and construction of 525 miles of pipeline provide between 500 and 1,000 jobs after 1985. |
| OCS Development | Exploration employment only for sales CI, 55, 57, 60, 70. Development of Sale 71 lease (Beaufort Sea) area results in maximum employment of 1,756 in 1994. Development of Sale BF lease area results in maximum employment of 1,082 in 1989. |
| Beluga-Chuitna Coal Production | Eventual export of 4.4 million tons per year provides total employment of 524. |
| Hydroelectric Projects | Total construction employment on the Tyee Lake and Terror Lake hydroelectric projects reaches a maximum of 520 in 1984. |
| U.S. Borax | The U.S. Borax Mine near Ketchikan is brought into production with operating employment of 790 by 1988. |
| Red Dog Mine | The Red Dog Mine in the Western Brooks Range reaches full production with operating employment of 448 by 1988. |
| Other Mining Activity | Employment increases from a 1979 level of 3,140 at 1 percent annually. |
| Agriculture | Moderate state support results in expansion of agriculture to employment of 508 in 2000. |
| Logging and Sawmill Employment | Employment increases from 2,204 in 1980 to 4,103 in 2000. |
| Commercial Fishing: Non-Bottomfish | Employment levels in fishing and fish processing remain constant at 1979 levels of 6,323 and 6,874, respectively. |

TABLE 25. ASSUMPTIONS USED FOR MAP MODEL RUNS
(Continued)

| Assumptions | Description |
|---|---|
| Bottomfish Harvesting and harvesting Processing | By 2000, resident bottomfish increases to 924 in the Aleutians and 213 in Kodiak. Total onshore bottomfish processing employment increases to 3,149 in the Aleutians and 724 in Kodiak. |
| Federal Civilian Employment | Rises at 0.5 percent annual rate from 17,915 in 1979 to 19,893 in 2000. |
| Federal Military | Employment remains constant at 23,333. |

*NOTE: Employment assumptions are in annual full-time equivalent jobs.

## SCIMP Model Assumptions

Utilization of the SCIMP model requires a variety of assumptions. Among these are initial period population figures, projected exogenous employment, employment multipliers, unemployment rates, and labor force participation rates. These assumptions are discussed in this section.

The assumption was made throughout that there is no interaction between the military and civilian populations on Adak and Shemya and the rest of the economy of the Aleutian Islands. These populations were assumed to remain constant over the entire period. They were subtracted from total population of the region before running the SCIMP model, and added back into the final population figures. In addition, OCS offshore employment was assumed to have no interaction with the rest of the local economy.

### POPULATION

1980 population data used by the SCIMP model are shown in Table 26. The population figures are based on 1980 census data, but a number of assumptions were made in order to obtain breakdowns by age, sex, and race. "Resident" population was defined to exclude military personnel and dependents. An estimate of this figure was obtained from the combined populations of Attu, Shemya, and Adak. In addition, an attempt was made to exclude from resident population those persons counted by the census who were engaged in fish

TABLE 26. SCIMP MODEL RESIDENT POPULATION ASSUMPTIONS FOR 1980

| Age Class | Non-Native Male | Non-Native Female | Native Male | Native Female |
|---|---|---|---|---|
| 0 - 14 | 153 | 147 | 325 | 311 |
| 15 - 19 | 78 | 62 | 165 | 131 |
| 20 - 24 | 88 | 63 | 188 | 133 |
| 25 - 29 | 82 | 52 | 175 | 112 |
| 30 - 44 | 142 | 71 | 304 | 152 |
| 45 - 64 | 90 | 47 | 192 | 101 |
| 64 + | 7 | 7 | 54 | 52 |
| Subtotal | 640 | 449 | 1,403 | 992 |
| Subtotal | 1,089 | | 2,395 | |
| Total | | 3,484 | | |

SOURCE: 1980 census; covered area is 1970 census division. Populations of Adak, Shemya, and Attu not included. Also not included are people living in group quarters. 1980 figures adjusted upwards by 15.78 percent to include the population of Chignik, Chignik Lagoon, Chignik Lake, and Perryville, which were part of 1970 census area, but not of 1980 census area. See text for other notes.

processing and are temporarily living in fish processing plant camps or onboard processor ships. An estimate of this figure was obtained by subtracting the 861 people living in group quarters on April 1, 1980. Finally, the population was increased by 475 to include the populations of Chignik, Chignik Lagoon, Chignik Lake, and Perryville, which were part of the 1970 census area, but not of the 1980 census area. The breakdowns by age, sex, and race assume that, for each sex, the share of natives by age class was the same as for the total population.

EMPLOYMENT ASSUMPTIONS

SCIMP model employment assumptions were developed based on Tables 27 and 28. Exogenous employment was assumed. The endogenous components of services and government employment were calculated using multipliers.

Exogenous employment in the Aleutians may be divided into two categories: resident exogenous employment and nonresident exogenous employment. Nonresident employees work in the Aleutians but have their homes elsewhere; examples are fishermen who fish in the Aleutian Islands but have their homes in Kodiak or Seattle; cannery and processing boat workers who are flown up for the season and live in company quarters; and oil industry employees living in company camps, enclaves, or hotels who are regularly flown home on leave. SCIMP model assumptions about base case resident and exogenous employment are shown in Table 29.

TABLE 27. ALEUTIAN ISLANDS 1980 EMPLOYMENT*

| Category | Total | Assumed Resident Share | Assumed Exogenous Share | Resident Employment | | Nonresident Employment (Exogenous) |
|---|---|---|---|---|---|---|
| | | | | Exogenous | Endogenous | |
| **Basic** | | | | | | |
| Fish Harvesting[c] | 251 | 1.0 | 1.0 | 251 | - | - |
| Fish Processing | 1,739 | .1 | 1.0 | 174 | - | 1,565 |
| Other[d] | 11 | 1.0 | 1.0 | 11 | - | - |
| **Secondary** | | | | | | |
| Construction | 109 | .1 | a | - | 11 | 98 |
| Transportation, Communication, Utilities | 81 | 1.0 | 0 | - | 81 | - |
| Wholesale & Retail Trade | 87 | 1.0 | .2 | 17 | 70 | |
| Finance, Insurance, Real Estate | 105 | 1.0 | 0 | - | 105 | - |
| Services | 168 | 1.0 | 0 | - | 168 | - |
| **Government** | | | | | | |
| Federal Government | 196[b] | 1.0 | 1.0 | 196 | - | - |
| State & Local Gov't | 395 | 1.0 | 1.0 | - | 395 | - |
| **Total** | 3,142 | - | - | 649 | 880 | 1,663 |
| Basic | 2,001 | - | - | 436 | - | 1,565 |
| Secondary | 550 | - | - | 17 | 435 | 98 |
| Government | 591 | - | - | 196 | 395 | - |

*Primary source is Alaska Department of Labor, Statistical Quarterly, 1979 IV - 1980 III.

[a]All resident employment was assumed to be endogenous. All nonresident employment was assumed to be exogenous.

[b]Based on figure for 1978 in Alaska Division of Economic Enterprises Numbers Basic Economic Statistics of Alaska Census Divisions (November 1979), p. 12, which is the latest figure available for federal government nonmilitary-related employment.

[c]Based on estimates in Table 17. Does not include nonresident fishermen.

[d]Based on assumed employment of 11 in agriculture.

TABLE 28. ALEUTIAN ISLANDS 1980 EMPLOYMENT
ASSUMPTIONS USED IN DEVELOPING SCIMP
MODEL ASSUMPTIONS

| | Resident | | Nonresident | |
|---|---|---|---|---|
| Exogenous: | | | | |
| Fishing industry | 426 | | 1565 | |
| Fish harvesting | | 251 | | - |
| Fish processing | | 174 | | 1565 |
| Nonfishing Basic | 11 | | 98 | |
| Exogenous Services | 17 | | - | |
| Exogenous Government | 196 | | - | |
| TOTAL | 650 | | 1,663 | |
| Endogenous: | | | | |
| Services | 435 | | - | |
| Government | 395 | | - | |

SOURCE: Table 27.

TABLE 29. SCIMP MODEL BASE CASE
RESIDENT EXOGENOUS EMPLOYMENT ASSUMPTIONS

| YEAR | EMPRV | EMPRON | TRFHEMP | TRFPEMP | REMESGS | NFREMP |
|---|---|---|---|---|---|---|
| 1981 | 24. | 1. | 251. | 174. | 0. | 11. |
| 1982 | 30. | 1. | 251. | 174. | 0. | 11. |
| 1983 | 45. | 2. | 251. | 174. | 9. | 11. |
| 1984 | 66. | 3. | 251. | 174. | 15. | 11. |
| 1985 | 87. | 4. | 251. | 174. | 17. | 11. |
| 1986 | 109. | 6. | 251. | 174. | 15. | 11. |
| 1987 | 132. | 9. | 251. | 174. | 9. | 11. |
| 1988 | 156. | 12. | 251. | 174. | 0. | 11. |
| 1989 | 173. | 18. | 251. | 174. | 0. | 11. |
| 1990 | 183. | 25. | 251. | 174. | 0. | 11. |
| 1991 | 196. | 35. | 251. | 174. | 0. | 11. |
| 1992 | 213. | 50. | 251. | 174. | 0. | 11. |
| 1993 | 234. | 71. | 251. | 174. | 0. | 11. |
| 1994 | 260. | 101. | 251. | 174. | 0. | 11. |
| 1995 | 294. | 142. | 251. | 174. | 0. | 11. |
| 1996 | 336. | 201. | 251. | 174. | 0. | 11. |
| 1997 | 390. | 283. | 251. | 174. | 0. | 11. |
| 1998 | 459. | 398. | 251. | 174. | 0. | 11. |
| 1999 | 547. | 560. | 251. | 174. | 0. | 11. |
| 2000 | 595. | 787. | 251. | 174. | 0. | 11. |

| | |
|---|---|
| EMPRV | RESIDENT BOTTOMFISHERMEN |
| EMPRON | BOTTOMFISH PROCESSING RESIDENT EMPLOYMENT |
| TRFHEMP | TRADITIONAL FISHING RESIDENT EMPLOYMENT |
| TRFPEMP | TRADITIONAL PROCESSING RESIDENT EMPLOYMENT |
| REMPSGS | ST. GEORGE SALE RESIDENT EMPLOYMENT |
| NFREMP | OTHER BASIC SECTOR RESIDENT EMPLOYMENT |

Fishing accounts for the largest component of exogenous resident employment by far. Traditional fish harvesting and processing resident employment is assumed to remain constant at 1980 levels of 251 and 174. Obviously, this assumption does not take account of major fluctuations that may occur in response to fluctuations in total catch and new harvesting and processing technology. However, since the effects of these changes on employment are very difficult to predict, our best guess is simply to assume that employment will remain constant while realizing that actual employment may be quite different.

In the latter part of the projection period, bottomfishing employment becomes even more significant than traditional fishing employment. The bottomfishing employment assumptions are also highly uncertain. They reflect a number of assumptions with respect to total American catch, allocation of catch among harvesting methods, employment coefficients, and residency patterns of employees. These assumptions are discussed in Appendix K.

Resident exogenous employment assumptions also include a small amount of employment in St. George Sale OCS oil exploration and other mining and agriculture. In addition, exogenous services and government employment was assumed to remain constant at 1980 levels of 17 and 196, respectively (these figures are not shown in Table 29).

The nonresident exogenous employment assumptions are shown in Table 30. The procedures used to develop these assumptions were the same as for the resident employment assumptions. Again, fishing and fish processing employment dominate nonresident exogenous employment assumptions.

The SCIMP model calculates endogenous services employment by multiplying exogenous resident and nonresident employment by multipliers which reflect an assumed ratio of endogenous to exogenous employment. The services employment multipliers were calculated by assuming that the services employment multiplier for nonresident exogenous employment would be equal to .1, and that the services employment multiplier for resident employment would remain unchanged at the level implied by present employment. The formula for calculating the resident employment multiplier is then:

$$\begin{pmatrix}\text{Endogenous}\\ \text{Services}\\ \text{Employment}\end{pmatrix} = (\text{Multiplier}) \times \begin{pmatrix}\text{Resident}\\ \text{Exogenous}\\ \text{Employment}\\ +\ \text{Gov't}\\ \text{Employment}\end{pmatrix} + .1 \begin{pmatrix}\text{Nonresident}\\ \text{Exogenous}\\ \text{Employment}\end{pmatrix}$$

Using 1980 figures, we have

$$435 = (\text{Multiplier})\ (650 + 395) + .1\ (1663),$$

which implies a multiplier of .257.

TABLE 30. SCIMP MODEL BASE CASE NONRESIDENT EXOGENOUS EMPLOYMENT ASSUMPTIONS

| YEAR | TEFPEMP | EMPNRON | EEMPSGS | NFEEMP |
|---|---|---|---|---|
| 1981 | 1565. | 3. | 0. | 98. |
| 1982 | 1565. | 4. | 0. | 98. |
| 1983 | 1565. | 5. | 85. | 98. |
| 1984 | 1565. | 7. | 131. | 98. |
| 1985 | 1565. | 10. | 154. | 98. |
| 1986 | 1565. | 13. | 131. | 98. |
| 1987 | 1565. | 18. | 80. | 98. |
| 1988 | 1565. | 24. | 0. | 98. |
| 1989 | 1565. | 32. | 0. | 98. |
| 1990 | 1565. | 43. | 0. | 98. |
| 1991 | 1565. | 57. | 0. | 98. |
| 1992 | 1565. | 77. | 0. | 98. |
| 1993 | 1565. | 103. | 0. | 98. |
| 1994 | 1565. | 139. | 0. | 98. |
| 1995 | 1565. | 185. | 0. | 98. |
| 1996 | 1565. | 248. | 0. | 98. |
| 1997 | 1565. | 331. | 0. | 98. |
| 1998 | 1565. | 442. | 0. | 98. |
| 1999 | 1565. | 590. | 0. | 98. |
| 2000 | 1565. | 787. | 0. | 98. |

TEFPEMP TRADITIONAL PROCESSING ENCLAVE EMPLOYMENT
EMPNRON BOTTOMFISH PROCESSING ENCLAVE EMPLOYMENT
EEMPSGS ST. GEORGE SALE ENCLAVE EMPLOYMENT
NFEEMP OTHER ENCLAVE EMPLOYMENT

The SCIMP model calculates government employment by multiplying past period resident and nonresident population by government employment multipliers. The procedure for calculating the government employment multipliers is similar to that used to calculate the services employment multiplier. The nonresident population government employment multiplier was assumed to be one-tenth that of the resident population government employment multiplier. Thus, we have

$$\begin{pmatrix}\text{Endogenous Gov't}\\ \text{Employment}\end{pmatrix} = (\text{Multiplier}) \times \begin{pmatrix}\text{Previous Year}\\ \text{Resident Population}\end{pmatrix} + .1\ (\text{Multiplier}) \begin{pmatrix}\text{Previous Year Non-}\\ \text{resident Population}\end{pmatrix}$$

Using 1980 figures, we have

$$(395) = (\text{Multiplier})\ (3484) + .1\ (\text{Multiplier})\ (1663),$$

which implies a multiplier of .108.

UNEMPLOYMENT AND LABOR FORCE PARTICIPATION RATES

An unemployment rate of 6.6 percent was assumed, based on the average for the period 1970-1978, as discussed in Chapter II. Labor force participation rates were assumed for Non-Natives. Native labor force participation rates were then calculated based on total employment, total population, and the Non-Native labor force participation rates. These rates are shown in Table 31. The procedure used to calculate these rates is described in greater detail in Appendix L.

## OCS Impact Assumptions

OCS impacts were examined for four different "cases." These cases differ with respect to the oil and gas resources which are assumed to be discovered and developed as well as the location of facilities. The cases are referred to as the .6 Bbbl case, the 1.2 Bbbl remote case, the 1.2 Bbbl road-connected case, and the 2.4 Bbbl case. All cases involve the discovery of economically recoverable quantities of oil. The 1.2 Bbbl and 2.4 Bbbl cases also assume the discovery of economically recoverable quantities of gas.

The development scenarios for these resources were provided by the Minerals Management Service Alaska OCS Office. In the .6 Bbbl case, the oil is loaded directly onto tankers at the offshore platforms and transferred to larger tankers at a remote transshipment point in the Aleutian Islands. In the 1.2 Bbbl cases, the oil and gas are first taken by pipeline to oil and LNG terminals on St. Matthew, and

TABLE 31. LABOR FORCE PARTICIPATION RATE ASSUMPTIONS FOR SCIMP MODEL

| | Non-Native[a] | | Native[b] | |
|---|---|---|---|---|
| | Male | Female | Male | Female |
| 0 - 14 | 0 | 0 | 0 | 0 |
| 15 - 19 | .25 | .25 | .169 | .169 |
| 20 - 24 | 1 | .9 | .675 | .608 |
| 25 - 29 | 1 | .9 | .675 | .608 |
| 30 - 44 | 1 | .8 | .675 | .540 |
| 45 - 64 | 1 | .8 | .675 | .540 |
| 65 + | .5 | .1 | .338 | .068 |

[a]Assumed.

[b]Calculated by multiplying Non-Native rates by .675, as discussed in Appendix L.

subsequently shipped to the transshipment terminal in the Aleutian Islands. In one of these cases, the transshipment terminal is road-connected to an Aleutian Island community. In the 2.4 Bbbl case, the oil and LNG terminals are located on St. Paul instead of St. Matthew.

OCS impacts enter the MAP and SCIMP models primarily through the assumption of increases in direct resident and nonresident employment associated with the OCS project. The employment assumptions used were based on figures provided by the Alaska OCS office. These assumptions are discussed in detail in Appendix J. For the MAP model in the 1.2 Bbbl cases, maximum resident employment of 6,927 occurs in 1993 during the construction phase, with long-run operating employment of 3,022. Employment assumptions are roughly 50 percent higher in the 2.4 Bbbl case and 50 percent lower in the .6 Bbbl case. For the SCIMP model, local resident employment is considerably less. Maximum direct local OCS employment is less than 300 in all cases. This much lower figure is due to the fact that most of the OCS employment is either offshore or else outside of the Aleutians, and that many workers located in the Aleutians are not residents.

In the MAP model, some additional impacts are generated by oil and gas property tax revenues collected by the state. The development of these revenue assumptions is discussed in Appendix M. In the 1.2 Bbbl case, the maximum property tax revenues (in nominal dollars) are $209 million in 2004.

# CHAPTER V.

# MAP MODEL STATEWIDE BASE CASE AND IMPACT PROJECTIONS

This chapter discusses the MAP model statewide projections. The first section of the chapter discusses the projections in the absence of the Navarin Basin OCS sale (the base case projections). The second section of the chapter discusses projections when the Navarin Basin OCS sale is included (the impact projections).

Tables of the MAP model projection results are provided in Appendixes A-D. Appendix A provides tables of the base case projections. Appendix B provides tables showing base case projections, impact case projections, absolute impacts, and percentage impacts, by variable, for each of the four OCS cases. The tables in Appendix C compare the absolute impact projections for all four cases for each variable, and the tables in Appendix D compare the percentage impact projections for all four cases for each variable. A table of contents is provided at the beginning of each appendix.

## MAP Model Base Case Projections

In the base case, statewide population expands to over 590 thousand by the year 2010, as shown in Table A-2. Population growth is spurred by both high rates of natural increase and in-migration

during the "boom" years of the mid-80s. As state government trims its growth with the depletion of resource revenues, and the major resource developments pass their peak employment years, outmigration begins to dominate from the late 80s to the end of the period. This outmigration, combined with the aging of the remaining population, reduces population growth rates throughout the period after 1990.

Employment projections are shown in Table A-3. Employment in the state expands by about 40 percent over the 30-year forecast period, with most of the growth occurring during the 80s. Primarily due to construction of the gas pipeline, employment peaks in 1988, followed by a sharp decline of nearly 10,000 in 1990 and a more gradual decline throughout the 90s. Subsequently, employment slowly recovers to nearly the 1988 level by the end of the forecast period.

As shown in Table A-4, personal income in the base case peaks at over 10 billion dollars in 1988, followed by a sharp decline through the early 90s, and a gradual recovery from the mid-90s to the end of the period. However, it does not recover to its 1988 level until 2010, and in per capita terms, income never again reaches its more than $20,000 peak realized in 1988.

As shown in Table A-6, state government revenues in the base case peak in 1989 at over five billion dollars annually, but decline steadily thereafter. At the peak, petroleum revenues and interest

earnings on accumulated balances make up nearly 83 percent of total revenues, but fall by the end of the period to less than 47 percent of the total as resources are progressively exhausted and the income tax is reinstituted. State expenditures, however, do not peak until the mid-90s in both total and per capita terms, as seen in Table A-7. As a consequence, real accumulated balances in the general and permanent funds are being drawn down slowly from the late 90s until the end of the period, with about 11 billion dollars, or $18,600 per person, remaining accumulated by the end of the period (Table A-8).

The model's projections of state government expenditures and the combined funds balance are direct results of the assumptions which were used about state expenditure policies. If a more conservative spending policy had been assumed along with an earlier reinstitution of the income tax, the projected combined funds balance at the end of the period would have been larger. Conversely, if a less conservative spending policy had been assumed, the projected combined funds balance at the end of the period would have been smaller.

## MAP Model Impact Projections

This section discusses the impacts of the proposed Sale 83 for the four different cases. Tables showing the impacts are provided in Appendixes B-D. We will center our discussion around the 1.2 Bbbl

cases (the impacts of which are identical at the statewide level). For the .6 and 2.4 cases, impacts are slightly smaller and larger, respectively.

POPULATION IMPACTS

Population impacts are shown in Tables C-1 and D-1. Population increases by a maximum of 16,800, or just under 3 percent, in 1993. The population increase occurs as a result of migration into the state of workers seeking to fill new jobs in the OCS industry and new jobs indirectly generated by OCS industry. The long-run absolute population impacts remain nearly constant at slightly below the maximum levels.

EMPLOYMENT IMPACTS

Total employment impacts are shown in Tables C-5 and D-5. Total employment increases by a maximum of 6.4 percent, or 16,600 jobs, in 1993. The long-run employment impacts decline to approximately half this level.

INCOME IMPACTS

Sale 83 development increases total personal income by a maximum of 8 percent, or $706 million, in 1993 (Tables C-6 and D-6). Due to the accompanying increase in population, the percentage increase in per capita income is only about half as great, at 4.7 percent, or $787 per capita (Tables C-7 and D-7).

## REVENUE IMPACTS

Tables C-11 and D-11 show impacts upon total real state government revenues. The impact of OCS development upon total revenues increases steadily over the period to over 6 percent. In absolute terms, the impact upon revenues increases rapidly from $14 million in 1991 to $132 million in 1994, and then rises gradually to $190 million by the end of the period.

There are a number of causes for this increase in revenues. These include larger income tax and federal transfer revenues due to a larger population, direct oil and gas property taxes, and increased interest income on the larger fund balances which accumulate as a result of increased income. Of these, higher interest earnings account for over 60 percent of the increase in revenues by the end of the period.

## EXPENDITURE IMPACTS

The projected impacts upon expenditures are very low because nominal expenditures were assumed to be held constant between the base case and the impact cases. Real state government expenditures are projected to increase by a maximum of $34 million, or just under 1 percent, in 1993 (Tables C-12 and D-12). Real expenditures increase slightly as a result of higher subsidies, which are population linked and endogenous to the model, and a slightly lower price level due to the expansion in the economy.

COMBINED FUNDS BALANCE

The impact upon the combined permanent and general funds balance increases steadily to almost $1.7 billion, or 15 percent, in 2010 (Tables C-14 and D-14). OCS development would have no effect upon the permanent fund, but under the policy assumptions used, the balance in the general fund would rise since the increase in revenues is not matched by the increase in expenditures. The per capita combined funds balance would also rise, by $2,200 (Tables C-15 and D-15). However, the percentage impact would be smaller (12 percent) due to the accompanying increase in population. Again, we emphasize that these effects upon the combined funds result solely from our assumptions about state government expenditure policies, which did not allow for an increase in expenditures commensurate with the increase in revenues.

## Conclusions

The MAP statewide model projections suggest that OCS development in the Navarin Basin would lead to a moderate increase in the state population of just under 3 percent in the maximum year. The model projections also suggest that state revenues would rise by about 7 percent. This appears at first to be a positive impact, with revenues expanding faster than population. However, this effect is largely illusory since most of the increase in revenues results from higher interest earnings on the general fund. If expenditures were to increase to match the increase in population, the fund balance would be lower, resulting in a much smaller impact upon revenues.

# VI. SCIMP MODEL PROJECTIONS FOR THE ALEUTIAN ISLANDS

This chapter discusses the SCIMP model projections for the Aleutian Islands. The first part of the chapter discusses the base case projections, while the second part of the chapter discusses the impact projections. Tables of the SCIMP model projections are presented in Appendixes E through H.

## SCIMP Model Base Case Projections

The base case projections for the Aleutian Islands show a pattern of smoothly accelerating population and employment growth. This growth is the direct result of the assumptions made about the growth pattern in the bottomfish industry.

Table E-1 shows population projections for the Aleutian Islands. There are a variety of components of population, including permanent residents, onshore enclave workers, nonresident fishermen, and military. Resident population is projected to rise steadily from 3,654 in 1980 to 8,348 in 2000.

The enclave, nonresident fishermen, and military populations were all assumed. Military population remains constant. The enclave population rises from 1,666 to 2,450, and the nonresident fishermen population rises from 717 to 4,473.

Table E-2 presents projections for resident employment. All basic sector employment was assumed, as discussed in Chapter IV. Support sector employment is projected to rise from 461 to 1,000, while government employment is projected to rise from 600 to 1,035.

Table E-3 provides projections of nonresident employment. Nonresident employment is projected to rise from 1,656 in 1980 to 2,440 in 2000. All of these values were assumed. Finally, Table E-4 provides a summary of employment totals by different categories.

## SCIMP Model Impact Projections

Appendixes F, G and H present tables showing the SCIMP model OCS impact projections for eight variables. These are resident population, enclave population, total population, total resident employment, basic sector employment, support sector employment, government employment, and total resident and enclave employment. Appendix F includes separate tables for each case and variables which show the base case projections, impact projections, absolute impacts, and percentage impacts. Appendixes G and H show the absolute and percentage impacts for all four cases together, facilitating comparison of the effects of different cases. Our discussion is based on appendixes G and H.

Resident population impacts are shown in Table G-1. In all cases, the maximum population impacts occur in 1995 or 1996. The maximum impacts are 441 in the .6 Bbbl case, 281 in the 1.2 Bbbl road-connected case, 259 in the 1.2 Bbbl remote case, and 551 in the 2.4 Bbbl case. In percentage terms, the maximum population impacts are 6 percent, 4 percent, 3 percent, and 7 percent, respectively (Table H-1). The impacts are higher in the .6 Bbbl case than the 1.2 Bbbl cases because all of the air support activities occur in the Aleutian Islands instead of some support being based on St. Matthew or St. Paul. Thus, a lower level of discovery might actually have a slightly greater impact if it resulted in the establishment of fewer "forward" support bases. However, the greater level of activity in the 2.4 Bbbl case results in this case having the highest impact, even though only some of the support is based in the Aleutians. The 1.2 Bbbl road-connected case has a slightly greater impact than the remote case. This is because, with a remote or nonroad-connected transshipment terminal, fewer of the employees are assumed to be local residents.

Similar patterns as for resident population may be seen in the impacts for all of the other variables examined. Enclave population impacts (Tables G-2 and H-2) are highest during the construction year of 1989, when they are 770 in the 1.2 Bbbl cases. Enclave employment impacts then fall before rising again to long-term operations phase employment levels in 1996. Operations phase enclave employment impacts are 549 in the 1.2 Bbbl cases. In

percentage terms, enclave employment rises by between 45 and 48 percent in all cases during the peak construction year of 1989. Thus, the total number of OCS industry enclave workers would equal about half the number of fishing industry enclave workers projected for that year.

Combined resident and enclave population (Tables G-3 and H-3) rises by a maximum of between 821 and 1,312, or 15-19 percent. Peak absolute and percentage impacts occur in different years for different cases. This is because impacts upon resident population tend to rise over the projection period, whereas impacts upon enclave population occur earlier.

Impacts upon total resident employment (Tables G-4 and H-4) generally rise over the period, with early peaks occurring in 1985 and 1989. Maximum impacts are between 351 and 387, or 12 percent and 13 percent for the different cases. The largest component of the increase in total resident employment is basic resident employment (Tables G-9 and H-9). This direct OCS employment was assumed. Long-run resident operations phase OCS employment is between 225 and 298, causing an increase of 12 to 16 percent in total basic employment. The increases in basic resident employment are roughly paralleled by similar but smaller increases in services and government employment (Tables G-10, G-11, H-10 and H-11). The impacts do not exactly correspond since services and government

employment are also affected, to a lesser degree, by enclave employment. Services employment increases by a maximum of between 120 and 164, or between 19 and 24 percent. Government employment increases by a maximum of between 28 and 61, or between 3 and 7 percent.

In summary, OCS development of the Navarin Basin would increase resident employment by a maximum of about 370 in 2000. Impacts in earlier years would be lower, with a maximum percentage increase of about 12 percent occurring in the mid-1990s. Resident population would increase by a maximum of between 200 and 400, with the maximum percentage increases of 3 to 7 percent also occurring in the mid-1990s. In general, the projected increases in employment exceed the projected increases in population, which suggests that many of the jobs would go to Aleutian Islands residents.

# CHAPTER VII.

# LIMITATIONS OF THE MODEL PROJECTIONS

The model projections developed in this report do, we believe, provide a useful indication of several kinds of basic impacts upon the state and the Aleutian Islands which OCS development of the Navarin Basin might have. However, since large amounts of information printed by computers can sometimes convey an unwarranted impression of accuracy, it is useful to review briefly several limitations of the modeling process used. These are the lack of seasonality, the uncertainty of structural assumptions, and the uncertainty of policy assumptions. Finally, we add a few comments about limitations in the interpretation of the model results.

## LACK OF SEASONALITY

Work on OCS development in the Navarin Basin would be highly seasonal, especially during the construction phase. Trading off accuracy for practicality, the MAP and SCIMP models are annual models which average employment inputs over the year. As a result, they tend to underestimate the maximum employment effects which might be felt at peak construction seasons. The strain on facilities and social tensions implied by the impact population figures might be considerably higher during the peak construction seasons.

## UNCERTAINTY OF STRUCTURAL ASSUMPTIONS

Both the MAP and SCIMP models incorporate numerous assumptions about the structure of the economy and the factors leading to demographic change. The MAP model assumptions are based on sophisticated econometric analysis of past historical data, while the SCIMP model assumptions are generally based on conditions in 1980. In most cases, the models do not allow for the fact that the structure of the economy might change considerably as it grows. This is because it is very difficult to predict these structural changes. As a result, an uncertain degree of error is introduced into the projections.

This problem is likely to be much greater for the SCIMP model projections than for the MAP model projections. Factors which might change significantly include labor force participation rates, employment rates, and residency patterns.

## UNCERTAINTY OF POLICY ASSUMPTIONS

Luckily, our future is not totally predetermined--or if it is, we are mercifully unable to trace the infinite number of events which determine human behavior in its entirety. We retain at least the illusion of self-determination and the ability to affect our future.

State and local government policies as well as oil industry policies will greatly affect the future of the state and of the Aleutian Islands, as well as the nature of the impacts which OCS development

might have. We have had to make assumptions about those policies, some of which are explicit as in the case of state expenditures in the MAP model, but most of which are implicit--generally, government is assumed to continue to behave as it has in the past. Thus, many of the impacts projected by this study could be changed by different government policies. We have not attempted to consider such mitigating impacts in this study.

OCS IMPACTS AND "WELL-BEING"

In themselves, the model results say relatively little about what OCS development might really mean for Alaska or the Aleutians. Changes in employment and population are only a first, albeit necessary, step toward answering more interesting questions. Some of these can be answered in a fairly straightforward manner, such as what additional housing, transportation, and government revenue requirements might result from OCS development. Other questions are much more subtle, such as how the well-being of different groups might be affected by OCS development. We will not attempt to address this question at all, other than to point out the limitations of the model projections in answering it.

One problem is that impacts may be extremely localized. For example, in percentage terms, the impacts projected for Alaska and for the Aleutian Islands appear relatively small. However, many of the impacts would be concentrated in Dutch Harbor. For this community, they would be proportionately larger.

A still greater problem arises in trying to define what constitutes "well-being," or desirable and undesirable impacts. Different groups will have greatly differing interpretations about what is desirable. Even the same groups may find their attitudes changing over time so that impacts which were at one time viewed as undesirable are later viewed in a positive light--or vice versa. Thus, our model projections cannot really tell us very much about "well-being." They do, however, provide basic information which, properly interpreted and allowing for the limitations of the projection methodology, can allow different groups to begin to make their own assessments of the effects of OCS development.

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# APPENDIX A

## MAP MODEL STATEWIDE BASE CASE PROJECTIONS

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TABLE A.1.

MAP MODEL STATEWIDE BASE CASE PROJECTIONS:

SUMMARY

| | TOTAL POPULATION (1000) | TOTAL EMPLOYMENT (1000) | PER CAPITA GOVERNMENT REVENUES (1982 $) | PER CAPITA GOVERNMENT EXPENDIT (1982 $) | PER CAPITA COMBINED FUNDS BALANCE (1982 $) |
|---|---|---|---|---|---|
| 1980 | 402.057 | 204.449 | 7269.398 | 4988.141 | 6021.180 |
| 1981 | 414.914 | 213.195 | 9383.090 | 7135.969 | 8375.668 |
| 1982 | 432.986 | 227.129 | 10924.210 | 8433.418 | 10826.410 |
| 1983 | 442.533 | 231.699 | 8268.402 | 7689.957 | 11351.250 |
| 1984 | 448.370 | 232.710 | 8177.957 | 7616.098 | 11923.450 |
| 1985 | 455.174 | 234.784 | 9219.220 | 7559.332 | 13563.130 |
| 1986 | 467.163 | 241.543 | 9538.270 | 7421.047 | 15332.830 |
| 1987 | 488.532 | 256.718 | 9740.860 | 7132.063 | 17036.600 |
| 1988 | 512.275 | 274.161 | 9178.290 | 6814.824 | 18129.840 |
| 1989 | 514.974 | 272.387 | 9902.260 | 6755.988 | 20596.140 |
| 1990 | 508.807 | 262.494 | 9059.730 | 6832.105 | 22415.820 |
| 1991 | 511.458 | 260.395 | 8577.871 | 6830.012 | 23338.500 |
| 1992 | 513.459 | 257.748 | 8210.949 | 6841.039 | 23842.310 |
| 1993 | 518.054 | 258.040 | 7985.105 | 6821.980 | 24003.330 |
| 1994 | 523.384 | 259.263 | 7550.453 | 6797.277 | 23714.420 |
| 1995 | 523.903 | 255.591 | 7256.965 | 6435.066 | 23626.260 |
| 1996 | 525.685 | 253.602 | 7325.785 | 6119.316 | 23830.690 |
| 1997 | 525.819 | 250.087 | 7180.313 | 5866.688 | 24142.440 |
| 1998 | 532.327 | 253.462 | 6956.805 | 5598.656 | 24205.990 |
| 1999 | 537.519 | 255.428 | 6681.500 | 5378.625 | 24222.710 |
| 2000 | 544.060 | 258.821 | 6400.359 | 5178.746 | 24081.450 |
| 2001 | 547.317 | 258.755 | 6132.301 | 5033.56 | 23922.130 |
| 2002 | 551.955 | 260.235 | 5907.602 | 4894.858 | 23623.530 |
| 2003 | 556.669 | 261.836 | 5695.043 | 4774.172 | 23238.760 |
| 2004 | 561.621 | 263.724 | 5436.777 | 4666.340 | 22713.230 |
| 2005 | 566.708 | 265.783 | 5278.398 | 4571.125 | 22150.930 |
| 2006 | 571.914 | 267.995 | 5133.059 | 4486.660 | 21559.540 |
| 2007 | 577.231 | 270.347 | 4999.219 | 4411.340 | 20945.540 |
| 2008 | 582.651 | 272.826 | 4875.676 | 4343.805 | 20314.840 |
| 2009 | 588.012 | 275.266 | 4761.973 | 4283.878 | 19676.540 |
| 2010 | 593.509 | 277.869 | 4655.180 | 4229.348 | 19028.370 |

SOURCE: MAP MODEL SIMULATION SBASE83N—CREATED 9/21/82

TABLE A.2.

MAP MODEL STATEWIDE BASE CASE PROJECTIONS:

POPULATION AND COMPONENTS OF CHANGE

(THOUSANDS)

| | TOTAL POPULATION | CHANGE IN POPULATION | NET MIGRATION | NATURAL INCREASE |
|---|---|---|---|---|
| 1980 | 402.057 | | -7.400 | 6.482 |
| 1981 | 414.914 | 12.857 | 6.727 | 6.111 |
| 1982 | 432.986 | 18.072 | 11.772 | 6.304 |
| 1983 | 442.533 | 9.548 | 2.882 | 6.678 |
| 1984 | 448.370 | 5.837 | -0.842 | 6.676 |
| 1985 | 455.174 | 6.804 | 0.250 | 6.544 |
| 1986 | 467.163 | 11.989 | 5.505 | 6.476 |
| 1987 | 488.532 | 21.369 | 14.740 | 6.630 |
| 1988 | 512.275 | 23.743 | 16.602 | 7.156 |
| 1989 | 514.974 | 2.698 | -5.016 | 7.733 |
| 1990 | 508.807 | -6.167 | -13.599 | 7.414 |
| 1991 | 511.458 | 2.652 | -4.178 | 6.798 |
| 1992 | 513.459 | 2.000 | -4.623 | 6.606 |
| 1993 | 518.054 | 4.595 | -1.818 | 6.395 |
| 1994 | 523.384 | 5.330 | -0.998 | 6.314 |
| 1995 | 523.903 | 0.519 | -5.766 | 6.272 |
| 1996 | 525.685 | 1.781 | -4.283 | 6.043 |
| 1997 | 525.819 | 0.135 | -5.781 | 5.896 |
| 1998 | 532.327 | 6.508 | 0.791 | 5.695 |
| 1999 | 537.519 | 5.192 | -0.594 | 5.775 |
| 2000 | 544.060 | 6.541 | 0.738 | 5.787 |
| 2001 | 547.317 | 3.257 | -2.613 | 5.857 |
| 2002 | 551.955 | 4.638 | -1.167 | 5.786 |
| 2003 | 556.669 | 4.714 | -1.085 | 5.781 |
| 2004 | 561.621 | 4.952 | -0.841 | 5.775 |
| 2005 | 566.708 | 5.087 | -0.709 | 5.777 |
| 2006 | 571.914 | 5.206 | -0.595 | 5.783 |
| 2007 | 577.231 | 5.317 | -0.493 | 5.790 |
| 2008 | 582.651 | 5.420 | -0.399 | 5.800 |
| 2009 | 588.012 | 5.362 | -0.469 | 5.811 |
| 2010 | 593.509 | 5.496 | -0.343 | 5.818 |

NOTE: TOTALS MAY NOT ADD DUE TO ROUNDING

SOURCE: MAP MODEL SIMULATION SBASE83N--CREATED 9/21/83

TABLE A.3.

MAP MODEL STATEWIDE BASE CASE PROJECTIONS:

EMPLOYMENT

(THOUSANDS)

| | BASIC SECTOR EMPLOYMENT | SERVICES SECTOR EMPLOYMENT | GOVERNMENT EMPLOYMENT | TOTAL WAGE AND SALARY EMPLOYMENT | TOTAL EMPLOYMENT |
|---|---|---|---|---|---|
| 1980 | 46.048 | 79.812 | 78.589 | 190.192 | 204.449 |
| 1981 | 48.409 | 81.714 | 83.071 | 198.449 | 213.195 |
| 1982 | 52.733 | 86.641 | 87.755 | 211.629 | 227.129 |
| 1983 | 53.327 | 90.060 | 88.312 | 215.944 | 231.699 |
| 1984 | 52.380 | 91.951 | 88.379 | 216.891 | 232.710 |
| 1985 | 53.015 | 93.617 | 88.153 | 218.841 | 234.784 |
| 1986 | 56.660 | 97.298 | 87.586 | 225.217 | 241.543 |
| 1987 | 64.528 | 105.326 | 86.863 | 239.531 | 256.718 |
| 1988 | 71.854 | 114.964 | 87.343 | 255.967 | 274.161 |
| 1989 | 66.829 | 115.800 | 89.758 | 254.271 | 272.387 |
| 1990 | 59.252 | 113.160 | 90.083 | 244.911 | 262.494 |
| 1991 | 59.961 | 112.063 | 88.371 | 242.896 | 260.395 |
| 1992 | 60.117 | 109.831 | 87.800 | 240.359 | 257.748 |
| 1993 | 60.496 | 110.354 | 87.191 | 240.585 | 258.[illegible]40 |
| 1994 | 60.881 | 111.365 | 87.017 | 241.681 | 259.[illegible] |
| 1995 | 59.881 | 108.826 | 86.884 | 238.144 | 255.[illegible] |
| 1996 | 59.834 | 108.199 | 85.569 | 236.182 | 253.[illegible] |
| 1997 | 57.736 | 107.122 | 85.229 | 232.759 | 250.[illegible] |
| 1998 | 60.345 | 108.322 | 84.796 | 235.826 | 253.[illegible] |
| 1999 | 61.019 | 109.573 | 84.835 | 237.536 | 255.[illegible] |
| 2000 | 62.484 | 111.566 | 84.771 | 240.564 | 258.[illegible] |
| 2001 | 62.611 | 111.332 | 84.812 | 240.502 | 258.[illegible] |
| 2002 | 62.734 | 112.871 | 84.630 | 241.899 | 260.[illegible] |
| 2003 | 62.896 | 114.367 | 84.573 | 243.410 | 261.[illegible] |
| 2004 | 63.119 | 116.078 | 84.527 | 245.191 | 263.[illegible] |
| 2005 | 63.389 | 117.888 | 84.506 | 247.134 | 265.[illegible] |
| 2006 | 63.695 | 119.798 | 84.502 | 249.221 | 267.[illegible] |
| 2007 | 64.038 | 121.797 | 84.512 | 251.439 | 270.347 |
| 2008 | 64.411 | 123.881 | 84.534 | 253.777 | 272.[illegible] |
| 2009 | 64.724 | 125.975 | 84.567 | 256.078 | 275.266 |
| 2010 | 65.097 | 128.183 | 84.589 | 258.531 | 277.869 |

SOURCE: MAP MODEL SIMULATION SBASE83N--CREATED 9/21/82

TABLE A.4.

MAP MODEL STATEWIDE BASE CASE PROJECTIONS:

REAL PERSONAL INCOME

| | PERSONAL INCOME (MILLIONS 1982 $) | PER CAPITA PERSONAL INCOME (1982 $) |
|---|---|---|
| 1980 | 6247.679 | 15539.260 |
| 1981 | 6551.144 | 15789.140 |
| 1982 | 7081.304 | 16354.580 |
| 1983 | 7300.878 | 16497.910 |
| 1984 | 7339.421 | 16369.100 |
| 1985 | 7480.527 | 16434.420 |
| 1986 | 7990.835 | 17105.020 |
| 1987 | 9179.180 | 18789.310 |
| 1988 | 10462.730 | 20424.040 |
| 1989 | 9922.060 | 19267.100 |
| 1990 | 8886.261 | 17464.890 |
| 1991 | 8779.230 | 17165.070 |
| 1992 | 8682.132 | 16909.100 |
| 1993 | 8769.375 | 16927.520 |
| 1994 | 8877.281 | 16961.310 |
| 1995 | 8821.000 | 16837.070 |
| 1996 | 8827.140 | 16791.680 |
| 1997 | 8764.835 | 16668.900 |
| 1998 | 8945.421 | 16804.350 |
| 1999 | 9070.840 | 16875.370 |
| 2000 | 9261.790 | 17023.470 |
| 2001 | 9329.610 | 17046.080 |
| 2002 | 9462.750 | 17144.040 |
| 2003 | 9599.870 | 17245.200 |
| 2004 | 9749.930 | 17360.320 |
| 2005 | 9908.360 | 17484.040 |
| 2006 | 10074.460 | 17615.320 |
| 2007 | 10248.010 | 17753.720 |
| 2008 | 10428.700 | 17898.680 |
| 2009 | 10604.090 | 18033.790 |
| 2010 | 10795.460 | 18189.210 |

SOURCE: MAP MODEL SIMULATION SBASE83N--CREATED 9/21/83

TABLE A.5.

MAP MODEL STATEWIDE BASE CASE PROJECTIONS:

REAL WAGE RATES

(1982 DOLLARS)

| | BASIC SECTOR | SERVICES SECTOR | GOVERNMENT SECTOR |
|---|---|---|---|
| 1980 | 27201.560 | 22624.860 | 23469.310 |
| 1981 | 27253.500 | 22465.760 | 23665.520 |
| 1982 | 28596.700 | 22158.350 | 24451.480 |
| 1983 | 29226.080 | 22355.630 | 24812.990 |
| 1984 | 28819.560 | 22476.240 | 25148.110 |
| 1985 | 29281.740 | 22645.470 | 25508.860 |
| 1986 | 32184.880 | 23281.600 | 25974.670 |
| 1987 | 38377.800 | 24791.660 | 26573.260 |
| 1988 | 43599.710 | 26136.060 | 27122.750 |
| 1989 | 39702.800 | 25216.840 | 27304.000 |
| 1990 | 32580.510 | 23952.970 | 27379.020 |
| 1991 | 32014.240 | 23527.130 | 27763.920 |
| 1992 | 31852.620 | 23146.920 | 28179.680 |
| 1993 | 32165.560 | 23263.680 | 28612.780 |
| 1994 | 32375.260 | 23358.040 | 29048.090 |
| 1995 | 32346.140 | 23516.060 | 29490.970 |
| 1996 | 32418.120 | 23700.320 | 29960.830 |
| 1997 | 32598.890 | 23757.020 | 30433.230 |
| 1998 | 32549.120 | 23866.830 | 30915.450 |
| 1999 | 32587.130 | 23945.280 | 31399.290 |
| 2000 | 32758.000 | 24058.760 | 31894.010 |
| 2001 | 33125.310 | 24000.350 | 32398.590 |
| 2002 | 33423.470 | 24130.410 | 32918.590 |
| 2003 | 33730.120 | 24236.320 | 33446.170 |
| 2004 | 34047.550 | 24350.140 | 33983.820 |
| 2005 | 34376.760 | 24463.080 | 34531.560 |
| 2006 | 34713.440 | 24576.960 | 35089.440 |
| 2007 | 35057.900 | 24691.320 | 35657.720 |
| 2008 | 35409.790 | 24806.220 | 36236.540 |
| 2009 | 35688.040 | 24922.650 | 36826.330 |
| 2010 | 36069.950 | 25040.270 | 37428.280 |

SOURCE: MAP MODEL SIMULATION SBASE83N--CREATED 9/21/83

TABLE A.6.

MAP MODEL STATEWID BASE CASE PROJECTIONS:

STATE GOVERNMENT REVENUES

MILLIONS OF 1982 DOLLARS

| | PETROLEUM REVENUES | FEDERAL GRANTS | INTEREST EARNINGS | OTHER REVENUES | TOTAL REVENUES |
|---|---|---|---|---|---|
| 1980 | 2187.410 | 375.199 | 133.949 | 365.764 | 2922.715 |
| 1981 | 3388.680 | 393.466 | 225.919 | 227.908 | 3893.173 |
| 1982 | 3764.649 | 419.140 | 305.649 | 240.592 | 4730.027 |
| 1983 | 2572.653 | 432.704 | 403.452 | 250.235 | 3659.045 |
| 1984 | 2555.936 | 440.997 | 420.443 | 249.379 | 3666.755 |
| 1985 | 3063.411 | 450.663 | 429.812 | 252.475 | 4196.351 |
| 1986 | 3221.494 | 467.695 | 491.533 | 275.206 | 4455.921 |
| 1987 | 3402.429 | 498.054 | 559.315 | 298.926 | 4758.716 |
| 1988 | 3208.371 | 531.787 | 636.309 | 325.348 | 4701.808 |
| 1989 | 3521.116 | 535.620 | 702.673 | 339.997 | 5099.402 |
| 1990 | 2954.484 | 526.859 | 797.604 | 330.707 | 4609.652 |
| 1991 | 2683.025 | 530.626 | 853.646 | 319.933 | 4387.226 |
| 1992 | 2477.430 | 533.468 | 888.695 | 316.394 | 4215.984 |
| 1993 | 2373.869 | 539.997 | 908.585 | 314.268 | 4136.718 |
| 1994 | 2167.733 | 547.569 | 920.166 | 316.320 | 3951.787 |
| 1995 | 1977.134 | 548.307 | 915.316 | 361.193 | 3801.94[illegible] |
| 1996 | 1730.295 | 550.838 | 911.238 | 658.685 | 3851.055 |
| 1997 | 1646.453 | 551.029 | 919.078 | 658.988 | 3775.547 |
| 1998 | 1552.829 | 560.275 | 930.396 | 659.799 | 3703.297 |
| 1999 | 1408.474 | 567.651 | 941.424 | 673.886 | 3591.435 |
| 2000 | 1270.014 | 576.943 | 949.304 | 685.916 | 3482.177 |
| 2001 | 1122.492 | 581.571 | 952.337 | 699.912 | 3356.313 |
| 2002 | 1014.550 | 588.160 | 950.343 | 707.680 | 3260.732 |
| 2003 | 910.891 | 594.857 | 944.909 | 719.596 | 3170.253 |
| 2004 | 784.278 | 601.893 | 936.160 | 731.079 | 3053.41[illegible] |
| 2005 | 715.635 | 609.120 | 922.048 | 744.510 | 2991.3[illegible]1 |
| 2006 | 654.145 | 616.516 | 906.383 | 758.624 | 2935.66[illegible] |
| 2007 | 598.871 | 624.070 | 889.391 | 773.372 | 2885.70[illegible] |
| 2008 | 549.062 | 631.770 | 871.277 | 788.709 | 2840.81[illegible] |
| 2009 | 504.050 | 639.387 | 852.190 | 804.474 | 2800.1[illegible] |
| 2010 | 463.309 | 647.196 | 832.335 | 820.049 | 2762.88[illegible] |

SOURCE: MAP MODEL SIMULATION SBASE83N--CREATED 9/21/82

TABLE A.7.

MAP MODEL STATEWIDE BASE CASE PROJECTIONS:

STATE GOVERNMENT EXPENDITURES

| | TOTAL (MILLIONS 1982 $) | PER CAPITA (1982 $) |
|---|---|---|
| 1980 | 2005.519 | 4988.140 |
| 1981 | 2960.817 | 7135.968 |
| 1982 | 3651.551 | 8433.417 |
| 1983 | 3403.064 | 7689.957 |
| 1984 | 3414.833 | 7616.097 |
| 1985 | 3440.812 | 7559.332 |
| 1986 | 3466.836 | 7421.046 |
| 1987 | 3484.240 | 7132.062 |
| 1988 | 3491.066 | 6814.824 |
| 1989 | 3479.157 | 6755.988 |
| 1990 | 3476.221 | 6832.105 |
| 1991 | 3493.268 | 6830.011 |
| 1992 | 3512.592 | 6841.039 |
| 1993 | 3534.157 | 6821.980 |
| 1994 | 3557.588 | 6797.277 |
| 1995 | 3371.354 | 6435.066 |
| 1996 | 3216.832 | 6119.316 |
| 1997 | 3084.819 | 5866.687 |
| 1998 | 2980.318 | 5598.656 |
| 1999 | 2891.114 | 5378.625 |
| 2000 | 2817.548 | 5178.746 |
| 2001 | 2754.956 | 5033.566 |
| 2002 | 2701.743 | 4894.859 |
| 2003 | 2657.634 | 4774.171 |
| 2004 | 2620.714 | 4666.339 |
| 2005 | 2590.493 | 4571.125 |
| 2006 | 2565.985 | 4486.660 |
| 2007 | 2546.362 | 4411.339 |
| 2008 | 2530.923 | 4343.804 |
| 2009 | 2518.975 | 4283.878 |
| 2010 | 2510.156 | 4229.347 |

SOURCE: MAP MODEL SIMULATION SBASE83N--CREATED 9/21/83

TABLE A.8.

MAP MODEL STATEWIDE BASE CASE PROJECTIONS

COMBINED FUNDS BALANCE

| | TOTAL (MILLIONS 1982 $) | PER CAPITA (1982 $) |
|---|---|---|
| 1980 | 2420.861 | 6021.179 |
| 1981 | 3475.185 | 8375.667 |
| 1982 | 4687.683 | 10826.410 |
| 1983 | 5023.308 | 11351.250 |
| 1984 | 5346.121 | 11923.440 |
| 1985 | 6173.585 | 13563.120 |
| 1986 | 7162.925 | 15332.820 |
| 1987 | 8322.921 | 17036.590 |
| 1988 | 9287.470 | 18129.820 |
| 1989 | 10606.470 | 20596.140 |
| 1990 | 11405.320 | 22415.800 |
| 1991 | 11936.670 | 23338.490 |
| 1992 | 12242.040 | 23842.300 |
| 1993 | 12435.020 | 24003.320 |
| 1994 | 12411.750 | 23714.410 |
| 1995 | 12377.870 | 23626.250 |
| 1996 | 12527.430 | 23830.680 |
| 1997 | 12694.560 | 24142.430 |
| 1998 | 12885.500 | 24205.980 |
| 1999 | 13020.160 | 24222.700 |
| 2000 | 13101.740 | 24081.440 |
| 2001 | 13092.980 | 23922.110 |
| 2002 | 13039.120 | 23623.520 |
| 2003 | 12936.290 | 23238.750 |
| 2004 | 12756.220 | 22713.210 |
| 2005 | 12553.100 | 22150.920 |
| 2006 | 12330.200 | 21559.520 |
| 2007 | 12090.410 | 20945.530 |
| 2008 | 11836.460 | 20314.830 |
| 2009 | 11570.050 | 19676.520 |
| 2010 | 11293.500 | 19028.360 |

SOURCE: MAP MODEL SIMULATION SBASE83N--CREATED 9/21/83

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# MAP MODEL IMPACT PROJECTIONS

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TABLE B.1.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

TOTAL POPULATION

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 402.057 | 402.057 | 0.000 | 0.000 |
| 1981 | 414.914 | 414.914 | 0.000 | 0.000 |
| 1982 | 432.986 | 432.986 | 0.000 | 0.000 |
| 1983 | 442.533 | 442.533 | 0.000 | 0.000 |
| 1984 | 448.370 | 448.370 | 0.000 | 0.000 |
| 1985 | 455.174 | 455.540 | 0.366 | 0.080 |
| 1986 | 467.163 | 467.865 | 0.702 | 0.150 |
| 1987 | 488.532 | 489.496 | 0.964 | 0.197 |
| 1988 | 512.275 | 513.579 | 1.303 | 0.254 |
| 1989 | 514.974 | 516.922 | 1.949 | 0.378 |
| 1990 | 508.807 | 510.974 | 2.167 | 0.426 |
| 1991 | 511.458 | 514.849 | 3.390 | 0.663 |
| 1992 | 513.459 | 519.205 | 5.746 | 1.119 |
| 1993 | 518.054 | 527.620 | 9.566 | 1.847 |
| 1994 | 523.384 | 533.262 | 9.878 | 1.887 |
| 1995 | 523.903 | 534.829 | 10.926 | 2.085 |
| 1996 | 525.685 | 536.082 | 10.397 | 1.978 |
| 1997 | 525.819 | 536.392 | 10.573 | 2.011 |
| 1998 | 532.327 | 542.941 | 10.614 | 1.994 |
| 1999 | 537.519 | 547.990 | 10.471 | 1.948 |
| 2000 | 544.060 | 554.020 | 9.961 | 1.831 |
| 2001 | 547.317 | 557.031 | 9.715 | 1.775 |
| 2002 | 551.955 | 561.454 | 9.499 | 1.721 |
| 2003 | 556.669 | 566.205 | 9.536 | 1.713 |
| 2004 | 561.621 | 571.271 | 9.650 | 1.718 |
| 2005 | 566.708 | 576.521 | 9.813 | 1.732 |
| 2006 | 571.914 | 581.907 | 9.993 | 1.747 |
| 2007 | 577.231 | 587.411 | 10.180 | 1.764 |
| 2008 | 582.651 | 593.026 | 10.375 | 1.781 |
| 2009 | 588.012 | 598.586 | 10.574 | 1.798 |
| 2010 | 593.509 | 604.285 | 10.776 | 1.816 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83L--CREATED 10/11/82

TABLE B.2.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

BASIC SECTOR EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 46.048 | 46.048 | 0.000 | 0.000 |
| 1981 | 48.409 | 48.409 | 0.000 | 0.000 |
| 1982 | 52.733 | 52.733 | 0.000 | 0.000 |
| 1983 | 53.327 | 53.327 | 0.000 | 0.000 |
| 1984 | 52.380 | 52.380 | 0.000 | 0.000 |
| 1985 | 53.015 | 53.274 | 0.259 | 0.488 |
| 1986 | 56.660 | 56.824 | 0.165 | 0.290 |
| 1987 | 64.528 | 64.766 | 0.238 | 0.368 |
| 1988 | 71.854 | 72.220 | 0.367 | 0.510 |
| 1989 | 66.829 | 67.538 | 0.708 | 1.060 |
| 1990 | 59.252 | 59.916 | 0.664 | 1.120 |
| 1991 | 59.961 | 61.399 | 1.438 | 2.398 |
| 1992 | 60.117 | 62.880 | 2.763 | 4.596 |
| 1993 | 60.496 | 65.133 | 4.636 | 7.664 |
| 1994 | 60.881 | 64.616 | 3.735 | 6.135 |
| 1995 | 59.881 | 63.972 | 4.090 | 6.831 |
| 1996 | 59.834 | 63.230 | 3.396 | 5.675 |
| 1997 | 57.736 | 61.130 | 3.394 | 5.878 |
| 1998 | 60.345 | 63.622 | 3.277 | 5.430 |
| 1999 | 61.019 | 64.038 | 3.019 | 4.947 |
| 2000 | 62.484 | 65.073 | 2.589 | 4.143 |
| 2001 | 62.611 | 65.041 | 2.430 | 3.881 |
| 2002 | 62.734 | 65.003 | 2.269 | 3.617 |
| 2003 | 62.896 | 65.155 | 2.259 | 3.592 |
| 2004 | 63.119 | 65.376 | 2.258 | 3.577 |
| 2005 | 63.389 | 65.652 | 2.263 | 3.569 |
| 2006 | 63.695 | 65.965 | 2.270 | 3.563 |
| 2007 | 64.038 | 66.315 | 2.277 | 3.556 |
| 2008 | 64.411 | 66.697 | 2.286 | 3.549 |
| 2009 | 64.724 | 67.019 | 2.295 | 3.545 |
| 2010 | 65.097 | 67.401 | 2.304 | 3.540 |

SOURCE: MAP MODEL SIMULATIONS IBASE83N AND DCS.83L--CREATED 10/11/82

TABLE B.3.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

SERVICES SECTOR EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 79.812 | 79.812 | 0.000 | 0.000 |
| 1981 | 81.714 | 81.714 | 0.000 | 0.000 |
| 1982 | 86.641 | 86.641 | 0.000 | 0.000 |
| 1983 | 90.060 | 90.060 | 0.000 | 0.000 |
| 1984 | 91.951 | 91.951 | 0.000 | 0.000 |
| 1985 | 93.617 | 93.734 | 0.117 | 0.125 |
| 1986 | 97.298 | 97.797 | 0.499 | 0.513 |
| 1987 | 105.326 | 105.969 | 0.643 | 0.610 |
| 1988 | 114.964 | 115.791 | 0.827 | 0.719 |
| 1989 | 115.800 | 116.863 | 1.063 | 0.918 |
| 1990 | 113.160 | 114.359 | 1.199 | 1.060 |
| 1991 | 112.063 | 113.680 | 1.617 | 1.443 |
| 1992 | 109.831 | 112.302 | 2.471 | 2.250 |
| 1993 | 110.354 | 114.440 | 4.087 | 3.703 |
| 1994 | 111.365 | 115.927 | 4.562 | 4.096 |
| 1995 | 108.826 | 113.808 | 4.982 | 4.578 |
| 1996 | 108.199 | 112.909 | 4.710 | 4.353 |
| 1997 | 107.122 | 111.777 | 4.655 | 4.346 |
| 1998 | 108.322 | 112.835 | 4.513 | 4.167 |
| 1999 | 109.573 | 113.934 | 4.361 | 3.980 |
| 2000 | 111.566 | 115.618 | 4.052 | 3.632 |
| 2001 | 111.332 | 115.152 | 3.820 | 3.431 |
| 2002 | 112.871 | 116.476 | 3.604 | 3.193 |
| 2003 | 114.367 | 117.890 | 3.523 | 3.080 |
| 2004 | 116.078 | 119.567 | 3.488 | 3.005 |
| 2005 | 117.888 | 121.385 | 3.497 | 2.967 |
| 2006 | 119.798 | 123.316 | 3.518 | 2.937 |
| 2007 | 121.797 | 125.341 | 3.545 | 2.910 |
| 2008 | 123.881 | 127.455 | 3.574 | 2.885 |
| 2009 | 125.975 | 129.580 | 3.605 | 2.862 |
| 2010 | 128.183 | 131.820 | 3.637 | 2.838 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83L--CREATED 10/11/82

TABLE B.4.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

GOVERNMENT EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 78.589 | 78.589 | 0.000 | 0.000 |
| 1981 | 83.071 | 83.071 | 0.000 | 0.000 |
| 1982 | 87.755 | 87.755 | 0.000 | 0.000 |
| 1983 | 88.312 | 88.312 | 0.000 | 0.000 |
| 1984 | 88.379 | 88.379 | 0.000 | 0.000 |
| 1985 | 88.153 | 88.156 | 0.003 | 0.004 |
| 1986 | 87.586 | 87.634 | 0.048 | 0.055 |
| 1987 | 86.863 | 86.937 | 0.074 | 0.085 |
| 1988 | 87.343 | 87.445 | 0.1[illegible] | 0.116 |
| 1989 | 89.758 | 89.903 | 0.145 | 0.162 |
| 1990 | 90.083 | 90.287 | 0.204 | 0.226 |
| 1991 | 88.371 | 88.581 | 0.210 | 0.238 |
| 1992 | 87.800 | 88.155 | 0.355 | 0.405 |
| 1993 | 87.191 | 87.803 | 0.612 | 0.702 |
| 1994 | 87.017 | 87.994 | 0.977 | 1.123 |
| 1995 | 86.884 | 87.808 | 0.924 | 1.063 |
| 1996 | 85.569 | 86.516 | 0.947 | 1.107 |
| 1997 | 85.229 | 86.076 | 0.847 | 0.994 |
| 1998 | 84.796 | 85.630 | 0.835 | 0.985 |
| 1999 | 84.835 | 85.637 | 0.802 | 0.945 |
| 2000 | 84.771 | 85.516 | 0.745 | 0.879 |
| 2001 | 84.812 | 85.468 | 0.657 | 0.774 |
| 2002 | 84.630 | 85.242 | 0.612 | 0.723 |
| 2003 | 84.573 | 85.145 | 0.572 | 0.676 |
| 2004 | 84.527 | 85.089 | 0.562 | 0.665 |
| 2005 | 84.506 | 85.064 | 0.557 | 0.660 |
| 2006 | 84.502 | 85.058 | 0.556 | 0.658 |
| 2007 | 84.512 | 85.068 | 0.556 | 0.658 |
| 2008 | 84.534 | 85.091 | 0.557 | 0.658 |
| 2009 | 84.567 | 85.124 | 0.557 | 0.659 |
| 2010 | 84.589 | 85.147 | 0.558 | 0.660 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83L--CREATED 10/11/82

TABLE B.5.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

TOTAL EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 204.449 | 204.449 | 0.000 | 0.000 |
| 1981 | 213.195 | 213.195 | 0.000 | 0.000 |
| 1982 | 227.129 | 227.129 | 0.000 | 0.000 |
| 1983 | 231.699 | 231.699 | 0.000 | 0.000 |
| 1984 | 232.710 | 232.710 | 0.000 | 0.000 |
| 1985 | 234.784 | 235.164 | 0.379 | 0.162 |
| 1986 | 241.543 | 242.255 | 0.712 | 0.295 |
| 1987 | 256.718 | 257.672 | 0.954 | 0.372 |
| 1988 | 274.161 | 275.456 | 1.295 | 0.473 |
| 1989 | 272.387 | 274.304 | 1.916 | 0.704 |
| 1990 | 262.494 | 264.561 | 2.067 | 0.787 |
| 1991 | 260.395 | 263.660 | 3.265 | 1.254 |
| 1992 | 257.748 | 263.338 | 5.590 | 2.169 |
| 1993 | 258.040 | 267.376 | 9.335 | 3.618 |
| 1994 | 259.263 | 268.537 | 9.274 | 3.577 |
| 1995 | 255.591 | 265.588 | 9.996 | 3.911 |
| 1996 | 253.602 | 262.654 | 9.052 | 3.569 |
| 1997 | 250.087 | 258.983 | 8.896 | 3.557 |
| 1998 | 253.462 | 262.087 | 8.625 | 3.403 |
| 1999 | 255.428 | 263.609 | 8.181 | 3.203 |
| 2000 | 258.821 | 266.207 | 7.386 | 2.854 |
| 2001 | 258.755 | 265.661 | 6.906 | 2.669 |
| 2002 | 260.235 | 266.720 | 6.486 | 2.492 |
| 2003 | 261.836 | 268.190 | 6.354 | 2.427 |
| 2004 | 263.724 | 270.032 | 6.308 | 2.392 |
| 2005 | 265.783 | 272.100 | 6.317 | 2.377 |
| 2006 | 267.995 | 274.339 | 6.344 | 2.367 |
| 2007 | 270.347 | 276.725 | 6.378 | 2.359 |
| 2008 | 272.826 | 279.243 | 6.416 | 2.352 |
| 2009 | 275.266 | 281.723 | 6.457 | 2.346 |
| 2010 | 277.869 | 284.368 | 6.499 | 2.339 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83L--CREATED 10/11/82

TABLE B.6.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

REAL PERSONAL INCOME

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6247.679 | 6247.679 | 0.000 | 0.000 |
| 1981 | 6551.144 | 6551.144 | 0.000 | 0.000 |
| 1982 | 7081.304 | 7081.304 | 0.000 | 0.000 |
| 1983 | 7300.878 | 7300.878 | 0.000 | 0.000 |
| 1984 | 7339.421 | 7339.421 | 0.000 | 0.000 |
| 1985 | 7480.527 | 7497.429 | 16.902 | 0.226 |
| 1986 | 7990.835 | 8017.527 | 26.691 | 0.334 |
| 1987 | 9179.180 | 9216.210 | 37.031 | 0.403 |
| 1988 | 10462.730 | 10513.440 | 50.711 | 0.485 |
| 1989 | 9922.060 | 10000.730 | 78.672 | 0.793 |
| 1990 | 8886.261 | 8966.402 | 80.141 | 0.902 |
| 1991 | 8779.230 | 8915.601 | 136.371 | 1.553 |
| 1992 | 8682.132 | 8921.277 | 239.145 | 2.754 |
| 1993 | 8769.375 | 9174.250 | 404.879 | 4.617 |
| 1994 | 8877.281 | 9262.470 | 385.188 | 4.339 |
| 1995 | 8821.000 | 9247.100 | 426.102 | 4.831 |
| 1996 | 8827.140 | 9211.580 | 384.438 | 4.355 |
| 1997 | 8764.835 | 9149.880 | 385.039 | 4.393 |
| 1998 | 8945.421 | 9321.060 | 375.637 | 4.199 |
| 1999 | 9070.840 | 9427.190 | 356.344 | 3.928 |
| 2000 | 9261.790 | 9581.030 | 319.246 | 3.447 |
| 2001 | 9329.610 | 9632.190 | 302.574 | 3.243 |
| 2002 | 9462.750 | 9749.050 | 286.297 | 3.026 |
| 2003 | 9599.870 | 9884.700 | 284.832 | 2.967 |
| 2004 | 9749.930 | 10035.950 | 286.023 | 2.934 |
| 2005 | 9908.360 | 10197.450 | 289.090 | 2.918 |
| 2006 | 10074.460 | 10367.200 | 292.738 | 2.906 |
| 2007 | 10248.010 | 10544.750 | 296.746 | 2.896 |
| 2008 | 10428.700 | 10729.610 | 300.918 | 2.885 |
| 2009 | 10604.090 | 10909.320 | 305.227 | 2.878 |
| 2010 | 10795.460 | 11105.090 | 309.633 | 2.868 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83L--CREATED 10/11/82

TABLE B.7.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

REAL PER CAPITA PERSONAL INCOME

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 15539.26 | 15539.26 | 0.00 | 0.00 |
| 1981 | 15789.14 | 15789.14 | 0.00 | 0.00 |
| 1982 | 16354.58 | 16354.58 | 0.00 | 0.00 |
| 1983 | 16497.91 | 16497.91 | 0.00 | 0.00 |
| 1984 | 16369.10 | 16369.10 | 0.00 | 0.00 |
| 1985 | 16434.42 | 16458.33 | 23.91 | 0.15 |
| 1986 | 17105.03 | 17136.42 | 31.39 | 0.18 |
| 1987 | 18789.32 | 18827.96 | 38.64 | 0.21 |
| 1988 | 20424.05 | 20470.95 | 46.90 | 0.23 |
| 1989 | 19267.11 | 19346.67 | 79.56 | 0.41 |
| 1990 | 17464.90 | 17547.67 | 82.77 | 0.47 |
| 1991 | 17165.08 | 17316.92 | 151.84 | 0.88 |
| 1992 | 16909.10 | 17182.57 | 273.46 | 1.62 |
| 1993 | 16927.52 | 17387.98 | 460.46 | 2.72 |
| 1994 | 16961.31 | 17369.43 | 408.12 | 2.41 |
| 1995 | 16837.07 | 17289.82 | 452.75 | 2.69 |
| 1996 | 16791.69 | 17183.15 | 391.46 | 2.33 |
| 1997 | 16668.90 | 17058.18 | 389.28 | 2.34 |
| 1998 | 16804.36 | 17167.71 | 363.34 | 2.16 |
| 1999 | 16875.38 | 17203.20 | 327.82 | 1.94 |
| 2000 | 17023.47 | 17293.64 | 270.17 | 1.59 |
| 2001 | 17046.08 | 17291.99 | 245.91 | 1.44 |
| 2002 | 17144.05 | 17363.92 | 219.87 | 1.28 |
| 2003 | 17245.21 | 17457.81 | 212.60 | 1.23 |
| 2004 | 17360.33 | 17567.74 | 207.41 | 1.19 |
| 2005 | 17484.06 | 17687.89 | 203.84 | 1.17 |
| 2006 | 17615.34 | 17815.91 | 200.57 | 1.14 |
| 2007 | 17753.74 | 17951.23 | 197.49 | 1.11 |
| 2008 | 17898.69 | 18092.97 | 194.28 | 1.09 |
| 2009 | 18033.79 | 18225.14 | 191.36 | 1.06 |
| 2010 | 18189.23 | 18377.25 | 188.03 | 1.03 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83L--CREATED 10/11/82

TABLE B.8.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

BASIC SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 27201.58 | 27201.58 | 0.00 | 0.00 |
| 1981 | 27253.51 | 27253.51 | 0.00 | 0.00 |
| 1982 | 28596.71 | 28596.71 | 0.00 | 0.00 |
| 1983 | 29226.08 | 29226.08 | 0.00 | 0.00 |
| 1984 | 28819.58 | 28819.58 | 0.00 | 0.00 |
| 1985 | 29281.75 | 29353.08 | 71.33 | 0.24 |
| 1986 | 32184.88 | 32206.96 | 22.09 | 0.07 |
| 1987 | 38377.82 | 38390.11 | 12.30 | 0.03 |
| 1988 | 43599.71 | 43603.67 | 3.96 | 0.01 |
| 1989 | 39702.80 | 39777.32 | 74.52 | 0.19 |
| 1990 | 32580.52 | 32719.56 | 139.04 | 0.43 |
| 1991 | 32014.25 | 32351.81 | 337.56 | 1.05 |
| 1992 | 31852.62 | 32509.00 | 656.38 | 2.06 |
| 1993 | 32165.57 | 33276.49 | 1110.92 | 3.45 |
| 1994 | 32375.26 | 33335.23 | 959.97 | 2.97 |
| 1995 | 32346.14 | 33477.75 | 1131.61 | 3.50 |
| 1996 | 32418.13 | 33446.27 | 1028.14 | 3.17 |
| 1997 | 32598.90 | 33701.35 | 1102.45 | 3.38 |
| 1998 | 32549.13 | 33605.89 | 1056.76 | 3.25 |
| 1999 | 32587.14 | 33568.72 | 981.58 | 3.01 |
| 2000 | 32758.00 | 33580.02 | 822.02 | 2.51 |
| 2001 | 33125.32 | 33911.49 | 786.17 | 2.37 |
| 2002 | 33423.47 | 34168.88 | 745.41 | 2.23 |
| 2003 | 33730.13 | 34491.35 | 761.21 | 2.26 |
| 2004 | 34047.55 | 34822.19 | 774.64 | 2.28 |
| 2005 | 34376.77 | 35163.08 | 786.31 | 2.29 |
| 2006 | 34713.44 | 35510.68 | 797.24 | 2.30 |
| 2007 | 35057.91 | 35865.76 | 807.86 | 2.30 |
| 2008 | 35409.80 | 36227.70 | 817.90 | 2.31 |
| 2009 | 35688.05 | 36519.33 | 831.29 | 2.33 |
| 2010 | 36069.95 | 36910.71 | 840.76 | 2.33 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83L--CREATED 10/11/88

TABLE B.9.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

SERVICES SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 22624.87 | 22624.87 | 0.00 | 0.00 |
| 1981 | 22465.76 | 22465.76 | 0.00 | 0.00 |
| 1982 | 22158.36 | 22158.36 | 0.00 | 0.00 |
| 1983 | 22355.64 | 22355.64 | 0.00 | 0.00 |
| 1984 | 22476.25 | 22476.25 | 0.00 | 0.00 |
| 1985 | 22645.47 | 22642.72 | -2.75 | -0.01 |
| 1986 | 23281.60 | 23305.51 | 23.91 | 0.10 |
| 1987 | 24791.66 | 24814.96 | 23.30 | 0.09 |
| 1988 | 26136.07 | 26151.87 | 15.79 | 0.06 |
| 1989 | 25216.85 | 25222.12 | 5.27 | 0.02 |
| 1990 | 23952.98 | 23963.74 | 10.76 | 0.04 |
| 1991 | 23527.14 | 23539.53 | 12.39 | 0.05 |
| 1992 | 23146.93 | 23147.37 | 0.44 | 0.00 |
| 1993 | 23263.69 | 23253.60 | -10.09 | -0.04 |
| 1994 | 23358.05 | 23347.25 | -10.80 | -0.05 |
| 1995 | 23516.07 | 23529.59 | 13.52 | 0.06 |
| 1996 | 23700.33 | 23711.67 | 11.34 | 0.05 |
| 1997 | 23757.03 | 23780.95 | 23.93 | 0.10 |
| 1998 | 23866.83 | 23887.63 | 20.80 | 0.09 |
| 1999 | 23945.29 | 23972.15 | 26.86 | 0.11 |
| 2000 | 24058.77 | 24091.37 | 32.61 | 0.14 |
| 2001 | 24000.35 | 24043.93 | 43.57 | 0.18 |
| 2002 | 24130.42 | 24172.75 | 42.33 | 0.18 |
| 2003 | 24236.32 | 24279.56 | 43.24 | 0.18 |
| 2004 | 24350.14 | 24391.88 | 41.74 | 0.17 |
| 2005 | 24463.09 | 24504.81 | 41.71 | 0.17 |
| 2006 | 24576.96 | 24618.57 | 41.60 | 0.17 |
| 2007 | 24691.34 | 24732.98 | 41.64 | 0.17 |
| 2008 | 24806.23 | 24847.88 | 41.65 | 0.17 |
| 2009 | 24922.65 | 24964.30 | 41.64 | 0.17 |
| 2010 | 25040.28 | 25081.89 | 41.61 | 0.17 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83L--CREATED 10/11/82

TABLE B.10.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

GOVERNMENT SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 23469.32 | 23469.32 | 0.00 | 0.00 |
| 1981 | 23665.52 | 23665.52 | 0.00 | 0.00 |
| 1982 | 24451.50 | 24451.50 | 0.00 | 0.00 |
| 1983 | 24813.00 | 24813.00 | 0.00 | 0.00 |
| 1984 | 25148.11 | 25148.11 | 0.00 | 0.00 |
| 1985 | 25508.86 | 25508.62 | -0.25 | -0.00 |
| 1986 | 25974.68 | 25974.21 | -0.47 | -0.00 |
| 1987 | 26573.26 | 26572.18 | -1.08 | -0.00 |
| 1988 | 27122.75 | 27120.89 | -1.86 | -0.01 |
| 1989 | 27304.00 | 27301.33 | -2.67 | -0.01 |
| 1990 | 27379.02 | 27376.98 | -2.05 | -0.01 |
| 1991 | 27763.93 | 27760.67 | -3.26 | -0.01 |
| 1992 | 28179.68 | 28173.55 | -6.13 | -0.02 |
| 1993 | 28612.79 | 28601.19 | -11.60 | -0.04 |
| 1994 | 29048.10 | 29031.39 | -16.71 | -0.06 |
| 1995 | 29490.98 | 29471.89 | -19.09 | -0.06 |
| 1996 | 29960.84 | 29939.31 | -21.53 | -0.07 |
| 1997 | 30433.24 | 30410.88 | -22.36 | -0.07 |
| 1998 | 30915.46 | 30891.12 | -24.34 | -0.08 |
| 1999 | 31399.30 | 31373.75 | -25.55 | -0.08 |
| 2000 | 31894.02 | 31868.14 | -25.89 | -0.08 |
| 2001 | 32398.59 | 32373.34 | -25.25 | -0.08 |
| 2002 | 32918.60 | 32893.00 | -25.60 | -0.08 |
| 2003 | 33446.18 | 33420.11 | -26.07 | -0.08 |
| 2004 | 33983.82 | 33956.36 | -27.46 | -0.08 |
| 2005 | 34531.57 | 34502.41 | -29.16 | -0.08 |
| 2006 | 35089.44 | 35058.45 | -30.99 | -0.09 |
| 2007 | 35657.73 | 35624.85 | -32.88 | -0.09 |
| 2008 | 36236.54 | 36201.64 | -34.90 | -0.10 |
| 2009 | 36826.35 | 36789.38 | -36.97 | -0.10 |
| 2010 | 37428.28 | 37389.19 | -39.09 | -0.10 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83L--CREATED 10/11/82

TABLE B.11.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

TOTAL REAL STATE GOVERNMENT REVENUES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2922.715 | 2922.715 | 0.000 | 0.000 |
| 1981 | 3893.178 | 3893.178 | 0.000 | 0.000 |
| 1982 | 4730.027 | 4730.027 | 0.000 | 0.000 |
| 1983 | 3659.045 | 3659.045 | 0.000 | 0.000 |
| 1984 | 3666.755 | 3666.755 | 0.000 | 0.000 |
| 1985 | 4196.351 | 4197.593 | 1.242 | 0.030 |
| 1986 | 4455.921 | 4458.914 | 2.992 | 0.067 |
| 1987 | 4758.718 | 4763.074 | 4.355 | 0.092 |
| 1988 | 4701.808 | 4707.855 | 6.047 | 0.129 |
| 1989 | 5099.402 | 5108.359 | 8.957 | 0.176 |
| 1990 | 4609.652 | 4619.562 | 9.910 | 0.215 |
| 1991 | 4387.226 | 4400.824 | 13.598 | 0.310 |
| 1992 | 4215.984 | 4237.734 | 21.750 | 0.516 |
| 1993 | 4136.718 | 4171.968 | 35.250 | 0.852 |
| 1994 | 3951.787 | 3995.426 | 43.639 | 1.104 |
| 1995 | 3801.949 | 3850.352 | 48.402 | 1.273 |
| 1996 | 3851.055 | 3914.756 | 63.701 | 1.654 |
| 1997 | 3775.547 | 3839.019 | 63.471 | 1.681 |
| 1998 | 3703.297 | 3768.707 | 65.410 | 1.766 |
| 1999 | 3591.435 | 3657.656 | 66.222 | 1.844 |
| 2000 | 3482.177 | 3547.651 | 65.474 | 1.880 |
| 2001 | 3356.313 | 3420.679 | 64.366 | 1.918 |
| 2002 | 3260.732 | 3325.274 | 64.542 | 1.979 |
| 2003 | 3170.253 | 3235.664 | 65.410 | 2.063 |
| 2004 | 3053.408 | 3120.716 | 67.308 | 2.204 |
| 2005 | 2991.311 | 3060.923 | 69.612 | 2.327 |
| 2006 | 2935.669 | 3007.785 | 72.116 | 2.457 |
| 2007 | 2885.704 | 2960.433 | 74.729 | 2.590 |
| 2008 | 2840.818 | 2918.244 | 77.426 | 2.725 |
| 2009 | 2800.101 | 2880.287 | 80.186 | 2.864 |
| 2010 | 2762.889 | 2845.898 | 83.010 | 3.004 |

SOURCE: MAP MODEL SIMULATIONS SBASES3N AND DCS.S3L--CREATED 10/11/82

TABLE B.12.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

TOTAL REAL STATE GOVERNMENT EXPENDITURES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2005.519 | 2005.519 | 0.000 | 0.000 |
| 1981 | 2960.817 | 2960.817 | 0.000 | 0.000 |
| 1982 | 3651.551 | 3651.551 | 0.000 | 0.000 |
| 1983 | 3403.064 | 3403.064 | 0.000 | 0.000 |
| 1984 | 3414.833 | 3414.833 | 0.000 | 0.000 |
| 1985 | 3440.812 | 3441.589 | 0.777 | 0.023 |
| 1986 | 3466.836 | 3468.328 | 1.492 | 0.043 |
| 1987 | 3484.240 | 3486.319 | 2.079 | 0.060 |
| 1988 | 3491.066 | 3493.923 | 2.857 | 0.082 |
| 1989 | 3479.157 | 3483.358 | 4.200 | 0.121 |
| 1990 | 3476.221 | 3480.857 | 4.636 | 0.133 |
| 1991 | 3493.268 | 3500.287 | 7.018 | 0.201 |
| 1992 | 3512.592 | 3524.228 | 11.636 | 0.331 |
| 1993 | 3534.157 | 3553.254 | 19.097 | 0.540 |
| 1994 | 3557.588 | 3577.041 | 19.453 | 0.547 |
| 1995 | 3371.354 | 3389.440 | 18.086 | 0.536 |
| 1996 | 3216.832 | 3232.378 | 15.546 | 0.483 |
| 1997 | 3084.819 | 3098.850 | 14.031 | 0.455 |
| 1998 | 2980.318 | 2992.814 | 12.496 | 0.419 |
| 1999 | 2891.114 | 2902.199 | 11.085 | 0.383 |
| 2000 | 2817.548 | 2827.120 | 9.572 | 0.340 |
| 2001 | 2754.956 | 2763.488 | 8.531 | 0.310 |
| 2002 | 2701.743 | 2709.374 | 7.630 | 0.282 |
| 2003 | 2657.634 | 2664.668 | 7.034 | 0.265 |
| 2004 | 2620.714 | 2627.290 | 6.576 | 0.251 |
| 2005 | 2590.493 | 2596.713 | 6.220 | 0.240 |
| 2006 | 2565.985 | 2571.913 | 5.928 | 0.231 |
| 2007 | 2546.362 | 2552.049 | 5.687 | 0.223 |
| 2008 | 2530.923 | 2536.409 | 5.486 | 0.217 |
| 2009 | 2518.975 | 2524.294 | 5.319 | 0.211 |
| 2010 | 2510.156 | 2515.336 | 5.180 | 0.206 |

SOURCE: MAP MODEL SIMULATIONS SBASES3N AND DCS.83L--CREATED 10/11/82

TABLE B.13.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6 BBBL CASE

REAL PER CAPITA STATE GOVERNMENT EXPENDITURES

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2005.52 | 2005.52 | 0.00 | 0.00 |
| 1981 | 2960.82 | 2960.82 | 0.00 | 0.00 |
| 1982 | 3651.55 | 3651.55 | 0.00 | 0.00 |
| 1983 | 3403.06 | 3403.06 | 0.00 | 0.00 |
| 1984 | 3414.83 | 3414.83 | 0.00 | 0.00 |
| 1985 | 3440.81 | 3441.59 | 0.78 | 0.02 |
| 1986 | 3466.84 | 3468.33 | 1.49 | 0.04 |
| 1987 | 3484.24 | 3486.32 | 2.08 | 0.06 |
| 1988 | 3491.07 | 3493.92 | 2.86 | 0.08 |
| 1989 | 3479.16 | 3483.36 | 4.20 | 0.12 |
| 1990 | 3476.22 | 3480.86 | 4.64 | 0.13 |
| 1991 | 3493.27 | 3500.29 | 7.02 | 0.20 |
| 1992 | 3512.59 | 3524.23 | 11.64 | 0.33 |
| 1993 | 3534.16 | 3553.25 | 19.10 | 0.54 |
| 1994 | 3557.59 | 3577.04 | 19.45 | 0.55 |
| 1995 | 3371.35 | 3389.44 | 18.09 | 0.54 |
| 1996 | 3216.83 | 3232.38 | 15.55 | 0.48 |
| 1997 | 3084.82 | 3098.85 | 14.03 | 0.45 |
| 1998 | 2980.32 | 2992.81 | 12.50 | 0.42 |
| 1999 | 2891.11 | 2902.20 | 11.08 | 0.38 |
| 2000 | 2817.55 | 2827.12 | 9.57 | 0.34 |
| 2001 | 2754.96 | 2763.49 | 8.53 | 0.31 |
| 2002 | 2701.74 | 2709.37 | 7.63 | 0.28 |
| 2003 | 2657.63 | 2664.67 | 7.03 | 0.26 |
| 2004 | 2620.71 | 2627.29 | 6.58 | 0.25 |
| 2005 | 2590.49 | 2596.71 | 6.22 | 0.24 |
| 2006 | 2565.99 | 2571.91 | 5.93 | 0.23 |
| 2007 | 2546.36 | 2552.05 | 5.69 | 0.22 |
| 2008 | 2530.92 | 2536.41 | 5.49 | 0.22 |
| 2009 | 2518.98 | 2524.29 | 5.32 | 0.21 |
| 2010 | 2510.16 | 2515.34 | 5.18 | 0.21 |

SOURCE: MAP MODEL SIMULATIONS SBASE83M AND DCS.83L--CREATED 10/11/82

TABLE B.14.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6BBL CASE

REAL COMBINED FUNDS BALANCE

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2420.861 | 2420.861 | 0.000 | 0.000 |
| 1981 | 3475.185 | 3475.185 | 0.000 | 0.000 |
| 1982 | 4687.683 | 4687.683 | 0.000 | 0.000 |
| 1983 | 5023.308 | 5023.308 | 0.000 | 0.000 |
| 1984 | 5346.121 | 5346.121 | 0.000 | 0.000 |
| 1985 | 6173.585 | 6174.679 | 1.094 | 0.018 |
| 1986 | 7162.925 | 7166.148 | 3.223 | 0.045 |
| 1987 | 8322.921 | 8328.925 | 6.004 | 0.072 |
| 1988 | 9287.470 | 9297.340 | 9.875 | 0.106 |
| 1989 | 10606.470 | 10622.300 | 15.836 | 0.149 |
| 1990 | 11405.320 | 11426.140 | 20.820 | 0.183 |
| 1991 | 11936.670 | 11966.390 | 29.715 | 0.249 |
| 1992 | 12242.040 | 12287.340 | 45.301 | 0.370 |
| 1993 | 12435.020 | 12505.720 | 70.695 | 0.569 |
| 1994 | 12411.750 | 12502.410 | 90.668 | 0.731 |
| 1995 | 12377.870 | 12495.980 | 118.102 | 0.954 |
| 1996 | 12527.430 | 12683.550 | 156.117 | 1.246 |
| 1997 | 12694.560 | 12889.700 | 195.145 | 1.537 |
| 1998 | 12885.500 | 13119.510 | 234.004 | 1.816 |
| 1999 | 13020.160 | 13292.020 | 271.859 | 2.088 |
| 2000 | 13101.740 | 13408.290 | 306.551 | 2.340 |
| 2001 | 13092.980 | 13432.830 | 339.852 | 2.596 |
| 2002 | 13039.120 | 13411.190 | 372.070 | 2.853 |
| 2003 | 12936.290 | 13340.740 | 404.449 | 3.126 |
| 2004 | 12756.220 | 13193.440 | 437.227 | 3.428 |
| 2005 | 12553.100 | 13023.680 | 470.582 | 3.749 |
| 2006 | 12330.200 | 12834.660 | 504.461 | 4.091 |
| 2007 | 12090.410 | 12629.320 | 538.906 | 4.457 |
| 2008 | 11836.460 | 12410.330 | 573.879 | 4.848 |
| 2009 | 11570.050 | 12179.420 | 609.375 | 5.267 |
| 2010 | 11293.500 | 11938.870 | 645.375 | 5.715 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83L--CREATED 10/11/83

TABLE B.15.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

.6BBL CASE

REAL PER CAPITA COMBINED FUNDS BALANCE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6021.18 | 6021.18 | 0.00 | 0.00 |
| 1981 | 8375.67 | 8375.67 | 0.00 | 0.00 |
| 1982 | 10826.41 | 10826.41 | 0.00 | 0.00 |
| 1983 | 11351.25 | 11351.25 | 0.00 | 0.00 |
| 1984 | 11923.44 | 11923.44 | 0.00 | 0.00 |
| 1985 | 13563.12 | 13554.64 | -8.49 | -0.06 |
| 1986 | 15332.82 | 15316.71 | -16.11 | -0.11 |
| 1987 | 17036.60 | 17015.31 | -21.29 | -0.12 |
| 1988 | 18129.83 | 18103.05 | -26.79 | -0.15 |
| 1989 | 20596.14 | 20549.13 | -47.01 | -0.23 |
| 1990 | 22415.82 | 22361.49 | -54.33 | -0.24 |
| 1991 | 23338.50 | 23242.52 | -95.97 | -0.41 |
| 1992 | 23842.30 | 23665.69 | -176.62 | -0.74 |
| 1993 | 24003.33 | 23702.12 | -301.20 | -1.25 |
| 1994 | 23714.42 | 23445.14 | -269.28 | -1.14 |
| 1995 | 23626.26 | 23364.44 | -261.82 | -1.11 |
| 1996 | 23830.69 | 23659.72 | -170.96 | -0.72 |
| 1997 | 24142.43 | 24030.37 | -112.06 | -0.46 |
| 1998 | 24205.99 | 24163.77 | -42.21 | -0.17 |
| 1999 | 24222.70 | 24255.96 | 33.26 | 0.14 |
| 2000 | 24081.45 | 24201.81 | 120.36 | 0.50 |
| 2001 | 23922.12 | 24115.03 | 192.91 | 0.81 |
| 2002 | 23623.52 | 23886.54 | 263.02 | 1.11 |
| 2003 | 23238.76 | 23561.67 | 322.91 | 1.39 |
| 2004 | 22713.22 | 23094.89 | 381.66 | 1.68 |
| 2005 | 22150.92 | 22590.13 | 439.20 | 1.98 |
| 2006 | 21559.53 | 22056.21 | 496.68 | 2.30 |
| 2007 | 20945.53 | 21499.96 | 554.43 | 2.65 |
| 2008 | 20314.83 | 20927.12 | 612.29 | 3.01 |
| 2009 | 19676.53 | 20346.98 | 670.45 | 3.41 |
| 2010 | 19028.37 | 19757.03 | 728.67 | 3.83 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83L--CREATED 10/11/82

TABLE B.16.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

TOTAL POPULATION

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 402.057 | 402.057 | 0.000 | 0.000 |
| 1981 | 414.914 | 414.914 | 0.000 | 0.000 |
| 1982 | 432.986 | 432.986 | 0.000 | 0.000 |
| 1983 | 442.533 | 442.533 | 0.000 | 0.000 |
| 1984 | 448.370 | 448.370 | 0.000 | 0.000 |
| 1985 | 455.174 | 455.540 | 0.366 | 0.080 |
| 1986 | 467.163 | 467.967 | 0.804 | 0.172 |
| 1987 | 488.532 | 490.057 | 1.525 | 0.312 |
| 1988 | 512.275 | 514.221 | 1.946 | 0.380 |
| 1989 | 514.974 | 517.647 | 2.673 | 0.519 |
| 1990 | 508.807 | 511.207 | 2.400 | 0.472 |
| 1991 | 511.458 | 514.918 | 3.459 | 0.676 |
| 1992 | 513.459 | 525.005 | 11.546 | 2.249 |
| 1993 | 518.054 | 534.906 | 16.852 | 3.253 |
| 1994 | 523.384 | 538.744 | 15.360 | 2.935 |
| 1995 | 523.903 | 539.272 | 15.369 | 2.934 |
| 1996 | 525.685 | 540.980 | 15.295 | 2.910 |
| 1997 | 525.819 | 541.499 | 15.679 | 2.982 |
| 1998 | 532.327 | 548.081 | 15.754 | 2.959 |
| 1999 | 537.519 | 553.064 | 15.545 | 2.892 |
| 2000 | 544.060 | 558.957 | 14.898 | 2.738 |
| 2001 | 547.317 | 561.554 | 14.237 | 2.601 |
| 2002 | 551.955 | 565.875 | 13.920 | 2.522 |
| 2003 | 556.669 | 570.605 | 13.936 | 2.503 |
| 2004 | 561.621 | 575.715 | 14.094 | 2.510 |
| 2005 | 566.708 | 581.027 | 14.319 | 2.527 |
| 2006 | 571.914 | 586.485 | 14.571 | 2.548 |
| 2007 | 577.231 | 592.067 | 14.836 | 2.570 |
| 2008 | 582.651 | 597.762 | 15.111 | 2.594 |
| 2009 | 588.012 | 603.406 | 15.393 | 2.618 |
| 2010 | 593.509 | 609.189 | 15.680 | 2.642 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/82

TABLE B.17.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

BASIC SECTOR EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 46.048 | 46.048 | 0.000 | 0.000 |
| 1981 | 48.409 | 48.409 | 0.000 | 0.000 |
| 1982 | 52.733 | 52.733 | 0.000 | 0.000 |
| 1983 | 53.327 | 53.327 | 0.000 | 0.000 |
| 1984 | 52.380 | 52.380 | 0.000 | 0.000 |
| 1985 | 53.015 | 53.274 | 0.259 | 0.488 |
| 1986 | 56.660 | 56.878 | 0.219 | 0.386 |
| 1987 | 64.528 | 65.045 | 0.517 | 0.800 |
| 1988 | 71.854 | 72.463 | 0.610 | 0.848 |
| 1989 | 66.829 | 67.786 | 0.957 | 1.432 |
| 1990 | 59.252 | 59.889 | 0.637 | 1.075 |
| 1991 | 59.961 | 61.292 | 1.331 | 2.220 |
| 1992 | 60.117 | 66.790 | 6.672 | 11.098 |
| 1993 | 60.496 | 68.789 | 8.293 | 13.708 |
| 1994 | 60.881 | 66.077 | 5.197 | 8.536 |
| 1995 | 59.881 | 64.964 | 5.083 | 8.488 |
| 1996 | 59.834 | 64.811 | 4.977 | 8.318 |
| 1997 | 57.736 | 62.728 | 4.992 | 8.646 |
| 1998 | 60.345 | 65.095 | 4.750 | 7.872 |
| 1999 | 61.019 | 65.397 | 4.378 | 7.175 |
| 2000 | 62.484 | 66.302 | 3.818 | 6.111 |
| 2001 | 62.611 | 65.975 | 3.364 | 5.373 |
| 2002 | 62.734 | 65.920 | 3.186 | 5.079 |
| 2003 | 62.896 | 66.063 | 3.167 | 5.036 |
| 2004 | 63.119 | 66.284 | 3.165 | 5.015 |
| 2005 | 63.389 | 66.561 | 3.172 | 5.004 |
| 2006 | 63.695 | 66.877 | 3.181 | 4.994 |
| 2007 | 64.038 | 67.231 | 3.192 | 4.985 |
| 2008 | 64.411 | 67.616 | 3.205 | 4.975 |
| 2009 | 64.724 | 67.941 | 3.217 | 4.970 |
| 2010 | 65.097 | 68.328 | 3.230 | 4.962 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83R--CREATED 10/11/82

TABLE B.18.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

SERVICES SECTOR EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 79.812 | 79.812 | 0.000 | 0.000 |
| 1981 | 81.714 | 81.714 | 0.000 | 0.000 |
| 1982 | 86.641 | 86.641 | 0.000 | 0.000 |
| 1983 | 90.060 | 90.060 | 0.000 | 0.000 |
| 1984 | 91.951 | 91.951 | 0.000 | 0.000 |
| 1985 | 93.617 | 93.734 | 0.417 | 0.125 |
| 1986 | 97.298 | 97.848 | 0.551 | 0.566 |
| 1987 | 105.326 | 106.251 | 0.925 | 0.878 |
| 1988 | 114.964 | 116.114 | 1.151 | 1.001 |
| 1989 | 115.800 | 117.240 | 1.440 | 1.244 |
| 1990 | 113.160 | 114.472 | 1.313 | 1.160 |
| 1991 | 112.063 | 113.762 | 1.700 | 1.517 |
| 1992 | 109.831 | 114.321 | 4.490 | 4.088 |
| 1993 | 110.354 | 117.353 | 7.000 | 6.343 |
| 1994 | 111.365 | 118.816 | 7.451 | 6.691 |
| 1995 | 108.826 | 116.162 | 7.336 | 6.741 |
| 1996 | 108.199 | 115.131 | 6.932 | 6.407 |
| 1997 | 107.122 | 113.993 | 6.871 | 6.414 |
| 1998 | 108.322 | 115.066 | 6.745 | 6.226 |
| 1999 | 109.573 | 116.097 | 6.524 | 5.954 |
| 2000 | 111.566 | 117.675 | 6.109 | 5.475 |
| 2001 | 111.332 | 116.997 | 5.665 | 5.088 |
| 2002 | 112.871 | 118.213 | 5.341 | 4.732 |
| 2003 | 114.367 | 119.555 | 5.187 | 4.536 |
| 2004 | 116.078 | 121.218 | 5.140 | 4.428 |
| 2005 | 117.888 | 123.037 | 5.149 | 4.368 |
| 2006 | 119.798 | 124.975 | 5.178 | 4.322 |
| 2007 | 121.797 | 127.012 | 5.215 | 4.282 |
| 2008 | 123.881 | 129.137 | 5.256 | 4.243 |
| 2009 | 125.975 | 131.274 | 5.299 | 4.206 |
| 2010 | 128.183 | 133.528 | 5.345 | 4.170 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/83

TABLE B.19.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

GOVERNMENT EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 78.589 | 78.589 | 0.000 | 0.000 |
| 1981 | 83.071 | 83.071 | 0.000 | 0.000 |
| 1982 | 87.755 | 87.755 | 0.000 | 0.000 |
| 1983 | 88.312 | 88.312 | 0.000 | 0.000 |
| 1984 | 88.379 | 88.379 | 0.000 | 0.000 |
| 1985 | 88.153 | 88.156 | 0.003 | 0.004 |
| 1986 | 87.586 | 87.635 | 0.049 | 0.056 |
| 1987 | 86.863 | 86.956 | 0.092 | 0.106 |
| 1988 | 87.343 | 87.515 | 0.172 | 0.197 |
| 1989 | 89.758 | 89.974 | 0.216 | 0.240 |
| 1990 | 90.083 | 90.356 | 0.273 | 0.303 |
| 1991 | 88.371 | 88.587 | 0.216 | 0.245 |
| 1992 | 87.800 | 88.190 | 0.391 | 0.445 |
| 1993 | 87.191 | 88.486 | 1.296 | 1.486 |
| 1994 | 87.017 | 88.707 | 1.690 | 1.942 |
| 1995 | 86.884 | 88.250 | 1.365 | 1.572 |
| 1996 | 85.569 | 86.848 | 1.279 | 1.495 |
| 1997 | 85.229 | 86.470 | 1.240 | 1.455 |
| 1998 | 84.796 | 86.025 | 1.229 | 1.450 |
| 1999 | 84.835 | 86.011 | 1.176 | 1.386 |
| 2000 | 84.771 | 85.865 | 1.094 | 1.291 |
| 2001 | 84.812 | 85.787 | 0.975 | 1.150 |
| 2002 | 84.630 | 85.502 | 0.873 | 1.031 |
| 2003 | 84.573 | 85.393 | 0.821 | 0.970 |
| 2004 | 84.527 | 85.331 | 0.804 | 0.951 |
| 2005 | 84.506 | 85.303 | 0.797 | 0.943 |
| 2006 | 84.502 | 85.297 | 0.795 | 0.941 |
| 2007 | 84.512 | 85.307 | 0.795 | 0.940 |
| 2008 | 84.534 | 85.329 | 0.795 | 0.941 |
| 2009 | 84.567 | 85.363 | 0.796 | 0.941 |
| 2010 | 84.589 | 85.385 | 0.797 | 0.942 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/82

TABLE B.20.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

TOTAL EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 204.449 | 204.449 | 0.000 | 0.000 |
| 1981 | 213.195 | 213.195 | 0.000 | 0.000 |
| 1982 | 227.129 | 227.129 | 0.000 | 0.000 |
| 1983 | 231.699 | 231.699 | 0.000 | 0.000 |
| 1984 | 232.710 | 232.710 | 0.000 | 0.000 |
| 1985 | 234.784 | 235.164 | 0.379 | 0.162 |
| 1986 | 241.543 | 242.362 | 0.819 | 0.339 |
| 1987 | 256.718 | 258.252 | 1.534 | 0.597 |
| 1988 | 274.161 | 276.093 | 1.933 | 0.705 |
| 1989 | 272.387 | 275.000 | 2.613 | 0.959 |
| 1990 | 262.494 | 264.717 | 2.222 | 0.847 |
| 1991 | 260.395 | 263.642 | 3.247 | 1.247 |
| 1992 | 257.748 | 269.301 | 11.552 | 4.482 |
| 1993 | 258.040 | 274.628 | 16.588 | 6.428 |
| 1994 | 259.263 | 273.600 | 14.337 | 5.530 |
| 1995 | 255.591 | 269.376 | 13.784 | 5.393 |
| 1996 | 253.602 | 266.790 | 13.188 | 5.200 |
| 1997 | 250.087 | 263.191 | 13.104 | 5.240 |
| 1998 | 253.462 | 266.186 | 12.724 | 5.020 |
| 1999 | 255.428 | 267.506 | 12.078 | 4.728 |
| 2000 | 258.821 | 269.842 | 11.021 | 4.258 |
| 2001 | 258.755 | 268.759 | 10.004 | 3.866 |
| 2002 | 260.235 | 269.635 | 9.400 | 3.612 |
| 2003 | 261.836 | 271.011 | 9.175 | 3.504 |
| 2004 | 263.724 | 272.833 | 9.109 | 3.454 |
| 2005 | 265.783 | 274.901 | 9.118 | 3.431 |
| 2006 | 267.995 | 277.149 | 9.154 | 3.416 |
| 2007 | 270.347 | 279.549 | 9.202 | 3.404 |
| 2008 | 272.826 | 282.082 | 9.256 | 3.393 |
| 2009 | 275.266 | 284.578 | 9.312 | 3.383 |
| 2010 | 277.869 | 287.241 | 9.372 | 3.373 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/83

TABLE B.21.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

REAL PERSONAL INCOME

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6247.679 | 6247.679 | 0.000 | 0.000 |
| 1981 | 6551.144 | 6551.144 | 0.000 | 0.000 |
| 1982 | 7081.304 | 7081.304 | 0.000 | 0.000 |
| 1983 | 7300.878 | 7300.878 | 0.000 | 0.000 |
| 1984 | 7339.421 | 7339.421 | 0.000 | 0.000 |
| 1985 | 7480.527 | 7497.429 | 16.902 | 0.226 |
| 1986 | 7990.835 | 8022.390 | 31.555 | 0.395 |
| 1987 | 9179.180 | 9243.130 | 63.941 | 0.697 |
| 1988 | 10462.730 | 10540.050 | 77.320 | 0.739 |
| 1989 | 9922.060 | 10028.770 | 106.711 | 1.075 |
| 1990 | 8886.261 | 8968.636 | 82.375 | 0.927 |
| 1991 | 8779.230 | 8912.386 | 133.156 | 1.517 |
| 1992 | 8682.132 | 9196.670 | 514.539 | 5.926 |
| 1993 | 8769.375 | 9475.610 | 706.238 | 8.053 |
| 1994 | 8877.281 | 9452.890 | 575.605 | 6.484 |
| 1995 | 8821.000 | 9396.020 | 575.016 | 6.519 |
| 1996 | 8827.140 | 9390.090 | 562.953 | 6.378 |
| 1997 | 8764.835 | 9332.120 | 567.285 | 6.472 |
| 1998 | 8945.421 | 9497.050 | 551.625 | 6.167 |
| 1999 | 9070.840 | 9594.530 | 523.684 | 5.773 |
| 2000 | 9261.790 | 9737.190 | 475.406 | 5.133 |
| 2001 | 9329.610 | 9762.020 | 432.410 | 4.635 |
| 2002 | 9462.750 | 9874.530 | 411.777 | 4.352 |
| 2003 | 9599.870 | 10008.180 | 408.305 | 4.253 |
| 2004 | 9749.930 | 10159.890 | 409.965 | 4.205 |
| 2005 | 9908.360 | 10322.540 | 414.184 | 4.180 |
| 2006 | 10074.460 | 10493.780 | 419.320 | 4.162 |
| 2007 | 10248.010 | 10672.980 | 424.977 | 4.147 |
| 2008 | 10428.700 | 10859.570 | 430.883 | 4.132 |
| 2009 | 10604.090 | 11041.110 | 437.020 | 4.121 |
| 2010 | 10795.460 | 11238.590 | 443.129 | 4.105 |



SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83R--CREATED 10/11/82

TABLE B.22.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

REAL PER CAPITA PERSONAL INCOME

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 15539.26 | 15539.26 | 0.00 | 0.00 |
| 1981 | 15789.14 | 15789.14 | 0.00 | 0.00 |
| 1982 | 16354.58 | 16354.58 | 0.00 | 0.00 |
| 1983 | 16497.91 | 16497.91 | 0.00 | 0.00 |
| 1984 | 16369.10 | 16369.10 | 0.00 | 0.00 |
| 1985 | 16434.42 | 16458.33 | 23.91 | 0.15 |
| 1986 | 17105.03 | 17143.06 | 38.02 | 0.22 |
| 1987 | 18789.32 | 18861.32 | 72.00 | 0.38 |
| 1988 | 20424.05 | 20497.13 | 73.09 | 0.36 |
| 1989 | 19267.11 | 19373.75 | 106.64 | 0.55 |
| 1990 | 17464.90 | 17544.04 | 79.14 | 0.45 |
| 1991 | 17165.08 | 17308.35 | 143.27 | 0.83 |
| 1992 | 16909.10 | 17517.31 | 608.20 | 3.60 |
| 1993 | 16927.52 | 17714.52 | 787.00 | 4.65 |
| 1994 | 16961.31 | 17546.15 | 584.84 | 3.45 |
| 1995 | 16837.07 | 17423.50 | 586.43 | 3.48 |
| 1996 | 16791.69 | 17357.55 | 565.86 | 3.37 |
| 1997 | 16668.90 | 17233.87 | 564.97 | 3.39 |
| 1998 | 16804.36 | 17327.80 | 523.44 | 3.11 |
| 1999 | 16875.38 | 17347.95 | 472.57 | 2.80 |
| 2000 | 17023.47 | 17420.27 | 396.80 | 2.33 |
| 2001 | 17046.08 | 17383.93 | 337.84 | 1.98 |
| 2002 | 17144.05 | 17450.00 | 305.95 | 1.78 |
| 2003 | 17245.21 | 17539.58 | 294.38 | 1.71 |
| 2004 | 17360.33 | 17647.43 | 287.10 | 1.65 |
| 2005 | 17484.06 | 17766.03 | 281.97 | 1.61 |
| 2006 | 17615.34 | 17892.68 | 277.34 | 1.57 |
| 2007 | 17753.74 | 18026.64 | 272.91 | 1.54 |
| 2008 | 17898.69 | 18167.05 | 268.36 | 1.50 |
| 2009 | 18033.79 | 18297.99 | 264.20 | 1.47 |
| 2010 | 18189.23 | 18448.44 | 259.22 | 1.43 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/82

TABLE B.23.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

BASIC SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 27201.58 | 27201.58 | 0.00 | 0.00 |
| 1981 | 27253.51 | 27253.51 | 0.00 | 0.00 |
| 1982 | 28596.71 | 28596.71 | 0.00 | 0.00 |
| 1983 | 29226.08 | 29226.08 | 0.00 | 0.00 |
| 1984 | 28819.58 | 28819.58 | 0.00 | 0.00 |
| 1985 | 29281.75 | 29353.08 | 71.33 | 0.24 |
| 1986 | 32184.88 | 32223.34 | 38.46 | 0.12 |
| 1987 | 38377.82 | 38447.76 | 69.95 | 0.18 |
| 1988 | 43599.71 | 43625.61 | 25.90 | 0.06 |
| 1989 | 39702.80 | 39807.37 | 104.57 | 0.26 |
| 1990 | 32580.52 | 32694.79 | 114.27 | 0.35 |
| 1991 | 32014.25 | 32317.00 | 302.75 | 0.95 |
| 1992 | 31852.62 | 33321.14 | 1468.52 | 4.61 |
| 1993 | 32165.57 | 33919.58 | 1754.02 | 5.45 |
| 1994 | 32375.26 | 33600.41 | 1225.14 | 3.78 |
| 1995 | 32346.14 | 33731.40 | 1385.26 | 4.28 |
| 1996 | 32418.13 | 33890.55 | 1472.42 | 4.54 |
| 1997 | 32598.90 | 34175.64 | 1576.75 | 4.84 |
| 1998 | 32549.13 | 34029.69 | 1480.56 | 4.55 |
| 1999 | 32587.14 | 33964.40 | 1377.26 | 4.23 |
| 2000 | 32758.00 | 33937.73 | 1179.73 | 3.60 |
| 2001 | 33125.32 | 34166.19 | 1040.88 | 3.14 |
| 2002 | 33423.47 | 34433.25 | 1009.77 | 3.02 |
| 2003 | 33730.13 | 34762.19 | 1032.05 | 3.06 |
| 2004 | 34047.55 | 35097.82 | 1050.27 | 3.08 |
| 2005 | 34376.77 | 35443.08 | 1066.32 | 3.10 |
| 2006 | 34713.44 | 35794.92 | 1081.48 | 3.12 |
| 2007 | 35057.91 | 36153.64 | 1095.74 | 3.13 |
| 2008 | 35409.80 | 36519.04 | 1109.25 | 3.13 |
| 2009 | 35688.05 | 36815.74 | 1127.69 | 3.16 |
| 2010 | 36069.95 | 37210.53 | 1140.58 | 3.16 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/82

TABLE B.24.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

SERVICES SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 22624.87 | 22624.87 | 0.00 | 0.00 |
| 1981 | 22465.76 | 22465.76 | 0.00 | 0.00 |
| 1982 | 22158.36 | 22158.36 | 0.00 | 0.00 |
| 1983 | 22355.64 | 22355.64 | 0.00 | 0.00 |
| 1984 | 22476.25 | 22476.25 | 0.00 | 0.00 |
| 1985 | 22645.47 | 22642.72 | -2.75 | -0.01 |
| 1986 | 23281.60 | 23306.69 | 25.10 | 0.11 |
| 1987 | 24791.66 | 24817.43 | 25.77 | 0.10 |
| 1988 | 26136.07 | 26145.14 | 9.07 | 0.03 |
| 1989 | 25216.85 | 25218.55 | 1.70 | 0.01 |
| 1990 | 23952.98 | 23958.66 | 5.68 | 0.02 |
| 1991 | 23527.14 | 23545.92 | 18.79 | 0.08 |
| 1992 | 23146.93 | 23129.97 | -16.96 | -0.07 |
| 1993 | 23263.69 | 23206.58 | -57.11 | -0.25 |
| 1994 | 23358.05 | 23359.27 | 1.22 | 0.01 |
| 1995 | 23516.07 | 23564.41 | 48.34 | 0.21 |
| 1996 | 23700.33 | 23735.82 | 35.49 | 0.15 |
| 1997 | 23757.03 | 23797.21 | 40.18 | 0.17 |
| 1998 | 23866.83 | 23908.57 | 41.74 | 0.17 |
| 1999 | 23945.29 | 23996.48 | 51.20 | 0.21 |
| 2000 | 24058.77 | 24117.40 | 58.63 | 0.24 |
| 2001 | 24000.35 | 24076.49 | 76.14 | 0.32 |
| 2002 | 24130.42 | 24207.63 | 77.21 | 0.32 |
| 2003 | 24236.32 | 24312.41 | 76.09 | 0.31 |
| 2004 | 24350.14 | 24424.68 | 74.54 | 0.31 |
| 2005 | 24463.09 | 24537.42 | 74.33 | 0.30 |
| 2006 | 24576.96 | 24651.18 | 74.22 | 0.30 |
| 2007 | 24691.34 | 24765.59 | 74.25 | 0.30 |
| 2008 | 24806.23 | 24880.48 | 74.25 | 0.30 |
| 2009 | 24922.65 | 24996.91 | 74.26 | 0.30 |
| 2010 | 25040.28 | 25114.46 | 74.18 | 0.30 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/83

TABLE B.25.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

GOVERNMENT SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 23469.32 | 23469.32 | 0.00 | 0.00 |
| 1981 | 23665.52 | 23665.52 | 0.00 | 0.00 |
| 1982 | 24451.50 | 24451.50 | 0.00 | 0.00 |
| 1983 | 24813.00 | 24813.00 | 0.00 | 0.00 |
| 1984 | 25148.11 | 25148.11 | 0.00 | 0.00 |
| 1985 | 25508.86 | 25508.62 | -0.25 | -0.00 |
| 1986 | 25974.68 | 25974.10 | -0.58 | -0.00 |
| 1987 | 26573.26 | 26571.19 | -2.07 | -0.01 |
| 1988 | 27122.75 | 27120.33 | -2.43 | -0.01 |
| 1989 | 27304.00 | 27300.50 | -3.51 | -0.01 |
| 1990 | 27379.02 | 27376.70 | -2.32 | -0.01 |
| 1991 | 27763.93 | 27760.57 | -3.36 | -0.01 |
| 1992 | 28179.68 | 28169.41 | -10.27 | -0.04 |
| 1993 | 28612.79 | 28590.93 | -21.86 | -0.08 |
| 1994 | 29048.10 | 29020.47 | -27.64 | -0.10 |
| 1995 | 29490.98 | 29463.28 | -27.70 | -0.09 |
| 1996 | 29960.84 | 29930.96 | -29.88 | -0.10 |
| 1997 | 30433.24 | 30400.58 | -32.65 | -0.11 |
| 1998 | 30915.46 | 30879.71 | -35.75 | -0.12 |
| 1999 | 31399.30 | 31361.82 | -37.47 | -0.12 |
| 2000 | 31894.02 | 31855.95 | -38.07 | -0.12 |
| 2001 | 32398.59 | 32361.33 | -37.27 | -0.12 |
| 2002 | 32918.60 | 32881.92 | -36.68 | -0.11 |
| 2003 | 33446.18 | 33408.75 | -37.44 | -0.11 |
| 2004 | 33983.82 | 33944.40 | -39.42 | -0.12 |
| 2005 | 34531.57 | 34489.80 | -41.77 | -0.12 |
| 2006 | 35089.44 | 35045.08 | -44.36 | -0.13 |
| 2007 | 35657.73 | 35610.67 | -47.05 | -0.13 |
| 2008 | 36236.54 | 36186.65 | -49.89 | -0.14 |
| 2009 | 36826.35 | 36773.46 | -52.89 | -0.14 |
| 2010 | 37428.28 | 37372.41 | -55.87 | -0.15 |



SOURCE: MAP MODEL SIMULATIONS 3BASE33N AND DCS.83R--CREATED 10/11/92

TABLE B.26.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

TOTAL REAL STATE GOVERNMENT REVENUES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2922.715 | 2922.715 | 0.000 | 0.000 |
| 1981 | 3893.178 | 3893.178 | 0.000 | 0.000 |
| 1982 | 4730.027 | 4730.027 | 0.000 | 0.000 |
| 1983 | 3659.045 | 3659.045 | 0.000 | 0.000 |
| 1984 | 3666.755 | 3666.755 | 0.000 | 0.000 |
| 1985 | 4196.351 | 4197.593 | 1.242 | 0.030 |
| 1986 | 4455.921 | 4459.265 | 3.344 | 0.075 |
| 1987 | 4758.718 | 4765.183 | 6.465 | 0.136 |
| 1988 | 4701.808 | 4710.847 | 9.039 | 0.192 |
| 1989 | 5099.402 | 5111.824 | 12.422 | 0.244 |
| 1990 | 4609.652 | 4621.386 | 11.734 | 0.255 |
| 1991 | 4387.226 | 4401.570 | 14.344 | 0.327 |
| 1992 | 4215.984 | 4255.691 | 39.707 | 0.942 |
| 1993 | 4136.718 | 4200.339 | 63.621 | 1.538 |
| 1994 | 3951.787 | 4083.873 | 132.086 | 3.342 |
| 1995 | 3801.949 | 3936.067 | 134.118 | 3.528 |
| 1996 | 3851.055 | 4007.968 | 156.913 | 4.075 |
| 1997 | 3775.547 | 3936.585 | 161.038 | 4.265 |
| 1998 | 3703.297 | 3868.656 | 165.359 | 4.465 |
| 1999 | 3591.435 | 3758.966 | 167.532 | 4.665 |
| 2000 | 3482.177 | 3649.854 | 167.677 | 4.815 |
| 2001 | 3356.313 | 3522.585 | 166.272 | 4.954 |
| 2002 | 3260.732 | 3426.707 | 165.975 | 5.090 |
| 2003 | 3170.253 | 3337.926 | 167.672 | 5.289 |
| 2004 | 3053.408 | 3223.913 | 170.505 | 5.584 |
| 2005 | 2991.311 | 3165.137 | 173.825 | 5.811 |
| 2006 | 2935.669 | 3112.926 | 177.257 | 6.038 |
| 2007 | 2885.704 | 3066.376 | 180.672 | 6.261 |
| 2008 | 2840.818 | 3024.845 | 184.027 | 6.478 |
| 2009 | 2800.101 | 2987.399 | 187.298 | 6.689 |
| 2010 | 2762.889 | 2953.361 | 190.472 | 6.894 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/83

TABLE B.27.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

TOTAL REAL STATE GOVERNMENT EXPENDITURES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2005.519 | 2005.519 | 0.000 | 0.000 |
| 1981 | 2960.817 | 2960.817 | 0.000 | 0.000 |
| 1982 | 3651.551 | 3651.551 | 0.000 | 0.000 |
| 1983 | 3403.064 | 3403.064 | 0.000 | 0.000 |
| 1984 | 3414.833 | 3414.833 | 0.000 | 0.000 |
| 1985 | 3440.812 | 3441.589 | 0.777 | 0.023 |
| 1986 | 3466.836 | 3468.543 | 1.707 | 0.049 |
| 1987 | 3484.240 | 3487.497 | 3.257 | 0.093 |
| 1988 | 3491.066 | 3495.322 | 4.256 | 0.122 |
| 1989 | 3479.157 | 3484.957 | 5.800 | 0.167 |
| 1990 | 3476.221 | 3481.505 | 5.284 | 0.152 |
| 1991 | 3493.268 | 3500.611 | 7.342 | 0.210 |
| 1992 | 3512.592 | 3535.934 | 23.342 | 0.665 |
| 1993 | 3534.157 | 3567.676 | 33.519 | 0.948 |
| 1994 | 3557.588 | 3587.721 | 30.133 | 0.847 |
| 1995 | 3371.354 | 3397.886 | 26.532 | 0.787 |
| 1996 | 3216.832 | 3240.211 | 23.379 | 0.727 |
| 1997 | 3084.819 | 3105.987 | 21.168 | 0.686 |
| 1998 | 2980.318 | 2999.167 | 18.849 | 0.632 |
| 1999 | 2891.114 | 2907.829 | 16.715 | 0.578 |
| 2000 | 2817.548 | 2832.075 | 14.527 | 0.516 |
| 2001 | 2754.956 | 2767.681 | 12.725 | 0.462 |
| 2002 | 2701.743 | 2713.115 | 11.372 | 0.421 |
| 2003 | 2657.634 | 2668.078 | 10.444 | 0.393 |
| 2004 | 2620.714 | 2630.458 | 9.744 | 0.372 |
| 2005 | 2590.493 | 2599.690 | 9.197 | 0.355 |
| 2006 | 2565.985 | 2574.733 | 8.748 | 0.341 |
| 2007 | 2546.362 | 2554.740 | 8.378 | 0.329 |
| 2008 | 2530.923 | 2538.991 | 8.068 | 0.319 |
| 2009 | 2518.975 | 2526.789 | 7.814 | 0.310 |
| 2010 | 2510.156 | 2517.755 | 7.599 | 0.303 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83R--CREATED 10/11/82

TABLE B.28.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

REAL PER CAPITA STATE GOVERNMENT EXPENDITURES

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 4988.14 | 4988.14 | 0.00 | 0.00 |
| 1981 | 7135.97 | 7135.97 | 0.00 | 0.00 |
| 1982 | 8433.42 | 8433.42 | 0.00 | 0.00 |
| 1983 | 7689.96 | 7689.96 | 0.00 | 0.00 |
| 1984 | 7616.10 | 7616.10 | 0.00 | 0.00 |
| 1985 | 7559.33 | 7554.97 | -4.36 | -0.06 |
| 1986 | 7421.05 | 7411.94 | -9.11 | -0.12 |
| 1987 | 7132.06 | 7116.51 | -15.55 | -0.22 |
| 1988 | 6814.82 | 6797.32 | -17.51 | -0.26 |
| 1989 | 6755.99 | 6732.30 | -23.69 | -0.35 |
| 1990 | 6832.11 | 6810.36 | -21.74 | -0.32 |
| 1991 | 6830.01 | 6798.38 | -31.63 | -0.46 |
| 1992 | 6841.04 | 6735.05 | -105.99 | -1.55 |
| 1993 | 6821.98 | 6669.72 | -152.26 | -2.23 |
| 1994 | 6797.28 | 6659.42 | -137.86 | -2.03 |
| 1995 | 6435.07 | 6300.87 | -134.20 | -2.09 |
| 1996 | 6119.32 | 5989.52 | -129.80 | -2.12 |
| 1997 | 5866.69 | 5735.91 | -130.78 | -2.23 |
| 1998 | 5598.66 | 5472.12 | -126.54 | -2.26 |
| 1999 | 5378.63 | 5257.67 | -120.95 | -2.25 |
| 2000 | 5178.75 | 5066.71 | -112.04 | -2.16 |
| 2001 | 5033.57 | 4928.61 | -104.96 | -2.09 |
| 2002 | 4894.86 | 4794.54 | -100.32 | -2.05 |
| 2003 | 4774.17 | 4675.88 | -98.30 | -2.06 |
| 2004 | 4666.34 | 4569.03 | -97.31 | -2.09 |
| 2005 | 4571.13 | 4474.30 | -96.82 | -2.12 |
| 2006 | 4486.66 | 4390.11 | -96.55 | -2.15 |
| 2007 | 4411.34 | 4314.95 | -96.39 | -2.19 |
| 2008 | 4343.80 | 4247.49 | -96.31 | -2.22 |
| 2009 | 4283.88 | 4187.54 | -96.34 | -2.25 |
| 2010 | 4229.35 | 4132.96 | -96.39 | -2.28 |

SOURCE: MAP MODEL SIMULATIONS SBACE33M AND DCS.83R--CREATED 10/11/82

TABLE B.29.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

REAL COMBINED FUNDS BALANCE

MILLIONS OF 1982 $$

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2420.861 | 2420.861 | 0.000 | 0.000 |
| 1981 | 3475.185 | 3475.185 | 0.000 | 0.000 |
| 1982 | 4687.683 | 4687.683 | 0.000 | 0.000 |
| 1983 | 5023.308 | 5023.308 | 0.000 | 0.000 |
| 1984 | 5346.121 | 5346.121 | 0.000 | 0.000 |
| 1985 | 6173.585 | 6174.679 | 1.094 | 0.018 |
| 1986 | 7162.925 | 7166.484 | 3.559 | 0.050 |
| 1987 | 8322.921 | 8331.179 | 8.258 | 0.099 |
| 1988 | 9287.470 | 9301.430 | 13.957 | 0.150 |
| 1989 | 10606.470 | 10628.340 | 21.871 | 0.206 |
| 1990 | 11405.320 | 11431.690 | 26.371 | 0.231 |
| 1991 | 11936.670 | 11971.520 | 34.848 | 0.292 |
| 1992 | 12242.040 | 12316.640 | 74.602 | 0.609 |
| 1993 | 12435.020 | 12551.300 | 116.281 | 0.935 |
| 1994 | 12411.750 | 12616.570 | 204.824 | 1.650 |
| 1995 | 12377.870 | 12676.050 | 298.172 | 2.409 |
| 1996 | 12527.430 | 12937.820 | 410.387 | 3.276 |
| 1997 | 12694.560 | 13217.170 | 522.609 | 4.117 |
| 1998 | 12885.500 | 13517.750 | 632.250 | 4.907 |
| 1999 | 13020.160 | 13757.830 | 737.668 | 5.666 |
| 2000 | 13101.740 | 13938.380 | 836.637 | 6.386 |
| 2001 | 13092.980 | 14021.990 | 929.008 | 7.095 |
| 2002 | 13039.120 | 14056.600 | 1017.477 | 7.803 |
| 2003 | 12936.290 | 14040.010 | 1103.718 | 8.532 |
| 2004 | 12756.220 | 13944.300 | 1188.085 | 9.314 |
| 2005 | 12553.100 | 13823.870 | 1270.769 | 10.123 |
| 2006 | 12330.200 | 13681.900 | 1351.703 | 10.963 |
| 2007 | 12090.410 | 13521.310 | 1430.902 | 11.835 |
| 2008 | 11836.460 | 13344.780 | 1508.328 | 12.743 |
| 2009 | 11570.050 | 13153.980 | 1583.933 | 13.690 |
| 2010 | 11293.500 | 12951.220 | 1657.722 | 14.679 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83R--CREATED 10/11/82

TABLE B.30.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL ROAD-CONNECTED CASE

REAL PER CAPITA COMBINED FUNDS BALANCE

1982 $$

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6021.18 | 6021.18 | 0.00 | 0.00 |
| 1981 | 8375.67 | 8375.67 | 0.00 | 0.00 |
| 1982 | 10826.41 | 10826.41 | 0.00 | 0.00 |
| 1983 | 11351.25 | 11351.25 | 0.00 | 0.00 |
| 1984 | 11923.44 | 11923.44 | 0.00 | 0.00 |
| 1985 | 13563.12 | 13554.64 | -8.49 | -0.06 |
| 1986 | 15332.82 | 15314.07 | -18.75 | -0.12 |
| 1987 | 17036.60 | 17000.42 | -36.18 | -0.21 |
| 1988 | 18129.83 | 18088.39 | -41.45 | -0.23 |
| 1989 | 20596.14 | 20532.02 | -64.12 | -0.31 |
| 1990 | 22415.82 | 22362.16 | -53.66 | -0.24 |
| 1991 | 23338.50 | 23249.37 | -89.12 | -0.38 |
| 1992 | 23842.30 | 23460.06 | -382.24 | -1.60 |
| 1993 | 24003.33 | 23464.50 | -538.83 | -2.24 |
| 1994 | 23714.42 | 23418.50 | -295.92 | -1.25 |
| 1995 | 23626.26 | 23505.84 | -120.42 | -0.51 |
| 1996 | 23830.69 | 23915.51 | 84.82 | 0.36 |
| 1997 | 24142.43 | 24408.50 | 266.07 | 1.10 |
| 1998 | 24205.99 | 24663.77 | 457.79 | 1.89 |
| 1999 | 24222.70 | 24875.67 | 652.97 | 2.70 |
| 2000 | 24081.45 | 24936.39 | 854.95 | 3.55 |
| 2001 | 23922.12 | 24969.96 | 1047.84 | 4.38 |
| 2002 | 23623.52 | 24840.46 | 1216.94 | 5.15 |
| 2003 | 23238.76 | 24605.49 | 1366.73 | 5.88 |
| 2004 | 22713.22 | 24220.85 | 1507.63 | 6.64 |
| 2005 | 22150.92 | 23792.15 | 1641.22 | 7.41 |
| 2006 | 21559.53 | 23328.66 | 1769.13 | 8.21 |
| 2007 | 20945.53 | 22837.46 | 1891.93 | 9.03 |
| 2008 | 20314.83 | 22324.58 | 2009.75 | 9.89 |
| 2009 | 19676.53 | 21799.56 | 2123.03 | 10.79 |
| 2010 | 19028.37 | 21259.78 | 2231.41 | 11.73 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83R--CREATED 10/11/82

TABLE B.31

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

TOTAL POPULATION

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 402.057 | 402.057 | 0.000 | 0.000 |
| 1981 | 414.914 | 414.914 | 0.000 | 0.000 |
| 1982 | 432.986 | 432.986 | 0.000 | 0.000 |
| 1983 | 442.533 | 442.533 | 0.000 | 0.000 |
| 1984 | 448.370 | 448.370 | 0.000 | 0.000 |
| 1985 | 455.174 | 455.540 | 0.366 | 0.080 |
| 1986 | 467.163 | 467.967 | 0.804 | 0.172 |
| 1987 | 488.532 | 490.057 | 1.525 | 0.312 |
| 1988 | 512.275 | 514.221 | 1.946 | 0.380 |
| 1989 | 514.974 | 517.647 | 2.673 | 0.519 |
| 1990 | 508.807 | 511.207 | 2.400 | 0.472 |
| 1991 | 511.458 | 514.918 | 3.459 | 0.676 |
| 1992 | 513.459 | 525.005 | 11.546 | 2.249 |
| 1993 | 518.054 | 534.906 | 16.852 | 3.253 |
| 1994 | 523.384 | 538.744 | 15.360 | 2.935 |
| 1995 | 523.903 | 539.272 | 15.369 | 2.934 |
| 1996 | 525.685 | 540.980 | 15.295 | 2.910 |
| 1997 | 525.819 | 541.499 | 15.679 | 2.982 |
| 1998 | 532.327 | 548.081 | 15.754 | 2.959 |
| 1999 | 537.519 | 553.064 | 15.545 | 2.892 |
| 2000 | 544.060 | 558.957 | 14.898 | 2.738 |
| 2001 | 547.317 | 561.554 | 14.237 | 2.601 |
| 2002 | 551.955 | 565.875 | 13.920 | 2.522 |
| 2003 | 556.669 | 570.605 | 13.936 | 2.503 |
| 2004 | 561.621 | 575.715 | 14.094 | 2.510 |
| 2005 | 566.708 | 581.027 | 14.319 | 2.527 |
| 2006 | 571.914 | 586.485 | 14.571 | 2.548 |
| 2007 | 577.231 | 592.067 | 14.836 | 2.570 |
| 2008 | 582.651 | 597.762 | 15.111 | 2.594 |
| 2009 | 588.012 | 603.406 | 15.393 | 2.618 |
| 2010 | 593.509 | 609.189 | 15.680 | 2.642 |

SOURCE: MAP MODEL SIMULATIONS SBASE83M AND DCS.83M--CREATED 10/11/82

TABLE B.32.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

BASIC SECTOR EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 46.048 | 46.048 | 0.000 | 0.000 |
| 1981 | 48.409 | 48.409 | 0.000 | 0.000 |
| 1982 | 52.733 | 52.733 | 0.000 | 0.000 |
| 1983 | 53.327 | 53.327 | 0.000 | 0.000 |
| 1984 | 52.380 | 52.380 | 0.000 | 0.000 |
| 1985 | 53.015 | 53.274 | 0.259 | 0.488 |
| 1986 | 56.660 | 56.878 | 0.219 | 0.386 |
| 1987 | 64.528 | 65.045 | 0.517 | 0.800 |
| 1988 | 71.854 | 72.463 | 0.610 | 0.848 |
| 1989 | 66.829 | 67.786 | 0.957 | 1.432 |
| 1990 | 59.252 | 59.889 | 0.637 | 1.075 |
| 1991 | 59.961 | 61.292 | 1.331 | 2.220 |
| 1992 | 60.117 | 66.790 | 6.672 | 11.098 |
| 1993 | 60.496 | 68.789 | 8.293 | 13.708 |
| 1994 | 60.881 | 66.077 | 5.197 | 8.536 |
| 1995 | 59.881 | 64.964 | 5.083 | 8.488 |
| 1996 | 59.834 | 64.811 | 4.977 | 8.318 |
| 1997 | 57.736 | 62.728 | 4.992 | 8.646 |
| 1998 | 60.345 | 65.095 | 4.750 | 7.872 |
| 1999 | 61.019 | 65.397 | 4.378 | 7.175 |
| 2000 | 62.484 | 66.302 | 3.818 | 6.111 |
| 2001 | 62.611 | 65.975 | 3.364 | 5.373 |
| 2002 | 62.734 | 65.920 | 3.186 | 5.079 |
| 2003 | 62.896 | 66.063 | 3.167 | 5.036 |
| 2004 | 63.119 | 66.284 | 3.165 | 5.015 |
| 2005 | 63.389 | 66.561 | 3.172 | 5.004 |
| 2006 | 63.695 | 66.877 | 3.181 | 4.994 |
| 2007 | 64.038 | 67.231 | 3.192 | 4.985 |
| 2008 | 64.411 | 67.616 | 3.205 | 4.975 |
| 2009 | 64.734 | 67.941 | 3.217 | 4.970 |
| 2010 | 65.097 | 68.328 | 3.230 | 4.962 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83M--CREATED 10/11/83

TABLE B.33

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

SERVICES SECTOR EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 79.812 | 79.812 | 0.000 | 0.000 |
| 1981 | 81.714 | 81.714 | 0.000 | 0.000 |
| 1982 | 86.641 | 86.641 | 0.000 | 0.000 |
| 1983 | 90.060 | 90.060 | 0.000 | 0.000 |
| 1984 | 91.951 | 91.951 | 0.000 | 0.000 |
| 1985 | 93.617 | 93.734 | 0.117 | 0.125 |
| 1986 | 97.298 | 97.848 | 0.551 | 0.566 |
| 1987 | 105.326 | 106.251 | 0.925 | 0.878 |
| 1988 | 114.964 | 116.114 | 1.151 | 1.001 |
| 1989 | 115.800 | 117.240 | 1.440 | 1.244 |
| 1990 | 113.160 | 114.472 | 1.313 | 1.160 |
| 1991 | 112.063 | 113.762 | 1.700 | 1.517 |
| 1992 | 109.831 | 114.321 | 4.490 | 4.088 |
| 1993 | 110.354 | 117.353 | 7.000 | 6.343 |
| 1994 | 111.365 | 118.816 | 7.451 | 6.691 |
| 1995 | 108.826 | 116.162 | 7.336 | 6.741 |
| 1996 | 108.199 | 115.131 | 6.932 | 6.407 |
| 1997 | 107.122 | 113.993 | 6.871 | 6.414 |
| 1998 | 108.322 | 115.066 | 6.745 | 6.226 |
| 1999 | 109.573 | 116.097 | 6.524 | 5.954 |
| 2000 | 111.566 | 117.675 | 6.109 | 5.475 |
| 2001 | 111.332 | 116.997 | 5.665 | 5.088 |
| 2002 | 112.871 | 118.213 | 5.341 | 4.732 |
| 2003 | 114.367 | 119.555 | 5.187 | 4.536 |
| 2004 | 116.078 | 121.218 | 5.140 | 4.428 |
| 2005 | 117.888 | 123.037 | 5.149 | 4.368 |
| 2006 | 119.798 | 124.975 | 5.178 | 4.322 |
| 2007 | 121.797 | 127.012 | 5.215 | 4.282 |
| 2008 | 123.881 | 129.137 | 5.256 | 4.243 |
| 2009 | 125.975 | 131.274 | 5.299 | 4.206 |
| 2010 | 128.183 | 133.528 | 5.345 | 4.170 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83M--CREATED 10/11/82

TABLE B.34

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

GOVERNMENT EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 78.589 | 78.589 | 0.000 | 0.000 |
| 1981 | 83.071 | 83.071 | 0.000 | 0.000 |
| 1982 | 87.755 | 87.755 | 0.000 | 0.000 |
| 1983 | 88.312 | 88.312 | 0.000 | 0.000 |
| 1984 | 88.379 | 88.379 | 0.000 | 0.000 |
| 1985 | 88.153 | 88.156 | 0.003 | 0.004 |
| 1986 | 87.586 | 87.635 | 0.049 | 0.056 |
| 1987 | 86.863 | 86.956 | 0.092 | 0.106 |
| 1988 | 87.343 | 87.515 | 0.172 | 0.197 |
| 1989 | 89.758 | 89.974 | 0.216 | 0.240 |
| 1990 | 90.083 | 90.356 | 0.273 | 0.303 |
| 1991 | 88.371 | 88.587 | 0.216 | 0.245 |
| 1992 | 87.800 | 88.190 | 0.391 | 0.445 |
| 1993 | 87.191 | 88.486 | 1.296 | 1.486 |
| 1994 | 87.017 | 88.707 | 1.690 | 1.942 |
| 1995 | 86.884 | 88.250 | 1.365 | 1.572 |
| 1996 | 85.569 | 86.848 | 1.279 | 1.495 |
| 1997 | 85.229 | 86.470 | 1.240 | 1.455 |
| 1998 | 84.796 | 86.025 | 1.229 | 1.450 |
| 1999 | 84.835 | 86.011 | 1.176 | 1.386 |
| 2000 | 84.771 | 85.865 | 1.094 | 1.291 |
| 2001 | 84.812 | 85.787 | 0.975 | 1.150 |
| 2002 | 84.630 | 85.502 | 0.873 | 1.031 |
| 2003 | 84.573 | 85.393 | 0.821 | 0.970 |
| 2004 | 84.527 | 85.331 | 0.804 | 0.951 |
| 2005 | 84.506 | 85.303 | 0.797 | 0.943 |
| 2006 | 84.502 | 85.297 | 0.795 | 0.941 |
| 2007 | 84.512 | 85.307 | 0.795 | 0.940 |
| 2008 | 84.534 | 85.329 | 0.795 | 0.941 |
| 2009 | 84.567 | 85.363 | 0.796 | 0.941 |
| 2010 | 84.589 | 85.385 | 0.797 | 0.942 |

SOURCE: MAP MODEL SIMULATIONS SBASE83M AND OCS.83M--CREATED 10/11/82

TABLE B.35

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

TOTAL EMPLOYMENT

THOUSANDS

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 204.449 | 204.449 | 0.000 | 0.000 |
| 1981 | 213.195 | 213.195 | 0.000 | 0.000 |
| 1982 | 227.129 | 227.129 | 0.000 | 0.000 |
| 1983 | 231.699 | 231.699 | 0.000 | 0.000 |
| 1984 | 232.710 | 232.710 | 0.000 | 0.000 |
| 1985 | 234.784 | 235.164 | 0.379 | 0.162 |
| 1986 | 241.543 | 242.362 | 0.819 | 0.339 |
| 1987 | 256.718 | 258.252 | 1.534 | 0.597 |
| 1988 | 274.161 | 276.093 | 1.933 | 0.705 |
| 1989 | 272.387 | 275.000 | 2.613 | 0.959 |
| 1990 | 262.494 | 264.717 | 2.222 | 0.847 |
| 1991 | 260.395 | 263.642 | 3.247 | 1.247 |
| 1992 | 257.748 | 269.301 | 11.552 | 4.482 |
| 1993 | 258.040 | 274.628 | 16.588 | 6.428 |
| 1994 | 259.263 | 273.600 | 14.337 | 5.530 |
| 1995 | 255.591 | 269.376 | 13.784 | 5.393 |
| 1996 | 253.602 | 266.790 | 13.188 | 5.200 |
| 1997 | 250.087 | 263.191 | 13.104 | 5.240 |
| 1998 | 253.462 | 266.186 | 12.724 | 5.020 |
| 1999 | 255.428 | 267.506 | 12.078 | 4.728 |
| 2000 | 258.821 | 269.842 | 11.021 | 4.258 |
| 2001 | 258.755 | 268.759 | 10.004 | 3.866 |
| 2002 | 260.235 | 269.635 | 9.400 | 3.612 |
| 2003 | 261.836 | 271.011 | 9.175 | 3.504 |
| 2004 | 263.724 | 272.833 | 9.109 | 3.454 |
| 2005 | 265.783 | 274.901 | 9.118 | 3.431 |
| 2006 | 267.995 | 277.149 | 9.154 | 3.416 |
| 2007 | 270.347 | 279.549 | 9.202 | 3.404 |
| 2008 | 272.826 | 282.082 | 9.256 | 3.393 |
| 2009 | 275.266 | 284.578 | 9.312 | 3.383 |
| 2010 | 277.869 | 287.241 | 9.372 | 3.373 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83M--CREATED 10/11/83

TABLE B.36.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

REAL PERSONAL INCOME

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6247.679 | 6247.679 | 0.000 | 0.000 |
| 1981 | 6551.144 | 6551.144 | 0.000 | 0.000 |
| 1982 | 7081.304 | 7081.304 | 0.000 | 0.000 |
| 1983 | 7300.878 | 7300.878 | 0.000 | 0.000 |
| 1984 | 7339.421 | 7339.421 | 0.000 | 0.000 |
| 1985 | 7480.527 | 7497.429 | 16.902 | 0.226 |
| 1986 | 7990.835 | 8022.390 | 31.555 | 0.395 |
| 1987 | 9179.180 | 9243.130 | 63.941 | 0.697 |
| 1988 | 10462.730 | 10540.050 | 77.320 | 0.739 |
| 1989 | 9922.060 | 10028.770 | 106.711 | 1.075 |
| 1990 | 8886.261 | 8968.636 | 82.375 | 0.927 |
| 1991 | 8779.230 | 8912.386 | 133.156 | 1.517 |
| 1992 | 8682.132 | 9196.670 | 514.539 | 5.926 |
| 1993 | 8769.375 | 9475.610 | 706.238 | 8.053 |
| 1994 | 8877.281 | 9452.890 | 575.605 | 6.484 |
| 1995 | 8821.000 | 9396.020 | 575.016 | 6.519 |
| 1996 | 8827.140 | 9390.090 | 562.953 | 6.378 |
| 1997 | 8764.835 | 9332.120 | 567.285 | 6.472 |
| 1998 | 8945.421 | 9497.050 | 551.625 | 6.167 |
| 1999 | 9070.840 | 9594.530 | 523.684 | 5.773 |
| 2000 | 9261.790 | 9737.190 | 475.406 | 5.133 |
| 2001 | 9329.610 | 9762.020 | 432.410 | 4.635 |
| 2002 | 9462.750 | 9874.530 | 411.777 | 4.352 |
| 2003 | 9599.870 | 10008.180 | 408.305 | 4.253 |
| 2004 | 9749.930 | 10159.890 | 409.965 | 4.205 |
| 2005 | 9908.360 | 10322.540 | 414.184 | 4.180 |
| 2006 | 10074.460 | 10493.780 | 419.320 | 4.162 |
| 2007 | 10248.010 | 10672.980 | 424.977 | 4.147 |
| 2008 | 10428.700 | 10859.570 | 430.883 | 4.132 |
| 2009 | 10604.090 | 11041.110 | 437.020 | 4.121 |
| 2010 | 10795.460 | 11238.590 | 443.129 | 4.105 |



SOURCE: MAP MODEL SIMULATIONS 3BASES3N AND DCS.S3M--CREATED 10/11/8

TABLE B.37

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

REAL PER CAPITA PERSONAL INCOME

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 15539.26 | 15539.26 | 0.00 | 0.00 |
| 1981 | 15789.14 | 15789.14 | 0.00 | 0.00 |
| 1982 | 16354.58 | 16354.58 | 0.00 | 0.00 |
| 1983 | 16497.91 | 16497.91 | 0.00 | 0.00 |
| 1984 | 16369.10 | 16369.10 | 0.00 | 0.00 |
| 1985 | 16434.42 | 16458.33 | 23.91 | 0.15 |
| 1986 | 17105.03 | 17143.06 | 38.02 | 0.22 |
| 1987 | 18789.32 | 18861.32 | 72.00 | 0.38 |
| 1988 | 20424.05 | 20497.13 | 73.09 | 0.36 |
| 1989 | 19267.11 | 19373.75 | 106.64 | 0.55 |
| 1990 | 17464.90 | 17544.04 | 79.14 | 0.45 |
| 1991 | 17165.08 | 17308.35 | 143.27 | 0.83 |
| 1992 | 16909.10 | 17517.31 | 608.20 | 3.60 |
| 1993 | 16927.52 | 17714.52 | 787.00 | 4.65 |
| 1994 | 16961.31 | 17546.15 | 584.84 | 3.45 |
| 1995 | 16837.07 | 17423.50 | 586.43 | 3.48 |
| 1996 | 16791.69 | 17357.55 | 565.86 | 3.37 |
| 1997 | 16668.90 | 17233.87 | 564.97 | 3.39 |
| 1998 | 16804.36 | 17327.80 | 523.44 | 3.11 |
| 1999 | 16875.38 | 17347.95 | 472.57 | 2.80 |
| 2000 | 17023.47 | 17420.27 | 396.80 | 2.33 |
| 2001 | 17046.08 | 17383.93 | 337.84 | 1.98 |
| 2002 | 17144.05 | 17450.00 | 305.95 | 1.78 |
| 2003 | 17245.21 | 17539.58 | 294.38 | 1.71 |
| 2004 | 17360.33 | 17647.43 | 287.10 | 1.65 |
| 2005 | 17484.06 | 17766.03 | 281.97 | 1.61 |
| 2006 | 17615.34 | 17892.68 | 277.34 | 1.57 |
| 2007 | 17753.74 | 18026.64 | 272.91 | 1.54 |
| 2008 | 17898.69 | 18167.05 | 268.36 | 1.50 |
| 2009 | 18033.79 | 18297.99 | 264.20 | 1.47 |
| 2010 | 18189.23 | 18448.44 | 259.22 | 1.43 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83M--CREATED 10/11/83

TABLE B.38.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

BASIC SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 27201.58 | 27201.58 | 0.00 | 0.00 |
| 1981 | 27253.51 | 27253.51 | 0.00 | 0.00 |
| 1982 | 28596.71 | 28596.71 | 0.00 | 0.00 |
| 1983 | 29226.08 | 29226.08 | 0.00 | 0.00 |
| 1984 | 28819.58 | 28819.58 | 0.00 | 0.00 |
| 1985 | 29281.75 | 29353.08 | 71.33 | 0.24 |
| 1986 | 32184.88 | 32223.34 | 38.46 | 0.12 |
| 1987 | 38377.82 | 38447.76 | 69.95 | 0.18 |
| 1988 | 43599.71 | 43625.61 | 25.90 | 0.06 |
| 1989 | 39702.80 | 39807.37 | 104.57 | 0.26 |
| 1990 | 32580.52 | 32694.79 | 114.27 | 0.35 |
| 1991 | 32014.25 | 32317.00 | 302.75 | 0.95 |
| 1992 | 31852.62 | 33321.14 | 1468.52 | 4.61 |
| 1993 | 32165.57 | 33919.58 | 1754.02 | 5.45 |
| 1994 | 32375.26 | 33600.41 | 1225.14 | 3.78 |
| 1995 | 32346.14 | 33731.40 | 1385.26 | 4.28 |
| 1996 | 32418.13 | 33890.55 | 1472.42 | 4.54 |
| 1997 | 32598.90 | 34175.64 | 1576.75 | 4.84 |
| 1998 | 32549.13 | 34029.69 | 1480.56 | 4.55 |
| 1999 | 32587.14 | 33964.40 | 1377.26 | 4.23 |
| 2000 | 32758.00 | 33937.73 | 1179.73 | 3.60 |
| 2001 | 33125.32 | 34166.19 | 1040.88 | 3.14 |
| 2002 | 33423.47 | 34433.25 | 1009.77 | 3.02 |
| 2003 | 33730.13 | 34762.19 | 1032.05 | 3.06 |
| 2004 | 34047.55 | 35097.82 | 1050.27 | 3.08 |
| 2005 | 34376.77 | 35443.08 | 1066.32 | 3.10 |
| 2006 | 34713.44 | 35794.92 | 1081.48 | 3.12 |
| 2007 | 35057.91 | 36153.64 | 1095.74 | 3.13 |
| 2008 | 35409.80 | 36519.04 | 1109.25 | 3.13 |
| 2009 | 35688.05 | 36815.74 | 1127.69 | 3.16 |
| 2010 | 36069.95 | 37210.53 | 1140.58 | 3.16 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83M--CREATED 10/11/82

TABLE B.39.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

SERVICES SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 22624.87 | 22624.87 | 0.00 | 0.00 |
| 1981 | 22465.76 | 22465.76 | 0.00 | 0.00 |
| 1982 | 22158.36 | 22158.36 | 0.00 | 0.00 |
| 1983 | 22355.64 | 22355.64 | 0.00 | 0.00 |
| 1984 | 22476.25 | 22476.25 | 0.00 | 0.00 |
| 1985 | 22645.47 | 22642.72 | -2.75 | -0.01 |
| 1986 | 23281.60 | 23306.69 | 25.10 | 0.11 |
| 1987 | 24791.66 | 24817.43 | 25.77 | 0.10 |
| 1988 | 26136.07 | 26145.14 | 9.07 | 0.03 |
| 1989 | 25216.85 | 25218.55 | 1.70 | 0.01 |
| 1990 | 23952.98 | 23958.66 | 5.68 | 0.02 |
| 1991 | 23527.14 | 23545.92 | 18.79 | 0.08 |
| 1992 | 23146.93 | 23129.97 | -16.96 | -0.07 |
| 1993 | 23263.69 | 23206.58 | -57.11 | -0.25 |
| 1994 | 23358.05 | 23359.27 | 1.22 | 0.01 |
| 1995 | 23516.07 | 23564.41 | 48.34 | 0.21 |
| 1996 | 23700.33 | 23735.82 | 35.49 | 0.15 |
| 1997 | 23757.03 | 23797.21 | 40.18 | 0.17 |
| 1998 | 23866.83 | 23908.57 | 41.74 | 0.17 |
| 1999 | 23945.29 | 23996.48 | 51.20 | 0.21 |
| 2000 | 24058.77 | 24117.40 | 58.63 | 0.24 |
| 2001 | 24000.35 | 24076.49 | 76.14 | 0.32 |
| 2002 | 24130.42 | 24207.63 | 77.21 | 0.32 |
| 2003 | 24236.32 | 24312.41 | 76.09 | 0.31 |
| 2004 | 24350.14 | 24424.68 | 74.54 | 0.31 |
| 2005 | 24463.09 | 24537.42 | 74.33 | 0.30 |
| 2006 | 24576.96 | 24651.18 | 74.22 | 0.30 |
| 2007 | 24691.34 | 24765.59 | 74.25 | 0.30 |
| 2008 | 24806.23 | 24880.48 | 74.25 | 0.30 |
| 2009 | 24922.65 | 24996.91 | 74.26 | 0.30 |
| 2010 | 25040.28 | 25114.46 | 74.18 | 0.30 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83M--CREATED 10/11/82

TABLE B.40.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

GOVERNMENT SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 23469.32 | 23469.32 | 0.00 | 0.00 |
| 1981 | 23665.52 | 23665.52 | 0.00 | 0.00 |
| 1982 | 24451.50 | 24451.50 | 0.00 | 0.00 |
| 1983 | 24813.00 | 24813.00 | 0.00 | 0.00 |
| 1984 | 25148.11 | 25148.11 | 0.00 | 0.00 |
| 1985 | 25508.86 | 25508.62 | -0.25 | -0.00 |
| 1986 | 25974.68 | 25974.10 | -0.58 | -0.00 |
| 1987 | 26573.26 | 26571.19 | -2.07 | -0.01 |
| 1988 | 27122.75 | 27120.33 | -2.43 | -0.01 |
| 1989 | 27304.00 | 27300.50 | -3.51 | -0.01 |
| 1990 | 27379.02 | 27376.70 | -2.32 | -0.01 |
| 1991 | 27763.93 | 27760.57 | -3.36 | -0.01 |
| 1992 | 28179.68 | 28169.41 | -10.27 | -0.04 |
| 1993 | 28612.79 | 28590.93 | -21.86 | -0.08 |
| 1994 | 29048.10 | 29020.47 | -27.64 | -0.10 |
| 1995 | 29490.98 | 29463.28 | -27.70 | -0.09 |
| 1996 | 29960.84 | 29930.96 | -29.88 | -0.10 |
| 1997 | 30433.24 | 30400.58 | -32.65 | -0.11 |
| 1998 | 30915.46 | 30879.71 | -35.75 | -0.12 |
| 1999 | 31399.30 | 31361.82 | -37.47 | -0.12 |
| 2000 | 31894.02 | 31855.95 | -38.07 | -0.12 |
| 2001 | 32398.59 | 32361.33 | -37.27 | -0.12 |
| 2002 | 32918.60 | 32881.92 | -36.68 | -0.11 |
| 2003 | 33446.18 | 33408.75 | -37.44 | -0.11 |
| 2004 | 33983.82 | 33944.40 | -39.42 | -0.12 |
| 2005 | 34531.57 | 34489.80 | -41.77 | -0.12 |
| 2006 | 35089.44 | 35045.08 | -44.36 | -0.13 |
| 2007 | 35657.73 | 35610.67 | -47.05 | -0.13 |
| 2008 | 36236.54 | 36186.65 | -49.89 | -0.14 |
| 2009 | 36826.35 | 36773.46 | -52.89 | -0.14 |
| 2010 | 37428.28 | 37372.41 | -55.87 | -0.15 |



SOURCE: MAP MODEL SIMULATIONS SPASE83M AND OCS.83M--CREATED 10/11/82

TABLE B.41

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

TOTAL REAL STATE GOVERNMENT REVENUES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2922.715 | 2922.715 | 0.000 | 0.000 |
| 1981 | 3893.178 | 3893.178 | 0.000 | 0.000 |
| 1982 | 4730.027 | 4730.027 | 0.000 | 0.000 |
| 1983 | 3659.045 | 3659.045 | 0.000 | 0.000 |
| 1984 | 3666.755 | 3666.755 | 0.000 | 0.000 |
| 1985 | 4196.351 | 4197.593 | 1.242 | 0.030 |
| 1986 | 4455.921 | 4459.265 | 3.344 | 0.075 |
| 1987 | 4758.718 | 4765.183 | 6.465 | 0.136 |
| 1988 | 4701.808 | 4710.847 | 9.039 | 0.192 |
| 1989 | 5099.402 | 5111.824 | 12.422 | 0.244 |
| 1990 | 4609.652 | 4621.386 | 11.734 | 0.255 |
| 1991 | 4387.226 | 4401.570 | 14.344 | 0.327 |
| 1992 | 4215.984 | 4255.691 | 39.707 | 0.942 |
| 1993 | 4136.718 | 4200.339 | 63.621 | 1.538 |
| 1994 | 3951.787 | 4083.873 | 132.086 | 3.342 |
| 1995 | 3801.949 | 3936.067 | 134.118 | 3.528 |
| 1996 | 3851.055 | 4007.968 | 156.913 | 4.075 |
| 1997 | 3775.547 | 3936.585 | 161.038 | 4.265 |
| 1998 | 3703.297 | 3868.656 | 165.359 | 4.465 |
| 1999 | 3591.435 | 3758.966 | 167.532 | 4.665 |
| 2000 | 3482.177 | 3649.854 | 167.677 | 4.815 |
| 2001 | 3356.313 | 3522.585 | 166.272 | 4.954 |
| 2002 | 3260.732 | 3426.707 | 165.975 | 5.090 |
| 2003 | 3170.253 | 3337.926 | 167.672 | 5.289 |
| 2004 | 3053.408 | 3223.913 | 170.505 | 5.584 |
| 2005 | 2991.311 | 3165.137 | 173.825 | 5.811 |
| 2006 | 2935.669 | 3112.926 | 177.257 | 6.038 |
| 2007 | 2885.704 | 3066.376 | 180.672 | 6.261 |
| 2008 | 2840.818 | 3024.845 | 184.027 | 6.478 |
| 2009 | 2800.101 | 2987.399 | 187.298 | 6.689 |
| 2010 | 2762.889 | 2953.361 | 190.472 | 6.894 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83M--CREATED 10/11/82

TABLE B.42.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

TOTAL REAL STATE GOVERNMENT EXPENDITURES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2005.519 | 2005.519 | 0.000 | 0.000 |
| 1981 | 2960.817 | 2960.817 | 0.000 | 0.000 |
| 1982 | 3651.551 | 3651.551 | 0.000 | 0.000 |
| 1983 | 3403.064 | 3403.064 | 0.000 | 0.000 |
| 1984 | 3414.833 | 3414.833 | 0.000 | 0.000 |
| 1985 | 3440.812 | 3441.589 | 0.777 | 0.023 |
| 1986 | 3466.836 | 3468.543 | 1.707 | 0.049 |
| 1987 | 3484.240 | 3487.497 | 3.257 | 0.093 |
| 1988 | 3491.066 | 3495.322 | 4.256 | 0.122 |
| 1989 | 3479.157 | 3484.957 | 5.800 | 0.167 |
| 1990 | 3476.221 | 3481.505 | 5.284 | 0.152 |
| 1991 | 3493.268 | 3500.611 | 7.342 | 0.210 |
| 1992 | 3512.592 | 3535.934 | 23.342 | 0.665 |
| 1993 | 3534.157 | 3567.676 | 33.519 | 0.948 |
| 1994 | 3557.588 | 3587.721 | 30.133 | 0.847 |
| 1995 | 3371.354 | 3397.886 | 26.532 | 0.787 |
| 1996 | 3216.832 | 3240.211 | 23.379 | 0.727 |
| 1997 | 3084.819 | 3105.987 | 21.168 | 0.686 |
| 1998 | 2980.318 | 2999.167 | 18.849 | 0.632 |
| 1999 | 2891.114 | 2907.829 | 16.715 | 0.578 |
| 2000 | 2817.548 | 2832.075 | 14.527 | 0.516 |
| 2001 | 2754.956 | 2767.681 | 12.725 | 0.462 |
| 2002 | 2701.743 | 2713.115 | 11.372 | 0.421 |
| 2003 | 2657.634 | 2668.078 | 10.444 | 0.393 |
| 2004 | 2620.714 | 2630.458 | 9.744 | 0.372 |
| 2005 | 2590.493 | 2599.690 | 9.197 | 0.355 |
| 2006 | 2565.985 | 2574.733 | 8.748 | 0.341 |
| 2007 | 2546.362 | 2554.740 | 8.378 | 0.329 |
| 2008 | 2530.923 | 2538.991 | 8.068 | 0.319 |
| 2009 | 2518.975 | 2526.789 | 7.814 | 0.310 |
| 2010 | 2510.156 | 2517.755 | 7.599 | 0.303 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.93M--CREATED 10/11/82

TABLE B.43

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

REAL PER CAPITA STATE GOVERNMENT EXPENDITURES

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 4988.14 | 4988.14 | 0.00 | 0.00 |
| 1981 | 7135.97 | 7135.97 | 0.00 | 0.00 |
| 1982 | 8433.42 | 8433.42 | 0.00 | 0.00 |
| 1983 | 7689.96 | 7689.96 | 0.00 | 0.00 |
| 1984 | 7616.10 | 7616.10 | 0.00 | 0.00 |
| 1985 | 7559.33 | 7554.97 | -4.36 | -0.06 |
| 1986 | 7421.05 | 7411.94 | -9.11 | -0.12 |
| 1987 | 7132.06 | 7116.51 | -15.55 | -0.22 |
| 1988 | 6814.82 | 6797.32 | -17.51 | -0.26 |
| 1989 | 6755.99 | 6732.30 | -23.69 | -0.35 |
| 1990 | 6832.11 | 6810.36 | -21.74 | -0.32 |
| 1991 | 6830.01 | 6798.38 | -31.63 | -0.46 |
| 1992 | 6841.04 | 6735.05 | -105.99 | -1.55 |
| 1993 | 6821.98 | 6669.72 | -152.26 | -2.23 |
| 1994 | 6797.28 | 6659.42 | -137.86 | -2.03 |
| 1995 | 6435.07 | 6300.87 | -134.20 | -2.09 |
| 1996 | 6119.32 | 5989.52 | -129.80 | -2.12 |
| 1997 | 5866.69 | 5735.91 | -130.78 | -2.23 |
| 1998 | 5598.66 | 5472.12 | -126.54 | -2.26 |
| 1999 | 5378.63 | 5257.67 | -120.95 | -2.25 |
| 2000 | 5178.75 | 5066.71 | -112.04 | -2.16 |
| 2001 | 5033.57 | 4928.61 | -104.96 | -2.09 |
| 2002 | 4894.86 | 4794.54 | -100.32 | -2.05 |
| 2003 | 4774.17 | 4675.88 | -98.30 | -2.06 |
| 2004 | 4666.34 | 4569.03 | -97.31 | -2.09 |
| 2005 | 4571.13 | 4474.30 | -96.82 | -2.12 |
| 2006 | 4486.66 | 4390.11 | -96.55 | -2.15 |
| 2007 | 4411.34 | 4314.95 | -96.39 | -2.19 |
| 2008 | 4343.80 | 4247.49 | -96.31 | -2.22 |
| 2009 | 4283.88 | 4187.54 | -96.34 | -2.25 |
| 2010 | 4229.35 | 4132.96 | -96.39 | -2.28 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83M--CREATED 10/11/82

TABLE B44

MAP MODEL STATEWIDE IMPACT PROJECTIONS::

1.2 BBBL REMOTE CASE

REAL COMBINED FUNDS BALANCE

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2420.861 | 2420.861 | 0.000 | 0.000 |
| 1981 | 3475.185 | 3475.185 | 0.000 | 0.000 |
| 1982 | 4687.683 | 4687.683 | 0.000 | 0.000 |
| 1983 | 5023.308 | 5023.308 | 0.000 | 0.000 |
| 1984 | 5346.121 | 5346.121 | 0.000 | 0.000 |
| 1985 | 6173.585 | 6174.679 | 1.094 | 0.018 |
| 1986 | 7162.925 | 7166.484 | 3.559 | 0.050 |
| 1987 | 8322.921 | 8331.179 | 8.258 | 0.099 |
| 1988 | 9287.470 | 9301.430 | 13.957 | 0.150 |
| 1989 | 10606.470 | 10628.340 | 21.871 | 0.206 |
| 1990 | 11405.320 | 11431.690 | 26.371 | 0.231 |
| 1991 | 11936.670 | 11971.520 | 34.848 | 0.292 |
| 1992 | 12242.040 | 12316.640 | 74.602 | 0.609 |
| 1993 | 12435.020 | 12551.300 | 116.281 | 0.935 |
| 1994 | 12411.750 | 12616.570 | 204.824 | 1.650 |
| 1995 | 12377.870 | 12676.050 | 298.172 | 2.409 |
| 1996 | 12527.430 | 12937.820 | 410.387 | 3.276 |
| 1997 | 12694.560 | 13217.170 | 522.609 | 4.117 |
| 1998 | 12885.500 | 13517.750 | 632.250 | 4.907 |
| 1999 | 13020.160 | 13757.830 | 737.668 | 5.666 |
| 2000 | 13101.740 | 13938.380 | 836.637 | 6.386 |
| 2001 | 13092.980 | 14021.990 | 929.008 | 7.095 |
| 2002 | 13039.120 | 14056.600 | 1017.477 | 7.803 |
| 2003 | 12936.290 | 14040.010 | 1103.718 | 8.532 |
| 2004 | 12756.220 | 13944.300 | 1188.085 | 9.314 |
| 2005 | 12553.100 | 13823.870 | 1270.769 | 10.123 |
| 2006 | 12330.200 | 13681.900 | 1351.703 | 10.963 |
| 2007 | 12090.410 | 13521.310 | 1430.902 | 11.835 |
| 2008 | 11836.460 | 13344.780 | 1508.328 | 12.743 |
| 2009 | 11570.050 | 13153.980 | 1583.933 | 13.690 |
| 2010 | 11293.500 | 12951.220 | 1657.722 | 14.679 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83M--CREATED 10/11/82

TABLE B.45

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

1.2 BBBL REMOTE CASE

REAL PER CAPITA COMBINED FUNDS BALANCE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6021.18 | 6021.18 | 0.00 | 0.00 |
| 1981 | 8375.67 | 8375.67 | 0.00 | 0.00 |
| 1982 | 10826.41 | 10826.41 | 0.00 | 0.00 |
| 1983 | 11351.25 | 11351.25 | 0.00 | 0.00 |
| 1984 | 11923.44 | 11923.44 | 0.00 | 0.00 |
| 1985 | 13563.12 | 13554.64 | -8.49 | -0.06 |
| 1986 | 15332.82 | 15314.07 | -18.75 | -0.12 |
| 1987 | 17036.60 | 17000.42 | -36.18 | -0.21 |
| 1988 | 18129.83 | 18088.39 | -41.45 | -0.23 |
| 1989 | 20596.14 | 20532.02 | -64.12 | -0.31 |
| 1990 | 22415.82 | 22362.16 | -53.66 | -0.24 |
| 1991 | 23338.50 | 23249.37 | -89.12 | -0.38 |
| 1992 | 23842.30 | 23460.06 | -382.24 | -1.60 |
| 1993 | 24003.33 | 23464.50 | -538.83 | -2.24 |
| 1994 | 23714.42 | 23418.50 | -295.92 | -1.25 |
| 1995 | 23626.26 | 23505.84 | -120.42 | -0.51 |
| 1996 | 23830.69 | 23915.51 | 84.82 | 0.36 |
| 1997 | 24142.43 | 24408.50 | 266.07 | 1.10 |
| 1998 | 24205.99 | 24663.77 | 457.79 | 1.89 |
| 1999 | 24222.70 | 24875.67 | 652.97 | 2.70 |
| 2000 | 24081.45 | 24936.39 | 854.95 | 3.55 |
| 2001 | 23922.12 | 24969.96 | 1047.84 | 4.38 |
| 2002 | 23623.52 | 24840.46 | 1216.94 | 5.15 |
| 2003 | 23238.76 | 24605.49 | 1366.73 | 5.88 |
| 2004 | 22713.22 | 24220.85 | 1507.63 | 6.64 |
| 2005 | 22150.92 | 23792.15 | 1641.22 | 7.41 |
| 2006 | 21559.53 | 23328.66 | 1769.13 | 8.21 |
| 2007 | 20945.53 | 22837.46 | 1891.93 | 9.03 |
| 2008 | 20314.83 | 22324.58 | 2009.75 | 9.89 |
| 2009 | 19676.53 | 21799.56 | 2123.03 | 10.79 |
| 2010 | 19028.37 | 21259.78 | 2231.41 | 11.73 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83M--CREATED 10/11/82

TABLE B.46.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

TOTAL POPULATION

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 402.057 | 402.057 | 0.000 | 0.000 |
| 1981 | 414.914 | 414.914 | 0.000 | 0.000 |
| 1982 | 432.986 | 432.986 | 0.000 | 0.000 |
| 1983 | 442.533 | 442.533 | 0.000 | 0.000 |
| 1984 | 448.370 | 448.370 | 0.000 | 0.000 |
| 1985 | 455.174 | 455.540 | 0.366 | 0.080 |
| 1986 | 467.163 | 468.171 | 1.008 | 0.216 |
| 1987 | 488.532 | 490.548 | 2.017 | 0.413 |
| 1988 | 512.275 | 514.205 | 1.929 | 0.377 |
| 1989 | 514.974 | 517.907 | 2.933 | 0.570 |
| 1990 | 508.807 | 511.610 | 2.804 | 0.551 |
| 1991 | 511.458 | 515.211 | 3.753 | 0.734 |
| 1992 | 513.459 | 529.850 | 16.391 | 3.192 |
| 1993 | 518.054 | 541.793 | 23.739 | 4.582 |
| 1994 | 523.384 | 537.603 | 14.219 | 2.717 |
| 1995 | 523.903 | 539.482 | 15.579 | 2.974 |
| 1996 | 525.685 | 542.976 | 17.291 | 3.289 |
| 1997 | 525.819 | 545.107 | 19.288 | 3.668 |
| 1998 | 532.327 | 552.381 | 20.054 | 3.767 |
| 1999 | 537.519 | 557.635 | 20.115 | 3.742 |
| 2000 | 544.060 | 563.631 | 19.572 | 3.597 |
| 2001 | 547.317 | 566.214 | 18.897 | 3.453 |
| 2002 | 551.955 | 570.462 | 18.507 | 3.353 |
| 2003 | 556.669 | 575.060 | 18.391 | 3.304 |
| 2004 | 561.621 | 580.216 | 18.595 | 3.311 |
| 2005 | 566.708 | 585.625 | 18.917 | 3.338 |
| 2006 | 571.914 | 591.214 | 19.300 | 3.375 |
| 2007 | 577.231 | 596.934 | 19.703 | 3.413 |
| 2008 | 582.651 | 602.767 | 20.116 | 3.452 |
| 2009 | 588.012 | 608.546 | 20.534 | 3.492 |
| 2010 | 593.509 | 614.465 | 20.957 | 3.531 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83H--CREATED 10/11/8

TABLE B.47.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

BASIC SECTOR EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 46.048 | 46.048 | 0.000 | 0.000 |
| 1981 | 48.409 | 48.409 | 0.000 | 0.000 |
| 1982 | 52.733 | 52.733 | 0.000 | 0.000 |
| 1983 | 53.327 | 53.327 | 0.000 | 0.000 |
| 1984 | 52.380 | 52.380 | 0.000 | 0.000 |
| 1985 | 53.015 | 53.274 | 0.259 | 0.488 |
| 1986 | 56.660 | 56.986 | 0.327 | 0.577 |
| 1987 | 64.528 | 65.272 | 0.743 | 1.152 |
| 1988 | 71.854 | 72.369 | 0.516 | 0.718 |
| 1989 | 66.829 | 67.900 | 1.070 | 1.602 |
| 1990 | 59.252 | 60.059 | 0.807 | 1.362 |
| 1991 | 59.961 | 61.362 | 1.401 | 2.337 |
| 1992 | 60.117 | 70.023 | 9.906 | 16.478 |
| 1993 | 60.496 | 72.419 | 11.923 | 19.709 |
| 1994 | 60.881 | 65.606 | 4.726 | 7.762 |
| 1995 | 59.881 | 65.828 | 5.947 | 9.931 |
| 1996 | 59.834 | 66.260 | 6.426 | 10.740 |
| 1997 | 57.736 | 64.243 | 6.507 | 11.270 |
| 1998 | 60.345 | 66.739 | 6.394 | 10.596 |
| 1999 | 61.019 | 66.983 | 5.964 | 9.774 |
| 2000 | 62.484 | 67.828 | 5.344 | 8.553 |
| 2001 | 62.611 | 67.408 | 4.797 | 7.661 |
| 2002 | 62.734 | 67.248 | 4.515 | 7.197 |
| 2003 | 62.896 | 67.270 | 4.374 | 6.954 |
| 2004 | 63.119 | 67.506 | 4.387 | 6.951 |
| 2005 | 63.389 | 67.801 | 4.412 | 6.960 |
| 2006 | 63.695 | 68.136 | 4.441 | 6.972 |
| 2007 | 64.038 | 68.508 | 4.470 | 6.980 |
| 2008 | 64.411 | 68.910 | 4.499 | 6.984 |
| 2009 | 64.724 | 69.250 | 4.526 | 6.993 |
| 2010 | 65.097 | 69.651 | 4.553 | 6.994 |

SOURCE: MAP MODEL SIMULATIONS SBASE83M AND OCS.83H--CREATED 10/11/82

TABLE B-48

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

SERVICES SECTOR EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 79.812 | 79.812 | 0.000 | 0.000 |
| 1981 | 81.714 | 81.714 | 0.000 | 0.000 |
| 1982 | 86.641 | 86.641 | 0.000 | 0.000 |
| 1983 | 90.060 | 90.060 | 0.000 | 0.000 |
| 1984 | 91.951 | 91.951 | 0.000 | 0.000 |
| 1985 | 93.617 | 93.734 | 0.117 | 0.125 |
| 1986 | 97.298 | 97.950 | 0.653 | 0.671 |
| 1987 | 105.326 | 106.498 | 1.171 | 1.112 |
| 1988 | 114.964 | 116.108 | 1.144 | 0.995 |
| 1989 | 115.800 | 117.381 | 1.581 | 1.365 |
| 1990 | 113.160 | 114.655 | 1.495 | 1.321 |
| 1991 | 112.063 | 113.903 | 1.840 | 1.642 |
| 1992 | 109.831 | 116.022 | 6.191 | 5.637 |
| 1993 | 110.354 | 120.039 | 9.685 | 8.777 |
| 1994 | 111.365 | 116.885 | 5.519 | 4.956 |
| 1995 | 108.826 | 116.123 | 7.297 | 6.706 |
| 1996 | 108.199 | 115.264 | 7.065 | 6.530 |
| 1997 | 107.122 | 115.563 | 8.441 | 7.880 |
| 1998 | 108.322 | 116.991 | 8.670 | 8.004 |
| 1999 | 109.573 | 118.180 | 8.606 | 7.855 |
| 2000 | 111.566 | 119.779 | 8.213 | 7.362 |
| 2001 | 111.332 | 119.051 | 7.719 | 6.933 |
| 2002 | 112.871 | 120.185 | 7.313 | 6.479 |
| 2003 | 114.367 | 121.419 | 7.052 | 6.166 |
| 2004 | 116.078 | 123.041 | 6.963 | 5.998 |
| 2005 | 117.888 | 124.848 | 6.961 | 5.905 |
| 2006 | 119.798 | 126.806 | 7.008 | 5.850 |
| 2007 | 121.797 | 128.868 | 7.071 | 5.806 |
| 2008 | 123.881 | 131.022 | 7.141 | 5.765 |
| 2009 | 125.975 | 133.188 | 7.213 | 5.726 |
| 2010 | 128.183 | 135.468 | 7.286 | 5.684 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83H--CREATED 10/11/82

TABLE B. 49

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

GOVERNMENT EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 78.589 | 78.589 | 0.000 | 0.000 |
| 1981 | 83.071 | 83.071 | 0.000 | 0.000 |
| 1982 | 87.755 | 87.755 | 0.000 | 0.000 |
| 1983 | 88.312 | 88.312 | 0.000 | 0.000 |
| 1984 | 88.379 | 88.379 | 0.000 | 0.000 |
| 1985 | 88.153 | 88.156 | 0.003 | 0.004 |
| 1986 | 87.586 | 87.637 | 0.052 | 0.059 |
| 1987 | 86.863 | 86.985 | 0.121 | 0.140 |
| 1988 | 87.343 | 87.567 | 0.223 | 0.256 |
| 1989 | 89.758 | 89.962 | 0.204 | 0.227 |
| 1990 | 90.083 | 90.386 | 0.303 | 0.337 |
| 1991 | 88.371 | 88.628 | 0.258 | 0.292 |
| 1992 | 87.800 | 88.246 | 0.447 | 0.509 |
| 1993 | 87.191 | 89.061 | 1.870 | 2.145 |
| 1994 | 87.017 | 89.353 | 2.337 | 2.685 |
| 1995 | 86.884 | 87.257 | 0.372 | 0.429 |
| 1996 | 85.569 | 86.968 | 1.400 | 1.636 |
| 1997 | 85.229 | 86.715 | 1.485 | 1.742 |
| 1998 | 84.796 | 86.379 | 1.584 | 1.868 |
| 1999 | 84.835 | 86.405 | 1.569 | 1.850 |
| 2000 | 84.771 | 86.257 | 1.486 | 1.753 |
| 2001 | 84.812 | 86.167 | 1.356 | 1.598 |
| 2002 | 84.630 | 85.862 | 1.232 | 1.456 |
| 2003 | 84.573 | 85.729 | 1.156 | 1.367 |
| 2004 | 84.527 | 85.639 | 1.112 | 1.316 |
| 2005 | 84.506 | 85.609 | 1.103 | 1.305 |
| 2006 | 84.502 | 85.603 | 1.101 | 1.303 |
| 2007 | 84.512 | 85.615 | 1.103 | 1.305 |
| 2008 | 84.534 | 85.640 | 1.106 | 1.308 |
| 2009 | 84.567 | 85.676 | 1.110 | 1.312 |
| 2010 | 84.589 | 85.701 | 1.113 | 1.315 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83H--CREATED 10/11/82

TABLE B.51

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

TOTAL EMPLOYMENT

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 204.449 | 204.449 | 0.000 | 0.000 |
| 1981 | 213.195 | 213.195 | 0.000 | 0.000 |
| 1982 | 227.129 | 227.129 | 0.000 | 0.000 |
| 1983 | 231.699 | 231.699 | 0.000 | 0.000 |
| 1984 | 232.710 | 232.710 | 0.000 | 0.000 |
| 1985 | 234.784 | 235.164 | 0.379 | 0.162 |
| 1986 | 241.543 | 242.574 | 1.031 | 0.427 |
| 1987 | 256.718 | 258.754 | 2.036 | 0.793 |
| 1988 | 274.161 | 276.044 | 1.883 | 0.687 |
| 1989 | 272.387 | 275.243 | 2.855 | 1.048 |
| 1990 | 262.494 | 265.100 | 2.605 | 0.993 |
| 1991 | 260.395 | 263.894 | 3.499 | 1.344 |
| 1992 | 257.748 | 274.292 | 16.544 | 6.419 |
| 1993 | 258.040 | 281.519 | 23.479 | 9.099 |
| 1994 | 259.263 | 271.844 | 12.582 | 4.853 |
| 1995 | 255.591 | 269.208 | 13.616 | 5.327 |
| 1996 | 253.602 | 268.493 | 14.891 | 5.872 |
| 1997 | 250.087 | 266.520 | 16.433 | 6.571 |
| 1998 | 253.462 | 270.110 | 16.647 | 6.568 |
| 1999 | 255.428 | 271.568 | 16.140 | 6.319 |
| 2000 | 258.821 | 273.865 | 15.044 | 5.812 |
| 2001 | 258.755 | 272.626 | 13.871 | 5.361 |
| 2002 | 260.235 | 273.295 | 13.061 | 5.019 |
| 2003 | 261.836 | 274.417 | 12.582 | 4.805 |
| 2004 | 263.724 | 276.186 | 12.462 | 4.725 |
| 2005 | 265.783 | 278.258 | 12.475 | 4.694 |
| 2006 | 267.995 | 280.545 | 12.550 | 4.683 |
| 2007 | 270.347 | 282.991 | 12.644 | 4.677 |
| 2008 | 272.826 | 285.572 | 12.746 | 4.672 |
| 2009 | 275.266 | 288.115 | 12.849 | 4.668 |
| 2010 | 277.869 | 290.820 | 12.952 | 4.661 |

SOURCE: MAP MODEL SIMULATIONS SBASE83M AND DCS.83H--CREATED 10/11/88

TABLE B..51

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

REAL PERSONAL INCOME

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6247.679 | 6247.679 | 0.000 | 0.000 |
| 1981 | 6551.144 | 6551.144 | 0.000 | 0.000 |
| 1982 | 7081.304 | 7081.304 | 0.000 | 0.000 |
| 1983 | 7300.878 | 7300.878 | 0.000 | 0.000 |
| 1984 | 7339.421 | 7339.421 | 0.000 | 0.000 |
| 1985 | 7480.527 | 7497.429 | 16.902 | 0.226 |
| 1986 | 7990.835 | 8032.066 | 41.230 | 0.516 |
| 1987 | 9179.180 | 9265.640 | 86.461 | 0.942 |
| 1988 | 10462.730 | 10533.490 | 70.762 | 0.676 |
| 1989 | 9922.060 | 10040.190 | 118.133 | 1.191 |
| 1990 | 8886.261 | 8985.289 | 99.027 | 1.114 |
| 1991 | 8779.230 | 8921.562 | 142.332 | 1.621 |
| 1992 | 8682.132 | 9426.380 | 744.246 | 8.572 |
| 1993 | 8769.375 | 9769.000 | 999.625 | 11.399 |
| 1994 | 8877.281 | 9415.190 | 537.906 | 6.059 |
| 1995 | 8821.000 | 9441.280 | 620.277 | 7.032 |
| 1996 | 8827.140 | 9493.420 | 666.277 | 7.548 |
| 1997 | 8764.835 | 9489.840 | 725.004 | 8.272 |
| 1998 | 8945.421 | 9677.070 | 731.652 | 8.179 |
| 1999 | 9070.840 | 9777.180 | 706.332 | 7.787 |
| 2000 | 9261.790 | 9917.640 | 655.852 | 7.081 |
| 2001 | 9329.610 | 9935.420 | 605.805 | 6.493 |
| 2002 | 9462.750 | 10038.950 | 576.195 | 6.089 |
| 2003 | 9599.870 | 10161.260 | 561.387 | 5.848 |
| 2004 | 9749.930 | 10313.530 | 563.602 | 5.781 |
| 2005 | 9908.360 | 10478.180 | 569.820 | 5.751 |
| 2006 | 10074.460 | 10652.820 | 578.355 | 5.741 |
| 2007 | 10248.010 | 10835.490 | 587.484 | 5.733 |
| 2008 | 10428.700 | 11025.480 | 596.789 | 5.723 |
| 2009 | 10604.090 | 11210.460 | 606.367 | 5.718 |
| 2010 | 10795.460 | 11411.390 | 615.930 | 5.705 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND OCS.83H--CREATED 10/11/82

TABLE B.52

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

REAL PER CAPITA PERSONAL INCOME

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 15539.26 | 15539.26 | 0.00 | 0.00 |
| 1981 | 15789.14 | 15789.14 | 0.00 | 0.00 |
| 1982 | 16354.58 | 16354.58 | 0.00 | 0.00 |
| 1983 | 16497.91 | 16497.91 | 0.00 | 0.00 |
| 1984 | 16369.10 | 16369.10 | 0.00 | 0.00 |
| 1985 | 16434.42 | 16458.33 | 23.91 | 0.15 |
| 1986 | 17105.03 | 17156.26 | -51.23 | 0.30 |
| 1987 | 18789.32 | 18888.33 | 99.02 | 0.53 |
| 1988 | 20424.05 | 20485.02 | 60.98 | 0.30 |
| 1989 | 19267.11 | 19386.09 | 118.98 | 0.62 |
| 1990 | 17464.90 | 17562.75 | 97.85 | 0.56 |
| 1991 | 17165.08 | 17316.30 | 151.22 | 0.88 |
| 1992 | 16909.10 | 17790.65 | 881.55 | 5.21 |
| 1993 | 16927.52 | 18030.87 | 1103.36 | 6.52 |
| 1994 | 16961.31 | 17513.26 | 551.95 | 3.25 |
| 1995 | 16837.07 | 17500.62 | 663.55 | 3.94 |
| 1996 | 16791.69 | 17484.05 | 692.36 | 4.12 |
| 1997 | 16668.90 | 17409.11 | 740.21 | 4.44 |
| 1998 | 16804.36 | 17518.84 | 714.48 | 4.25 |
| 1999 | 16875.38 | 17533.30 | 657.91 | 3.90 |
| 2000 | 17023.47 | 17595.96 | 572.49 | 3.36 |
| 2001 | 17046.08 | 17547.10 | 501.01 | 2.94 |
| 2002 | 17144.05 | 17597.90 | 453.85 | 2.65 |
| 2003 | 17245.21 | 17669.91 | 424.70 | 2.46 |
| 2004 | 17360.33 | 17775.31 | 414.98 | 2.39 |
| 2005 | 17484.06 | 17892.30 | 408.24 | 2.33 |
| 2006 | 17615.34 | 18018.55 | 403.21 | 2.29 |
| 2007 | 17753.74 | 18151.91 | 398.17 | 2.24 |
| 2008 | 17898.69 | 18291.46 | 392.76 | 2.19 |
| 2009 | 18033.79 | 18421.70 | 387.91 | 2.15 |
| 2010 | 18189.23 | 18571.26 | 382.03 | 2.10 |

SOURCE: MAP MODEL SIMULATIONS SBASE83M AND SCS.93H--CREATED 10/11/88

TABLE B.55.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

BASIC SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 27201.58 | 27201.58 | 0.00 | 0.00 |
| 1981 | 27253.51 | 27253.51 | 0.00 | 0.00 |
| 1982 | 28596.71 | 28596.71 | 0.00 | 0.00 |
| 1983 | 29226.08 | 29226.08 | 0.00 | 0.00 |
| 1984 | 28819.58 | 28819.58 | 0.00 | 0.00 |
| 1985 | 29281.75 | 29353.08 | 71.33 | 0.24 |
| 1986 | 32184.88 | 32255.89 | 71.01 | 0.22 |
| 1987 | 38377.82 | 38491.92 | 114.10 | 0.30 |
| 1988 | 43599.71 | 43598.35 | -1.37 | -0.00 |
| 1989 | 39702.80 | 39827.07 | 124.27 | 0.31 |
| 1990 | 32580.52 | 32743.30 | 162.78 | 0.50 |
| 1991 | 32014.25 | 32330.70 | 316.45 | 0.99 |
| 1992 | 31852.62 | 33930.94 | 2078.32 | 6.52 |
| 1993 | 32165.57 | 34533.68 | 2368.12 | 7.36 |
| 1994 | 32375.26 | 33700.32 | 1325.05 | 4.09 |
| 1995 | 32346.14 | 34136.44 | 1790.30 | 5.53 |
| 1996 | 32418.13 | 34430.16 | 2012.03 | 6.21 |
| 1997 | 32598.90 | 34703.82 | 2104.92 | 6.46 |
| 1998 | 32549.13 | 34569.73 | 2020.60 | 6.21 |
| 1999 | 32587.14 | 34478.38 | 1891.24 | 5.80 |
| 2000 | 32758.00 | 34430.34 | 1672.34 | 5.11 |
| 2001 | 33125.32 | 34632.79 | 1507.47 | 4.55 |
| 2002 | 33423.47 | 34868.55 | 1445.08 | 4.32 |
| 2003 | 33730.13 | 35156.88 | 1426.75 | 4.23 |
| 2004 | 34047.55 | 35506.48 | 1458.93 | 4.28 |
| 2005 | 34376.77 | 35863.19 | 1486.42 | 4.32 |
| 2006 | 34713.44 | 36224.50 | 1511.05 | 4.35 |
| 2007 | 35057.91 | 36592.11 | 1534.21 | 4.38 |
| 2008 | 35409.80 | 36965.65 | 1555.86 | 4.39 |
| 2009 | 35688.05 | 37271.57 | 1583.52 | 4.44 |
| 2010 | 36069.95 | 37673.17 | 1603.23 | 4.44 |



SOURCE: MAP MODEL SIMULATIONS IBASE83N AND DCS.83H--CREATED 10/11/83

TABLE B.54.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

SERVICES SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 22624.87 | 22624.87 | 0.00 | 0.00 |
| 1981 | 22465.76 | 22465.76 | 0.00 | 0.00 |
| 1982 | 22158.36 | 22158.36 | 0.00 | 0.00 |
| 1983 | 22355.64 | 22355.64 | 0.00 | 0.00 |
| 1984 | 22476.25 | 22476.25 | 0.00 | 0.00 |
| 1985 | 22645.47 | 22642.72 | -2.75 | -0.01 |
| 1986 | 23281.60 | 23308.83 | 27.24 | 0.12 |
| 1987 | 24791.66 | 24817.92 | 26.26 | 0.11 |
| 1988 | 26136.07 | 26138.12 | 2.05 | 0.01 |
| 1989 | 25216.85 | 25221.67 | 4.82 | 0.02 |
| 1990 | 23952.98 | 23958.72 | 5.74 | 0.02 |
| 1991 | 23527.14 | 23545.13 | 18.00 | 0.08 |
| 1992 | 23146.93 | 23112.53 | -34.41 | -0.15 |
| 1993 | 23263.69 | 23161.81 | -101.88 | -0.44 |
| 1994 | 23358.05 | 23417.35 | 59.30 | 0.25 |
| 1995 | 23516.07 | 23673.54 | 157.46 | 0.67 |
| 1996 | 23700.33 | 23686.20 | -14.13 | -0.06 |
| 1997 | 23757.03 | 23797.94 | 40.91 | 0.17 |
| 1998 | 23866.83 | 23907.26 | 40.43 | 0.17 |
| 1999 | 23945.29 | 23999.79 | 54.50 | 0.23 |
| 2000 | 24058.77 | 24123.44 | 64.67 | 0.27 |
| 2001 | 24000.35 | 24087.13 | 86.78 | 0.36 |
| 2002 | 24130.42 | 24219.73 | 89.31 | 0.37 |
| 2003 | 24236.32 | 24326.39 | 90.07 | 0.37 |
| 2004 | 24350.14 | 24439.26 | 89.12 | 0.37 |
| 2005 | 24463.09 | 24550.68 | 87.59 | 0.36 |
| 2006 | 24576.96 | 24664.27 | 87.31 | 0.36 |
| 2007 | 24691.34 | 24778.53 | 87.19 | 0.35 |
| 2008 | 24806.23 | 24893.33 | 87.10 | 0.35 |
| 2009 | 24922.65 | 25009.69 | 87.04 | 0.35 |
| 2010 | 25040.28 | 25127.20 | 86.92 | 0.35 |

SOURCE: MAP MODEL SIMULATIONS CBASE83N AND OCS.83H--CREATED 10/11/83

TABLE B.55

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

GOVERNMENT SECTOR REAL WAGE RATE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 23469.32 | 23469.32 | 0.00 | 0.00 |
| 1981 | 23665.52 | 23665.52 | 0.00 | 0.00 |
| 1982 | 24451.50 | 24451.50 | 0.00 | 0.00 |
| 1983 | 24813.00 | 24813.00 | 0.00 | 0.00 |
| 1984 | 25148.11 | 25148.11 | 0.00 | 0.00 |
| 1985 | 25508.86 | 25508.62 | -0.25 | -0.00 |
| 1986 | 25974.68 | 25973.85 | -0.83 | -0.00 |
| 1987 | 26573.26 | 26570.52 | -2.74 | -0.01 |
| 1988 | 27122.75 | 27121.37 | -1.38 | -0.01 |
| 1989 | 27304.00 | 27299.85 | -4.15 | -0.02 |
| 1990 | 27379.02 | 27376.37 | -2.65 | -0.01 |
| 1991 | 27763.93 | 27760.20 | -3.73 | -0.01 |
| 1992 | 28179.68 | 28165.74 | -13.94 | -0.05 |
| 1993 | 28612.79 | 28581.89 | -30.90 | -0.11 |
| 1994 | 29048.10 | 29014.95 | -33.16 | -0.11 |
| 1995 | 29490.98 | 29473.81 | -17.17 | -0.06 |
| 1996 | 29960.84 | 29928.00 | -32.84 | -0.11 |
| 1997 | 30433.24 | 30393.96 | -39.28 | -0.13 |
| 1998 | 30915.46 | 30869.79 | -45.68 | -0.15 |
| 1999 | 31399.30 | 31349.92 | -49.37 | -0.16 |
| 2000 | 31894.02 | 31842.97 | -51.05 | -0.16 |
| 2001 | 32398.59 | 32347.64 | -50.96 | -0.16 |
| 2002 | 32918.60 | 32867.76 | -50.84 | -0.15 |
| 2003 | 33446.18 | 33394.41 | -51.77 | -0.15 |
| 2004 | 33983.82 | 33930.07 | -53.75 | -0.16 |
| 2005 | 34531.57 | 34474.57 | -57.00 | -0.17 |
| 2006 | 35089.44 | 35028.79 | -60.65 | -0.17 |
| 2007 | 35657.73 | 35593.14 | -64.58 | -0.18 |
| 2008 | 36236.54 | 36167.93 | -68.61 | -0.19 |
| 2009 | 36826.35 | 36753.46 | -72.89 | -0.20 |
| 2010 | 37428.28 | 37351.07 | -77.21 | -0.21 |

SOURCE: MAP MODEL SIMULATIONS 3BASE83N AND DCS.83H--CREATED 10/11/83

TABLE B.56

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

TOTAL REAL STATE GOVERNMENT REVENUES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2922.715 | 2922.715 | 0.000 | 0.000 |
| 1981 | 3893.178 | 3893.178 | 0.000 | 0.000 |
| 1982 | 4730.027 | 4730.027 | 0.000 | 0.000 |
| 1983 | 3659.045 | 3659.045 | 0.000 | 0.000 |
| 1984 | 3666.755 | 3666.755 | 0.000 | 0.000 |
| 1985 | 4196.351 | 4197.593 | 1.242 | 0.030 |
| 1986 | 4455.921 | 4459.968 | 4.047 | 0.091 |
| 1987 | 4758.718 | 4767.156 | 8.438 | 0.177 |
| 1988 | 4701.808 | 4711.457 | 9.648 | 0.205 |
| 1989 | 5099.402 | 5112.796 | 13.395 | 0.263 |
| 1990 | 4609.652 | 4623.144 | 13.492 | 0.293 |
| 1991 | 4387.226 | 4403.058 | 15.832 | 0.361 |
| 1992 | 4215.984 | 4270.957 | 54.973 | 1.304 |
| 1993 | 4136.718 | 4226.542 | 89.824 | 2.171 |
| 1994 | 3951.787 | 4161.347 | 209.560 | 5.303 |
| 1995 | 3801.949 | 4300.054 | 498.105 | 13.101 |
| 1996 | 3851.055 | 4093.697 | 242.642 | 6.301 |
| 1997 | 3775.547 | 4039.626 | 264.078 | 6.994 |
| 1998 | 3703.297 | 3985.762 | 282.466 | 7.627 |
| 1999 | 3591.435 | 3885.989 | 294.554 | 8.202 |
| 2000 | 3482.177 | 3784.412 | 302.235 | 8.679 |
| 2001 | 3356.313 | 3663.183 | 306.870 | 9.143 |
| 2002 | 3260.732 | 3572.324 | 311.592 | 9.556 |
| 2003 | 3170.253 | 3487.707 | 317.453 | 10.013 |
| 2004 | 3053.408 | 3377.668 | 324.261 | 10.620 |
| 2005 | 2991.311 | 3323.314 | 332.003 | 11.099 |
| 2006 | 2935.669 | 3275.352 | 339.683 | 11.571 |
| 2007 | 2885.704 | 3232.840 | 347.136 | 12.029 |
| 2008 | 2840.818 | 3195.102 | 354.283 | 12.471 |
| 2009 | 2800.101 | 3161.215 | 361.114 | 12.896 |
| 2010 | 2762.889 | 3130.539 | 367.650 | 13.307 |

SOURCE: MAP MODEL SIMULATIONS 3BASE83N AND DCI.83H--CREATED 10/11/82

TABLE B.57

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

TOTAL REAL STATE GOVERNMENT EXPENDITURES

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2005.519 | 2005.519 | 0.000 | 0.000 |
| 1981 | 2960.817 | 2960.817 | 0.000 | 0.000 |
| 1982 | 3651.551 | 3651.551 | 0.000 | 0.000 |
| 1983 | 3403.064 | 3403.064 | 0.000 | 0.000 |
| 1984 | 3414.833 | 3414.833 | 0.000 | 0.000 |
| 1985 | 3440.812 | 3441.589 | 0.777 | 0.023 |
| 1986 | 3466.836 | 3468.973 | 2.137 | 0.062 |
| 1987 | 3484.240 | 3488.538 | 4.298 | 0.123 |
| 1988 | 3491.066 | 3495.395 | 4.329 | 0.124 |
| 1989 | 3479.157 | 3485.561 | 6.404 | 0.184 |
| 1990 | 3476.221 | 3482.389 | 6.168 | 0.177 |
| 1991 | 3493.268 | 3501.270 | 8.002 | 0.229 |
| 1992 | 3512.592 | 3545.628 | 33.037 | 0.941 |
| 1993 | 3534.157 | 3581.179 | 47.022 | 1.331 |
| 1994 | 3557.588 | 3384.958 | -172.630 | -4.852 |
| 1995 | 3371.354 | 3226.751 | -144.604 | -4.289 |
| 1996 | 3216.832 | 3096.024 | -120.808 | -3.755 |
| 1997 | 3084.819 | 2984.515 | -100.304 | -3.252 |
| 1998 | 2980.318 | 2896.002 | -84.317 | -2.829 |
| 1999 | 2891.114 | 2819.913 | -71.201 | -2.463 |
| 2000 | 2817.548 | 2756.924 | -60.625 | -2.152 |
| 2001 | 2754.956 | 2703.359 | -51.597 | -1.873 |
| 2002 | 2701.743 | 2657.889 | -43.854 | -1.623 |
| 2003 | 2657.634 | 2620.520 | -37.114 | -1.396 |
| 2004 | 2620.714 | 2589.532 | -31.182 | -1.190 |
| 2005 | 2590.493 | 2564.443 | -26.050 | -1.006 |
| 2006 | 2565.985 | 2544.359 | -21.626 | -0.843 |
| 2007 | 2546.362 | 2528.538 | -17.824 | -0.700 |
| 2008 | 2530.923 | 2516.365 | -14.558 | -0.575 |
| 2009 | 2518.975 | 2507.233 | -11.742 | -0.466 |
| 2010 | 2510.156 | 2500.842 | -9.314 | -0.371 |



SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83H--CREATED 10/11/82

TABLE B.58

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

REAL PER CAPITA STATE GOVERNMENT EXPENDITURES

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 4988.14 | 4988.14 | 0.00 | 0.00 |
| 1981 | 7135.97 | 7135.97 | 0.00 | 0.00 |
| 1982 | 8433.42 | 8433.42 | 0.00 | 0.00 |
| 1983 | 7689.96 | 7689.96 | 0.00 | 0.00 |
| 1984 | 7616.10 | 7616.10 | 0.00 | 0.00 |
| 1985 | 7559.33 | 7554.97 | -4.36 | -0.06 |
| 1986 | 7421.05 | 7409.63 | -11.42 | -0.15 |
| 1987 | 7132.06 | 7111.50 | -20.56 | -0.29 |
| 1988 | 6814.82 | 6797.67 | -17.15 | -0.25 |
| 1989 | 6755.99 | 6730.09 | -25.89 | -0.38 |
| 1990 | 6832.11 | 6806.72 | -25.39 | -0.37 |
| 1991 | 6830.01 | 6795.79 | -34.22 | -0.50 |
| 1992 | 6841.04 | 6691.76 | -149.28 | -2.18 |
| 1993 | 6821.98 | 6609.87 | -212.11 | -3.11 |
| 1994 | 6797.28 | 6296.38 | -500.89 | -7.37 |
| 1995 | 6435.07 | 5981.20 | -453.87 | -7.05 |
| 1996 | 6119.32 | 5701.96 | -417.36 | -6.82 |
| 1997 | 5866.69 | 5475.09 | -391.59 | -6.67 |
| 1998 | 5598.66 | 5242.76 | -355.89 | -6.36 |
| 1999 | 5378.63 | 5056.92 | -321.71 | -5.98 |
| 2000 | 5178.75 | 4891.36 | -287.39 | -5.55 |
| 2001 | 5033.57 | 4774.45 | -259.12 | -5.15 |
| 2002 | 4894.86 | 4659.18 | -235.68 | -4.81 |
| 2003 | 4774.17 | 4556.95 | -217.22 | -4.55 |
| 2004 | 4666.34 | 4463.04 | -203.30 | -4.36 |
| 2005 | 4571.13 | 4378.98 | -192.14 | -4.20 |
| 2006 | 4486.66 | 4303.62 | -183.04 | -4.08 |
| 2007 | 4411.34 | 4235.87 | -175.47 | -3.98 |
| 2008 | 4343.80 | 4174.69 | -169.11 | -3.89 |
| 2009 | 4283.88 | 4120.04 | -163.84 | -3.82 |
| 2010 | 4229.35 | 4069.95 | -159.40 | -3.77 |

SOURCE: MAP MODEL SIMULATIONS IBASE83N AND OCS.83H--CREATED 10/11/86

TABLE B.59

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

REAL COMBINED FUNDS BALANCE

MILLIONS OF 1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 2420.861 | 2420.861 | 0.000 | 0.000 |
| 1981 | 3475.185 | 3475.185 | 0.000 | 0.000 |
| 1982 | 4687.683 | 4687.683 | 0.000 | 0.000 |
| 1983 | 5023.308 | 5023.308 | 0.000 | 0.000 |
| 1984 | 5346.121 | 5346.121 | 0.000 | 0.000 |
| 1985 | 6173.585 | 6174.679 | 1.094 | 0.018 |
| 1986 | 7162.925 | 7167.148 | 4.223 | 0.059 |
| 1987 | 8322.921 | 8333.402 | 10.480 | 0.126 |
| 1988 | 9287.470 | 9303.050 | 15.582 | 0.168 |
| 1989 | 10606.470 | 10630.850 | 24.379 | 0.230 |
| 1990 | 11405.320 | 11435.320 | 30.000 | 0.263 |
| 1991 | 11936.670 | 11975.410 | 38.738 | 0.325 |
| 1992 | 12242.040 | 12340.330 | 98.297 | 0.803 |
| 1993 | 12435.020 | 12592.110 | 157.090 | 1.263 |
| 1994 | 12411.750 | 12872.510 | 460.762 | 3.712 |
| 1995 | 12377.870 | 13422.710 | 1044.840 | 8.441 |
| 1996 | 12527.430 | 13842.120 | 1314.687 | 10.494 |
| 1997 | 12694.560 | 14266.160 | 1571.605 | 12.380 |
| 1998 | 12885.500 | 14698.660 | 1813.152 | 14.071 |
| 1999 | 13020.160 | 15057.090 | 2036.929 | 15.644 |
| 2000 | 13101.740 | 15344.630 | 2242.886 | 17.119 |
| 2001 | 13092.980 | 15523.720 | 2430.738 | 18.565 |
| 2002 | 13039.120 | 15645.190 | 2606.062 | 19.986 |
| 2003 | 12936.290 | 15707.340 | 2771.050 | 21.421 |
| 2004 | 12756.220 | 15684.380 | 2928.164 | 22.955 |
| 2005 | 12553.100 | 15631.690 | 3078.589 | 24.525 |
| 2006 | 12330.200 | 15553.210 | 3223.011 | 26.139 |
| 2007 | 12090.410 | 15452.370 | 3361.960 | 27.807 |
| 2008 | 11836.460 | 15332.330 | 3495.871 | 29.535 |
| 2009 | 11570.050 | 15195.040 | 3624.996 | 31.331 |
| 2010 | 11293.500 | 15043.310 | 3749.808 | 33.203 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N AND DCS.83H--CREATED 10/11/82

TABLE B. 60

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

2.4 BBBL CASE

REAL PER CAPITA COMBINED FUNDS BALANCE

1982 $

| | BASE CASE | IMPACT CASE | DIFFERENCE | PERCENT DIFFERENCE |
|---|---|---|---|---|
| 1980 | 6021.18 | 6021.18 | 0.00 | 0.00 |
| 1981 | 8375.67 | 8375.67 | 0.00 | 0.00 |
| 1982 | 10826.41 | 10826.41 | 0.00 | 0.00 |
| 1983 | 11351.25 | 11351.25 | 0.00 | 0.00 |
| 1984 | 11923.44 | 11923.44 | 0.00 | 0.00 |
| 1985 | 13563.12 | 13554.64 | -8.49 | -0.06 |
| 1986 | 15332.82 | 15308.82 | -24.00 | -0.16 |
| 1987 | 17036.60 | 16987.92 | -48.67 | -0.29 |
| 1988 | 18129.83 | 18092.11 | -37.72 | -0.21 |
| 1989 | 20596.14 | 20526.57 | -69.57 | -0.34 |
| 1990 | 22415.82 | 22351.61 | -64.20 | -0.29 |
| 1991 | 23338.50 | 23243.68 | -94.81 | -0.41 |
| 1992 | 23842.30 | 23290.25 | -552.05 | -2.32 |
| 1993 | 24003.33 | 23241.57 | -761.76 | -3.17 |
| 1994 | 23714.42 | 23944.25 | 229.83 | 0.97 |
| 1995 | 23626.26 | 24880.74 | 1254.48 | 5.31 |
| 1996 | 23830.69 | 25493.07 | 1662.39 | 6.98 |
| 1997 | 24142.43 | 26171.29 | 2028.86 | 8.40 |
| 1998 | 24205.99 | 26609.64 | 2403.65 | 9.93 |
| 1999 | 24222.70 | 27001.72 | 2779.02 | 11.47 |
| 2000 | 24081.45 | 27224.58 | 3143.13 | 13.05 |
| 2001 | 23922.12 | 27416.69 | 3494.57 | 14.61 |
| 2002 | 23623.52 | 27425.45 | 3801.93 | 16.09 |
| 2003 | 23238.76 | 27314.27 | 4075.51 | 17.54 |
| 2004 | 22713.22 | 27031.96 | 4318.73 | 19.01 |
| 2005 | 22150.92 | 26692.33 | 4541.41 | 20.50 |
| 2006 | 21559.53 | 26307.25 | 4747.72 | 22.02 |
| 2007 | 20945.53 | 25886.23 | 4940.69 | 23.59 |
| 2008 | 20314.83 | 25436.59 | 5121.76 | 25.21 |
| 2009 | 19676.53 | 24969.41 | 5292.87 | 26.90 |
| 2010 | 19028.37 | 24481.96 | 5453.59 | 28.66 |

SOURCE: MAP MODEL SIMULATIONS SBASE83M AND OCS.83H--CREATED 10/11/82

# APPENDIX C

## MAP MODEL IMPACT PROJECTIONS
## COMPARISON OF ABSOLUTE IMPACTS BY OCS CASE

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TABLE C.1.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

TOTAL POPULATION

THOUSANDS

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.366 | 0.366 | 0.366 | 0.366 |
| 1986 | 0.702 | 0.804 | 0.804 | 1.008 |
| 1987 | 0.964 | 1.525 | 1.525 | 2.017 |
| 1988 | 1.303 | 1.946 | 1.946 | 1.929 |
| 1989 | 1.949 | 2.673 | 2.673 | 2.933 |
| 1990 | 2.167 | 2.400 | 2.400 | 2.804 |
| 1991 | 3.390 | 3.459 | 3.459 | 3.753 |
| 1992 | 5.746 | 11.546 | 11.546 | 16.391 |
| 1993 | 9.566 | 16.852 | 16.852 | 23.739 |
| 1994 | 9.878 | 15.360 | 15.360 | 14.219 |
| 1995 | 10.926 | 15.369 | 15.369 | 15.579 |
| 1996 | 10.397 | 15.295 | 15.295 | 17.291 |
| 1997 | 10.573 | 15.679 | 15.679 | 19.288 |
| 1998 | 10.614 | 15.754 | 15.754 | 20.054 |
| 1999 | 10.471 | 15.545 | 15.545 | 20.115 |
| 2000 | 9.961 | 14.898 | 14.898 | 19.572 |
| 2001 | 9.715 | 14.237 | 14.237 | 18.897 |
| 2002 | 9.499 | 13.920 | 13.920 | 18.507 |
| 2003 | 9.536 | 13.936 | 13.936 | 18.391 |
| 2004 | 9.650 | 14.094 | 14.094 | 18.595 |
| 2005 | 9.813 | 14.319 | 14.319 | 18.917 |
| 2006 | 9.993 | 14.571 | 14.571 | 19.300 |
| 2007 | 10.180 | 14.836 | 14.836 | 19.703 |
| 2008 | 10.375 | 15.111 | 15.111 | 20.116 |
| 2009 | 10.574 | 15.393 | 15.393 | 20.534 |
| 2010 | 10.776 | 15.680 | 15.680 | 20.957 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83P, AND OCS.83H--CREATED 10/11/92

TABLE C.2.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

BASIC SECTOR EMPLOYMENT

THOUSANDS

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.259 | 0.259 | 0.259 | 0.259 |
| 1986 | 0.165 | 0.219 | 0.219 | 0.327 |
| 1987 | 0.238 | 0.517 | 0.517 | 0.743 |
| 1988 | 0.367 | 0.610 | 0.610 | 0.516 |
| 1989 | 0.708 | 0.957 | 0.957 | 1.070 |
| 1990 | 0.664 | 0.637 | 0.637 | 0.807 |
| 1991 | 1.438 | 1.331 | 1.331 | 1.401 |
| 1992 | 2.763 | 6.672 | 6.672 | 9.906 |
| 1993 | 4.636 | 8.293 | 8.293 | 11.923 |
| 1994 | 3.735 | 5.197 | 5.197 | 4.726 |
| 1995 | 4.090 | 5.083 | 5.083 | 5.947 |
| 1996 | 3.396 | 4.977 | 4.977 | 6.426 |
| 1997 | 3.394 | 4.992 | 4.992 | 6.507 |
| 1998 | 3.277 | 4.750 | 4.750 | 6.394 |
| 1999 | 3.019 | 4.378 | 4.378 | 5.964 |
| 2000 | 2.589 | 3.818 | 3.818 | 5.344 |
| 2001 | 2.430 | 3.364 | 3.364 | 4.797 |
| 2002 | 2.269 | 3.186 | 3.186 | 4.515 |
| 2003 | 2.259 | 3.167 | 3.167 | 4.374 |
| 2004 | 2.258 | 3.165 | 3.165 | 4.387 |
| 2005 | 2.263 | 3.172 | 3.172 | 4.412 |
| 2006 | 2.270 | 3.181 | 3.181 | 4.441 |
| 2007 | 2.277 | 3.192 | 3.192 | 4.470 |
| 2008 | 2.286 | 3.205 | 3.205 | 4.499 |
| 2009 | 2.295 | 3.217 | 3.217 | 4.526 |
| 2010 | 2.304 | 3.230 | 3.230 | 4.553 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83R, AND OCS.83H--CREATED 10/11/82

TABLE C.3.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

SERVICES SECTOR EMPLOYMENT

THOUSANDS

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.117 | 0.117 | 0.117 | 0.117 |
| 1986 | 0.499 | 0.551 | 0.551 | 0.653 |
| 1987 | 0.643 | 0.925 | 0.925 | 1.171 |
| 1988 | 0.827 | 1.151 | 1.151 | 1.144 |
| 1989 | 1.063 | 1.440 | 1.440 | 1.581 |
| 1990 | 1.199 | 1.313 | 1.313 | 1.495 |
| 1991 | 1.617 | 1.700 | 1.700 | 1.840 |
| 1992 | 2.471 | 4.490 | 4.490 | 6.191 |
| 1993 | 4.087 | 7.000 | 7.000 | 9.685 |
| 1994 | 4.562 | 7.451 | 7.451 | 5.519 |
| 1995 | 4.982 | 7.336 | 7.336 | 7.297 |
| 1996 | 4.710 | 6.932 | 6.932 | 7.065 |
| 1997 | 4.655 | 6.871 | 6.871 | 8.441 |
| 1998 | 4.513 | 6.745 | 6.745 | 8.670 |
| 1999 | 4.361 | 6.524 | 6.524 | 8.606 |
| 2000 | 4.052 | 6.109 | 6.109 | 8.213 |
| 2001 | 3.820 | 5.665 | 5.665 | 7.719 |
| 2002 | 3.604 | 5.341 | 5.341 | 7.313 |
| 2003 | 3.523 | 5.187 | 5.187 | 7.052 |
| 2004 | 3.488 | 5.140 | 5.140 | 6.963 |
| 2005 | 3.497 | 5.149 | 5.149 | 6.961 |
| 2006 | 3.518 | 5.178 | 5.178 | 7.008 |
| 2007 | 3.545 | 5.215 | 5.215 | 7.071 |
| 2008 | 3.574 | 5.256 | 5.256 | 7.141 |
| 2009 | 3.605 | 5.299 | 5.299 | 7.213 |
| 2010 | 3.637 | 5.345 | 5.345 | 7.286 |

SOURCE: MAP MODEL SIMULATIONS BBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE C.4.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

GOVERNMENT EMPLOYMENT

THOUSANDS

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.003 | 0.003 | 0.003 | 0.003 |
| 1986 | 0.048 | 0.049 | 0.049 | 0.052 |
| 1987 | 0.074 | 0.092 | 0.092 | 0.121 |
| 1988 | 0.102 | 0.172 | 0.172 | 0.223 |
| 1989 | 0.145 | 0.216 | 0.216 | 0.204 |
| 1990 | 0.204 | 0.273 | 0.273 | 0.303 |
| 1991 | 0.210 | 0.216 | 0.216 | 0.258 |
| 1992 | 0.355 | 0.391 | 0.391 | 0.447 |
| 1993 | 0.612 | 1.296 | 1.296 | 1.870 |
| 1994 | 0.977 | 1.690 | 1.690 | 2.337 |
| 1995 | 0.924 | 1.365 | 1.365 | 0.372 |
| 1996 | 0.947 | 1.279 | 1.279 | 1.400 |
| 1997 | 0.847 | 1.240 | 1.240 | 1.485 |
| 1998 | 0.835 | 1.229 | 1.229 | 1.584 |
| 1999 | 0.802 | 1.176 | 1.176 | 1.569 |
| 2000 | 0.745 | 1.094 | 1.094 | 1.486 |
| 2001 | 0.657 | 0.975 | 0.975 | 1.356 |
| 2002 | 0.612 | 0.873 | 0.873 | 1.232 |
| 2003 | 0.572 | 0.821 | 0.821 | 1.156 |
| 2004 | 0.562 | 0.804 | 0.804 | 1.112 |
| 2005 | 0.557 | 0.797 | 0.797 | 1.103 |
| 2006 | 0.556 | 0.795 | 0.795 | 1.101 |
| 2007 | 0.556 | 0.795 | 0.795 | 1.103 |
| 2008 | 0.557 | 0.795 | 0.795 | 1.106 |
| 2009 | 0.557 | 0.796 | 0.796 | 1.110 |
| 2010 | 0.558 | 0.797 | 0.797 | 1.113 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE C.5.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

TOTAL EMPLOYMENT

THOUSANDS

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.379 | 0.379 | 0.379 | 0.379 |
| 1986 | 0.712 | 0.819 | 0.819 | 1.031 |
| 1987 | 0.954 | 1.534 | 1.534 | 2.036 |
| 1988 | 1.295 | 1.933 | 1.933 | 1.883 |
| 1989 | 1.916 | 2.613 | 2.613 | 2.855 |
| 1990 | 2.067 | 2.222 | 2.222 | 2.605 |
| 1991 | 3.265 | 3.247 | 3.247 | 3.499 |
| 1992 | 5.590 | 11.552 | 11.552 | 16.544 |
| 1993 | 9.335 | 16.588 | 16.588 | 23.479 |
| 1994 | 9.274 | 14.337 | 14.337 | 12.582 |
| 1995 | 9.996 | 13.784 | 13.784 | 13.616 |
| 1996 | 9.052 | 13.188 | 13.188 | 14.891 |
| 1997 | 8.896 | 13.104 | 13.104 | 16.433 |
| 1998 | 8.625 | 12.724 | 12.724 | 16.647 |
| 1999 | 8.181 | 12.078 | 12.078 | 16.140 |
| 2000 | 7.386 | 11.021 | 11.021 | 15.044 |
| 2001 | 6.906 | 10.004 | 10.004 | 13.871 |
| 2002 | 6.486 | 9.400 | 9.400 | 13.061 |
| 2003 | 6.354 | 9.175 | 9.175 | 12.582 |
| 2004 | 6.308 | 9.109 | 9.109 | 12.462 |
| 2005 | 6.317 | 9.118 | 9.118 | 12.475 |
| 2006 | 6.344 | 9.154 | 9.154 | 12.550 |
| 2007 | 6.378 | 9.202 | 9.202 | 12.644 |
| 2008 | 6.416 | 9.256 | 9.256 | 12.746 |
| 2009 | 6.457 | 9.312 | 9.312 | 12.849 |
| 2010 | 6.499 | 9.372 | 9.372 | 12.952 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83F, AND DCS.83H--CREATED 10/11/82

TABLE C.6.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

REAL PERSONAL INCOME

MILLIONS OF 1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 16.902 | 16.902 | 16.902 | 16.902 |
| 1986 | 26.691 | 31.555 | 31.555 | 41.230 |
| 1987 | 37.081 | 63.941 | 63.941 | 86.461 |
| 1988 | 50.711 | 77.320 | 77.320 | 70.762 |
| 1989 | 78.672 | 106.711 | 106.711 | 118.133 |
| 1990 | 80.141 | 82.375 | 82.375 | 99.027 |
| 1991 | 136.371 | 133.156 | 133.156 | 142.332 |
| 1992 | 239.145 | 514.539 | 514.539 | 744.246 |
| 1993 | 404.879 | 706.238 | 706.238 | 999.625 |
| 1994 | 385.188 | 575.605 | 575.605 | 537.906 |
| 1995 | 426.102 | 575.016 | 575.016 | 620.277 |
| 1996 | 384.438 | 562.953 | 562.953 | 666.277 |
| 1997 | 385.039 | 567.285 | 567.285 | 725.004 |
| 1998 | 375.637 | 551.625 | 551.625 | 731.652 |
| 1999 | 356.344 | 523.684 | 523.684 | 706.332 |
| 2000 | 319.246 | 475.406 | 475.406 | 655.852 |
| 2001 | 302.574 | 432.410 | 432.410 | 605.805 |
| 2002 | 286.297 | 411.777 | 411.777 | 576.195 |
| 2003 | 284.832 | 408.305 | 408.305 | 561.387 |
| 2004 | 286.023 | 409.965 | 409.965 | 563.602 |
| 2005 | 289.090 | 414.184 | 414.184 | 569.820 |
| 2006 | 292.738 | 419.320 | 419.320 | 578.355 |
| 2007 | 296.746 | 424.977 | 424.977 | 587.484 |
| 2008 | 300.918 | 430.883 | 430.883 | 596.789 |
| 2009 | 305.227 | 437.020 | 437.020 | 606.367 |
| 2010 | 309.633 | 443.129 | 443.129 | 615.930 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE C.7.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

REAL PER CAPITA PERSONAL INCOME

1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | 23.91 | 23.91 | 23.91 | 23.91 |
| 1986 | 31.39 | 38.02 | 38.02 | 51.23 |
| 1987 | 38.64 | 72.00 | 72.00 | 99.02 |
| 1988 | 46.90 | 73.09 | 73.09 | 60.98 |
| 1989 | 79.56 | 106.64 | 106.64 | 118.98 |
| 1990 | 82.77 | 79.14 | 79.14 | 97.85 |
| 1991 | 151.84 | 143.27 | 143.27 | 151.22 |
| 1992 | 273.46 | 608.20 | 608.20 | 881.55 |
| 1993 | 460.46 | 787.00 | 787.00 | 1103.36 |
| 1994 | 408.12 | 584.84 | 584.84 | 551.95 |
| 1995 | 452.75 | 586.43 | 586.43 | 663.55 |
| 1996 | 391.46 | 565.86 | 565.86 | 692.36 |
| 1997 | 389.28 | 564.97 | 564.97 | 740.21 |
| 1998 | 363.34 | 523.44 | 523.44 | 714.48 |
| 1999 | 327.82 | 472.57 | 472.57 | 657.91 |
| 2000 | 270.17 | 396.80 | 396.80 | 572.49 |
| 2001 | 245.91 | 337.84 | 337.84 | 501.01 |
| 2002 | 219.87 | 305.95 | 305.95 | 453.85 |
| 2003 | 212.60 | 294.38 | 294.38 | 424.70 |
| 2004 | 207.41 | 287.10 | 287.10 | 414.98 |
| 2005 | 203.84 | 281.97 | 281.97 | 408.24 |
| 2006 | 200.57 | 277.34 | 277.34 | 403.21 |
| 2007 | 197.49 | 272.91 | 272.91 | 398.17 |
| 2008 | 194.28 | 268.36 | 268.36 | 392.76 |
| 2009 | 191.36 | 264.20 | 264.20 | 387.91 |
| 2010 | 188.03 | 259.22 | 259.22 | 382.03 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE C.8.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

BASIC SECTOR REAL WAGE RATE

1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | 71.33 | 71.33 | 71.33 | 71.33 |
| 1986 | 22.09 | 38.46 | 38.46 | 71.01 |
| 1987 | 12.30 | 69.95 | 69.95 | 114.10 |
| 1988 | 3.96 | 25.90 | 25.90 | -1.37 |
| 1989 | 74.52 | 104.57 | 104.57 | 124.27 |
| 1990 | 139.04 | 114.27 | 114.27 | 162.78 |
| 1991 | 337.56 | 302.75 | 302.75 | 316.45 |
| 1992 | 656.38 | 1468.52 | 1468.52 | 2078.32 |
| 1993 | 1110.92 | 1754.02 | 1754.02 | 2368.12 |
| 1994 | 959.97 | 1225.14 | 1225.14 | 1325.05 |
| 1995 | 1131.61 | 1385.26 | 1385.26 | 1790.30 |
| 1996 | 1028.14 | 1472.42 | 1472.42 | 2012.03 |
| 1997 | 1102.45 | 1576.75 | 1576.75 | 2104.92 |
| 1998 | 1056.76 | 1480.56 | 1480.56 | 2020.60 |
| 1999 | 981.58 | 1377.26 | 1377.26 | 1891.24 |
| 2000 | 822.02 | 1179.73 | 1179.73 | 1672.34 |
| 2001 | 786.17 | 1040.88 | 1040.88 | 1507.47 |
| 2002 | 745.41 | 1009.77 | 1009.77 | 1445.08 |
| 2003 | 761.21 | 1032.05 | 1032.05 | 1426.75 |
| 2004 | 774.64 | 1050.27 | 1050.27 | 1458.93 |
| 2005 | 786.31 | 1066.32 | 1066.32 | 1486.42 |
| 2006 | 797.24 | 1081.48 | 1081.48 | 1511.05 |
| 2007 | 807.86 | 1095.74 | 1095.74 | 1534.21 |
| 2008 | 817.90 | 1109.25 | 1109.25 | 1555.86 |
| 2009 | 831.29 | 1127.69 | 1127.69 | 1583.52 |
| 2010 | 840.76 | 1140.58 | 1140.58 | 1603.23 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83Q--CREATED 10/11/82

TABLE C.9.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

SERVICES SECTOR REAL WAGE RATE

1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -2.75 | -2.75 | -2.75 | -2.75 |
| 1986 | 23.91 | 25.10 | 25.10 | 27.24 |
| 1987 | 23.30 | 25.77 | 25.77 | 26.26 |
| 1988 | 15.79 | 9.07 | 9.07 | 2.05 |
| 1989 | 5.27 | 1.70 | 1.70 | 4.82 |
| 1990 | 10.76 | 5.68 | 5.68 | 5.74 |
| 1991 | 12.39 | 18.79 | 18.79 | 18.00 |
| 1992 | 0.44 | -16.96 | -16.96 | -34.41 |
| 1993 | -10.09 | -57.11 | -57.11 | -101.88 |
| 1994 | -10.80 | 1.22 | 1.22 | 59.30 |
| 1995 | 13.52 | 48.34 | 48.34 | 157.46 |
| 1996 | 11.34 | 35.49 | 35.49 | -14.13 |
| 1997 | 23.93 | 40.18 | 40.18 | 40.91 |
| 1998 | 20.80 | 41.74 | 41.74 | 40.43 |
| 1999 | 26.86 | 51.20 | 51.20 | 54.50 |
| 2000 | 32.61 | 58.63 | 58.63 | 64.67 |
| 2001 | 43.57 | 76.14 | 76.14 | 86.78 |
| 2002 | 42.33 | 77.21 | 77.21 | 89.31 |
| 2003 | 43.24 | 76.09 | 76.09 | 90.07 |
| 2004 | 41.74 | 74.54 | 74.54 | 89.12 |
| 2005 | 41.71 | 74.33 | 74.33 | 87.59 |
| 2006 | 41.60 | 74.22 | 74.22 | 87.31 |
| 2007 | 41.64 | 74.25 | 74.25 | 87.19 |
| 2008 | 41.65 | 74.25 | 74.25 | 87.10 |
| 2009 | 41.64 | 74.26 | 74.26 | 87.04 |
| 2010 | 41.61 | 74.18 | 74.18 | 86.92 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83V--CREATED 10/11/82

TABLE C.10.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

GOVERNMENT SECTOR REAL WAGE RATE

1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -0.25 | -0.25 | -0.25 | -0.25 |
| 1986 | -0.47 | -0.58 | -0.58 | -0.83 |
| 1987 | -1.08 | -2.07 | -2.07 | -2.74 |
| 1988 | -1.86 | -2.43 | -2.43 | -1.38 |
| 1989 | -2.67 | -3.51 | -3.51 | -4.15 |
| 1990 | -2.05 | -2.32 | -2.32 | -2.65 |
| 1991 | -3.26 | -3.36 | -3.36 | -3.73 |
| 1992 | -6.13 | -10.27 | -10.27 | -13.94 |
| 1993 | -11.60 | -21.86 | -21.86 | -30.90 |
| 1994 | -16.71 | -27.64 | -27.64 | -33.16 |
| 1995 | -19.09 | -27.70 | -27.70 | -17.17 |
| 1996 | -21.53 | -29.88 | -29.88 | -32.84 |
| 1997 | -22.36 | -32.65 | -32.65 | -39.28 |
| 1998 | -24.34 | -35.75 | -35.75 | -45.68 |
| 1999 | -25.55 | -37.47 | -37.47 | -49.37 |
| 2000 | -25.89 | -38.07 | -38.07 | -51.05 |
| 2001 | -25.25 | -37.27 | -37.27 | -50.96 |
| 2002 | -25.60 | -36.68 | -36.68 | -50.84 |
| 2003 | -26.07 | -37.44 | -37.44 | -51.77 |
| 2004 | -27.46 | -39.42 | -39.42 | -53.75 |
| 2005 | -29.16 | -41.77 | -41.77 | -57.00 |
| 2006 | -30.99 | -44.36 | -44.36 | -60.65 |
| 2007 | -32.88 | -47.05 | -47.05 | -64.58 |
| 2008 | -34.90 | -49.89 | -49.89 | -68.61 |
| 2009 | -36.97 | -52.89 | -52.89 | -72.89 |
| 2010 | -39.09 | -55.87 | -55.87 | -77.21 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83[illegible], AND DCS.83H--CREATED 10/11/82

TABLE C.11.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

TOTAL REAL STATE GOVERNMENT REVENUES

MILLIONS OF 1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 1.242 | 1.242 | 1.242 | 1.242 |
| 1986 | 2.992 | 3.344 | 3.344 | 4.047 |
| 1987 | 4.355 | 6.465 | 6.465 | 8.438 |
| 1988 | 6.047 | 9.039 | 9.039 | 9.648 |
| 1989 | 8.957 | 12.422 | 12.422 | 13.395 |
| 1990 | 9.910 | 11.734 | 11.734 | 13.492 |
| 1991 | 13.598 | 14.344 | 14.344 | 15.832 |
| 1992 | 21.750 | 39.707 | 39.707 | 54.973 |
| 1993 | 35.250 | 63.621 | 63.621 | 89.824 |
| 1994 | 43.639 | 132.086 | 132.086 | 209.560 |
| 1995 | 48.402 | 134.118 | 134.118 | 498.105 |
| 1996 | 63.701 | 156.913 | 156.913 | 242.642 |
| 1997 | 63.471 | 161.038 | 161.038 | 264.078 |
| 1998 | 65.410 | 165.359 | 165.359 | 282.466 |
| 1999 | 66.222 | 167.532 | 167.532 | 294.554 |
| 2000 | 65.474 | 167.677 | 167.677 | 302.235 |
| 2001 | 64.366 | 166.272 | 166.272 | 306.870 |
| 2002 | 64.542 | 165.975 | 165.975 | 311.592 |
| 2003 | 65.410 | 167.672 | 167.672 | 317.453 |
| 2004 | 67.308 | 170.505 | 170.505 | 324.261 |
| 2005 | 69.612 | 173.825 | 173.825 | 332.003 |
| 2006 | 72.116 | 177.257 | 177.257 | 339.683 |
| 2007 | 74.729 | 180.672 | 180.672 | 347.136 |
| 2008 | 77.426 | 184.027 | 184.027 | 354.283 |
| 2009 | 80.186 | 187.298 | 187.298 | 361.114 |
| 2010 | 83.010 | 190.472 | 190.472 | 367.650 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83R, AND DCS.83H--CREATED 10/11/82

TABLE C.12.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

TOTAL REAL STATE GOVERNMENT EXPENDITURES

MILLIONS OF 1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.777 | 0.777 | 0.777 | 0.777 |
| 1986 | 1.492 | 1.707 | 1.707 | 2.137 |
| 1987 | 2.079 | 3.257 | 3.257 | 4.298 |
| 1988 | 2.857 | 4.256 | 4.256 | 4.329 |
| 1989 | 4.200 | 5.800 | 5.800 | 6.404 |
| 1990 | 4.636 | 5.284 | 5.284 | 6.168 |
| 1991 | 7.018 | 7.342 | 7.342 | 8.002 |
| 1992 | 11.636 | 23.342 | 23.342 | 33.037 |
| 1993 | 19.097 | 33.519 | 33.519 | 47.022 |
| 1994 | 19.453 | 30.133 | 30.133 | -172.630 |
| 1995 | 18.086 | 26.532 | 26.532 | -144.604 |
| 1996 | 15.546 | 23.379 | 23.379 | -120.808 |
| 1997 | 14.031 | 21.168 | 21.168 | -100.304 |
| 1998 | 12.496 | 18.849 | 18.849 | -84.317 |
| 1999 | 11.085 | 16.715 | 16.715 | -71.201 |
| 2000 | 9.572 | 14.527 | 14.527 | -60.625 |
| 2001 | 8.531 | 12.725 | 12.725 | -51.597 |
| 2002 | 7.630 | 11.372 | 11.372 | -43.854 |
| 2003 | 7.034 | 10.444 | 10.444 | -37.114 |
| 2004 | 6.576 | 9.744 | 9.744 | -31.182 |
| 2005 | 6.220 | 9.197 | 9.197 | -26.050 |
| 2006 | 5.928 | 8.748 | 8.748 | -21.626 |
| 2007 | 5.687 | 8.378 | 8.378 | -17.824 |
| 2008 | 5.486 | 8.068 | 8.068 | -14.558 |
| 2009 | 5.319 | 7.814 | 7.814 | -11.742 |
| 2010 | 5.180 | 7.599 | 7.599 | -9.314 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE C.13.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

REAL PER CAPITA STATE GOVERNMENT EXPENDITURES

1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -4.36 | -4.36 | -4.36 | -4.36 |
| 1986 | -7.95 | -9.11 | -9.11 | -11.42 |
| 1987 | -9.80 | -15.55 | -15.55 | -20.56 |
| 1988 | -11.73 | -17.51 | -17.51 | -17.15 |
| 1989 | -17.34 | -23.69 | -23.69 | -25.89 |
| 1990 | -19.91 | -21.74 | -21.74 | -25.39 |
| 1991 | -31.34 | -31.63 | -31.63 | -34.22 |
| 1992 | -53.30 | -105.99 | -105.99 | -149.28 |
| 1993 | -87.49 | -152.26 | -152.26 | -212.11 |
| 1994 | -89.44 | -137.86 | -137.86 | -500.89 |
| 1995 | -97.64 | -134.20 | -134.20 | -453.87 |
| 1996 | -89.68 | -129.80 | -129.80 | -417.36 |
| 1997 | -89.48 | -130.78 | -130.78 | -391.59 |
| 1998 | -86.43 | -126.54 | -126.54 | -355.89 |
| 1999 | -82.55 | -120.95 | -120.95 | -321.71 |
| 2000 | -75.83 | -112.04 | -112.04 | -287.39 |
| 2001 | -72.47 | -104.96 | -104.96 | -259.12 |
| 2002 | -69.22 | -100.32 | -100.32 | -235.68 |
| 2003 | -67.98 | -98.30 | -98.30 | -217.22 |
| 2004 | -67.32 | -97.31 | -97.31 | -203.30 |
| 2005 | -67.02 | -96.82 | -96.82 | -192.14 |
| 2006 | -66.86 | -96.55 | -96.55 | -183.04 |
| 2007 | -66.77 | -96.39 | -96.39 | -175.47 |
| 2008 | -66.75 | -96.31 | -96.31 | -169.11 |
| 2009 | -66.79 | -96.34 | -96.34 | -163.84 |
| 2010 | -66.85 | -96.39 | -96.39 | -159.40 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE C.14.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

REAL COMBINED FUNDS BALANCE

MILLIONS OF 1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 1.094 | 1.094 | 1.094 | 1.094 |
| 1986 | 3.223 | 3.559 | 3.559 | 4.223 |
| 1987 | 6.004 | 8.258 | 8.258 | 10.480 |
| 1988 | 9.875 | 13.957 | 13.957 | 15.582 |
| 1989 | 15.836 | 21.871 | 21.871 | 24.379 |
| 1990 | 20.820 | 26.371 | 26.371 | 30.000 |
| 1991 | 29.715 | 34.848 | 34.848 | 38.738 |
| 1992 | 45.301 | 74.602 | 74.602 | 98.297 |
| 1993 | 70.695 | 116.281 | 116.281 | 157.090 |
| 1994 | 90.668 | 204.824 | 204.824 | 460.762 |
| 1995 | 118.102 | 298.172 | 298.172 | 1044.840 |
| 1996 | 156.117 | 410.387 | 410.387 | 1314.687 |
| 1997 | 195.145 | 522.609 | 522.609 | 1571.605 |
| 1998 | 234.004 | 632.250 | 632.250 | 1813.152 |
| 1999 | 271.859 | 737.668 | 737.668 | 2036.929 |
| 2000 | 306.551 | 836.637 | 836.637 | 2242.886 |
| 2001 | 339.852 | 929.008 | 929.008 | 2430.738 |
| 2002 | 372.070 | 1017.477 | 1017.477 | 2606.062 |
| 2003 | 404.449 | 1103.718 | 1103.718 | 2771.050 |
| 2004 | 437.227 | 1188.085 | 1188.085 | 2928.164 |
| 2005 | 470.582 | 1270.769 | 1270.769 | 3078.589 |
| 2006 | 504.461 | 1351.703 | 1351.703 | 3223.011 |
| 2007 | 538.906 | 1430.902 | 1430.902 | 3361.960 |
| 2008 | 573.879 | 1508.328 | 1508.328 | 3495.871 |
| 2009 | 609.375 | 1583.933 | 1583.933 | 3624.996 |
| 2010 | 645.375 | 1657.722 | 1657.722 | 3749.808 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83R AND DCS.83H--CREATED 10/11/82

TABLE C.15.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

ABSOLUTE IMPACT

REAL PER CAPITA COMBINED FUNDS BALANCE

1982 $

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -8.49 | -8.49 | -8.49 | -8.49 |
| 1986 | -16.11 | -18.75 | -18.75 | -24.00 |
| 1987 | -21.29 | -36.18 | -36.18 | -48.67 |
| 1988 | -26.79 | -41.45 | -41.45 | -37.72 |
| 1989 | -47.01 | -64.12 | -64.12 | -69.57 |
| 1990 | -54.33 | -53.66 | -53.66 | -64.20 |
| 1991 | -95.97 | -89.12 | -89.12 | -94.81 |
| 1992 | -176.62 | -382.24 | -382.24 | -552.05 |
| 1993 | -301.20 | -538.83 | -538.83 | -761.76 |
| 1994 | -269.28 | -295.92 | -295.92 | 229.83 |
| 1995 | -261.82 | -120.42 | -120.42 | 1254.48 |
| 1996 | -170.96 | 84.82 | 84.82 | 1662.39 |
| 1997 | -112.06 | 266.07 | 266.07 | 2028.86 |
| 1998 | -42.21 | 457.79 | 457.79 | 2403.65 |
| 1999 | 33.26 | 652.97 | 652.97 | 2779.02 |
| 2000 | 120.36 | 854.95 | 854.95 | 3143.13 |
| 2001 | 192.91 | 1047.84 | 1047.84 | 3494.57 |
| 2002 | 263.02 | 1216.94 | 1216.94 | 3801.93 |
| 2003 | 322.91 | 1366.73 | 1366.73 | 4075.51 |
| 2004 | 381.66 | 1507.63 | 1507.63 | 4318.73 |
| 2005 | 439.20 | 1641.22 | 1641.22 | 4541.41 |
| 2006 | 496.68 | 1769.13 | 1769.13 | 4747.72 |
| 2007 | 554.43 | 1891.93 | 1891.93 | 4940.69 |
| 2008 | 612.29 | 2009.75 | 2009.75 | 5121.76 |
| 2009 | 670.45 | 2123.03 | 2123.03 | 5292.87 |
| 2010 | 728.67 | 2231.41 | 2231.41 | 5453.59 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83R, AND DCS.83H--CREATED 10/11/82

# APPENDIX D

## MAP MODEL IMPACT PROJECTIONS
## COMPARISON OF PERCENTAGE IMPACTS OF OCS CASE

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TABLE D.1.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

TOTAL POPULATION

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.080 | 0.080 | 0.080 | 0.080 |
| 1986 | 0.150 | 0.172 | 0.172 | 0.216 |
| 1987 | 0.197 | 0.312 | 0.312 | 0.413 |
| 1988 | 0.254 | 0.380 | 0.380 | 0.377 |
| 1989 | 0.378 | 0.519 | 0.519 | 0.570 |
| 1990 | 0.426 | 0.472 | 0.472 | 0.551 |
| 1991 | 0.663 | 0.676 | 0.676 | 0.734 |
| 1992 | 1.119 | 2.249 | 2.249 | 3.192 |
| 1993 | 1.847 | 3.253 | 3.253 | 4.582 |
| 1994 | 1.887 | 2.935 | 2.935 | 2.717 |
| 1995 | 2.085 | 2.934 | 2.934 | 2.974 |
| 1996 | 1.978 | 2.910 | 2.910 | 3.289 |
| 1997 | 2.011 | 2.982 | 2.982 | 3.668 |
| 1998 | 1.994 | 2.959 | 2.959 | 3.767 |
| 1999 | 1.948 | 2.892 | 2.892 | 3.742 |
| 2000 | 1.831 | 2.738 | 2.738 | 3.597 |
| 2001 | 1.775 | 2.601 | 2.601 | 3.453 |
| 2002 | 1.721 | 2.522 | 2.522 | 3.353 |
| 2003 | 1.713 | 2.503 | 2.503 | 3.304 |
| 2004 | 1.718 | 2.510 | 2.510 | 3.311 |
| 2005 | 1.732 | 2.527 | 2.527 | 3.338 |
| 2006 | 1.747 | 2.548 | 2.548 | 3.375 |
| 2007 | 1.764 | 2.570 | 2.570 | 3.413 |
| 2008 | 1.781 | 2.594 | 2.594 | 3.452 |
| 2009 | 1.798 | 2.618 | 2.618 | 3.492 |
| 2010 | 1.816 | 2.642 | 2.642 | 3.531 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DC [illegible], DCS.83M, DCS.83F, AND DCS.83H--CREATED 10/1[illegible]

TABLE D.2.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

BASIC SECTOR EMPLOYMENT

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.488 | 0.488 | 0.488 | 0.488 |
| 1986 | 0.290 | 0.386 | 0.386 | 0.577 |
| 1987 | 0.368 | 0.800 | 0.800 | 1.152 |
| 1988 | 0.510 | 0.848 | 0.848 | 0.718 |
| 1989 | 1.060 | 1.432 | 1.432 | 1.602 |
| 1990 | 1.120 | 1.075 | 1.075 | 1.362 |
| 1991 | 2.398 | 2.220 | 2.220 | 2.337 |
| 1992 | 4.596 | 11.098 | 11.098 | 16.478 |
| 1993 | 7.664 | 13.708 | 13.708 | 19.709 |
| 1994 | 6.135 | 8.536 | 8.536 | 7.762 |
| 1995 | 6.831 | 8.488 | 8.488 | 9.931 |
| 1996 | 5.675 | 8.318 | 8.318 | 10.740 |
| 1997 | 5.878 | 8.646 | 8.646 | 11.270 |
| 1998 | 5.430 | 7.872 | 7.872 | 10.596 |
| 1999 | 4.947 | 7.175 | 7.175 | 9.774 |
| 2000 | 4.143 | 6.111 | 6.111 | 8.553 |
| 2001 | 3.881 | 5.373 | 5.373 | 7.661 |
| 2002 | 3.617 | 5.079 | 5.079 | 7.197 |
| 2003 | 3.592 | 5.036 | 5.036 | 6.954 |
| 2004 | 3.577 | 5.015 | 5.015 | 6.951 |
| 2005 | 3.569 | 5.004 | 5.004 | 6.960 |
| 2006 | 3.563 | 4.994 | 4.994 | 6.972 |
| 2007 | 3.556 | 4.985 | 4.985 | 6.980 |
| 2008 | 3.549 | 4.975 | 4.975 | 6.984 |
| 2009 | 3.545 | 4.970 | 4.970 | 6.993 |
| 2010 | 3.540 | 4.962 | 4.962 | 6.994 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE D.3.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

SERVICES SECTOR EMPLOYMENT

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.125 | 0.125 | 0.125 | 0.125 |
| 1986 | 0.513 | 0.566 | 0.566 | 0.671 |
| 1987 | 0.610 | 0.878 | 0.878 | 1.112 |
| 1988 | 0.719 | 1.001 | 1.001 | 0.995 |
| 1989 | 0.918 | 1.244 | 1.244 | 1.365 |
| 1990 | 1.060 | 1.160 | 1.160 | 1.321 |
| 1991 | 1.443 | 1.517 | 1.517 | 1.642 |
| 1992 | 2.250 | 4.088 | 4.088 | 5.637 |
| 1993 | 3.703 | 6.343 | 6.343 | 8.777 |
| 1994 | 4.096 | 6.691 | 6.691 | 4.956 |
| 1995 | 4.578 | 6.741 | 6.741 | 6.706 |
| 1996 | 4.353 | 6.407 | 6.407 | 6.530 |
| 1997 | 4.346 | 6.414 | 6.414 | 7.880 |
| 1998 | 4.167 | 6.226 | 6.226 | 8.004 |
| 1999 | 3.980 | 5.954 | 5.954 | 7.855 |
| 2000 | 3.632 | 5.475 | 5.475 | 7.362 |
| 2001 | 3.431 | 5.088 | 5.088 | 6.933 |
| 2002 | 3.193 | 4.732 | 4.732 | 6.479 |
| 2003 | 3.080 | 4.536 | 4.536 | 6.166 |
| 2004 | 3.005 | 4.428 | 4.428 | 5.998 |
| 2005 | 2.967 | 4.368 | 4.368 | 5.905 |
| 2006 | 2.937 | 4.322 | 4.322 | 5.850 |
| 2007 | 2.910 | 4.282 | 4.282 | 5.806 |
| 2008 | 2.885 | 4.243 | 4.243 | 5.765 |
| 2009 | 2.862 | 4.206 | 4.206 | 5.736 |
| 2010 | 2.838 | 4.170 | 4.170 | 5.634 |

SOURCE: MAP MODEL SIMULATIONS IBASE83M, OCI.83L, OCS.83M, OCS.83R, AND OCI.83H--CREATED 10/11/83

TABLE D.4.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

GOVERNMENT EMPLOYMENT

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.004 | 0.004 | 0.004 | 0.004 |
| 1986 | 0.055 | 0.056 | 0.056 | 0.059 |
| 1987 | 0.085 | 0.106 | 0.106 | 0.140 |
| 1988 | 0.116 | 0.197 | 0.197 | 0.256 |
| 1989 | 0.162 | 0.240 | 0.240 | 0.227 |
| 1990 | 0.226 | 0.303 | 0.303 | 0.337 |
| 1991 | 0.238 | 0.245 | 0.245 | 0.292 |
| 1992 | 0.405 | 0.445 | 0.445 | 0.509 |
| 1993 | 0.702 | 1.486 | 1.486 | 2.145 |
| 1994 | 1.123 | 1.942 | 1.942 | 2.685 |
| 1995 | 1.063 | 1.572 | 1.572 | 0.429 |
| 1996 | 1.107 | 1.495 | 1.495 | 1.636 |
| 1997 | 0.994 | 1.455 | 1.455 | 1.742 |
| 1998 | 0.985 | 1.450 | 1.450 | 1.868 |
| 1999 | 0.945 | 1.386 | 1.386 | 1.850 |
| 2000 | 0.879 | 1.291 | 1.291 | 1.753 |
| 2001 | 0.774 | 1.150 | 1.150 | 1.598 |
| 2002 | 0.723 | 1.031 | 1.031 | 1.456 |
| 2003 | 0.676 | 0.970 | 0.970 | 1.367 |
| 2004 | 0.665 | 0.951 | 0.951 | 1.316 |
| 2005 | 0.660 | 0.943 | 0.943 | 1.305 |
| 2006 | 0.658 | 0.941 | 0.941 | 1.303 |
| 2007 | 0.658 | 0.940 | 0.940 | 1.305 |
| 2008 | 0.658 | 0.941 | 0.941 | 1.308 |
| 2009 | 0.659 | 0.941 | 0.941 | 1.312 |
| 2010 | 0.660 | 0.942 | 0.942 | 1.315 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83P, AND OCS.83H--CREATED 10/11/82

TABLE D.5.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

TOTAL EMPLOYMENT

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.162 | 0.162 | 0.162 | 0.162 |
| 1986 | 0.295 | 0.339 | 0.339 | 0.427 |
| 1987 | 0.372 | 0.597 | 0.597 | 0.793 |
| 1988 | 0.473 | 0.705 | 0.705 | 0.687 |
| 1989 | 0.704 | 0.959 | 0.959 | 1.048 |
| 1990 | 0.787 | 0.847 | 0.847 | 0.993 |
| 1991 | 1.254 | 1.247 | 1.247 | 1.344 |
| 1992 | 2.169 | 4.482 | 4.482 | 6.419 |
| 1993 | 3.618 | 6.428 | 6.428 | 9.099 |
| 1994 | 3.577 | 5.530 | 5.530 | 4.853 |
| 1995 | 3.911 | 5.393 | 5.393 | 5.327 |
| 1996 | 3.569 | 5.200 | 5.200 | 5.872 |
| 1997 | 3.557 | 5.240 | 5.240 | 6.571 |
| 1998 | 3.403 | 5.020 | 5.020 | 6.568 |
| 1999 | 3.203 | 4.728 | 4.728 | 6.319 |
| 2000 | 2.854 | 4.258 | 4.258 | 5.812 |
| 2001 | 2.669 | 3.866 | 3.866 | 5.361 |
| 2002 | 2.492 | 3.612 | 3.612 | 5.019 |
| 2003 | 2.427 | 3.504 | 3.504 | 4.805 |
| 2004 | 2.392 | 3.454 | 3.454 | 4.725 |
| 2005 | 2.377 | 3.431 | 3.431 | 4.694 |
| 2006 | 2.367 | 3.416 | 3.416 | 4.683 |
| 2007 | 2.359 | 3.404 | 3.404 | 4.677 |
| 2008 | 2.352 | 3.393 | 3.393 | 4.672 |
| 2009 | 2.346 | 3.383 | 3.383 | 4.668 |
| 2010 | 2.339 | 3.373 | 3.373 | 4.661 |



SOURCE: MAP MODEL SIMULATIONS [illegible]

TABLE D.6.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

REAL PERSONAL INCOME

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.226 | 0.226 | 0.226 | 0.226 |
| 1986 | 0.334 | 0.395 | 0.395 | 0.516 |
| 1987 | 0.403 | 0.697 | 0.697 | 0.942 |
| 1988 | 0.485 | 0.739 | 0.739 | 0.676 |
| 1989 | 0.793 | 1.075 | 1.075 | 1.191 |
| 1990 | 0.902 | 0.927 | 0.927 | 1.114 |
| 1991 | 1.553 | 1.517 | 1.517 | 1.621 |
| 1992 | 2.754 | 5.926 | 5.926 | 8.572 |
| 1993 | 4.617 | 8.053 | 8.053 | 11.399 |
| 1994 | 4.339 | 6.484 | 6.484 | 6.059 |
| 1995 | 4.831 | 6.519 | 6.519 | 7.032 |
| 1996 | 4.355 | 6.378 | 6.378 | 7.548 |
| 1997 | 4.393 | 6.472 | 6.472 | 8.272 |
| 1998 | 4.199 | 6.167 | 6.167 | 8.179 |
| 1999 | 3.928 | 5.773 | 5.773 | 7.787 |
| 2000 | 3.447 | 5.133 | 5.133 | 7.081 |
| 2001 | 3.243 | 4.635 | 4.635 | 6.493 |
| 2002 | 3.026 | 4.352 | 4.352 | 6.089 |
| 2003 | 2.967 | 4.253 | 4.253 | 5.848 |
| 2004 | 2.934 | 4.205 | 4.205 | 5.781 |
| 2005 | 2.918 | 4.180 | 4.180 | 5.751 |
| 2006 | 2.906 | 4.162 | 4.162 | 5.741 |
| 2007 | 2.896 | 4.147 | 4.147 | 5.733 |
| 2008 | 2.885 | 4.132 | 4.132 | 5.723 |
| 2009 | 2.878 | 4.121 | 4.121 | 5.718 |
| 2010 | 2.868 | 4.105 | 4.105 | 5.705 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P, AND DCS.83H--CREATED 10/11/82

TABLE D.7.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

REAL PER CAPITA PERSONAL INCOME

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | 0.15 | 0.15 | 0.15 | 0.15 |
| 1986 | 0.18 | 0.22 | 0.22 | 0.30 |
| 1987 | 0.21 | 0.38 | 0.38 | 0.53 |
| 1988 | 0.23 | 0.36 | 0.36 | 0.30 |
| 1989 | 0.41 | 0.55 | 0.55 | 0.62 |
| 1990 | 0.47 | 0.45 | 0.45 | 0.56 |
| 1991 | 0.88 | 0.83 | 0.83 | 0.88 |
| 1992 | 1.62 | 3.60 | 3.60 | 5.21 |
| 1993 | 2.72 | 4.65 | 4.65 | 6.52 |
| 1994 | 2.41 | 3.45 | 3.45 | 3.25 |
| 1995 | 2.69 | 3.48 | 3.48 | 3.94 |
| 1996 | 2.33 | 3.37 | 3.37 | 4.12 |
| 1997 | 2.34 | 3.39 | 3.39 | 4.44 |
| 1998 | 2.16 | 3.11 | 3.11 | 4.25 |
| 1999 | 1.94 | 2.80 | 2.80 | 3.90 |
| 2000 | 1.59 | 2.33 | 2.33 | 3.36 |
| 2001 | 1.44 | 1.98 | 1.98 | 2.94 |
| 2002 | 1.28 | 1.78 | 1.78 | 2.65 |
| 2003 | 1.23 | 1.71 | 1.71 | 2.46 |
| 2004 | 1.19 | 1.65 | 1.65 | 2.39 |
| 2005 | 1.17 | 1.61 | 1.61 | 2.33 |
| 2006 | 1.14 | 1.57 | 1.57 | 2.29 |
| 2007 | 1.11 | 1.54 | 1.54 | 2.24 |
| 2008 | 1.09 | 1.50 | 1.50 | 2.19 |
| 2009 | 1.06 | 1.47 | 1.47 | 2.15 |
| 2010 | 1.03 | 1.43 | 1.43 | 2.10 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83P, AND OCS.83H--CREATED 10/11/82

TABLE D.8.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

BASIC SECTOR REAL WAGE RATE

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | 0.24 | 0.24 | 0.24 | 0.24 |
| 1986 | 0.07 | 0.12 | 0.12 | 0.22 |
| 1987 | 0.03 | 0.18 | 0.18 | 0.30 |
| 1988 | 0.01 | 0.06 | 0.06 | -0.00 |
| 1989 | 0.19 | 0.26 | 0.26 | 0.31 |
| 1990 | 0.43 | 0.35 | 0.35 | 0.50 |
| 1991 | 1.05 | 0.95 | 0.95 | 0.99 |
| 1992 | 2.06 | 4.61 | 4.61 | 6.52 |
| 1993 | 3.45 | 5.45 | 5.45 | 7.36 |
| 1994 | 2.97 | 3.78 | 3.78 | 4.09 |
| 1995 | 3.50 | 4.28 | 4.28 | 5.53 |
| 1996 | 3.17 | 4.54 | 4.54 | 6.21 |
| 1997 | 3.38 | 4.84 | 4.84 | 6.46 |
| 1998 | 3.25 | 4.55 | 4.55 | 6.21 |
| 1999 | 3.01 | 4.23 | 4.23 | 5.80 |
| 2000 | 2.51 | 3.60 | 3.60 | 5.11 |
| 2001 | 2.37 | 3.14 | 3.14 | 4.55 |
| 2002 | 2.23 | 3.02 | 3.02 | 4.32 |
| 2003 | 2.26 | 3.06 | 3.06 | 4.23 |
| 2004 | 2.28 | 3.08 | 3.08 | 4.28 |
| 2005 | 2.29 | 3.10 | 3.10 | 4.32 |
| 2006 | 2.30 | 3.12 | 3.12 | 4.35 |
| 2007 | 2.30 | 3.13 | 3.13 | 4.38 |
| 2008 | 2.31 | 3.13 | 3.13 | 4.39 |
| 2009 | 2.33 | 3.16 | 3.16 | 4.44 |
| 2010 | 2.33 | 3.16 | 3.16 | 4.44 |



SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCS.83L, DCS.83M, DCS.83P.
[illegible] 10/11/83

TABLE D.9.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

SERVICES SECTOR REAL WAGE RATE

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -0.01 | -0.01 | -0.01 | -0.01 |
| 1986 | 0.10 | 0.11 | 0.11 | 0.12 |
| 1987 | 0.09 | 0.10 | 0.10 | 0.11 |
| 1988 | 0.06 | 0.03 | 0.03 | 0.01 |
| 1989 | 0.02 | 0.01 | 0.01 | 0.02 |
| 1990 | 0.04 | 0.02 | 0.02 | 0.02 |
| 1991 | 0.05 | 0.08 | 0.08 | 0.08 |
| 1992 | 0.00 | -0.07 | -0.07 | -0.15 |
| 1993 | -0.04 | -0.25 | -0.25 | -0.44 |
| 1994 | -0.05 | 0.01 | 0.01 | 0.25 |
| 1995 | 0.06 | 0.21 | 0.21 | 0.67 |
| 1996 | 0.05 | 0.15 | 0.15 | -0.06 |
| 1997 | 0.10 | 0.17 | 0.17 | 0.17 |
| 1998 | 0.09 | 0.17 | 0.17 | 0.17 |
| 1999 | 0.11 | 0.21 | 0.21 | 0.23 |
| 2000 | 0.14 | 0.24 | 0.24 | 0.27 |
| 2001 | 0.18 | 0.32 | 0.32 | 0.36 |
| 2002 | 0.18 | 0.32 | 0.32 | 0.37 |
| 2003 | 0.18 | 0.31 | 0.31 | 0.37 |
| 2004 | 0.17 | 0.31 | 0.31 | 0.37 |
| 2005 | 0.17 | 0.30 | 0.30 | 0.36 |
| 2006 | 0.17 | 0.30 | 0.30 | 0.36 |
| 2007 | 0.17 | 0.30 | 0.30 | 0.35 |
| 2008 | 0.17 | 0.30 | 0.30 | 0.35 |
| 2009 | 0.17 | 0.30 | 0.30 | 0.35 |
| 2010 | 0.17 | 0.30 | 0.30 | 0.35 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83P, AND OCS.83H--CREATED 10/11/82

TABLE D.10.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

GOVERNMENT SECTOR REAL WAGE RATE

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -0.00 | -0.00 | -0.00 | -0.00 |
| 1986 | -0.00 | -0.00 | -0.00 | -0.00 |
| 1987 | -0.00 | -0.01 | -0.01 | -0.01 |
| 1988 | -0.01 | -0.01 | -0.01 | -0.01 |
| 1989 | -0.01 | -0.01 | -0.01 | -0.02 |
| 1990 | -0.01 | -0.01 | -0.01 | -0.01 |
| 1991 | -0.01 | -0.01 | -0.01 | -0.01 |
| 1992 | -0.02 | -0.04 | -0.04 | -0.05 |
| 1993 | -0.04 | -0.08 | -0.08 | -0.11 |
| 1994 | -0.06 | -0.10 | -0.10 | -0.11 |
| 1995 | -0.06 | -0.09 | -0.09 | -0.06 |
| 1996 | -0.07 | -0.10 | -0.10 | -0.11 |
| 1997 | -0.07 | -0.11 | -0.11 | -0.13 |
| 1998 | -0.08 | -0.12 | -0.12 | -0.15 |
| 1999 | -0.08 | -0.12 | -0.12 | -0.16 |
| 2000 | -0.08 | -0.12 | -0.12 | -0.16 |
| 2001 | -0.08 | -0.12 | -0.12 | -0.16 |
| 2002 | -0.08 | -0.11 | -0.11 | -0.15 |
| 2003 | -0.08 | -0.11 | -0.11 | -0.15 |
| 2004 | -0.08 | -0.12 | -0.12 | -0.16 |
| 2005 | -0.08 | -0.12 | -0.12 | -0.17 |
| 2006 | -0.09 | -0.13 | -0.13 | -0.17 |
| 2007 | -0.09 | -0.13 | -0.13 | -0.18 |
| 2008 | -0.10 | -0.14 | -0.14 | -0.19 |
| 2009 | -0.10 | -0.14 | -0.14 | -0.20 |
| 2010 | -0.10 | -0.15 | -0.15 | -0.21 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83P, AND OCS.83H--CREATED 10/11/82

TABLE D.11.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

TOTAL REAL STATE GOVERNMENT REVENUES

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.030 | 0.030 | 0.030 | 0.030 |
| 1986 | 0.067 | 0.075 | 0.075 | 0.091 |
| 1987 | 0.092 | 0.136 | 0.136 | 0.177 |
| 1988 | 0.129 | 0.192 | 0.192 | 0.205 |
| 1989 | 0.176 | 0.244 | 0.244 | 0.263 |
| 1990 | 0.215 | 0.255 | 0.255 | 0.293 |
| 1991 | 0.310 | 0.327 | 0.327 | 0.361 |
| 1992 | 0.516 | 0.942 | 0.942 | 1.304 |
| 1993 | 0.852 | 1.538 | 1.538 | 2.171 |
| 1994 | 1.104 | 3.342 | 3.342 | 5.303 |
| 1995 | 1.273 | 3.528 | 3.528 | 13.101 |
| 1996 | 1.654 | 4.075 | 4.075 | 6.301 |
| 1997 | 1.681 | 4.265 | 4.265 | 6.994 |
| 1998 | 1.766 | 4.465 | 4.465 | 7.627 |
| 1999 | 1.844 | 4.665 | 4.665 | 8.202 |
| 2000 | 1.880 | 4.815 | 4.815 | 8.679 |
| 2001 | 1.918 | 4.954 | 4.954 | 9.143 |
| 2002 | 1.979 | 5.090 | 5.090 | 9.556 |
| 2003 | 2.063 | 5.289 | 5.289 | 10.013 |
| 2004 | 2.204 | 5.584 | 5.584 | 10.620 |
| 2005 | 2.327 | 5.811 | 5.811 | 11.099 |
| 2006 | 2.457 | 6.038 | 6.038 | 11.571 |
| 2007 | 2.590 | 6.261 | 6.261 | 12.029 |
| 2008 | 2.725 | 6.478 | 6.478 | 12.471 |
| 2009 | 2.864 | 6.689 | 6.689 | 12.896 |
| 2010 | 3.004 | 6.894 | 6.894 | 13.307 |



SOURCE: MAP MODEL SIMULATIONS SBASE83N, DCI.83L, DCI.83M, DCI.83P.

TABLE D.12.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

TOTAL REAL STATE GOVERNMENT EXPENDITURES

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.023 | 0.023 | 0.023 | 0.023 |
| 1986 | 0.043 | 0.049 | 0.049 | 0.062 |
| 1987 | 0.060 | 0.093 | 0.093 | 0.123 |
| 1988 | 0.082 | 0.122 | 0.122 | 0.124 |
| 1989 | 0.121 | 0.167 | 0.167 | 0.184 |
| 1990 | 0.133 | 0.152 | 0.152 | 0.177 |
| 1991 | 0.201 | 0.210 | 0.210 | 0.229 |
| 1992 | 0.331 | 0.665 | 0.665 | 0.941 |
| 1993 | 0.540 | 0.948 | 0.948 | 1.331 |
| 1994 | 0.547 | 0.847 | 0.847 | -4.852 |
| 1995 | 0.536 | 0.787 | 0.787 | -4.289 |
| 1996 | 0.483 | 0.727 | 0.727 | -3.755 |
| 1997 | 0.455 | 0.686 | 0.686 | -3.252 |
| 1998 | 0.419 | 0.632 | 0.632 | -2.829 |
| 1999 | 0.383 | 0.578 | 0.578 | -2.463 |
| 2000 | 0.340 | 0.516 | 0.516 | -2.152 |
| 2001 | 0.310 | 0.462 | 0.462 | -1.873 |
| 2002 | 0.282 | 0.421 | 0.421 | -1.623 |
| 2003 | 0.265 | 0.393 | 0.393 | -1.396 |
| 2004 | 0.251 | 0.372 | 0.372 | -1.190 |
| 2005 | 0.240 | 0.355 | 0.355 | -1.006 |
| 2006 | 0.231 | 0.341 | 0.341 | -0.843 |
| 2007 | 0.223 | 0.329 | 0.329 | -0.700 |
| 2008 | 0.217 | 0.319 | 0.319 | -0.575 |
| 2009 | 0.211 | 0.310 | 0.310 | -0.466 |
| 2010 | 0.206 | 0.303 | 0.303 | -0.371 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83P, AND OCS.83H--CREATED 10/11/92

TABLE D.13.

MAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

REAL PER CAPITA STATE GOVERNMENT EXPENDITURES

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -0.06 | -0.06 | -0.06 | -0.06 |
| 1986 | -0.11 | -0.12 | -0.12 | -0.15 |
| 1987 | -0.14 | -0.22 | -0.22 | -0.29 |
| 1988 | -0.17 | -0.26 | -0.26 | -0.25 |
| 1989 | -0.26 | -0.35 | -0.35 | -0.38 |
| 1990 | -0.29 | -0.32 | -0.32 | -0.37 |
| 1991 | -0.46 | -0.46 | -0.46 | -0.50 |
| 1992 | -0.78 | -1.55 | -1.55 | -2.18 |
| 1993 | -1.28 | -2.23 | -2.23 | -3.11 |
| 1994 | -1.32 | -2.03 | -2.03 | -7.37 |
| 1995 | -1.52 | -2.09 | -2.09 | -7.05 |
| 1996 | -1.47 | -2.12 | -2.12 | -6.82 |
| 1997 | -1.53 | -2.23 | -2.23 | -6.67 |
| 1998 | -1.54 | -2.26 | -2.26 | -6.36 |
| 1999 | -1.53 | -2.25 | -2.25 | -5.98 |
| 2000 | -1.46 | -2.16 | -2.16 | -5.55 |
| 2001 | -1.44 | -2.09 | -2.09 | -5.15 |
| 2002 | -1.41 | -2.05 | -2.05 | -4.81 |
| 2003 | -1.42 | -2.06 | -2.06 | -4.55 |
| 2004 | -1.44 | -2.09 | -2.09 | -4.36 |
| 2005 | -1.47 | -2.12 | -2.12 | -4.20 |
| 2006 | -1.49 | -2.15 | -2.15 | -4.08 |
| 2007 | -1.51 | -2.19 | -2.19 | -3.98 |
| 2008 | -1.54 | -2.22 | -2.22 | -3.89 |
| 2009 | -1.56 | -2.25 | -2.25 | -3.82 |
| 2010 | -1.58 | -2.28 | -2.28 | -3.77 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83F, AND OCS.83H--CREATED 10/11/82

TABLE D.14.

'AP MODEL STATEWIDE IMPACT PROJECTION

PERCENT IMPACT

REAL COMBINED FUNDS BALANCE

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.018 | 0.018 | 0.018 | 0.018 |
| 1986 | 0.045 | 0.050 | 0.050 | 0.059 |
| 1987 | 0.072 | 0.099 | 0.099 | 0.126 |
| 1988 | 0.106 | 0.150 | 0.150 | 0.168 |
| 1989 | 0.149 | 0.206 | 0.206 | 0.230 |
| 1990 | 0.183 | 0.231 | 0.231 | 0.263 |
| 1991 | 0.249 | 0.292 | 0.292 | 0.325 |
| 1992 | 0.370 | 0.609 | 0.609 | 0.803 |
| 1993 | 0.569 | 0.935 | 0.935 | 1.263 |
| 1994 | 0.731 | 1.650 | 1.650 | 3.712 |
| 1995 | 0.954 | 2.409 | 2.409 | 8.441 |
| 1996 | 1.246 | 3.276 | 3.276 | 10.494 |
| 1997 | 1.537 | 4.117 | 4.117 | 12.380 |
| 1998 | 1.816 | 4.907 | 4.907 | 14.071 |
| 1999 | 2.088 | 5.666 | 5.666 | 15.644 |
| 2000 | 2.340 | 6.386 | 6.386 | 17.119 |
| 2001 | 2.596 | 7.095 | 7.095 | 18.565 |
| 2002 | 2.853 | 7.803 | 7.803 | 19.986 |
| 2003 | 3.126 | 8.532 | 8.532 | 21.421 |
| 2004 | 3.428 | 9.314 | 9.314 | 22.955 |
| 2005 | 3.749 | 10.123 | 10.123 | 24.525 |
| 2006 | 4.091 | 10.963 | 10.963 | 26.139 |
| 2007 | 4.457 | 11.835 | 11.835 | 27.807 |
| 2008 | 4.848 | 12.743 | 12.743 | 29.535 |
| 2009 | 5.267 | 13.690 | 13.690 | 31.331 |
| 2010 | 5.715 | 14.679 | 14.679 | 33.203 |



SOURCE: MAP MODEL SIMULATIONS IBASE83N, OCS.83L, OCS.83M, OCS.83A,
[illegible] 10/11/83

TABLE D.15.

IAP MODEL STATEWIDE IMPACT PROJECTIONS:

PERCENT IMPACT

REAL PER CAPITA COMBINED FUNDS BALANCE

| | .6 BBBL CASE | 1.2 BBBL REMOTE CASE | 1.2 BBBL ROAD CONNECTED CASE | 2.4 BBBL CASE |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1985 | -0.06 | -0.06 | -0.06 | -0.06 |
| 1986 | -0.11 | -0.12 | -0.12 | -0.16 |
| 1987 | -0.12 | -0.21 | -0.21 | -0.29 |
| 1988 | -0.15 | -0.23 | -0.23 | -0.21 |
| 1989 | -0.23 | -0.31 | -0.31 | -0.34 |
| 1990 | -0.24 | -0.24 | -0.24 | -0.29 |
| 1991 | -0.41 | -0.38 | -0.38 | -0.41 |
| 1992 | -0.74 | -1.60 | -1.60 | -2.32 |
| 1993 | -1.25 | -2.24 | -2.24 | -3.17 |
| 1994 | -1.14 | -1.25 | -1.25 | 0.97 |
| 1995 | -1.11 | -0.51 | -0.51 | 5.31 |
| 1996 | -0.72 | 0.36 | 0.36 | 6.98 |
| 1997 | -0.46 | 1.10 | 1.10 | 8.40 |
| 1998 | -0.17 | 1.89 | 1.89 | 9.93 |
| 1999 | 0.14 | 2.70 | 2.70 | 11.47 |
| 2000 | 0.50 | 3.55 | 3.55 | 13.05 |
| 2001 | 0.81 | 4.38 | 4.38 | 14.61 |
| 2002 | 1.11 | 5.15 | 5.15 | 16.09 |
| 2003 | 1.39 | 5.88 | 5.88 | 17.54 |
| 2004 | 1.68 | 6.64 | 6.64 | 19.01 |
| 2005 | 1.98 | 7.41 | 7.41 | 20.50 |
| 2006 | 2.30 | 8.21 | 8.21 | 22.02 |
| 2007 | 2.65 | 9.03 | 9.03 | 23.59 |
| 2008 | 3.01 | 9.89 | 9.89 | 25.21 |
| 2009 | 3.41 | 10.79 | 10.79 | 26.90 |
| 2010 | 3.83 | 11.73 | 11.73 | 28.66 |

SOURCE: MAP MODEL SIMULATIONS SBASE83N, OCS.83L, OCS.83M, OCS.83R, AND OCS.83H--CREATED 10/11/82

# APPENDIX E

## SCIMP MODEL BASE CASE PROJECTIONS FOR ALEUTIAN ISLANDS

## LIST OF APPENDIX E TABLES

Table E.1. Population
Table E.2. Resident Employment
Table E.3. Nonresident Employment
Table E.4. Total Employment

TABLE E.1.
SCIMP MODEL BASE CASE PROJECTIONS FOR
ALEUTIAN ISLANDS POPULATION

| YEAR | BRESPOP | ENCLV | TONRFISH | PMIL |
|---|---|---|---|---|
| 1981 | 3654. | 1666. | 717. | 3894. |
| 1982 | 3738. | 1667. | 774. | 3894. |
| 1983 | 3833. | 1753. | 911. | 3894. |
| 1984 | 3953. | 1801. | 1093. | 3894. |
| 1985 | 4080. | 1827. | 1280. | 3894. |
| 1986 | 4204. | 1807. | 1474. | 3894. |
| 1987 | 4319. | 1761. | 1677. | 3894. |
| 1988 | 4427. | 1687. | 1889. | 3894. |
| 1989 | 4544. | 1695. | 2035. | 3894. |
| 1990 | 4662. | 1706. | 2116. | 3894. |
| 1991 | 4788. | 1720. | 2216. | 3894. |
| 1992 | 4932. | 1740. | 2340. | 3894. |
| 1993 | 5101. | 1766. | 2492. | 3894. |
| 1994 | 5305. | 1802. | 2680. | 3894. |
| 1995 | 5557. | 1848. | 2910. | 3894. |
| 1996 | 5876. | 1911. | 3190. | 3894. |
| 1997 | 6285. | 1994. | 3532. | 3894. |
| 1998 | 6815. | 2105. | 3946. | 3894. |
| 1999 | 7512. | 2253. | 4447. | 3894. |
| 2000 | 8348. | 2450. | 4473. | 3894. |

| | |
|---|---|
| BRESPOP | RESIDENT POPULATION |
| ENCLV | ENCLAVE POPULATION |
| TONRFISH | NONRESIDENT FISHERMEN |
| PMIL | MILITARY POPULATION |

TABLE E.1.
(Continued)

| | PTOTAL1 | PTOTAL2 | PTOTAL3 |
|---|---|---|---|
| 1981 | 5320. | 6037. | 9931. |
| 1982 | 5405. | 6179. | 10073. |
| 1983 | 5587. | 6498. | 10392. |
| 1984 | 5754. | 6847. | 10741. |
| 1985 | 5907. | 7187. | 11081. |
| 1986 | 6011. | 7485. | 11379. |
| 1987 | 6080. | 7757. | 11651. |
| 1988 | 6114. | 8003. | 11897. |
| 1989 | 6239. | 8273. | 12167. |
| 1990 | 6367. | 8483. | 12377. |
| 1991 | 6509. | 8725. | 12619. |
| 1992 | 6672. | 9012. | 12906. |
| 1993 | 6867. | 9359. | 13253. |
| 1994 | 7107. | 9787. | 13681. |
| 1995 | 7406. | 10315. | 14209. |
| 1996 | 7787. | 10977. | 14871. |
| 1997 | 8279. | 11811. | 15705. |
| 1998 | 8921. | 12867. | 16761. |
| 1999 | 9765. | 14212. | 18106. |
| 2000 | 10798. | 15271. | 19165. |

| | |
|---|---|
| PTOTAL1 | TOTAL POPULATION EXCLUDING NONRESIDENT FISHERMEN AND MILITARY |
| PTOTAL2 | TOTAL POPULATION EXCLUDING MILITARY |
| PTOTAL3 | TOTAL POPULATION |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

TABLE E.2.
SCIMP MODEL BASE CASE PROJECTIONS FOR
ALEUTIAN ISLANDS RESIDENT EMPLOYMENT

| YEAR | EMPRV | EMPRON | TRFHEMP | TRFPEMP |
|---|---|---|---|---|
| 1981 | 24. | 1. | 251. | 174. |
| 1982 | 30. | 1. | 251. | 174. |
| 1983 | 45. | 2. | 251. | 174. |
| 1984 | 66. | 3. | 251. | 174. |
| 1985 | 87. | 4. | 251. | 174. |
| 1986 | 109. | 6. | 251. | 174. |
| 1987 | 132. | 9. | 251. | 174. |
| 1988 | 156. | 12. | 251. | 174. |
| 1989 | 173. | 18. | 251. | 174. |
| 1990 | 183. | 25. | 251. | 174. |
| 1991 | 196. | 35. | 251. | 174. |
| 1992 | 213. | 50. | 251. | 174. |
| 1993 | 234. | 71. | 251. | 174. |
| 1994 | 260. | 101. | 251. | 174. |
| 1995 | 294. | 142. | 251. | 174. |
| 1996 | 336. | 201. | 251. | 174. |
| 1997 | 390. | 283. | 251. | 174. |
| 1998 | 459. | 398. | 251. | 174. |
| 1999 | 547. | 560. | 251. | 174. |
| 2000 | 595. | 787. | 251. | 174. |

| | |
|---|---|
| EMPRV | RESIDENT BOTTOMFISHERMEN |
| EMPRON | BOTTOMFISH PROCESSING RESIDENT EMPLOYMENT |
| TRFHEMP | TRADITIONAL FISHING RESIDENT EMPLOYMENT |
| TRFPEMP | TRADITIONAL PROCESSING RESIDENT EMPLOYMENT |

TABLE E.2.
(Continued)

| | REMPSGS | NFREMP | EMS1 | EMG1 |
|---|---|---|---|---|
| 1981 | 0. | 11. | 461. | 600. |
| 1982 | 0. | 11. | 465. | 609. |
| 1983 | 9. | 11. | 482. | 619. |
| 1984 | 15. | 11. | 497. | 630. |
| 1985 | 17. | 11. | 509. | 643. |
| 1986 | 15. | 11. | 516. | 657. |
| 1987 | 9. | 11. | 520. | 670. |
| 1988 | 0. | 11. | 521. | 682. |
| 1989 | 0. | 11. | 530. | 693. |
| 1990 | 0. | 11. | 539. | 706. |
| 1991 | 0. | 11. | 550. | 719. |
| 1992 | 0. | 11. | 563. | 733. |
| 1993 | 0. | 11. | 581. | 749. |
| 1994 | 0. | 11. | 604. | 767. |
| 1995 | 0. | 11. | 633. | 790. |
| 1996 | 0. | 11. | 673. | 818. |
| 1997 | 0. | 11. | 725. | 853. |
| 1998 | 0. | 11. | 795. | 899. |
| 1999 | 0. | 11. | 889. | 958. |
| 2000 | 0. | 11. | 1000. | 1035. |

| | |
|---|---|
| REMPSGS | ST. GEORGE SALE RESIDENT EMPLOYMENT |
| NFREMP | OTHER BASIC SECTOR RESIDENT EMPLOYMENT |
| EMS1 | SUPPORT SECTOR EMPLOYMENT |
| EMG1 | GOVERNMENT EMPLOYMENT |

TABLE E.3.
SCIMP MODEL BASE CASE PROJECTIONS FOR
ALEUTIAN ISLANDS NONRESIDENT EMPLOYMENT

| YEAR | TEFPEMP | EMPNRON | TFPNREMP | TNRFISH | EMPNRV |
|---|---|---|---|---|---|
| 1981 | 1565. | 3. | 1568. | 505. | 212. |
| 1982 | 1565. | 4. | 1569. | 505. | 269. |
| 1983 | 1565. | 5. | 1570. | 505. | 406. |
| 1984 | 1565. | 7. | 1572. | 505. | 588. |
| 1985 | 1565. | 10. | 1575. | 505. | 775. |
| 1986 | 1565. | 13. | 1578. | 505. | 969. |
| 1987 | 1565. | 18. | 1583. | 505. | 1172. |
| 1988 | 1565. | 24. | 1589. | 505. | 1384. |
| 1989 | 1565. | 32. | 1597. | 505. | 1530. |
| 1990 | 1565. | 43. | 1608. | 505. | 1611. |
| 1991 | 1565. | 57. | 1622. | 505. | 1711. |
| 1992 | 1565. | 77. | 1642. | 505. | 1835. |
| 1993 | 1565. | 103. | 1668. | 505. | 1987. |
| 1994 | 1565. | 139. | 1704. | 505. | 2175. |
| 1995 | 1565. | 185. | 1750. | 505. | 2405. |
| 1996 | 1565. | 248. | 1813. | 505. | 2685. |
| 1997 | 1565. | 331. | 1896. | 505. | 3027. |
| 1998 | 1565. | 442. | 2007. | 505. | 3441. |
| 1999 | 1565. | 590. | 2155. | 505. | 3942. |
| 2000 | 1565. | 787. | 2352. | 505. | 3968. |

| | |
|---|---|
| TEFPEMP | TRADITIONAL PROCESSING ENCLAVE EMPLOYMENT |
| EMPNRON | BOTTOMFISH PROCESSING ENCLAVE EMPLOYMENT |
| TFPNREMP | TOTAL PROCESSING ENCLAVE EMPLOYMENT |
| TNRFISH | TRADITIONAL FISHING NONRESIDENTS |
| EMPRNRV | BOTTOMFISHING NONRESIDENT FISHERMEN |

TABLE E.3.
(Continued)

| | TONRFISH | EEMPSGS | NFEEMP | TOEEMP |
|---|---|---|---|---|
| 1981 | 717. | 0. | 98. | 2383. |
| 1982 | 774. | 0. | 98. | 2441. |
| 1983 | 911. | 85. | 98. | 2579. |
| 1984 | 1093. | 131. | 98. | 2763. |
| 1985 | 1280. | 154. | 98. | 2953. |
| 1986 | 1474. | 131. | 98. | 3150. |
| 1987 | 1677. | 80. | 98. | 3357. |
| 1988 | 1889. | 0. | 98. | 3576. |
| 1989 | 2035. | 0. | 98. | 3729. |
| 1990 | 2116. | 0. | 98. | 3821. |
| 1991 | 2216. | 0. | 98. | 3936. |
| 1992 | 2340. | 0. | 98. | 4080. |
| 1993 | 2492. | 0. | 98. | 4259. |
| 1994 | 2680. | 0. | 98. | 4482. |
| 1995 | 2910. | 0. | 98. | 4758. |
| 1996 | 3190. | 0. | 98. | 5101. |
| 1997 | 3532. | 0. | 98. | 5526. |
| 1998 | 3946. | 0. | 98. | 6052. |
| 1999 | 4447. | 0. | 98. | 6700. |
| 2000 | 4473. | 0. | 98. | 6924. |

TONRFISH TOTAL NONRESIDENT FISHERMEN
ESGSEMP ST. GEORGE SALE ENCLAVE EMPLOYMENT
NFEEMP OTHER ENCLAVE EMPLOYMENT
TOEEMP TOTAL EMPLOYMENT

TABLE E.4.
SCIMP MODEL BASE CASE PROJECTIONS FOR
ALEUTIAN ISLANDS TOTAL EMPLOYMENT

| YEAR | EMX | EMS1 | EMG1 | ENCLV | TONRFISH | EMIL |
|---|---|---|---|---|---|---|
| 1981 | 461. | 461. | 600. | 1666. | 717. | 2504. |
| 1982 | 467. | 465. | 609. | 1667. | 774. | 2504. |
| 1983 | 492. | 482. | 619. | 1753. | 911. | 2504. |
| 1984 | 520. | 497. | 630. | 1801. | 1093. | 2504. |
| 1985 | 544. | 509. | 643. | 1827. | 1280. | 2504. |
| 1986 | 566. | 516. | 657. | 1807. | 1474. | 2504. |
| 1987 | 585. | 520. | 670. | 1761. | 1677. | 2504. |
| 1988 | 604. | 521. | 682. | 1687. | 1889. | 2504. |
| 1989 | 627. | 530. | 693. | 1695. | 2035. | 2504. |
| 1990 | 644. | 539. | 706. | 1706. | 2116. | 2504. |
| 1991 | 668. | 550. | 719. | 1720. | 2216. | 2504. |
| 1992 | 699. | 563. | 733. | 1740. | 2340. | 2504. |
| 1993 | 741. | 581. | 749. | 1766. | 2492. | 2504. |
| 1994 | 797. | 604. | 767. | 1802. | 2680. | 2504. |
| 1995 | 872. | 633. | 790. | 1848. | 2910. | 2504. |
| 1996 | 973. | 673. | 818. | 1911. | 3190. | 2504. |
| 1997 | 1109. | 725. | 853. | 1994. | 3532. | 2504. |
| 1998 | 1293. | 795. | 899. | 2105. | 3946. | 2504. |
| 1999 | 1543. | 889. | 958. | 2253. | 4447. | 2504. |
| 2000 | 1818. | 1000. | 1035. | 2450. | 4473. | 2504. |

| | |
|---|---|
| EMX | RESIDENT BASIC EMPLOYMENT |
| EMS1 | SUPPORT SECTOR EMPLOYMENT |
| EMG1 | GOVERNMENT EMPLOYMENT |
| ENCLV | ENCLAVE EMPLOYMENT |
| TONRFISH | NONRESIDENT FISHERMEN |
| EMIL | MILITARY EMPLOYMENT |

TABLE E.4.
(Continued)

| | TOEMP1 | TOEMP2 | TOEMP3 | TOEMP4 |
|---|---|---|---|---|
| 1981 | 1522. | 3188. | 3904. | 6408. |
| 1982 | 1542. | 3208. | 3982. | 6486. |
| 1983 | 1594. | 3347. | 4258. | 6762. |
| 1984 | 1647. | 3448. | 4541. | 7045. |
| 1985 | 1697. | 3524. | 4804. | 7308. |
| 1986 | 1739. | 3546. | 5020. | 7524. |
| 1987 | 1775. | 3536. | 5212. | 7716. |
| 1988 | 1807. | 3493. | 5383. | 7887. |
| 1989 | 1850. | 3545. | 5579. | 8083. |
| 1990 | 1889. | 3595. | 5711. | 8215. |
| 1991 | 1937. | 3657. | 5873. | 8377. |
| 1992 | 1996. | 3736. | 6076. | 8580. |
| 1993 | 2071. | 3837. | 6330. | 8834. |
| 1994 | 2168. | 3970. | 6650. | 9154. |
| 1995 | 2295. | 4143. | 7053. | 9557. |
| 1996 | 2464. | 4375. | 7565. | 10069. |
| 1997 | 2688. | 4682. | 8214. | 10718. |
| 1998 | 2987. | 5092. | 9039. | 11543. |
| 1999 | 3390. | 5643. | 10090. | 12594. |
| 2000 | 3853. | 6303. | 10777. | 13281. |

| | |
|---|---|
| TOEMP1 | TOTAL RESIDENT EMPLOYMENT |
| TOEMP2 | TOTAL EMPLOYMENT EXCLUDING NONRESIDENT FISHERMEN AND MILITARY |
| TOEMP3 | TOTAL EMPLOYMENT EXCLUDING MILITARY |
| TOEMP4 | TOTAL EMPLOYMENT |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

# APPENDIX F

# 'SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS

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TABLE F.1.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
RESIDENT POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3570. | 3570. | 0. | .00 |
| 1981 | 3654. | 3654. | -0. | .00 |
| 1982 | 3738. | 3738. | -0. | .00 |
| 1983 | 3833. | 3833. | 0. | .00 |
| 1984 | 3953. | 3953. | -0. | .00 |
| 1985 | 4080. | 4103. | 23. | .01 |
| 1986 | 4204. | 4220. | 17. | .00 |
| 1987 | 4319. | 4337. | 18. | .00 |
| 1988 | 4427. | 4447. | 20. | .00 |
| 1989 | 4544. | 4576. | 32. | .01 |
| 1990 | 4662. | 4690. | 28. | .01 |
| 1991 | 4788. | 4813. | 25. | .01 |
| 1992 | 4932. | 4966. | 34. | .01 |
| 1993 | 5101. | 5319. | 218. | .04 |
| 1994 | 5305. | 5641. | 336. | .06 |
| 1995 | 5557. | 5989. | 431. | .08 |
| 1996 | 5876. | 6318. | 441. | .08 |
| 1997 | 6285. | 6701. | 416. | .07 |
| 1998 | 6815. | 7187. | 372. | .05 |
| 1999 | 7512. | 7822. | 310. | .04 |
| 2000 | 8348. | 8578. | 230. | .03 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F-2
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
ENCLAVE POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 1663. | 1663. | 0. | 0. |
| 1981 | 1666. | 1666. | 0. | 0. |
| 1982 | 1667. | 1667. | 0. | 0. |
| 1983 | 1753. | 1753. | 0. | 0. |
| 1984 | 1801. | 1801. | 0. | 0. |
| 1985 | 1827. | 2108. | 282. | 0.15 |
| 1986 | 1807. | 2024. | 217. | 0.12 |
| 1987 | 1761. | 1997. | 237. | 0.13 |
| 1988 | 1687. | 1963. | 276. | 0.16 |
| 1989 | 1695. | 2456. | 762. | 0.45 |
| 1990 | 1706. | 2264. | 559. | 0.33 |
| 1991 | 1720. | 2029. | 309. | 0.18 |
| 1992 | 1740. | 2093. | 353. | 0.20 |
| 1993 | 1766. | 2302. | 536. | 0.30 |
| 1994 | 1802. | 2407. | 605. | 0.34 |
| 1995 | 1848. | 2514. | 666. | 0.36 |
| 1996 | 1911. | 2586. | 675. | 0.35 |
| 1997 | 1994. | 2669. | 675. | 0.34 |
| 1998 | 2105. | 2780. | 675. | 0.32 |
| 1999 | 2253. | 2928. | 675. | 0.30 |
| 2000 | 2450. | 3125. | 675. | 0.28 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.3.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
TOTAL POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 5233. | 5233. | 0. | 0.00 |
| 1981 | 5320. | 5320. | -0. | -0.00 |
| 1982 | 5405. | 5405. | -0. | -0.00 |
| 1983 | 5587. | 5587. | 0. | 0.00 |
| 1984 | 5754. | 5754. | -0. | -0.00 |
| 1985 | 5907. | 6212. | 305. | 0.05 |
| 1986 | 6011. | 6244. | 234. | 0.04 |
| 1987 | 6080. | 6334. | 255. | 0.04 |
| 1988 | 6114. | 6410. | 296. | 0.05 |
| 1989 | 6239. | 7033. | 794. | 0.13 |
| 1990 | 6367. | 6954. | 587. | 0.09 |
| 1991 | 6509. | 6842. | 334. | 0.05 |
| 1992 | 6672. | 7059. | 387. | 0.06 |
| 1993 | 6867. | 7621. | 754. | 0.11 |
| 1994 | 7107. | 8048. | 941. | 0.13 |
| 1995 | 7406. | 8503. | 1097. | 0.15 |
| 1996 | 7787. | 8903. | 1116. | 0.14 |
| 1997 | 8279. | 9370. | 1091. | 0.13 |
| 1998 | 8921. | 9967. | 1047. | 0.12 |
| 1999 | 9765. | 10750. | 985. | 0.10 |
| 2000 | 10798. | 11703. | 905. | 0.08 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.4.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
TOTAL RESIDENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 1479. | 1479. | 0. | 0. |
| 1981 | 1522. | 1522. | 0. | 0. |
| 1982 | 1542. | 1542. | 0. | 0. |
| 1983 | 1594. | 1594. | 0. | 0. |
| 1984 | 1647. | 1647. | 0. | 0. |
| 1985 | 1697. | 1820. | 123. | 0.07 |
| 1986 | 1739. | 1834. | 94. | 0.05 |
| 1987 | 1775. | 1876. | 101. | 0.06 |
| 1988 | 1807. | 1920. | 113. | 0.06 |
| 1989 | 1850. | 2030. | 180. | 0.10 |
| 1990 | 1889. | 2048. | 159. | 0.08 |
| 1991 | 1937. | 2081. | 145. | 0.07 |
| 1992 | 1996. | 2197. | 202. | 0.10 |
| 1993 | 2071. | 2330. | 259. | 0.13 |
| 1994 | 2168. | 2441. | 273. | 0.13 |
| 1995 | 2295. | 2584. | 288. | 0.13 |
| 1996 | 2464. | 2763. | 299. | 0.12 |
| 1997 | 2688. | 3000. | 312. | 0.12 |
| 1998 | 2987. | 3316. | 329. | 0.11 |
| 1999 | 3390. | 3741. | 352. | 0.10 |
| 2000 | 3853. | 4233. | 380. | 0.10 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.5.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
BASIC RESIDENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 436. | 436. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 467. | 467. | 0. | 0. |
| 1983 | 492. | 492. | 0. | 0. |
| 1984 | 520. | 520. | 0. | 0. |
| 1985 | 544. | 616. | 72. | 0.13 |
| 1986 | 566. | 621. | 56. | 0.10 |
| 1987 | 585. | 644. | 59. | 0.10 |
| 1988 | 604. | 669. | 65. | 0.11 |
| 1989 | 627. | 701. | 74. | 0.12 |
| 1990 | 644. | 720. | 76. | 0.12 |
| 1991 | 668. | 755. | 87. | 0.13 |
| 1992 | 699. | 828. | 128. | 0.18 |
| 1993 | 741. | 956. | 215. | 0.29 |
| 1994 | 797. | 1038. | 240. | 0.30 |
| 1995 | 872. | 1138. | 266. | 0.30 |
| 1996 | 973. | 1239. | 266. | 0.27 |
| 1997 | 1109. | 1375. | 266. | 0.24 |
| 1998 | 1293. | 1559. | 266. | 0.21 |
| 1999 | 1543. | 1809. | 266. | 0.17 |
| 2000 | 1818. | 2084. | 266. | 0.15 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.6.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
SERVICES EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 452. | 452. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 465. | 465. | 0. | 0. |
| 1983 | 482. | 482. | 0. | 0. |
| 1984 | 497. | 497. | 0. | 0. |
| 1985 | 509. | 557. | 48. | 0.09 |
| 1986 | 516. | 553. | 37. | 0.07 |
| 1987 | 520. | 559. | 39. | 0.08 |
| 1988 | 521. | 566. | 45. | 0.09 |
| 1989 | 530. | 627. | 97. | 0.18 |
| 1990 | 539. | 616. | 77. | 0.14 |
| 1991 | 550. | 604. | 54. | 0.10 |
| 1992 | 563. | 633. | 69. | 0.12 |
| 1993 | 581. | 691. | 110. | 0.19 |
| 1994 | 604. | 732. | 129. | 0.21 |
| 1995 | 633. | 778. | 145. | 0.23 |
| 1996 | 673. | 821. | 148. | 0.22 |
| 1997 | 725. | 873. | 148. | 0.20 |
| 1998 | 795. | 943. | 147. | 0.19 |
| 1999 | 889. | 1035. | 146. | 0.16 |
| 2000 | 1000. | 1144. | 144. | 0.14 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.7.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
GOVERNMENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 591. | 591. | 0. | 0. |
| 1981 | 600. | 600. | 0. | 0. |
| 1982 | 609. | 609. | 0. | 0. |
| 1983 | 619. | 619. | 0. | 0. |
| 1984 | 630. | 630. | 0. | 0. |
| 1985 | 643. | 646. | 3. | 0.00 |
| 1986 | 657. | 659. | 2. | 0.00 |
| 1987 | 670. | 672. | 3. | 0.00 |
| 1988 | 682. | 685. | 3. | 0.00 |
| 1989 | 693. | 702. | 8. | 0.01 |
| 1990 | 706. | 712. | 6. | 0.01 |
| 1991 | 719. | 722. | 3. | 0.00 |
| 1992 | 733. | 737. | 4. | 0.01 |
| 1993 | 749. | 755. | 6. | 0.01 |
| 1994 | 767. | 792. | 25. | 0.03 |
| 1995 | 790. | 828. | 38. | 0.05 |
| 1996 | 818. | 866. | 48. | 0.06 |
| 1997 | 853. | 902. | 49. | 0.06 |
| 1998 | 899. | 944. | 45. | 0.05 |
| 1999 | 958. | 998. | 40. | 0.04 |
| 2000 | 1035. | 1068. | 33. | 0.03 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.8.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
.6 BBBL CASE
TOTAL RESIDENT AND ENCLAVE EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3142. | 3142. | 0. | 0. |
| 1981 | 3188. | 3188. | 0. | 0. |
| 1982 | 3208. | 3208. | 0. | 0. |
| 1983 | 3347. | 3347. | 0. | 0. |
| 1984 | 3448. | 3448. | 0. | 0. |
| 1985 | 3524. | 3928. | 404. | 0.11 |
| 1986 | 3546. | 3857. | 311. | 0.09 |
| 1987 | 3536. | 3873. | 337. | 0.10 |
| 1988 | 3493. | 3883. | 389. | 0.11 |
| 1989 | 3545. | 4486. | 941. | 0.27 |
| 1990 | 3595. | 4313. | 717. | 0.20 |
| 1991 | 3657. | 4110. | 453. | 0.12 |
| 1992 | 3736. | 4290. | 555. | 0.15 |
| 1993 | 3837. | 4632. | 795. | 0.21 |
| 1994 | 3970. | 4848. | 879. | 0.22 |
| 1995 | 4143. | 5098. | 955. | 0.23 |
| 1996 | 4375. | 5348. | 974. | 0.22 |
| 1997 | 4682. | 5669. | 987. | 0.21 |
| 1998 | 5092. | 6096. | 1004. | 0.20 |
| 1999 | 5643. | 6670. | 1026. | 0.18 |
| 2000 | 6303. | 7358. | 1055. | 0.17 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.9.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
RESIDENT POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3570. | 3570. | 0. | .00 |
| 1981 | 3654. | 3654. | -0. | .00 |
| 1982 | 3738. | 3738. | -0. | .00 |
| 1983 | 3833. | 3833. | 0. | .00 |
| 1984 | 3953. | 3953. | -0. | .00 |
| 1985 | 4080. | 4103. | 23. | .01 |
| 1986 | 4204. | 4216. | 12. | .00 |
| 1987 | 4319. | 4337. | 18. | .00 |
| 1988 | 4427. | 4446. | 19. | .00 |
| 1989 | 4544. | 4575. | 31. | .01 |
| 1990 | 4662. | 4683. | 22. | .00 |
| 1991 | 4788. | 4808. | 19. | .00 |
| 1992 | 4932. | 4969. | 37. | .01 |
| 1993 | 5101. | 5268. | 167. | .03 |
| 1994 | 5305. | 5533. | 228. | .04 |
| 1995 | 5557. | 5836. | 279. | .05 |
| 1996 | 5876. | 6157. | 281. | .05 |
| 1997 | 6285. | 6538. | 253. | .04 |
| 1998 | 6815. | 7022. | 207. | .03 |
| 1999 | 7512. | 7656. | 144. | .02 |
| 2000 | 8348. | 8419. | 72. | .01 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.10.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
ENCLAVE POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 1663. | 1663. | 0. | 0. |
| 1981 | 1666. | 1666. | 0. | 0. |
| 1982 | 1667. | 1667. | 0. | 0. |
| 1983 | 1753. | 1753. | 0. | 0. |
| 1984 | 1801. | 1801. | 0. | 0. |
| 1985 | 1827. | 2108. | 282. | 0.15 |
| 1986 | 1807. | 1973. | 166. | 0.09 |
| 1987 | 1761. | 2026. | 265. | 0.15 |
| 1988 | 1687. | 1972. | 285. | 0.17 |
| 1989 | 1695. | 2465. | 770. | 0.45 |
| 1990 | 1706. | 2174. | 468. | 0.27 |
| 1991 | 1720. | 1941. | 221. | 0.13 |
| 1992 | 1740. | 2301. | 561. | 0.32 |
| 1993 | 1766. | 2429. | 662. | 0.37 |
| 1994 | 1802. | 2289. | 488. | 0.27 |
| 1995 | 1848. | 2376. | 528. | 0.29 |
| 1996 | 1911. | 2451. | 540. | 0.28 |
| 1997 | 1994. | 2535. | 540. | 0.27 |
| 1998 | 2105. | 2646. | 540. | 0.26 |
| 1999 | 2253. | 2794. | 540. | 0.24 |
| 2000 | 2450. | 2991. | 540. | 0.22 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.11.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
TOTAL POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 5233. | 5233. | 0. | 0.00 |
| 1981 | 5320. | 5320. | -0. | -0.00 |
| 1982 | 5405. | 5405. | -0. | -0.00 |
| 1983 | 5587. | 5587. | 0. | 0.00 |
| 1984 | 5754. | 5754. | -0. | -0.00 |
| 1985 | 5907. | 6212. | 305. | 0.05 |
| 1986 | 6011. | 6189. | 178. | 0.03 |
| 1987 | 6080. | 6363. | 283. | 0.05 |
| 1988 | 6114. | 6417. | 304. | 0.05 |
| 1989 | 6239. | 7040. | 801. | 0.13 |
| 1990 | 6367. | 6857. | 489. | 0.08 |
| 1991 | 6509. | 6749. | 240. | 0.04 |
| 1992 | 6672. | 7270. | 599. | 0.09 |
| 1993 | 6867. | 7696. | 829. | 0.12 |
| 1994 | 7107. | 7822. | 716. | 0.10 |
| 1995 | 7406. | 8212. | 807. | 0.11 |
| 1996 | 7787. | 8608. | 821. | 0.11 |
| 1997 | 8279. | 9072. | 793. | 0.10 |
| 1998 | 8921. | 9668. | 747. | 0.08 |
| 1999 | 9765. | 10450. | 685. | 0.07 |
| 2000 | 10798. | 11410. | 612. | 0.06 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.12.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
TOTAL RESIDENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 1479. | 1479. | 0. | 0. |
| 1981 | 1522. | 1522. | 0. | 0. |
| 1982 | 1542. | 1542. | 0. | 0. |
| 1983 | 1594. | 1594. | 0. | 0. |
| 1984 | 1647. | 1647. | 0. | 0. |
| 1985 | 1697. | 1820. | 123. | 0.07 |
| 1986 | 1739. | 1807. | 67. | 0.04 |
| 1987 | 1775. | 1874. | 99. | 0.06 |
| 1988 | 1807. | 1911. | 105. | 0.06 |
| 1989 | 1850. | 2021. | 171. | 0.09 |
| 1990 | 1889. | 2009. | 119. | 0.06 |
| 1991 | 1937. | 2047. | 110. | 0.06 |
| 1992 | 1996. | 2211. | 215. | 0.11 |
| 1993 | 2071. | 2321. | 250. | 0.12 |
| 1994 | 2168. | 2435. | 267. | 0.12 |
| 1995 | 2295. | 2575. | 280. | 0.12 |
| 1996 | 2464. | 2755. | 291. | 0.12 |
| 1997 | 2688. | 2992. | 304. | 0.11 |
| 1998 | 2987. | 3309. | 322. | 0.11 |
| 1999 | 3390. | 3734. | 344. | 0.10 |
| 2000 | 3853. | 4218. | 365. | 0.09 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.13.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
BASIC RESIDENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 436. | 436. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 467. | 467. | 0. | 0. |
| 1983 | 492. | 492. | 0. | 0. |
| 1984 | 520. | 520. | 0. | 0. |
| 1985 | 544. | 616. | 72. | 0.13 |
| 1986 | 566. | 604. | 39. | 0.07 |
| 1987 | 585. | 640. | 54. | 0.09 |
| 1988 | 604. | 662. | 58. | 0.10 |
| 1989 | 627. | 693. | 67. | 0.11 |
| 1990 | 644. | 697. | 53. | 0.08 |
| 1991 | 668. | 736. | 68. | 0.10 |
| 1992 | 699. | 820. | 121. | 0.17 |
| 1993 | 741. | 920. | 179. | 0.24 |
| 1994 | 797. | 1012. | 215. | 0.27 |
| 1995 | 872. | 1104. | 232. | 0.27 |
| 1996 | 973. | 1207. | 234. | 0.24 |
| 1997 | 1109. | 1343. | 234. | 0.21 |
| 1998 | 1293. | 1527. | 234. | 0.18 |
| 1999 | 1543. | 1777. | 234. | 0.15 |
| 2000 | 1818. | 2052. | 234. | 0.13 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.14.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
SERVICES EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 452. | 452. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 465. | 465. | 0. | 0. |
| 1983 | 482. | 482. | 0. | 0. |
| 1984 | 497. | 497. | 0. | 0. |
| 1985 | 509. | 557. | 48. | 0.09 |
| 1986 | 516. | 543. | 27. | 0.05 |
| 1987 | 520. | 561. | 41. | 0.08 |
| 1988 | 521. | 565. | 44. | 0.08 |
| 1989 | 530. | 626. | 96. | 0.18 |
| 1990 | 539. | 601. | 62. | 0.11 |
| 1991 | 550. | 590. | 40. | 0.07 |
| 1992 | 563. | 652. | 89. | 0.16 |
| 1993 | 581. | 695. | 114. | 0.20 |
| 1994 | 604. | 712. | 109. | 0.18 |
| 1995 | 633. | 752. | 119. | 0.19 |
| 1996 | 673. | 795. | 122. | 0.18 |
| 1997 | 725. | 847. | 122. | 0.17 |
| 1998 | 795. | 916. | 121. | 0.15 |
| 1999 | 889. | 1009. | 120. | 0.13 |
| 2000 | 1000. | 1117. | 118. | 0.12 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.15.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
GOVERNMENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 591. | 591. | 0. | 0. |
| 1981 | 600. | 600. | 0. | 0. |
| 1982 | 609. | 609. | 0. | 0. |
| 1983 | 619. | 619. | 0. | 0. |
| 1984 | 630. | 630. | 0. | 0. |
| 1985 | 643. | 646. | 3. | 0.00 |
| 1986 | 657. | 659. | 2. | 0.00 |
| 1987 | 670. | 673. | 3. | 0.00 |
| 1988 | 682. | 685. | 3. | 0.00 |
| 1989 | 693. | 702. | 8. | 0.01 |
| 1990 | 706. | 711. | 5. | 0.01 |
| 1991 | 719. | 721. | 2. | 0.00 |
| 1992 | 733. | 739. | 6. | 0.01 |
| 1993 | 749. | 756. | 7. | 0.01 |
| 1994 | 767. | 786. | 18. | 0.02 |
| 1995 | 790. | 815. | 25. | 0.03 |
| 1996 | 818. | 848. | 30. | 0.04 |
| 1997 | 853. | 883. | 30. | 0.04 |
| 1998 | 899. | 925. | 27. | 0.03 |
| 1999 | 958. | 979. | 21. | 0.02 |
| 2000 | 1035. | 1049. | 14. | 0.01 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.16.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL ROAD-CONNECTED CASE
TOTAL RESIDENT AND ENCLAVE EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3142. | 3142. | 0. | 0. |
| 1981 | 3188. | 3188. | 0. | 0. |
| 1982 | 3208. | 3208. | 0. | 0. |
| 1983 | 3347. | 3347. | 0. | 0. |
| 1984 | 3448. | 3448. | 0. | 0. |
| 1985 | 3524. | 3928. | 404. | 0.11 |
| 1986 | 3546. | 3779. | 233. | 0.07 |
| 1987 | 3536. | 3899. | 363. | 0.10 |
| 1988 | 3493. | 3883. | 390. | 0.11 |
| 1989 | 3545. | 4486. | 941. | 0.27 |
| 1990 | 3595. | 4182. | 587. | 0.16 |
| 1991 | 3657. | 3988. | 331. | 0.09 |
| 1992 | 3736. | 4512. | 777. | 0.21 |
| 1993 | 3837. | 4749. | 912. | 0.24 |
| 1994 | 3970. | 4724. | 755. | 0.19 |
| 1995 | 4143. | 4951. | 808. | 0.19 |
| 1996 | 4375. | 5206. | 831. | 0.19 |
| 1997 | 4682. | 5527. | 845. | 0.18 |
| 1998 | 5092. | 5954. | 862. | 0.17 |
| 1999 | 5643. | 6528. | 885. | 0.16 |
| 2000 | 6303. | 7209. | 906. | 0.14 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.17.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
RESIDENT POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3570. | 3570. | 0. | .00 |
| 1981 | 3654. | 3654. | -0. | .00 |
| 1982 | 3738. | 3738. | -0. | .00 |
| 1983 | 3833. | 3833. | 0. | .00 |
| 1984 | 3953. | 3953. | -0. | .00 |
| 1985 | 4080. | 4103. | 23. | .01 |
| 1986 | 4204. | 4216. | 12. | .00 |
| 1987 | 4319. | 4337. | 18. | .00 |
| 1988 | 4427. | 4446. | 19. | .00 |
| 1989 | 4544. | 4575. | 31. | .01 |
| 1990 | 4662. | 4683. | 22. | .00 |
| 1991 | 4788. | 4808. | 19. | .00 |
| 1992 | 4932. | 4966. | 34. | .01 |
| 1993 | 5101. | 5234. | 134. | .03 |
| 1994 | 5305. | 5513. | 208. | .04 |
| 1995 | 5557. | 5816. | 259. | .05 |
| 1996 | 5876. | 6132. | 255. | .04 |
| 1997 | 6285. | 6511. | 226. | .04 |
| 1998 | 6815. | 6995. | 179. | .03 |
| 1999 | 7512. | 7628. | 116. | .02 |
| 2000 | 8348. | 8417. | 69. | .01 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.18.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
ENCLAVE POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 1663. | 1663. | 0. | 0. |
| 1981 | 1666. | 1666. | 0. | 0. |
| 1982 | 1667. | 1667. | 0. | 0. |
| 1983 | 1753. | 1753. | 0. | 0. |
| 1984 | 1801. | 1801. | 0. | 0. |
| 1985 | 1827. | 2108. | 282. | 0.15 |
| 1986 | 1807. | 1973. | 166. | 0.09 |
| 1987 | 1761. | 2026. | 265. | 0.15 |
| 1988 | 1687. | 1972. | 285. | 0.17 |
| 1989 | 1695. | 2465. | 770. | 0.45 |
| 1990 | 1706. | 2174. | 468. | 0.27 |
| 1991 | 1720. | 1941. | 221. | 0.13 |
| 1992 | 1740. | 2317. | 577. | 0.33 |
| 1993 | 1766. | 2444. | 678. | 0.38 |
| 1994 | 1802. | 2294. | 492. | 0.27 |
| 1995 | 1848. | 2383. | 535. | 0.29 |
| 1996 | 1911. | 2460. | 549. | 0.29 |
| 1997 | 1994. | 2543. | 549. | 0.28 |
| 1998 | 2105. | 2654. | 549. | 0.26 |
| 1999 | 2253. | 2803. | 549. | 0.24 |
| 2000 | 2450. | 2999. | 549. | 0.22 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.19.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
TOTAL POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 5233. | 5233. | 0. | 0.00 |
| 1981 | 5320. | 5320. | -0. | -0.00 |
| 1982 | 5405. | 5405. | -0. | -0.00 |
| 1983 | 5587. | 5587. | 0. | 0.00 |
| 1984 | 5754. | 5754. | -0. | -0.00 |
| 1985 | 5907. | 6212. | 305. | 0.05 |
| 1986 | 6011. | 6189. | 178. | 0.03 |
| 1987 | 6080. | 6363. | 283. | 0.05 |
| 1988 | 6114. | 6417. | 304. | 0.05 |
| 1989 | 6239. | 7040. | 801. | 0.13 |
| 1990 | 6367. | 6857. | 489. | 0.08 |
| 1991 | 6509. | 6749. | 240. | 0.04 |
| 1992 | 6672. | 7283. | 611. | 0.09 |
| 1993 | 6867. | 7678. | 811. | 0.12 |
| 1994 | 7107. | 7807. | 700. | 0.10 |
| 1995 | 7406. | 8199. | 793. | 0.11 |
| 1996 | 7787. | 8592. | 805. | 0.10 |
| 1997 | 8279. | 9054. | 775. | 0.09 |
| 1998 | 8921. | 9649. | 729. | 0.08 |
| 1999 | 9765. | 10431. | 666. | 0.07 |
| 2000 | 10798. | 11416. | 618. | 0.06 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.20.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
TOTAL POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 5233. | 5233. | 0. | 0.00 |
| 1981 | 5320. | 5320. | -0. | -0.00 |
| 1982 | 5405. | 5405. | -0. | -0.00 |
| 1983 | 5587. | 5587. | 0. | 0.00 |
| 1984 | 5754. | 5754. | -0. | -0.00 |
| 1985 | 5907. | 6212. | 305. | 0.05 |
| 1986 | 6011. | 6189. | 178. | 0.03 |
| 1987 | 6080. | 6363. | 283. | 0.05 |
| 1988 | 6114. | 6417. | 304. | 0.05 |
| 1989 | 6239. | 7040. | 801. | 0.13 |
| 1990 | 6367. | 6857. | 489. | 0.08 |
| 1991 | 6509. | 6749. | 240. | 0.04 |
| 1992 | 6672. | 7283. | 611. | 0.09 |
| 1993 | 6867. | 7678. | 811. | 0.12 |
| 1994 | 7107. | 7807. | 700. | 0.10 |
| 1995 | 7406. | 8199. | 793. | 0.11 |
| 1996 | 7787. | 8592. | 805. | 0.10 |
| 1997 | 8279. | 9054. | 775. | 0.09 |
| 1998 | 8921. | 9649. | 729. | 0.08 |
| 1999 | 9765. | 10431. | 666. | 0.07 |
| 2000 | 10798. | 11416. | 618. | 0.06 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.21.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
BASIC RESIDENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 436. | 436. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 467. | 467. | 0. | 0. |
| 1983 | 492. | 492. | 0. | 0. |
| 1984 | 520. | 520. | 0. | 0. |
| 1985 | 544. | 616. | 72. | 0.13 |
| 1986 | 566. | 604. | 39. | 0.07 |
| 1987 | 585. | 640. | 54. | 0.09 |
| 1988 | 604. | 662. | 58. | 0.10 |
| 1989 | 627. | 693. | 67. | 0.11 |
| 1990 | 644. | 697. | 53. | 0.08 |
| 1991 | 668. | 736. | 68. | 0.10 |
| 1992 | 699. | 804. | 105. | 0.15 |
| 1993 | 741. | 905. | 164. | 0.22 |
| 1994 | 797. | 1008. | 211. | 0.26 |
| 1995 | 872. | 1097. | 225. | 0.26 |
| 1996 | 973. | 1198. | 225. | 0.23 |
| 1997 | 1109. | 1334. | 225. | 0.20 |
| 1998 | 1293. | 1518. | 225. | 0.17 |
| 1999 | 1543. | 1768. | 225. | 0.15 |
| 2000 | 1818. | 2043. | 225. | 0.12 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.22.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
SERVICES EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 452. | 452. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 465. | 465. | 0. | 0. |
| 1983 | 482. | 482. | 0. | 0. |
| 1984 | 497. | 497. | 0. | 0. |
| 1985 | 509. | 557. | 48. | 0.09 |
| 1986 | 516. | 543. | 27. | 0.05 |
| 1987 | 520. | 561. | 41. | 0.08 |
| 1988 | 521. | 565. | 44. | 0.08 |
| 1989 | 530. | 626. | 96. | 0.18 |
| 1990 | 539. | 601. | 62. | 0.11 |
| 1991 | 550. | 590. | 40. | 0.07 |
| 1992 | 563. | 650. | 86. | 0.15 |
| 1993 | 581. | 693. | 112. | 0.19 |
| 1994 | 604. | 711. | 107. | 0.18 |
| 1995 | 633. | 751. | 117. | 0.19 |
| 1996 | 673. | 793. | 120. | 0.18 |
| 1997 | 725. | 845. | 120. | 0.17 |
| 1998 | 795. | 914. | 119. | 0.15 |
| 1999 | 889. | 1007. | 117. | 0.13 |
| 2000 | 1000. | 1115. | 116. | 0.12 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.23.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
GOVERNMENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 591. | 591. | 0. | 0. |
| 1981 | 600. | 600. | 0. | 0. |
| 1982 | 609. | 609. | 0. | 0. |
| 1983 | 619. | 619. | 0. | 0. |
| 1984 | 630. | 630. | 0. | 0. |
| 1985 | 643. | 646. | 3. | 0.00 |
| 1986 | 657. | 659. | 2. | 0.00 |
| 1987 | 670. | 673. | 3. | 0.00 |
| 1988 | 682. | 685. | 3. | 0.00 |
| 1989 | 693. | 702. | 8. | 0.01 |
| 1990 | 706. | 711. | 5. | 0.01 |
| 1991 | 719. | 721. | 2. | 0.00 |
| 1992 | 733. | 739. | 6. | 0.01 |
| 1993 | 749. | 756. | 7. | 0.01 |
| 1994 | 767. | 782. | 15. | 0.02 |
| 1995 | 790. | 813. | 23. | 0.03 |
| 1996 | 818. | 846. | 28. | 0.03 |
| 1997 | 853. | 881. | 27. | 0.03 |
| 1998 | 899. | 923. | 24. | 0.03 |
| 1999 | 958. | 976. | 18. | 0.02 |
| 2000 | 1035. | 1046. | 11. | 0.01 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.24.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
1.2 BBBL REMOTE CASE
TOTAL RESIDENT AND ENCLAVE EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3142. | 3142. | 0. | 0. |
| 1981 | 3188. | 3188. | 0. | 0. |
| 1982 | 3208. | 3208. | 0. | 0. |
| 1983 | 3347. | 3347. | 0. | 0. |
| 1984 | 3448. | 3448. | 0. | 0. |
| 1985 | 3524. | 3928. | 404. | 0.11 |
| 1986 | 3546. | 3779. | 233. | 0.07 |
| 1987 | 3536. | 3899. | 363. | 0.10 |
| 1988 | 3493. | 3883. | 390. | 0.11 |
| 1989 | 3545. | 4486. | 941. | 0.27 |
| 1990 | 3595. | 4182. | 587. | 0.16 |
| 1991 | 3657. | 3988. | 331. | 0.09 |
| 1992 | 3736. | 4510. | 774. | 0.21 |
| 1993 | 3837. | 4761. | 923. | 0.24 |
| 1994 | 3970. | 4728. | 758. | 0.19 |
| 1995 | 4143. | 4956. | 812. | 0.20 |
| 1996 | 4375. | 5212. | 838. | 0.19 |
| 1997 | 4682. | 5533. | 851. | 0.18 |
| 1998 | 5092. | 5961. | 869. | 0.17 |
| 1999 | 5643. | 6535. | 891. | 0.16 |
| 2000 | 6303. | 7204. | 901. | 0.14 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.25.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
RESIDENT POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3570. | 3570. | 0. | .00 |
| 1981 | 3654. | 3654. | -0. | .00 |
| 1982 | 3738. | 3738. | -0. | .00 |
| 1983 | 3833. | 3833. | 0. | .00 |
| 1984 | 3953. | 3953. | -0. | .00 |
| 1985 | 4080. | 4103. | 23. | .01 |
| 1986 | 4204. | 4218. | 15. | .00 |
| 1987 | 4319. | 4342. | 23. | .01 |
| 1988 | 4427. | 4443. | 17. | .00 |
| 1989 | 4544. | 4577. | 33. | .01 |
| 1990 | 4662. | 4687. | 25. | .01 |
| 1991 | 4788. | 4809. | 20. | .00 |
| 1992 | 4932. | 5035. | 104. | .02 |
| 1993 | 5101. | 5429. | 329. | .06 |
| 1994 | 5305. | 5706. | 401. | .08 |
| 1995 | 5557. | 6053. | 495. | .09 |
| 1996 | 5876. | 6428. | 551. | .09 |
| 1997 | 6285. | 6827. | 541. | .09 |
| 1998 | 6815. | 7318. | 503. | .07 |
| 1999 | 7512. | 7955. | 443. | .06 |
| 2000 | 8348. | 8712. | 364. | .04 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.26.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
ENCLAVE POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 1663. | 1663. | 0. | 0. |
| 1981 | 1666. | 1666. | 0. | 0. |
| 1982 | 1667. | 1667. | 0. | 0. |
| 1983 | 1753. | 1753. | 0. | 0. |
| 1984 | 1801. | 1801. | 0. | 0. |
| 1985 | 1827. | 2108. | 282. | 0.15 |
| 1986 | 1807. | 2013. | 205. | 0.11 |
| 1987 | 1761. | 2105. | 344. | 0.20 |
| 1988 | 1687. | 1932. | 245. | 0.15 |
| 1989 | 1695. | 2505. | 810. | 0.48 |
| 1990 | 1706. | 2233. | 527. | 0.31 |
| 1991 | 1720. | 1961. | 240. | 0.14 |
| 1992 | 1740. | 2587. | 847. | 0.49 |
| 1993 | 1766. | 2750. | 983. | 0.56 |
| 1994 | 1802. | 2395. | 594. | 0.33 |
| 1995 | 1848. | 2521. | 673. | 0.36 |
| 1996 | 1911. | 2635. | 724. | 0.38 |
| 1997 | 1994. | 2719. | 724. | 0.36 |
| 1998 | 2105. | 2830. | 724. | 0.34 |
| 1999 | 2253. | 2978. | 724. | 0.32 |
| 2000 | 2450. | 3175. | 724. | 0.30 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.27.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
TOTAL POPULATION

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 5233. | 5233. | 0. | 0.00 |
| 1981 | 5320. | 5320. | -0. | -0.00 |
| 1982 | 5405. | 5405. | -0. | -0.00 |
| 1983 | 5587. | 5587. | 0. | 0.00 |
| 1984 | 5754. | 5754. | -0. | -0.00 |
| 1985 | 5907. | 6212. | 305. | 0.05 |
| 1986 | 6011. | 6231. | 220. | 0.04 |
| 1987 | 6080. | 6447. | 367. | 0.06 |
| 1988 | 6114. | 6375. | 262. | 0.04 |
| 1989 | 6239. | 7082. | 843. | 0.14 |
| 1990 | 6367. | 6920. | 552. | 0.09 |
| 1991 | 6509. | 6770. | 261. | 0.04 |
| 1992 | 6672. | 7622. | 950. | 0.14 |
| 1993 | 6867. | 8179. | 1312. | 0.19 |
| 1994 | 7107. | 8101. | 994. | 0.14 |
| 1995 | 7406. | 8574. | 1168. | 0.16 |
| 1996 | 7787. | 9063. | 1276. | 0.16 |
| 1997 | 8279. | 9545. | 1266. | 0.15 |
| 1998 | 8921. | 10148. | 1227. | 0.14 |
| 1999 | 9765. | 10933. | 1168. | 0.12 |
| 2000 | 10798. | 11887. | 1089. | 0.10 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.28.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
TOTAL RESIDENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 1479. | 1479. | 0. | 0. |
| 1981 | 1522. | 1522. | 0. | 0. |
| 1982 | 1542. | 1542. | 0. | 0. |
| 1983 | 1594. | 1594. | 0. | 0. |
| 1984 | 1647. | 1647. | 0. | 0. |
| 1985 | 1697. | 1820. | 123. | 0.07 |
| 1986 | 1739. | 1819. | 80. | 0.05 |
| 1987 | 1775. | 1899. | 123. | 0.07 |
| 1988 | 1807. | 1899. | 92. | 0.05 |
| 1989 | 1850. | 2034. | 184. | 0.10 |
| 1990 | 1889. | 2027. | 138. | 0.07 |
| 1991 | 1937. | 2053. | 116. | 0.06 |
| 1992 | 1996. | 2225. | 229. | 0.11 |
| 1993 | 2071. | 2327. | 256. | 0.12 |
| 1994 | 2168. | 2445. | 277. | 0.13 |
| 1995 | 2295. | 2588. | 293. | 0.13 |
| 1996 | 2464. | 2771. | 307. | 0.12 |
| 1997 | 2688. | 3008. | 320. | 0.12 |
| 1998 | 2987. | 3324. | 337. | 0.11 |
| 1999 | 3390. | 3749. | 359. | 0.11 |
| 2000 | 3853. | 4240. | 387. | 0.10 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.29.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
BASIC RESIDENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 436. | 436. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 467. | 467. | 0. | 0. |
| 1983 | 492. | 492. | 0. | 0. |
| 1984 | 520. | 520. | 0. | 0. |
| 1985 | 544. | 616. | 72. | 0.13 |
| 1986 | 566. | 611. | 45. | 0.08 |
| 1987 | 585. | 652. | 67. | 0.11 |
| 1988 | 604. | 656. | 51. | 0.08 |
| 1989 | 627. | 700. | 73. | 0.12 |
| 1990 | 644. | 706. | 62. | 0.10 |
| 1991 | 668. | 739. | 71. | 0.11 |
| 1992 | 699. | 825. | 126. | 0.18 |
| 1993 | 741. | 944. | 203. | 0.27 |
| 1994 | 797. | 1051. | 254. | 0.32 |
| 1995 | 872. | 1155. | 283. | 0.32 |
| 1996 | 973. | 1271. | 298. | 0.31 |
| 1997 | 1109. | 1407. | 298. | 0.27 |
| 1998 | 1293. | 1591. | 298. | 0.23 |
| 1999 | 1543. | 1841. | 298. | 0.19 |
| 2000 | 1818. | 2116. | 298. | 0.16 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.30.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
SERVICES EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 452. | 452. | 0. | 0. |
| 1981 | 461. | 461. | 0. | 0. |
| 1982 | 465. | 465. | 0. | 0. |
| 1983 | 482. | 482. | 0. | 0. |
| 1984 | 497. | 497. | 0. | 0. |
| 1985 | 509. | 557. | 48. | 0.09 |
| 1986 | 516. | 549. | 33. | 0.06 |
| 1987 | 520. | 573. | 53. | 0.10 |
| 1988 | 521. | 559. | 38. | 0.07 |
| 1989 | 530. | 632. | 102. | 0.19 |
| 1990 | 539. | 609. | 70. | 0.13 |
| 1991 | 550. | 593. | 43. | 0.08 |
| 1992 | 563. | 683. | 119. | 0.21 |
| 1993 | 581. | 736. | 155. | 0.27 |
| 1994 | 604. | 738. | 134. | 0.22 |
| 1995 | 633. | 785. | 152. | 0.24 |
| 1996 | 673. | 836. | 163. | 0.24 |
| 1997 | 725. | 890. | 165. | 0.23 |
| 1998 | 795. | 959. | 164. | 0.21 |
| 1999 | 889. | 1052. | 163. | 0.18 |
| 2000 | 1000. | 1161. | 161. | 0.16 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.31.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
GOVERNMENT EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 591. | 591. | 0. | 0. |
| 1981 | 600. | 600. | 0. | 0. |
| 1982 | 609. | 609. | 0. | 0. |
| 1983 | 619. | 619. | 0. | 0. |
| 1984 | 630. | 630. | 0. | 0. |
| 1985 | 643. | 646. | 3. | 0.00 |
| 1986 | 657. | 659. | 2. | 0.00 |
| 1987 | 670. | 674. | 4. | 0.01 |
| 1988 | 682. | 684. | 3. | 0.00 |
| 1989 | 693. | 702. | 9. | 0.01 |
| 1990 | 706. | 712. | 6. | 0.01 |
| 1991 | 719. | 722. | 3. | 0.00 |
| 1992 | 733. | 742. | 9. | 0.01 |
| 1993 | 749. | 766. | 17. | 0.02 |
| 1994 | 767. | 804. | 37. | 0.05 |
| 1995 | 790. | 835. | 45. | 0.06 |
| 1996 | 818. | 873. | 55. | 0.07 |
| 1997 | 853. | 914. | 61. | 0.07 |
| 1998 | 899. | 958. | 59. | 0.07 |
| 1999 | 958. | 1012. | 55. | 0.06 |
| 2000 | 1035. | 1083. | 47. | 0.05 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE F.32.
SCIMP MODEL IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
2.4 BBBL CASE
TOTAL RESIDENT AND ENCLAVE EMPLOYMENT

| YEAR | BASE CASE | IMPACT CASE | ABSOLUTE IMPACT | PERCENT IMPACT |
|---|---|---|---|---|
| 1980 | 3142. | 3142. | 0. | 0. |
| 1981 | 3188. | 3188. | 0. | 0. |
| 1982 | 3208. | 3208. | 0. | 0. |
| 1983 | 3347. | 3347. | 0. | 0. |
| 1984 | 3448. | 3448. | 0. | 0. |
| 1985 | 3524. | 3928. | 404. | 0.11 |
| 1986 | 3546. | 3831. | 285. | 0.08 |
| 1987 | 3536. | 4004. | 468. | 0.13 |
| 1988 | 3493. | 3831. | 337. | 0.10 |
| 1989 | 3545. | 4538. | 993. | 0.28 |
| 1990 | 3595. | 4261. | 665. | 0.19 |
| 1991 | 3657. | 4014. | 357. | 0.10 |
| 1992 | 3736. | 4811. | 1076. | 0.29 |
| 1993 | 3837. | 5076. | 1239. | 0.32 |
| 1994 | 3970. | 4840. | 870. | 0.22 |
| 1995 | 4143. | 5109. | 966. | 0.23 |
| 1996 | 4375. | 5406. | 1031. | 0.24 |
| 1997 | 4682. | 5727. | 1044. | 0.22 |
| 1998 | 5092. | 6154. | 1061. | 0.21 |
| 1999 | 5643. | 6727. | 1083. | 0.19 |
| 2000 | 6303. | 7415. | 1111. | 0.18 |

SOURCE--SCIMP MODEL PROJECTIONS,
INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH,
SEPTEMBER, 1982.

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

# APPENDIX G

## SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS BY CASE

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TABLE G.1.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
RESIDENT POPULATION

| Year | .6 BBBL Case | T.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | -0. | -0. | -0. | -0. |
| 1982 | -0. | -0. | -0. | -0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | -0. | -0. | -0. | -0. |
| 1985 | 23. | 23. | 23. | 23. |
| 1986 | 17. | 12. | 12. | 15. |
| 1987 | 18. | 18. | 18. | 23. |
| 1988 | 20. | 19. | 19. | 17. |
| 1989 | 32. | 31. | 31. | 33. |
| 1990 | 28. | 22. | 22. | 25. |
| 1991 | 25. | 19. | 19. | 20. |
| 1992 | 34. | 37. | 34. | 104. |
| 1993 | 218. | 167. | 134. | 329. |
| 1994 | 336. | 228. | 208. | 401. |
| 1995 | 431. | 279. | 259. | 495. |
| 1996 | 441. | 281. | 255. | 551. |
| 1997 | 416. | 253. | 226. | 541. |
| 1998 | 372. | 207. | 179. | 503. |
| 1999 | 310. | 144. | 116. | 443. |
| 2000 | 230. | 72. | 69. | 364. |

TABLE G.2.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
ENCLAVE POPULATION

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 282. | 282. | 282. | 282. |
| 1986 | 217. | 166. | 166. | 205. |
| 1987 | 237. | 265. | 265. | 344. |
| 1988 | 276. | 285. | 285. | 245. |
| 1989 | 762. | 770. | 770. | 810. |
| 1990 | 559. | 468. | 468. | 527. |
| 1991 | 309. | 221. | 221. | 240. |
| 1992 | 353. | 561. | 577. | 847. |
| 1993 | 536. | 662. | 678. | 983. |
| 1994 | 605. | 488. | 492. | 594. |
| 1995 | 666. | 528. | 535. | 673. |
| 1996 | 675. | 540. | 549. | 724. |
| 1997 | 675. | 540. | 549. | 724. |
| 1998 | 675. | 540. | 549. | 724. |
| 1999 | 675. | 540. | 549. | 724. |
| 2000 | 675. | 540. | 549. | 724. |

TABLE G.3.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
TOTAL POPULATION*

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | -0. | -0. | -0. | -0. |
| 1982 | -0. | -0. | -0. | -0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | -0. | -0. | -0. | -0. |
| 1985 | 305. | 305. | 305. | 305. |
| 1986 | 234. | 178. | 178. | 220. |
| 1987 | 255. | 283. | 283. | 367. |
| 1988 | 296. | 304. | 304. | 262. |
| 1989 | 794. | 801. | 801. | 843. |
| 1990 | 587. | 489. | 489. | 552. |
| 1991 | 334. | 240. | 240. | 261. |
| 1992 | 387. | 599. | 611. | 950. |
| 1993 | 754. | 829. | 811. | 1312. |
| 1994 | 941. | 716. | 700. | 994. |
| 1995 | 1097. | 807. | 793. | 1168. |
| 1996 | 1116. | 821. | 805. | 1276. |
| 1997 | 1091. | 793. | 775. | 1266. |
| 1998 | 1047. | 747. | 729. | 1227. |
| 1999 | 985. | 685. | 666. | 1168. |
| 2000 | 905. | 612. | 618. | 1089. |

TABLE G.4.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
TOTAL RESIDENT EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 123. | 123. | 123. | 123. |
| 1986 | 94. | 67. | 67. | 80. |
| 1987 | 101. | 99. | 99. | 123. |
| 1988 | 113. | 105. | 105. | 92. |
| 1989 | 180. | 171. | 171. | 184. |
| 1990 | 159. | 119. | 119. | 138. |
| 1991 | 145. | 110. | 110. | 116. |
| 1992 | 202. | 215. | 197. | 229. |
| 1993 | 259. | 250. | 246. | 256. |
| 1994 | 273. | 267. | 265. | 277. |
| 1995 | 288. | 280. | 278. | 293. |
| 1996 | 299. | 291. | 289. | 307. |
| 1997 | 312. | 304. | 302. | 320. |
| 1998 | 329. | 322. | 319. | 337. |
| 1999 | 352. | 344. | 342. | 359. |
| 2000 | 380. | 365. | 351. | 387. |

TABLE G.5.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
BASIC RESIDENT EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 72. | 72. | 72. | 72. |
| 1986 | 56. | 39. | 39. | 45. |
| 1987 | 59. | 54. | 54. | 67. |
| 1988 | 65. | 58. | 58. | 51. |
| 1989 | 74. | 67. | 67. | 73. |
| 1990 | 76. | 53. | 53. | 62. |
| 1991 | 87. | 68. | 68. | 71. |
| 1992 | 128. | 121. | 105. | 126. |
| 1993 | 215. | 179. | 164. | 203. |
| 1994 | 240. | 215. | 211. | 254. |
| 1995 | 266. | 232. | 225. | 283. |
| 1996 | 266. | 234. | 225. | 298. |
| 1997 | 266. | 234. | 225. | 298. |
| 1998 | 266. | 234. | 225. | 298. |
| 1999 | 266. | 234. | 225. | 298. |
| 2000 | 266. | 234. | 225. | 298. |

TABLE G.6.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
SERVICES EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 48. | 48. | 48. | 48. |
| 1986 | 37. | 27. | 27. | 33. |
| 1987 | 39. | 41. | 41. | 53. |
| 1988 | 45. | 44. | 44. | 38. |
| 1989 | 97. | 96. | 96. | 102. |
| 1990 | 77. | 62. | 62. | 70. |
| 1991 | 54. | 40. | 40. | 43. |
| 1992 | 69. | 89. | 86. | 119. |
| 1993 | 110. | 114. | 112. | 155. |
| 1994 | 129. | 109. | 107. | 134. |
| 1995 | 145. | 119. | 117. | 152. |
| 1996 | 148. | 122. | 120. | 163. |
| 1997 | 148. | 122. | 120. | 165. |
| 1998 | 147. | 121. | 119. | 164. |
| 1999 | 146. | 120. | 117. | 163. |
| 2000 | 144. | 118. | 116. | 161. |

TABLE G.7.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
GOVERNMENT EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 3. | 3. | 3. | 3. |
| 1986 | 2. | 2. | 2. | 2. |
| 1987 | 3. | 3. | 3. | 4. |
| 1988 | 3. | 3. | 3. | 3. |
| 1989 | 8. | 8. | 8. | 9. |
| 1990 | 6. | 5. | 5. | 6. |
| 1991 | 3. | 2. | 2. | 3. |
| 1992 | 4. | 6. | 6. | 9. |
| 1993 | 6. | 7. | 7. | 17. |
| 1994 | 25. | 18. | 15. | 37. |
| 1995 | 38. | 25. | 23. | 45. |
| 1996 | 48. | 30. | 28. | 55. |
| 1997 | 49. | 30. | 27. | 61. |
| 1998 | 45. | 27. | 24. | 59. |
| 1999 | 40. | 21. | 18. | 55. |
| 2000 | 33. | 14. | 11. | 47. |

TABLE G.8.
SCIMP MODEL ABSOLUTE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
TOTAL RESIDENT AND ENCLAVE EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 404. | 404. | 404. | 404. |
| 1986 | 311. | 233. | 233. | 285. |
| 1987 | 337. | 363. | 363. | 468. |
| 1988 | 389. | 390. | 390. | 337. |
| 1989 | 941. | 941. | 941. | 993. |
| 1990 | 717. | 587. | 587. | 665. |
| 1991 | 453. | 331. | 331. | 357. |
| 1992 | 555. | 777. | 774. | 1076. |
| 1993 | 795. | 912. | 923. | 1239. |
| 1994 | 879. | 755. | 758. | 870. |
| 1995 | 955. | 808. | 812. | 966. |
| 1996 | 974. | 831. | 838. | 1031. |
| 1997 | 987. | 845. | 851. | 1044. |
| 1998 | 1004. | 862. | 869. | 1061. |
| 1999 | 1026. | 885. | 891. | 1083. |
| 2000 | 1055. | 906. | 901. | 1111. |

# APPENDIX H

## SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS BY CASE

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Table H.8. Percentage Impacts: Total Resident and Enclave Employment

TABLE H.1.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS RESIDENT POPULATION

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | .00 | .00 | .00 | .00 |
| 1981 | .00 | .00 | .00 | .00 |
| 1982 | .00 | .00 | .00 | .00 |
| 1983 | .00 | .00 | .00 | .00 |
| 1984 | .00 | .00 | .00 | .00 |
| 1985 | .01 | .01 | .01 | .01 |
| 1986 | .00 | .00 | .00 | .00 |
| 1987 | .00 | .00 | .00 | .01 |
| 1988 | .00 | .00 | .00 | .00 |
| 1989 | .01 | .01 | .01 | .01 |
| 1990 | .01 | .00 | .00 | .01 |
| 1991 | .01 | .00 | .00 | .00 |
| 1992 | .01 | .01 | .01 | .02 |
| 1993 | .04 | .03 | .03 | .06 |
| 1994 | .06 | .04 | .04 | .08 |
| 1995 | .08 | .05 | .05 | .09 |
| 1996 | .08 | .05 | .04 | .09 |
| 1997 | .07 | .04 | .04 | .09 |
| 1998 | .05 | .03 | .03 | .07 |
| 1999 | .04 | .02 | .02 | .06 |
| 2000 | .03 | .01 | .01 | .04 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE H.2.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS ENCLAVE POPULATION

| Year | .6 BBBL Case | T.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 0.15 | 0.15 | 0.15 | 0.15 |
| 1986 | 0.12 | 0.09 | 0.09 | 0.11 |
| 1987 | 0.13 | 0.15 | 0.15 | 0.20 |
| 1988 | 0.16 | 0.17 | 0.17 | 0.15 |
| 1989 | 0.45 | 0.45 | 0.45 | 0.48 |
| 1990 | 0.33 | 0.27 | 0.27 | 0.31 |
| 1991 | 0.18 | 0.13 | 0.13 | 0.14 |
| 1992 | 0.20 | 0.32 | 0.33 | 0.49 |
| 1993 | 0.30 | 0.37 | 0.38 | 0.56 |
| 1994 | 0.34 | 0.27 | 0.27 | 0.33 |
| 1995 | 0.36 | 0.29 | 0.29 | 0.36 |
| 1996 | 0.35 | 0.28 | 0.29 | 0.38 |
| 1997 | 0.34 | 0.27 | 0.28 | 0.36 |
| 1998 | 0.32 | 0.26 | 0.26 | 0.34 |
| 1999 | 0.30 | 0.24 | 0.24 | 0.32 |
| 2000 | 0.28 | 0.22 | 0.22 | 0.30 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE H.3.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
TOTAL POPULATION*

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1981 | -0.00 | -0.00 | -0.00 | -0.00 |
| 1982 | -0.00 | -0.00 | -0.00 | -0.00 |
| 1983 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1984 | -0.00 | -0.00 | -0.00 | -0.00 |
| 1985 | 0.05 | 0.05 | 0.05 | 0.05 |
| 1986 | 0.04 | 0.03 | 0.03 | 0.04 |
| 1987 | 0.04 | 0.05 | 0.05 | 0.06 |
| 1988 | 0.05 | 0.05 | 0.05 | 0.04 |
| 1989 | 0.13 | 0.13 | 0.13 | 0.14 |
| 1990 | 0.09 | 0.08 | 0.08 | 0.09 |
| 1991 | 0.05 | 0.04 | 0.04 | 0.04 |
| 1992 | 0.06 | 0.09 | 0.09 | 0.14 |
| 1993 | 0.11 | 0.12 | 0.12 | 0.19 |
| 1994 | 0.13 | 0.10 | 0.10 | 0.14 |
| 1995 | 0.15 | 0.11 | 0.11 | 0.16 |
| 1996 | 0.14 | 0.11 | 0.10 | 0.16 |
| 1997 | 0.13 | 0.10 | 0.09 | 0.15 |
| 1998 | 0.12 | 0.08 | 0.08 | 0.14 |
| 1999 | 0.10 | 0.07 | 0.07 | 0.12 |
| 2000 | 0.08 | 0.06 | 0.06 | 0.10 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE H.4.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
TOTAL RESIDENT EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 0.07 | 0.07 | 0.07 | 0.07 |
| 1986 | 0.05 | 0.04 | 0.04 | 0.05 |
| 1987 | 0.06 | 0.06 | 0.06 | 0.07 |
| 1988 | 0.06 | 0.06 | 0.06 | 0.05 |
| 1989 | 0.10 | 0.09 | 0.09 | 0.10 |
| 1990 | 0.08 | 0.06 | 0.06 | 0.07 |
| 1991 | 0.07 | 0.06 | 0.06 | 0.06 |
| 1992 | 0.10 | 0.11 | 0.10 | 0.11 |
| 1993 | 0.13 | 0.12 | 0.12 | 0.12 |
| 1994 | 0.13 | 0.12 | 0.12 | 0.13 |
| 1995 | 0.13 | 0.12 | 0.12 | 0.13 |
| 1996 | 0.12 | 0.12 | 0.12 | 0.12 |
| 1997 | 0.12 | 0.11 | 0.11 | 0.12 |
| 1998 | 0.11 | 0.11 | 0.11 | 0.11 |
| 1999 | 0.10 | 0.10 | 0.10 | 0.11 |
| 2000 | 0.10 | 0.09 | 0.09 | 0.10 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE H.5.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
BASIC RESIDENT EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 0.13 | 0.13 | 0.13 | 0.13 |
| 1986 | 0.10 | 0.07 | 0.07 | 0.08 |
| 1987 | 0.10 | 0.09 | 0.09 | 0.11 |
| 1988 | 0.11 | 0.10 | 0.10 | 0.08 |
| 1989 | 0.12 | 0.11 | 0.11 | 0.12 |
| 1990 | 0.12 | 0.08 | 0.08 | 0.10 |
| 1991 | 0.13 | 0.10 | 0.10 | 0.11 |
| 1992 | 0.18 | 0.17 | 0.15 | 0.18 |
| 1993 | 0.29 | 0.24 | 0.22 | 0.27 |
| 1994 | 0.30 | 0.27 | 0.26 | 0.32 |
| 1995 | 0.30 | 0.27 | 0.26 | 0.32 |
| 1996 | 0.27 | 0.24 | 0.23 | 0.31 |
| 1997 | 0.24 | 0.21 | 0.20 | 0.27 |
| 1998 | 0.21 | 0.18 | 0.17 | 0.23 |
| 1999 | 0.17 | 0.15 | 0.15 | 0.19 |
| 2000 | 0.15 | 0.13 | 0.12 | 0.16 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE H.6.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
SERVICES EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 0.09 | 0.09 | 0.09 | 0.09 |
| 1986 | 0.07 | 0.05 | 0.05 | 0.06 |
| 1987 | 0.08 | 0.08 | 0.08 | 0.10 |
| 1988 | 0.09 | 0.08 | 0.08 | 0.07 |
| 1989 | 0.18 | 0.18 | 0.18 | 0.19 |
| 1990 | 0.14 | 0.11 | 0.11 | 0.13 |
| 1991 | 0.10 | 0.07 | 0.07 | 0.08 |
| 1992 | 0.12 | 0.16 | 0.15 | 0.21 |
| 1993 | 0.19 | 0.20 | 0.19 | 0.27 |
| 1994 | 0.21 | 0.18 | 0.18 | 0.22 |
| 1995 | 0.23 | 0.19 | 0.19 | 0.24 |
| 1996 | 0.22 | 0.18 | 0.18 | 0.24 |
| 1997 | 0.20 | 0.17 | 0.17 | 0.23 |
| 1998 | 0.19 | 0.15 | 0.15 | 0.21 |
| 1999 | 0.16 | 0.13 | 0.13 | 0.18 |
| 2000 | 0.14 | 0.12 | 0.12 | 0.16 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE H.7.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
GOVERNMENT EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1986 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1987 | 0.00 | 0.00 | 0.00 | 0.01 |
| 1988 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1989 | 0.01 | 0.01 | 0.01 | 0.01 |
| 1990 | 0.01 | 0.01 | 0.01 | 0.01 |
| 1991 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1992 | 0.01 | 0.01 | 0.01 | 0.01 |
| 1993 | 0.01 | 0.01 | 0.01 | 0.02 |
| 1994 | 0.03 | 0.02 | 0.02 | 0.05 |
| 1995 | 0.05 | 0.03 | 0.03 | 0.06 |
| 1996 | 0.06 | 0.04 | 0.03 | 0.07 |
| 1997 | 0.06 | 0.04 | 0.03 | 0.07 |
| 1998 | 0.05 | 0.03 | 0.03 | 0.07 |
| 1999 | 0.04 | 0.02 | 0.02 | 0.06 |
| 2000 | 0.03 | 0.01 | 0.01 | 0.05 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

TABLE H.8.
SCIMP MODEL PERCENTAGE IMPACT PROJECTIONS FOR ALEUTIAN ISLANDS
TOTAL RESIDENT AND ENCLAVE EMPLOYMENT

| Year | .6 BBBL Case | 1.2 BBBL Road-Connected Case | 1.2 BBBL Remote Case | 2.4 BBBL Case |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 0.11 | 0.11 | 0.11 | 0.11 |
| 1986 | 0.09 | 0.07 | 0.07 | 0.08 |
| 1987 | 0.10 | 0.10 | 0.10 | 0.13 |
| 1988 | 0.11 | 0.11 | 0.11 | 0.10 |
| 1989 | 0.27 | 0.27 | 0.27 | 0.28 |
| 1990 | 0.20 | 0.16 | 0.16 | 0.19 |
| 1991 | 0.12 | 0.09 | 0.09 | 0.10 |
| 1992 | 0.15 | 0.21 | 0.21 | 0.29 |
| 1993 | 0.21 | 0.24 | 0.24 | 0.32 |
| 1994 | 0.22 | 0.19 | 0.19 | 0.22 |
| 1995 | 0.23 | 0.19 | 0.20 | 0.23 |
| 1996 | 0.22 | 0.19 | 0.19 | 0.24 |
| 1997 | 0.21 | 0.18 | 0.18 | 0.22 |
| 1998 | 0.20 | 0.17 | 0.17 | 0.21 |
| 1999 | 0.18 | 0.16 | 0.16 | 0.19 |
| 2000 | 0.17 | 0.14 | 0.14 | 0.18 |

NOTE: "Percent impact" numbers are actually shares rather than percentages. For example, .11 refers to 11 percent rather than .11 percent. To get percent impacts, ignore the decimal point.

# APPENDIX I: MAP MODEL ASSUMPTIONS

This appendix discusses the assumptions used in running the statewide MAP model.

Four types of assumptions are required as the premises upon which a forecast of economic activity using the MAP statewide model is based. First, several assumptions about the performance of the national economy are required. Secondly, an assumption is required as to the number of tourists who will visit Alaska. Thirdly, assumptions are required about exogenous state government revenues and about state government spending policies. Finally, assumptions are required about employment in a number of different sectors. These assumptions are discussed below.

## National Variables Assumptions

Inasmuch as Alaska is an open economy, developments in the state hinge at least in part on the performance of the national economy. In particular, three assumptions about the U.S. economy are required. First, a forecast of weekly earnings in the United States is needed to estimate Alaskan wage rates. Second, insofar as most goods consumed in Alaska are imported from the Lower 48, the U.S. price level is an important determinant of Alaskan prices, so that estimates of such prices require some forecast of the U.S. consumer

price index. Finally, insofar as the income differential between Alaska and the Lower 48 is a major determinant of migration between Alaska and the Lower 48, a forecast is required of real per capita disposable income in the United States.

In the base case, it is estimated that the growth in U.S. consumer prices slows to a long run rate of 7.5 percent by 1985, that the growth in average weekly earnings rises to a long run rate of 8.0 percent by 1985, and that real per capita personal income growth rises slightly to 2 percent annually by the mid-80s.

## Tourism Assumptions

The MAP model nets out those portions of transportation, trade, and service sector employment generated by tourist activity in the state. Such estimates are generated in forecasts as a function of an exogenous forecast estimate of total tourists visiting Alaska during the forecast period.

In 1979, the Alaska Division of Tourism estimated that 505,400 persons visited the state. The model projections assume that the number of tourists grows at a constant annual rate of 4.4 percent, reaching over 1.1 million persons by the year 2000.

## State Government Revenues and Expenditures

Exogenous revenue assumptions were based upon the first quarter 1982 petroleum production revenue forecast prepared by the Alaska

Department of Revenue. These exogenous revenue assumptions are summarized in Table I-1. In addition, revenues associated with specific projects were assumed.

Given the revenue assumptions, state government expenditures could not continue to grow at a rate comparable to those of recent experience without provoking a state government fiscal crisis by the late '90s. On the other hand, major cuts in state spending, in particular operating expenditures, are not especially plausible to expect in the face of accumulating petroleum revenues. Consequently, in both the base case and impact cases, a two-phase expenditure policy was assumed over the forecast period. As long as the real per capita accumulated balances are growing, nominal expenditures grow at eight percent annually, approximately the growth rate required to maintain current per capita service levels. Once such balances begin to decline, however, capital expenditures are cut at a rate of ten percent annually, and the personal income tax is reintroduced with its historical structure. The combination of tax increases and capital budget cuts limits the decline in state government employment to a very small rate.

## Exogenous Employment Assumptions

The MAP model treats a number of categories of employment as exogenous. Employment in these industries is assumed, and constitutes one of the major driving assumptions for the model. The categories are listed in Table I-2.

TABLE I-1

MAP MODEL EXOGENOUS REVENUE ASSUMPTIONS

MILLIONS OF CURRENT $

| | STATE PROPERTY TAX REVENUE | STATE BONUS PAYMENT REVENUE | STATE ROYALTY INCOME | STATE PRODUCTION TAX REVENUE | STATE CORPORATE PETROLEUM TAX REVENUE |
|---|---|---|---|---|---|
| 1980 | 175.000 | 0.000 | 881.300 | 469.900 | 135.120 |
| 1981 | 143.000 | 0.000 | 1389.000 | 1156.000 | 860.000 |
| 1982 | 155.000 | 0.000 | 1666.000 | 1678.000 | 820.000 |
| 1983 | 157.000 | 0.000 | 2087.000 | 2102.000 | 495.000 |
| 1984 | 157.000 | 0.000 | 2463.000 | 2480.000 | 593.160 |
| 1985 | 157.000 | 0.000 | 2894.000 | 2896.000 | 694.800 |
| 1986 | 157.000 | 0.000 | 3473.000 | 3497.000 | 836.400 |
| 1987 | 157.000 | 0.000 | 3962.000 | 3978.000 | 952.800 |
| 1988 | 157.000 | 0.000 | 4404.000 | 3675.000 | 969.480 |
| 1989 | 157.000 | 0.000 | 4928.000 | 4149.000 | 1089.240 |
| 1990 | 157.000 | 0.000 | 4830.000 | 4002.000 | 1059.840 |
| 1991 | 157.000 | 0.000 | 4641.000 | 3752.000 | 1007.160 |
| 1992 | 157.000 | 0.000 | 4631.000 | 3656.000 | 994.440 |
| 1993 | 157.000 | 0.000 | 4814.000 | 3775.000 | 1030.680 |
| [illegible] | 157.000 | 0.000 | 4718.000 | 3661.000 | 1005.480 |
| 1995 | 157.000 | 0.000 | 4481.000 | 3417.000 | 947.760 |
| 1996 | 157.000 | 0.000 | 4380.000 | 3256.000 | 916.320 |
| 1997 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 1998 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 1999 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2000 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2001 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2002 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2003 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2004 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2005 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2006 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2007 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2008 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2009 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |
| 2010 | 157.000 | 0.000 | 4659.000 | 3420.000 | 969.480 |

SOURCE: MAP MODEL CASE DOR.381

TABLE I-2
MAP MODEL EXOGENOUS EMPLOYMENT CATEGORIES

Agricultural Employment

Mining Employment

High Wage Exogenous Construction Employment*

Low Wage Exogenous Construction Employment

High Wage Exogenous Manufacturing Employment

Low Wage Exogenous Manufacturing Employment

Exogenous Transportation Employment

Fish Harvesting Employment

Active Duty Military Employment

Civilian Federal Employment

*Primarily used for major construction projects such as the trans-Alaska pipeline.

Employment in some categories, such as Civilian Federal Employment, is assumed directly. For other categories, such as mining employment, assumptions are based on employment assumptions for a number of different industries and special projects, all of which contribute employment to the category. Below, we briefly review the employment assumptions for different projects and industries upon which the total exogenous employment assumptions are based. Tables I-3 to I-24, at the end of this appendix, show these assumptions in detail.

Trans-Alaska Pipeline (Table I-3)

Additional construction employment of 90 is assumed in connection with construction of new pump stations. Constant operating employment of 1500 is assumed.

Alaska Natural Gas Transportation System (Table I-4)

Construction employment on the Northwest Alaska Pipeline is assumed to peak at 10,589 in 1988, falling to a long-term total of 319 persons in transportation and petroleum sector employment.

Prudhoe Bay and Kuparuk Petroleum Production (Table I-5)

In addition to the existing Prudhoe Bay and Kuparuk operating work force, additional construction employment is generated in connection with secondary recovery projects and expansion of the Kuparuk field. Long-run operating employment is 2502.

Upper Cook Inlet Petroleum Production (Table I-6)

Declining oil production employment is offset by expanding gas production, resulting in a constant work force of 778.

National Petroleum Reserve in Alaska (Table I-7)

Five commercial fields are assumed to be discovered and developed, representing 1.85 billion barrels of oil and 2.73 trillion cubic feet of gas. Construction employment peaks at 550 in 1987, while long-run transportation and mining employment total 336.

OCS Development (Tables I-8 - I-13)

Prior to the scheduled date of OCS Sale 83, eight other OCS sales will have occurred, as follows:

| Sale | Location | Date |
|---|---|---|
| 46 | Gulf of Alaska | 1976 |
| CI | Lower Cook Inlet | 1977 |
| BF | Beaufort Sea | 1979 |
| 55 | Gulf of Alaska | 1980 |
| 60 | Lower Cook Inlet | 1981 |
| 71 | Beaufort Sea | 1982 |
| 57 | Bering-Norton | 1983 |
| 70 | St. George | 1983 |

The first Gulf of Alaska sale (Sale 46) resulted in the drilling of ten dry holes, and exploration has ended in these tracts. Disappointing results of exploration on tracts leased in Lower Cook Inlet (Sale CI) in 1977 also resulted, at least temporarily, in a halt to exploration there.

In the base case, no future employment is assumed to result from Sale 46. In addition, it is assumed that no recoverable resources are discovered on tracts leased in Sales CI, 55, 57, 60 and 70; that is, such sales are assumed to generate only exploration employment. The level of recoverable resources in the remaining two sales is assumed to be the USGS estimated mean for the areas, as shown below:

| Sale | Location | Recoverable Oil | Recoverable Gas |
|---|---|---|---|
| BF | Beaufort Sea | .75 BBO | 1.625 TCFG |
| 71 | Beaufort Sea | 2.38 BBO | 1.78 TCFG |

SOURCES: U.S. Department of the Interior, Final Environmental Impact Statement, Proposed Federal-State Oil and Gas Lease Sale, Beaufort Sea, page 6; U.S. Department of the Interior, Draft Environmental Impact Statement, Proposed Oil and Gas Lease Sale 71, Diapir Field (December 1981), page xii.

Exploration in 1982 on Sale CI is assumed to provide 38 jobs in mining and 9 jobs in transportation. No subsequent employment is provided by Sale CI. The levels of employment assumed for the remaining six OCS sales are shown in Tables I-8 - I-13.

Beluga Coal

A coal export program from the Beluga fields is implemented beginning in 1985. Construction employment peaks at 400 in 1987. Long-run operations employment is 524.

Red Dog Mine (Table I-15)

Construction employment at the Red Dog Mine near Kotzebue reaches a maximum of 200 in 1986. Long-run mining employment is 448.

U.S. Borax Mine (Table I-16)

Construction employment at the U.S. Borax Mine reaches a maximum of 500 in 1985. Long-run operating employment is 790.

Other Mining (Table I-17)

Other mining employment is assumed to grow at a constant rate of one percent per year, from 3171 in 1982 in 3869 in 2000.

Agriculture (Table I-18)

Agriculture grows at a moderate rate, with total employment expanding from 183 in 1980 to 308 in 2000.

Lumber and Pulp Processing (Table I-19)

Employment in lumber and pulp processing increases from 2204 in 1980 to a maximum of 4103 in 2000.

Commercial Fishing - Non-bottomfish (Table I-20)

Fishing employment remains constant at 7123. Fish harvesting employment remains constant at 6363.

Commercial Fishing - Bottomfish (Table I-21)

Bottomfish harvesting employment expands from 36 in 1982 to over 1137 in 2000, while resident bottomfish processing employment expands from 18 to 3873. This case assumes full takeover of the foreign bottomfish catch by U.S. fishermen and the establishment of

a sizable onshore processing industry. Since the future evolution of the bottomfish industry is highly uncertain, these assumptions are also highly tenuous.

Hydroelectric Projects (Table I-22)

Construction employment on hydroelectric projects presently underway at Tyee and Terror Lakes peaks at 520 in 1983.

Federal Civilian and Military Employment (Tables I-23, I-24)

Federal military employment remains constant at 23,323. Federal civilian employment grows at .5 percent per year, from 18,005 in 1980 to 19,893 in 2000.

TABLE I-3

TRANS-ALASKA PIPELINE
EMPLOYMENT ASSUMPTIONS
THOUSANDS OF EMPLOYEES

| | HIGH WAGE EXOG CON-STRUCTION EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|
| 1980 | 0.090 | 1.500 |
| 1981 | 0.090 | 1.500 |
| 1982 | 0.090 | 1.500 |
| 1983 | 0.000 | 1.500 |
| 1984 | 0.000 | 1.500 |
| 1985 | 0.000 | 1.500 |
| 1986 | 0.000 | 1.500 |
| 1987 | 0.000 | 1.500 |
| 1988 | 0.000 | 1.500 |
| 1989 | 0.000 | 1.500 |
| 1990 | 0.000 | 1.500 |
| 1991 | 0.000 | 1.500 |
| 1992 | 0.000 | 1.500 |
| 1993 | 0.000 | 1.500 |
| 1994 | 0.000 | 1.500 |
| 1995 | 0.000 | 1.500 |
| 1996 | 0.000 | 1.500 |
| 1997 | 0.000 | 1.500 |
| 1998 | 0.000 | 1.500 |
| 1999 | 0.000 | 1.500 |
| 2000 | 0.000 | 1.500 |
| 2001 | 0.000 | 0.000 |
| 2002 | 0.000 | 0.000 |
| 2003 | 0.000 | 0.000 |
| 2004 | 0.000 | 0.000 |
| 2005 | 0.000 | 0.000 |
| 2006 | 0.000 | 0.000 |
| 2007 | 0.000 | 0.000 |
| 2008 | 0.000 | 0.000 |
| 2009 | 0.000 | 0.000 |
| 2010 | 0.000 | 0.000 |

SOURCE: MAP MODEL CASE TAP.>

TABLE I-4

NORTHWEST GAS PIPELINE
EMPLOYMENT ASSUMPTIONS
THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | HIGH WAGE EXOG CON-STRUCTION EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.217 | 0.000 |
| 1984 | 0.000 | 0.217 | 0.000 |
| 1985 | 0.000 | 0.563 | 0.000 |
| 1986 | 0.000 | 2.435 | 0.000 |
| 1987 | 0.000 | 7.103 | 0.000 |
| 1988 | 0.160 | 10.589 | 0.000 |
| 1989 | 0.200 | 6.074 | 0.119 |
| 1990 | 0.200 | 0.468 | 0.119 |
| 1991 | 0.200 | 0.000 | 0.119 |
| 1992 | 0.200 | 0.000 | 0.119 |
| 1993 | 0.200 | 0.000 | 0.119 |
| 1994 | 0.200 | 0.000 | 0.119 |
| 1995 | 0.200 | 0.000 | 0.119 |
| 1996 | 0.200 | 0.000 | 0.119 |
| 1997 | 0.200 | 0.000 | 0.119 |
| 1998 | 0.200 | 0.000 | 0.119 |
| 1999 | 0.200 | 0.000 | 0.119 |
| 2000 | 0.200 | 0.000 | 0.119 |
| 2001 | 0.200 | 0.000 | 0.119 |
| 2002 | 0.200 | 0.000 | 0.119 |
| 2003 | 0.200 | 0.000 | 0.119 |
| 2004 | 0.200 | 0.000 | 0.119 |
| 2005 | 0.200 | 0.000 | 0.119 |
| 2006 | 0.200 | 0.000 | 0.119 |
| 2007 | 0.200 | 0.000 | 0.119 |
| 2008 | 0.200 | 0.000 | 0.119 |
| 2009 | 0.200 | 0.000 | 0.119 |
| 2010 | 0.200 | 0.000 | 0.119 |

SOURCE: MAP MODEL CASE NWG.MG1

TABLE I-5

PRUDHOE BAY

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT |
|---|---|---|
| 1980 | 2.369 | 0.000 |
| 1981 | 2.907 | 0.035 |
| 1982 | 3.018 | 0.491 |
| 1983 | 3.129 | 1.065 |
| 1984 | 2.202 | 0.484 |
| 1985 | 2.502 | 0.050 |
| 1986 | 2.502 | 0.000 |
| 1987 | 2.502 | 0.000 |
| 1988 | 2.502 | 0.000 |
| 1989 | 2.502 | 0.000 |
| 1990 | 2.502 | 0.000 |
| 1991 | 2.502 | 0.000 |
| 1992 | 2.502 | 0.000 |
| 1993 | 2.502 | 0.000 |
| 1994 | 2.502 | 0.000 |
| 1995 | 2.502 | 0.000 |
| 1996 | 2.502 | 0.000 |
| 1997 | 2.502 | 0.000 |
| 1998 | 2.502 | 0.000 |
| 1999 | 2.502 | 0.000 |
| 2000 | 2.502 | 0.000 |
| 2001 | 2.502 | 0.000 |
| 2002 | 2.502 | 0.000 |
| 2003 | 2.502 | 0.000 |
| 2004 | 2.502 | 0.000 |
| 2005 | 2.502 | 0.000 |
| 2006 | 2.502 | 0.000 |
| 2007 | 2.502 | 0.000 |
| 2008 | 2.502 | 0.000 |
| 2009 | 2.502 | 0.000 |
| 2010 | 2.502 | 0.000 |

SOURCE: MAP MODEL CASE PRB.081

TABLE I-6

UPPER COOK INLET OIL AND GAS

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT |
|---|---|
| 1980 | 0.778 |
| 1981 | 0.778 |
| 1982 | 0.778 |
| 1983 | 0.778 |
| 1984 | 0.778 |
| 1985 | 0.778 |
| 1986 | 0.778 |
| 1987 | 0.778 |
| 1988 | 0.778 |
| 1989 | 0.778 |
| 1990 | 0.778 |
| 1991 | 0.778 |
| 1992 | 0.778 |
| 1993 | 0.778 |
| 1994 | 0.778 |
| 1995 | 0.778 |
| 1996 | 0.778 |
| 1997 | 0.778 |
| 1998 | 0.778 |
| 1999 | 0.778 |
| 2000 | 0.778 |
| 2001 | 0.778 |
| 2002 | 0.778 |
| 2003 | 0.778 |
| 2004 | 0.778 |
| 2005 | 0.778 |
| 2006 | 0.778 |
| 2007 | 0.778 |
| 2008 | 0.778 |
| 2009 | 0.778 |
| 2010 | 0.778 |

SOURCE: MAP MODEL CASE UPC.01:

TABLE I-7

NPRA
++++
EMPLOYMENT ASSUMPTIONS
++++++++++++++++++++++++
THOUSANDS OF EMPLOYEES
++++++++++++++++++++++++
++++++++
++++++++

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.038 | 0.000 |
| 1984 | 0.000 | 0.038 | 0.000 |
| 1985 | 0.044 | 0.132 | 0.000 |
| 1986 | 0.088 | 0.494 | 0.000 |
| 1987 | 0.115 | 0.550 | 0.000 |
| 1988 | 0.222 | 0.383 | 0.000 |
| 1989 | 0.177 | 0.157 | 0.054 |
| 1990 | 0.187 | 0.271 | 0.069 |
| 1991 | 0.177 | 0.546 | 0.069 |
| 1992 | 0.204 | 0.587 | 0.069 |
| 1993 | 0.267 | 0.383 | 0.069 |
| 1994 | 0.222 | 0.157 | 0.069 |
| 1995 | 0.232 | 0.271 | 0.069 |
| 1996 | 0.222 | 0.546 | 0.069 |
| 1997 | 0.249 | 0.587 | 0.069 |
| 1998 | 0.312 | 0.383 | 0.069 |
| 1999 | 0.267 | 0.157 | 0.069 |
| 2000 | 0.277 | 0.271 | 0.069 |
| 2001 | 0.267 | 0.546 | 0.069 |
| 2002 | 0.267 | 0.546 | 0.069 |
| 2003 | 0.267 | 0.546 | 0.069 |
| 2004 | 0.267 | 0.546 | 0.069 |
| 2005 | 0.267 | 0.546 | 0.069 |
| 2006 | 0.267 | 0.546 | 0.069 |
| 2007 | 0.267 | 0.546 | 0.069 |
| 2008 | 0.267 | 0.546 | 0.069 |
| 2009 | 0.267 | 0.546 | 0.069 |
| 2010 | 0.267 | 0.546 | 0.069 |

SOURCE: MAP MODEL CASE NPR.MOD

TABLE I-8

S FEDERAL/STATE LEASE SALE (BEAUFORT SEA)

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | HIGH WAGE EXOG CON-STRUCTION EMPLOYMENT |
|---|---|---|
| 1980 | 0.000 | 0.000 |
| 1981 | 0.066 | 0.062 |
| 1982 | 0.197 | 0.188 |
| 1983 | 0.197 | 0.135 |
| 1984 | 0.230 | 0.211 |
| 1985 | 0.066 | 0.150 |
| 1986 | 0.112 | 0.305 |
| 1987 | 0.276 | 0.383 |
| 1988 | 0.479 | 0.466 |
| 1989 | 0.616 | 0.466 |
| 1990 | 0.595 | 0.155 |
| 1991 | 0.524 | 0.155 |
| 1992 | 0.503 | 0.077 |
| 1993 | 0.432 | 0.155 |
| 1994 | 0.435 | 0.155 |
| 1995 | 0.438 | 0.077 |
| 1996 | 0.440 | 0.022 |
| 1997 | 0.417 | 0.000 |
| 1998 | 0.393 | 0.000 |
| 1999 | 0.393 | 0.000 |
| 2000 | 0.394 | 0.000 |
| 2001 | 0.318 | 0.000 |
| 2002 | 0.287 | 0.000 |
| 2003 | 0.253 | 0.000 |
| 2004 | 0.224 | 0.000 |
| 2005 | 0.201 | 0.000 |
| 2006 | 0.178 | 0.000 |
| 2007 | 0.157 | 0.000 |
| 2008 | 0.138 | 0.000 |
| 2009 | 0.000 | 0.000 |
| 2010 | 0.000 | 0.000 |

SOURCE: [illegible]

TABLE I-9

OCS SALE 55 (GULF OF ALASKA)

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|
| 1980 | 0.000 | 0.000 |
| 1981 | 0.030 | 0.013 |
| 1982 | 0.030 | 0.028 |
| 1983 | 0.030 | 0.028 |
| 1984 | 0.030 | 0.020 |
| 1985 | 0.000 | 0.007 |
| 1986 | 0.000 | 0.000 |
| 1987 | 0.000 | 0.000 |
| 1988 | 0.000 | 0.000 |
| 1989 | 0.000 | 0.000 |
| 1990 | 0.000 | 0.000 |
| 1991 | 0.000 | 0.000 |
| 1992 | 0.000 | 0.000 |
| 1993 | 0.000 | 0.000 |
| 1994 | 0.000 | 0.000 |
| 1995 | 0.000 | 0.000 |
| 1996 | 0.000 | 0.000 |
| 1997 | 0.000 | 0.000 |
| 1998 | 0.000 | 0.000 |
| 1999 | 0.000 | 0.000 |
| 2000 | 0.000 | 0.000 |
| 2001 | 0.000 | 0.000 |
| 2002 | 0.000 | 0.000 |
| 2003 | 0.000 | 0.000 |
| 2004 | 0.000 | 0.000 |
| 2005 | 0.000 | 0.000 |
| 2006 | 0.000 | 0.000 |
| 2007 | 0.000 | 0.000 |
| 2008 | 0.000 | 0.000 |
| 2009 | 0.000 | 0.000 |
| 2010 | 0.000 | 0.000 |

SOURCE: MAP MODEL CASE OCS.55X

TABLE I-10

OCS SALE 57 (BERING/NORTON)

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.026 | 0.000 | 0.015 |
| 1984 | 0.056 | 0.005 | 0.031 |
| 1985 | 0.030 | 0.005 | 0.016 |
| 1986 | 0.000 | 0.000 | 0.000 |
| 1987 | 0.000 | 0.000 | 0.000 |
| 1988 | 0.000 | 0.000 | 0.000 |
| 1989 | 0.000 | 0.000 | 0.000 |
| 1990 | 0.000 | 0.000 | 0.000 |
| 1991 | 0.000 | 0.000 | 0.000 |
| 1992 | 0.000 | 0.000 | 0.000 |
| 1993 | 0.000 | 0.000 | 0.000 |
| 1994 | 0.000 | 0.000 | 0.000 |
| 1995 | 0.000 | 0.000 | 0.000 |
| 1996 | 0.000 | 0.000 | 0.000 |
| 1997 | 0.000 | 0.000 | 0.000 |
| 1998 | 0.000 | 0.000 | 0.000 |
| 1999 | 0.000 | 0.000 | 0.000 |
| 2000 | 0.000 | 0.000 | 0.000 |
| 2001 | 0.000 | 0.000 | 0.000 |
| 2002 | 0.000 | 0.000 | 0.000 |
| 2003 | 0.000 | 0.000 | 0.000 |
| 2004 | 0.000 | 0.000 | 0.000 |
| 2005 | 0.000 | 0.000 | 0.000 |
| 2006 | 0.000 | 0.000 | 0.000 |
| 2007 | 0.000 | 0.000 | 0.000 |
| 2008 | 0.000 | 0.000 | 0.000 |
| 2009 | 0.000 | 0.000 | 0.000 |
| 2010 | 0.000 | 0.000 | 0.000 |

SOURCE: MAP MODEL CASE OCS.57X

TABLE I-11

OCS SALE 60 (LOWER COOK INLET)

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.038 | 0.028 | 0.009 |
| 1983 | 0.083 | 0.000 | 0.026 |
| 1984 | 0.090 | 0.000 | 0.033 |
| 1985 | 0.075 | 0.000 | 0.017 |
| 1986 | 0.038 | 0.000 | 0.009 |
| 1987 | 0.000 | 0.000 | 0.000 |
| 1988 | 0.000 | 0.000 | 0.000 |
| 1989 | 0.000 | 0.000 | 0.000 |
| 1990 | 0.000 | 0.000 | 0.000 |
| 1991 | 0.000 | 0.000 | 0.000 |
| 1992 | 0.000 | 0.000 | 0.000 |
| 1993 | 0.000 | 0.000 | 0.000 |
| 1994 | 0.000 | 0.000 | 0.000 |
| 1995 | 0.000 | 0.000 | 0.000 |
| 1996 | 0.000 | 0.000 | 0.000 |
| 1997 | 0.000 | 0.000 | 0.000 |
| 1998 | 0.000 | 0.000 | 0.000 |
| 1999 | 0.000 | 0.000 | 0.000 |
| 2000 | 0.000 | 0.000 | 0.000 |
| 2001 | 0.000 | 0.000 | 0.000 |
| 2002 | 0.000 | 0.000 | 0.000 |
| 2003 | 0.000 | 0.000 | 0.000 |
| 2004 | 0.000 | 0.000 | 0.000 |
| 2005 | 0.000 | 0.000 | 0.000 |
| 2006 | 0.000 | 0.000 | 0.000 |
| 2007 | 0.000 | 0.000 | 0.000 |
| 2008 | 0.000 | 0.000 | 0.000 |
| 2009 | 0.000 | 0.000 | 0.000 |
| 2010 | 0.000 | 0.000 | 0.000 |

SOURCE: MAP MODEL CASE OCS.60X

TABLE I-12

OCS SALE 70 (ST.GEORGE)

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|
| 1980 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 |
| 1983 | 0.050 | 0.023 |
| 1984 | 0.064 | 0.037 |
| 1985 | 0.072 | 0.046 |
| 1986 | 0.065 | 0.039 |
| 1987 | 0.044 | 0.008 |
| 1988 | 0.000 | 0.000 |
| 1989 | 0.000 | 0.000 |
| 1990 | 0.000 | 0.000 |
| 1991 | 0.000 | 0.000 |
| 1992 | 0.000 | 0.000 |
| 1993 | 0.000 | 0.000 |
| 1994 | 0.000 | 0.000 |
| 1995 | 0.000 | 0.000 |
| 1996 | 0.000 | 0.000 |
| 1997 | 0.000 | 0.000 |
| 1998 | 0.000 | 0.000 |
| 1999 | 0.000 | 0.000 |
| 2000 | 0.000 | 0.000 |
| 2001 | 0.000 | 0.000 |
| 2002 | 0.000 | 0.000 |
| 2003 | 0.000 | 0.000 |
| 2004 | 0.000 | 0.000 |
| 2005 | 0.000 | 0.000 |
| 2006 | 0.000 | 0.000 |
| 2007 | 0.000 | 0.000 |
| 2008 | 0.000 | 0.000 |
| 2009 | 0.000 | 0.000 |
| 2010 | 0.000 | 0.000 |

SOURCE: MAP MODEL CASE OCS.70L

TABLE I-13

OCS SALE 71 (BEAUFORT SEA)

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.037 | 0.000 |
| 1985 | 0.032 | 0.000 | 0.007 |
| 1986 | 0.052 | 0.000 | 0.017 |
| 1987 | 0.053 | 0.000 | 0.018 |
| 1988 | 0.052 | 0.000 | 0.017 |
| 1989 | 0.000 | 0.000 | 0.000 |
| 1990 | 0.000 | 0.076 | 0.000 |
| 1991 | 1.205 | 0.077 | 0.000 |
| 1992 | 1.353 | 0.035 | 0.090 |
| 1993 | 1.393 | 0.000 | 0.247 |
| 1994 | 1.393 | 0.000 | 0.363 |
| 1995 | 1.408 | 0.000 | 0.363 |
| 1996 | 1.178 | 0.000 | 0.363 |
| 1997 | 0.970 | 0.000 | 0.363 |
| 1998 | 0.970 | 0.000 | 0.363 |
| 1999 | 0.985 | 0.000 | 0.363 |
| 2000 | 0.996 | 0.000 | 0.363 |
| 2001 | 0.996 | 0.000 | 0.363 |
| 2002 | 0.996 | 0.000 | 0.363 |
| 2003 | 0.996 | 0.000 | 0.363 |
| 2004 | 0.996 | 0.000 | 0.363 |
| 2005 | 0.996 | 0.000 | 0.363 |
| 2006 | 0.996 | 0.000 | 0.363 |
| 2007 | 0.996 | 0.000 | 0.363 |
| 2008 | 0.996 | 0.000 | 0.363 |
| 2009 | 0.996 | 0.000 | 0.363 |
| 2010 | 0.996 | 0.000 | 0.363 |

SOURCE: MAP MODEL CASE OCS.71M

TABLE I-14

BELUGA COAL DEVELOPMENT

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT | EXOG TRANS-PORTATION EMPLOYMENT |
|---|---|---|---|
| 1980 | 0.000 | 0.000 | 0.000 |
| 1981 | 0.000 | 0.000 | 0.000 |
| 1982 | 0.000 | 0.000 | 0.000 |
| 1983 | 0.000 | 0.000 | 0.000 |
| 1984 | 0.000 | 0.000 | 0.000 |
| 1985 | 0.000 | 0.150 | 0.000 |
| 1986 | 0.000 | 0.300 | 0.000 |
| 1987 | 0.000 | 0.400 | 0.000 |
| 1988 | 0.000 | 0.350 | 0.000 |
| 1989 | 0.000 | 0.200 | 0.000 |
| 1990 | 0.210 | 0.100 | 0.053 |
| 1991 | 0.419 | 0.000 | 0.105 |
| 1992 | 0.419 | 0.000 | 0.105 |
| 1993 | 0.419 | 0.000 | 0.105 |
| 1994 | 0.419 | 0.000 | 0.105 |
| 1995 | 0.419 | 0.000 | 0.105 |
| 1996 | 0.419 | 0.000 | 0.105 |
| 1997 | 0.419 | 0.000 | 0.105 |
| 1998 | 0.419 | 0.000 | 0.105 |
| 1999 | 0.419 | 0.000 | 0.105 |
| 2000 | 0.419 | 0.000 | 0.105 |
| 2001 | 0.419 | 0.000 | 0.105 |
| 2002 | 0.419 | 0.000 | 0.105 |
| 2003 | 0.419 | 0.000 | 0.105 |
| 2004 | 0.419 | 0.000 | 0.105 |
| 2005 | 0.419 | 0.000 | 0.105 |
| 2006 | 0.419 | 0.000 | 0.105 |
| 2007 | 0.419 | 0.000 | 0.105 |
| 2008 | 0.419 | 0.000 | 0.105 |
| 2009 | 0.419 | 0.000 | 0.105 |
| 2010 | 0.419 | 0.000 | 0.105 |

SOURCE: MAP MODEL CASE BCL.04T

TABLE I-15

RED DOG MINE

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT |
|---|---|---|
| 1980 | 0.025 | 0.000 |
| 1981 | 0.025 | 0.000 |
| 1982 | 0.025 | 0.000 |
| 1983 | 0.025 | 0.000 |
| 1984 | 0.035 | 0.100 |
| 1985 | 0.021 | 0.150 |
| 1986 | 0.026 | 0.200 |
| 1987 | 0.021 | 0.150 |
| 1988 | 0.448 | 0.000 |
| 1989 | 0.448 | 0.000 |
| 1990 | 0.448 | 0.000 |
| 1991 | 0.448 | 0.000 |
| 1992 | 0.448 | 0.000 |
| 1993 | 0.448 | 0.000 |
| 1994 | 0.448 | 0.000 |
| 1995 | 0.448 | 0.000 |
| 1996 | 0.448 | 0.000 |
| 1997 | 0.448 | 0.000 |
| 1998 | 0.448 | 0.000 |
| 1999 | 0.448 | 0.000 |
| 2000 | 0.448 | 0.000 |
| 2001 | 0.448 | 0.000 |
| 2002 | 0.448 | 0.000 |
| 2003 | 0.448 | 0.000 |
| 2004 | 0.448 | 0.000 |
| 2005 | 0.448 | 0.000 |
| 2006 | 0.448 | 0.000 |
| 2007 | 0.448 | 0.000 |
| 2008 | 0.448 | 0.000 |
| 2009 | 0.448 | 0.000 |
| 2010 | 0.448 | 0.000 |

SOURCE: MAP MODEL CASE RED.PJH

TABLE I-16

U.S. BORAX

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT | LOW WAGE EXOG CON-STRUCTION EMPLOYMENT |
|---|---|---|
| 1980 | 0.012 | 0.000 |
| 1981 | 0.030 | 0.000 |
| 1982 | 0.041 | 0.000 |
| 1983 | 0.041 | 0.040 |
| 1984 | 0.058 | 0.350 |
| 1985 | 0.058 | 0.500 |
| 1986 | 0.058 | 0.400 |
| 1987 | 0.428 | 0.300 |
| 1988 | 0.790 | 0.000 |
| 1989 | 0.790 | 0.000 |
| 1990 | 0.790 | 0.000 |
| 1991 | 0.790 | 0.000 |
| 1992 | 0.790 | 0.000 |
| 1993 | 0.790 | 0.000 |
| 1994 | 0.790 | 0.000 |
| 1995 | 0.790 | 0.000 |
| 1996 | 0.790 | 0.000 |
| 1997 | 0.790 | 0.000 |
| 1998 | 0.790 | 0.000 |
| 1999 | 0.790 | 0.000 |
| 2000 | 0.790 | 0.000 |
| 2001 | 0.790 | 0.000 |
| 2002 | 0.790 | 0.000 |
| 2003 | 0.790 | 0.000 |
| 2004 | 0.790 | 0.000 |
| 2005 | 0.790 | 0.000 |
| 2006 | 0.790 | 0.000 |
| 2007 | 0.790 | 0.000 |
| 2008 | 0.790 | 0.000 |
| 2009 | 0.790 | 0.000 |
| 2010 | 0.790 | 0.000 |

SOURCE: MAP MODEL CASE BXM.PJM

TABLE I-17

OTHER MINING

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | MINING EMPLOYMENT |
|---|---|
| 1980 | 3.171 |
| 1981 | 3.203 |
| 1982 | 3.235 |
| 1983 | 3.267 |
| 1984 | 3.300 |
| 1985 | 3.333 |
| 1986 | 3.367 |
| 1987 | 3.400 |
| 1988 | 3.434 |
| 1989 | 3.469 |
| 1990 | 3.503 |
| 1991 | 3.538 |
| 1992 | 3.574 |
| 1993 | 3.609 |
| 1994 | 3.645 |
| 1995 | 3.682 |
| 1996 | 3.719 |
| 1997 | 3.756 |
| 1998 | 3.793 |
| 1999 | 3.831 |
| 2000 | 3.869 |
| 2001 | 3.908 |
| 2002 | 3.947 |
| 2003 | 3.986 |
| 2004 | 4.026 |
| 2005 | 4.066 |
| 2006 | 4.107 |
| 2007 | 4.148 |
| 2008 | 4.190 |
| 2009 | 4.231 |
| 2010 | 4.274 |

SOURCE: MAP MODEL CASE DMN.EPH

TABLE I-18

AGRICULTURAL
EMPLOYMENT ASSUMPTIONS
THOUSANDS OF EMPLOYEES

| | AGRI-CULTURE EMPLOYMENT |
|---|---|
| 1980 | 0.183 |
| 1981 | 0.188 |
| 1982 | 0.194 |
| 1983 | 0.203 |
| 1984 | 0.211 |
| 1985 | 0.219 |
| 1986 | 0.228 |
| 1987 | 0.239 |
| 1988 | 0.250 |
| 1989 | 0.263 |
| 1990 | 0.276 |
| 1991 | 0.291 |
| 1992 | 0.306 |
| 1993 | 0.325 |
| 1994 | 0.343 |
| 1995 | 0.365 |
| 1996 | 0.389 |
| 1997 | 0.414 |
| 1998 | 0.442 |
| 1999 | 0.474 |
| 2000 | 0.508 |
| 2001 | 0.527 |
| 2002 | 0.546 |
| 2003 | 0.568 |
| 2004 | 0.589 |
| 2005 | 0.611 |
| 2006 | 0.634 |
| 2007 | 0.660 |
| 2008 | 0.686 |
| 2009 | 0.772 |
| 2010 | 0.740 |

SOURCE: MAP MODEL CASE AGR.PJM

TABLE I-19

FORESTRY, LUMBER, AND PULP

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | LOW WAGE EXOG MANU-FACTURING EMPLOYMENT |
|---|---|
| 1980 | 2.204 |
| 1981 | 2.273 |
| 1982 | 2.345 |
| 1983 | 2.418 |
| 1984 | 2.494 |
| 1985 | 2.572 |
| 1986 | 2.653 |
| 1987 | 2.736 |
| 1988 | 2.822 |
| 1989 | 2.911 |
| 1990 | 3.001 |
| 1991 | 3.096 |
| 1992 | 3.193 |
| 1993 | 3.293 |
| 1994 | 3.396 |
| 1995 | 3.503 |
| 1996 | 3.613 |
| 1997 | 3.727 |
| 1998 | 3.843 |
| 1999 | 3.964 |
| 2000 | 4.103 |
| 2001 | 4.103 |
| 2002 | 4.103 |
| 2003 | 4.103 |
| 2004 | 4.103 |
| 2005 | 4.103 |
| 2006 | 4.103 |
| 2007 | 4.103 |
| 2008 | 4.103 |
| 2009 | 4.103 |
| 2010 | 4.103 |

SOURCE: MAP MODEL CASE FLP.SCM

TABLE I-20

COMMERCIAL FISHING (NON-BOTTOMFISH)

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | LOW WAGE EXOG MANU-FACTURING EMPLOYMENT | FISH HARVESTING EMPLOYMENT |
|---|---|---|
| 1980 | 7.123 | 6.363 |
| 1981 | 7.123 | 6.363 |
| 1982 | 7.123 | 6.363 |
| 1983 | 7.123 | 6.363 |
| 1984 | 7.123 | 6.363 |
| 1985 | 7.123 | 6.363 |
| 1986 | 7.123 | 6.363 |
| 1987 | 7.123 | 6.363 |
| 1988 | 7.123 | 6.363 |
| 1989 | 7.123 | 6.363 |
| 1990 | 7.123 | 6.363 |
| 1991 | 7.123 | 6.363 |
| 1992 | 7.123 | 6.363 |
| 1993 | 7.123 | 6.363 |
| 1994 | 7.123 | 6.363 |
| 1995 | 7.123 | 6.363 |
| 1996 | 7.123 | 6.363 |
| 1997 | 7.123 | 6.363 |
| 1998 | 7.123 | 6.363 |
| 1999 | 7.123 | 6.363 |
| 2000 | 7.123 | 6.363 |
| 2001 | 7.123 | 6.363 |
| 2002 | 7.123 | 6.363 |
| 2003 | 7.123 | 6.363 |
| 2004 | 7.123 | 6.363 |
| 2005 | 7.123 | 6.363 |
| 2006 | 7.123 | 6.363 |
| 2007 | 7.123 | 6.363 |
| 2008 | 7.123 | 6.363 |
| 2009 | 7.123 | 6.363 |
| 2010 | 7.123 | 6.363 |

SOURCE: MAP MODEL CASE TCF.001

TABLE I-21

BOTTOMFISH FISHING

EMPLOYMENT ASSUMPTIONS

THOUSANDS OF EMPLOYEES

| | LOW WAGE EXOG MANU-FACTURING EMPLOYMENT | FISH HARVESTING EMPLOYMENT |
|---|---|---|
| 1980 | 0.000 | 0.000 |
| 1981 | 0.005 | 0.028 |
| 1982 | 0.018 | 0.036 |
| 1983 | 0.037 | 0.044 |
| 1984 | 0.060 | 0.053 |
| 1985 | 0.091 | 0.065 |
| 1986 | 0.130 | 0.079 |
| 1987 | 0.178 | 0.097 |
| 1988 | 0.241 | 0.118 |
| 1989 | 0.317 | 0.144 |
| 1990 | 0.413 | 0.175 |
| 1991 | 0.531 | 0.212 |
| 1992 | 0.678 | 0.255 |
| 1993 | 0.859 | 0.309 |
| 1994 | 1.079 | 0.373 |
| 1995 | 1.348 | 0.450 |
| 1996 | 1.678 | 0.542 |
| 1997 | 0.208 | 0.656 |
| 1998 | 2.567 | 0.787 |
| 1999 | 3.159 | 0.946 |
| 2000 | 3.873 | 1.137 |
| 2001 | 3.873 | 1.137 |
| 2002 | 3.873 | 1.137 |
| 2003 | 3.873 | 1.137 |
| 2004 | 3.873 | 1.137 |
| 2005 | 3.873 | 1.137 |
| 2006 | 3.873 | 1.137 |
| 2007 | 3.873 | 1.137 |
| 2008 | 3.873 | 1.137 |
| 2009 | 3.873 | 1.137 |
| 2010 | 3.873 | 1.137 |

SOURCE: MAP MODEL CASE BCF.004

TABLE I-22

HYDROELECTRIC PROJECTS
EMPLOYMENT ASSUMPTIONS
THOUSANDS OF EMPLOYEES

| | HIGH WAGE EXOG CON-STRUCTION EMPLOYMENT |
|---|---|
| 1980 | 0.010 |
| 1981 | 0.043 |
| 1982 | 0.179 |
| 1983 | 0.520 |
| 1984 | 0.195 |
| 1985 | 0.000 |
| 1986 | 0.000 |
| 1987 | 0.000 |
| 1988 | 0.000 |
| 1989 | 0.000 |
| 1990 | 0.000 |
| 1991 | 0.000 |
| 1992 | 0.000 |
| 1993 | 0.000 |
| 1994 | 0.000 |
| 1995 | 0.000 |
| 1996 | 0.000 |
| 1997 | 0.000 |
| 1998 | 0.000 |
| 1999 | 0.000 |
| 2000 | 0.000 |
| 2001 | 0.000 |
| 2002 | 0.000 |
| 2003 | 0.000 |
| 2004 | 0.000 |
| 2005 | 0.000 |
| 2006 | 0.000 |
| 2007 | 0.000 |
| 2008 | 0.000 |
| 2009 | 0.000 |
| 2010 | 0.000 |

SOURCE: MAP MODEL CASE SHP.PJH

TABLE I-23

FEDERAL MILITARY
EMPLOYMENT ASSUMPTIONS
THOUSANDS OF EMPLOYEES

| | ACTIVE DUTY MILITARY EMPLOYMENT |
|---|---|
| 1980 | 23.323 |
| 1981 | 23.323 |
| 1982 | 23.323 |
| 1983 | 23.323 |
| 1984 | 23.323 |
| 1985 | 23.323 |
| 1986 | 23.323 |
| 1987 | 23.323 |
| 1988 | 23.323 |
| 1989 | 23.323 |
| 1990 | 23.323 |
| 1991 | 23.323 |
| 1992 | 23.323 |
| 1993 | 23.323 |
| 1994 | 23.323 |
| 1995 | 23.323 |
| 1996 | 23.323 |
| 1997 | 23.323 |
| 1998 | 23.323 |
| 1999 | 23.323 |
| 2000 | 23.323 |
| 2001 | 23.323 |
| 2002 | 23.323 |
| 2003 | 23.323 |
| 2004 | 23.323 |
| 2005 | 23.323 |
| 2006 | 23.323 |
| 2007 | 23.323 |
| 2008 | 23.323 |
| 2009 | 23.323 |
| 2010 | 23.323 |

SOURCE: MAP MODEL CASE 6FM.EPM

TABLE I-24

FEDERAL CIVILIAN
EMPLOYMENT ASSUMPTIONS
THOUSANDS OF EMPLOYEES

| | CIVILIAN FEDERAL EMPLOYMENT |
|---|---|
| 1980 | 18.005 |
| 1981 | 18.095 |
| 1982 | 18.185 |
| 1983 | 18.276 |
| 1984 | 18.367 |
| 1985 | 18.459 |
| 1986 | 18.551 |
| 1987 | 18.644 |
| 1988 | 18.737 |
| 1989 | 18.831 |
| 1990 | 18.925 |
| 1991 | 19.020 |
| 1992 | 19.115 |
| 1993 | 19.211 |
| 1994 | 19.307 |
| 1995 | 19.403 |
| 1996 | 19.500 |
| 1997 | 19.598 |
| 1998 | 19.696 |
| 1999 | 19.794 |
| 2000 | 19.893 |
| 2001 | 19.993 |
| 2002 | 20.092 |
| 2003 | 20.193 |
| 2004 | 20.294 |
| 2005 | 20.395 |
| 2006 | 20.497 |
| 2007 | 20.600 |
| 2008 | 20.703 |
| 2009 | 20.806 |
| 2010 | 20.910 |

SOURCE: MAP MODEL CASE GFC.EPM

# APPENDIX J: SALE 83 (NAVARIN BASIN)

## EMPLOYMENT ASSUMPTIONS

OCS annual employment figures were provided by the Alaska OCS office for 17 different job categories. These job categories are listed in Table J-1. This appendix discusses the procedures used to convert these employment assumptions into inputs for the MAP and SCIMP models.

The employment figures were provided for four different cases which differ with respect to the oil and gas resources which are assumed to be discovered as well as the location of facilities. The cases are referred to as the .6 Bbbl case, the 1.2 Bbbl remote case, the 1.2 Bbbl road-connected case, and the 2.4 Bbbl case. The difference between the two 1.2 Bbbl cases is in the assumption about whether or not the oil trans-shipment facility in the Aleutians is road-connected to an established community.

The OCS employment associated with each case is shown in Tables J-2 through J-4. The assumed locations of facilities for each case are shown in Table J-5. Tables J-6 through J-9 show, in matrix form, these job location assumptions as applied to the OCS job categories.

After assigning employment by location, the next step in determining OCS employment inputs for the MAP and SCIMP models was to determine residency patterns of workers. The SEAR (share of employment to

Alaska residents) and SELR (share of employment to local residents) assumptions used are shown in Table J-10.

The MAP and SCIMP model OCS employment inputs were obtained by applying the residency coefficients to the employment figures for each location and aggregating these numbers. The MAP model employment inputs are given in Tables J-11 to J-13. For the MAP model, non-Alaska residents were counted as half an employee, in order to take account of the smaller impact that they have upon the Alaskan economy. The SCIMP model employment inputs are given in Tables J-14 through J-17.

TABLE J-1. OCS EMPLOYMENT CATEGORIES, AS PROVIDED BY OCS OFFICE

| | |
|---|---|
| 1 | Exploration drilling rigs |
| 2 | Exploration aircraft |
| 3 | Exploration vessels |
| 4 | Exploration shore bases |
| 5 | Construction platform installation |
| 6 | Construction shore bases |
| 7 | Pipeline construction |
| 8 | Oil terminal construction |
| 9 | LNG terminal construction |
| 10 | Production drilling |
| 11 | Production aircraft |
| 12 | Production vessels |
| 13 | Production shore bases |
| 14 | Production headquarters |
| 15 | Production oil terminal |
| 16 | Production LNG terminal |
| 17 | Production operations |

TABLE J-2. OCS EMPLOYMENT ASSUMPTIONS, BY JOB:
.6 Bbbl Case*

| YEAR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1985 | 0. | 0. | 0. | 0. | 0. | 400. | 0. | 0. |
| 1986 | 160. | 12. | 40. | 40. | 0. | 0. | 0. | 0. |
| 1987 | 240. | 18. | 60. | 40. | 0. | 0. | 0. | 0. |
| 1988 | 400. | 30. | 100. | 40. | 0. | 0. | 0. | 0. |
| 1989 | 400. | 30. | 100. | 40. | 0. | 500. | 0. | 0. |
| 1990 | 560. | 42. | 140. | 40. | 0. | 250. | 0. | 0. |
| 1991 | 320. | 24. | 80. | 40. | 1112. | 0. | 0. | 0. |
| 1992 | 80. | 6. | 20. | 40. | 2224. | 0. | 0. | 0. |
| 1993 | 0. | 0. | 0. | 0. | 3336. | 0. | 0. | 0. |
| 1994 | 0. | 0. | 0. | 0. | 1112. | 0. | 0. | 0. |
| 1995 | 0. | 0. | 0. | 0. | 1112. | 0. | 0. | 0. |
| 1996 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1997 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1998 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1999 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2000 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2001 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2002 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2003 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2004 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2005 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2006 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2007 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2008 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2009 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2010 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2011 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2012 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2013 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2014 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2015 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2016 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2017 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2018 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2019 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2020 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

*See Table J-1 for job code.

SOURCE: Alaska OCS Office.

TABLE J-2. OCS EMPLOYMENT ASSUMPTIONS, BY JOB:
.6 Bbbl Case*

(Continued)

| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 6. | 60. | 200. | 0. | 0. | 0. | 180. |
| 0. | 224. | 18. | 180. | 200. | 0. | 0. | 0. | 541. |
| 0. | 672. | 36. | 360. | 300. | 2. | 0. | 0. | 1080. |
| 0. | 1344. | 42. | 420. | 300. | -4. | 18. | 0. | 1260. |
| 0. | 1568. | 48. | 480. | 300. | 12. | 26. | 0. | 1440. |
| 0. | 1792. | 48. | 480. | 300. | 16. | 35. | 0. | 1440. |
| 0. | 1807. | 48. | 480. | 300. | 21. | 35. | 0. | 1440. |
| 0. | 1613. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 1210. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 553. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 344. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 120. | 48. | 480. | 300. | 31. | 35. | 0. | 1440. |
| 0. | 60. | 24. | 240. | 150. | 16. | 0. | 0. | 800. |
| 0. | 60. | 24. | 240. | 150. | 16. | 0. | 0. | 800. |
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE J-3. OCS EMPLOYMENT ASSUMPTIONS, BY JOB:
1.2 Bbbl Cases*

| YEAR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1985 | 0. | 0. | 0. | 0. | 0. | 400. | 0. | 0. |
| 1986 | 240. | 18. | 60. | 40. | 0. | 0. | 0. | 0. |
| 1987 | 640. | 48. | 160. | 40. | 0. | 0. | 0. | 0. |
| 1988 | 720. | 54. | 180. | 40. | 0. | 0. | 0. | 0. |
| 1989 | 720. | 54. | 180. | 40. | 0. | 500. | 0. | 0. |
| 1990 | 480. | 36. | 120. | 40. | 0. | 250. | 0. | 0. |
| 1991 | 240. | 18. | 60. | 40. | 950. | 0. | 0. | 0. |
| 1992 | 80. | 6. | 20. | 40. | 1424. | 0. | 672. | 942. |
| 1993 | 0. | 0. | 0. | 0. | 1899. | 0. | 672. | 942. |
| 1994 | 0. | 0. | 0. | 0. | 1424. | 0. | 0. | 0. |
| 1995 | 0. | 0. | 0. | 0. | 475. | 0. | 0. | 0. |
| 1996 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1997 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1998 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1999 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2000 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2001 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2002 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2003 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2004 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2005 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2006 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2007 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2008 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2009 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2010 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2011 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2012 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2013 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2014 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2015 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2016 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2017 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2018 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2019 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2020 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

*See Table J-1 for job code.

SOURCE: Alaska OCS Office.

TABLE J-3. OCS EMPLOYMENT ASSUMPTIONS, BY JOB:
1.2 Bbbl Cases*

(Continued)

| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 12. | 120. | 200. | 0. | 0. | 0. | 224. |
| 3140. | 448. | 30. | 300. | 200. | 0. | 0. | 0. | 560. |
| 3140. | 1120. | 54. | 540. | 300. | 2. | 0. | 0. | 1008. |
| 0. | 2016. | 72. | 760. | 300. | 4. | 89. | 174. | 1344. |
| 0. | 2688. | 78. | 820. | 300. | 12. | 133. | 261. | 1456. |
| 0. | 2912. | 78. | 820. | 300. | 22. | 177. | 348. | 1456. |
| 0. | 2942. | 78. | 820. | 300. | 30. | 177. | 348. | 1456. |
| 0. | 2539. | 78. | 820. | 300. | 37. | 177. | 348. | 1456. |
| 0. | 1727. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 1076. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 419. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 195. | 78. | 820. | 300. | 53. | 177. | 348. | 1456. |
| 0. | 105. | 42. | 420. | 150. | 26. | 0. | 348. | 420. |
| 0. | 105. | 42. | 420. | 150. | 26. | 0. | 348. | 420. |
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE J-4. OCS EMPLOYMENT ASSUMPTIONS, BY JOB:
2.4 Bbbl Cases*

| YEAR | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1985 | 0. | 0. | 0. | 0. | 0. | 400. | 0. | 0. |
| 1986 | 400. | 30. | 100. | 40. | 0. | 0. | 0. | 0. |
| 1987 | 960. | 72. | 240. | 40. | 0. | 0. | 0. | 0. |
| 1988 | 560. | 42. | 140. | 40. | 0. | 0. | 0. | 0. |
| 1989 | 880. | 66. | 220. | 40. | 0. | 500. | 0. | 0. |
| 1990 | 720. | 54. | 180. | 40. | 0. | 250. | 0. | 0. |
| 1991 | 320. | 24. | 80. | 40. | 950. | 0. | 0. | 0. |
| 1992 | 240. | 18. | 60. | 40. | 1899. | 0. | 1343. | 1550. |
| 1993 | 80. | 6. | 20. | 40. | 2374. | 0. | 1343. | 1550. |
| 1994 | 0. | 0. | 0. | 0. | 1899. | 0. | 0. | 0. |
| 1995 | 0. | 0. | 0. | 0. | 950. | 0. | 0. | 0. |
| 1996 | 0. | 0. | 0. | 0. | 475. | 0. | 0. | 0. |
| 1997 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1998 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1999 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2000 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2001 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2002 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2003 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2004 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2005 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2006 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2007 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2008 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2009 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2010 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2011 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2012 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2013 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2014 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2015 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2016 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2017 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2018 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2019 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2020 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

*See Table J-1 for job code.

SOURCE: Alaska OCS Office.

TABLE J-4. OCS EMPLOYMENT ASSUMPTIONS, BY JOB:
2.4 Bbbl Cases*

(Continued)

| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 0. | 0. | 200. | 0. | 0. | 0. | 0. |
| 0. | 0. | 12. | 120. | 200. | 0. | 0. | 0. | 224. |
| 4750. | 448. | 36. | 360. | 200. | 0. | 0. | 0. | 672. |
| 4750. | 1344. | 66. | 660. | 300. | 4. | 0. | 0. | 1232. |
| 0. | 2464. | 90. | 940. | 300. | 8. | 146. | 264. | 1680. |
| 0. | 3360. | 102. | 1060. | 300. | 22. | 218. | 396. | 1904. |
| 0. | 3808. | 108. | 1120. | 300. | 47. | 291. | 528. | 2016. |
| 0. | 4062. | 108. | 1120. | 300. | 63. | 291. | 528. | 2016. |
| 0. | 3674. | 108. | 1120. | 300. | 69. | 291. | 528. | 2016. |
| 0. | 2853. | 108. | 1120. | 300. | 74. | 291. | 528. | 2016. |
| 0. | 1793. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 927. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 494. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 270. | 108. | 1120. | 300. | 87. | 291. | 528. | 2016. |
| 0. | 135. | 54. | 560. | 150. | 44. | 0. | 528. | 540. |

TABLE J-5: ASSUMED LOCATIONS OF AIR AND MARINE SUPPORT AND OIL AND LNG TERMINAL EMPLOYMENT, BY CASE (a)

| | Case | | |
|---|---|---|---|
| | .6 Bbbl | 1.2 Bbbl (Both) | 2.4 Bbbl |
| Air Support (b) | 50% Cold Bay<br>50% St. Matthew | 50% Cold Bay<br>50% St. Matthew | 50% Cold Bay<br>50% St. Paul |
| Marine Support (b) | | | |
| Exploration Phase | Dutch Harbor | Dutch Harbor | Dutch Harbor |
| Construction and Development/ Production Phase | Dutch Harbor | 50% Dutch Harbor<br>50% St. Matthew | 50% Dutch Harbor<br>50% St. Paul |
| Oil Terminals | | | |
| | Transshipment point at remote site in Aleutians | St. Matthew, transshipment point at remote or road-connected site in Aleutians | St. Paul, transshipment point at remote site in Aleutians |
| LNG Terminals | None | St. Matthew | St. Paul |

(a) All other employment is assumed to be located offshore except for "headquarters," which is in Anchorage. See text for breakdowns of "aircraft/vessels" into marine and air support.

(b) Includes associated "shore base" employment.

TABLE J-6: EMPLOYMENT LOCATION ASSUMPTIONS, BY JOB:
.6 Bbbl Case (Share of Employment, By Location)*

| JOB | DUTCH HARBOR | COLD BAY | REMOTE | ST MATTHEW | OFFSHORE | ANCHORAGE |
|---|---|---|---|---|---|---|
| 1 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 2 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 3 | 1.0000 | 0. | 0. | 0. | 0. | 0. |
| 4 | 0.7692 | 0.1154 | 0. | 0.1154 | 0. | 0. |
| 5 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 6 | 0.0769 | 0.0115 | 0.9000 | 0.0115 | 0. | 0. |
| 7 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 8 | 0. | 0. | 0.3330 | 0.6670 | 0. | 0. |
| 9 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 10 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 11 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 12 | 1.0000 | 0. | 0. | 0. | 0. | 0. |
| 13 | 0.9091 | 0.0455 | 0. | 0.0455 | 0. | 0. |
| 14 | 0. | 0. | 0. | 0. | 0. | 1.0000 |
| 15 | 0. | 0. | 1.0000 | 0. | 0. | 0. |
| 16 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 17 | 0.0800 | 0. | 0. | 0. | 0.9200 | 0. |

*See Table J-1 for job code explanation. For 1985 only, the location numbers for job 6, reading across, are .7692, .1154, 0, .1134, 0, and 0.

TABLE J-7: EMPLOYMENT LOCATION ASSUMPTIONS, BY JOB:
1.2 Bbbl Road-Connected Case
(Share of Employment, By Location)*

| JOB | DUTCH HARBOR | COLD BAY | REMOTE | ST MATTHEW | OFFSHORE | ANCHORAGE |
|---|---|---|---|---|---|---|
| 1 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 2 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 3 | 1.0000 | 0. | 0. | 0. | 0. | 0. |
| 4 | 0.7692 | 0.1154 | 0. | 0.1154 | 0. | 0. |
| 5 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 6 | 0.0769 | 0.0115 | 0.9000 | 0.0115 | 0. | 0. |
| 7 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 8 | 0. | 0. | 0.3330 | 0.6670 | 0. | 0. |
| 9 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 10 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 11 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 12 | 0.5000 | 0. | 0. | 0.5000 | 0. | 0. |
| 13 | 0.4545 | 0.0455 | 0. | 0.5000 | 0. | 0. |
| 14 | 0. | 0. | 0. | 0. | 0. | 1.0000 |
| 15 | 0. | 0. | 0.3330 | 0.6670 | 0. | 0. |
| 16 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 17 | 0.0800 | 0. | 0. | 0. | 0.9200 | 0. |

*See Table J-1 for job code explanation. For 1985 only, the location numbers for job 6, reading across, are .7692, .1154, 0, .1134, 0, and 0.

TABLE J-8. EMPLOYMENT LOCATION ASSUMPTIONS, BY JOB:
1.2 Bbbl Remote Case
(Share of Employment, By Location)*

| JOB | DUTCH HARBOR | COLD BAY | REMOTE | ST MATTHEW | OFFSHORE | ANCHORAGE |
|---|---|---|---|---|---|---|
| 1 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 2 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 3 | 1.0000 | 0. | 0. | 0. | 0. | 0. |
| 4 | 0.7692 | 0.1154 | 0. | 0.1154 | 0. | 0. |
| 5 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 6 | 0.0769 | 0.0115 | 0.9000 | 0.0115 | 0. | 0. |
| 7 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 8 | 0. | 0. | 0.3330 | 0.6670 | 0. | 0. |
| 9 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 10 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 11 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 12 | 0.5000 | 0. | 0. | 0.5000 | 0. | 0. |
| 13 | 0.4545 | 0.0455 | 0. | 0.5000 | 0. | 0. |
| 14 | 0. | 0. | 0. | 0. | 0. | 1.0000 |
| 15 | 0. | 0. | 0.3330 | 0.6670 | 0. | 0. |
| 16 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 17 | 0.0800 | 0. | 0. | 0. | 0.9200 | 0. |

*See Table J-1 for job code explanation. For 1985 only, the location numbers for job 6, reading across, are .7692, .1154, 0, .1134, 0, and 0.

TABLE J-9. EMPLOYMENT LOCATION ASSUMPTIONS, BY JOB:
2.4 Bbbl Case
(Share of Employment, by Location)*

| JOB | DUTCH HARBOR | COLD BAY | REMOTE | ST MATTHEW | OFFSHORE | ANCHORAGE |
|---|---|---|---|---|---|---|
| 1 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 2 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 3 | 1.0000 | 0. | 0. | 0. | 0. | 0. |
| 4 | 0.7692 | 0.1154 | 0. | 0.1154 | 0. | 0. |
| 5 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 6 | 0.0769 | 0.0115 | 0.9000 | 0.0115 | 0. | 0. |
| 7 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 8 | 0. | 0. | 0.3330 | 0.6670 | 0. | 0. |
| 9 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 10 | 0. | 0. | 0. | 0. | 1.0000 | 0. |
| 11 | 0. | 0.5000 | 0. | 0.5000 | 0. | 0. |
| 12 | 0.5000 | 0. | 0. | 0.5000 | 0. | 0. |
| 13 | 0.4545 | 0.0455 | 0. | 0.5000 | 0. | 0. |
| 14 | 0. | 0. | 0. | 0. | 0. | 1.0000 |
| 15 | 0. | 0. | 0.3330 | 0.6670 | 0. | 0. |
| 16 | 0. | 0. | 0. | 1.0000 | 0. | 0. |
| 17 | 0.0800 | 0. | 0. | 0. | 0.9200 | 0. |

*See Table J-1 for job code explanation. For 1985 only, the location numbers for job 6, reading across, are .7692, .1154, 0, .1134, 0, and 0.

TABLE J-10: RESIDENCY ASSUMPTIONS FOR OCS EMPLOYMENT, SALE 83 (NAVARIN BASIN)

| Activity | Assumed Location | SEAR (a) | SELR (b) |
|---|---|---|---|
| **Exploration Phase** | | | |
| Drilling Rigs | Offshore | 0 | 0 |
| Aircraft/Vessels | | | |
| Aircraft | Cold Bay | 1.0 | .05 |
| | St. Matthew | 1.0 | 0 |
| | St. Paul | 1.0 | 0 |
| Vessels | Dutch Harbor | .15 | .15 |
| | St. Matthew | .15 | 0 |
| | St.Paul | .15 | 0 |
| Shore Bases | Cold Bay | 1.0 | .1 |
| | Dutch Harbor | 1.0 | .22 |
| | St. Matthew | 1.0 | 0 |
| | St. Paul | 1.0 | 0 |
| **Construction Phase** | | | |
| Platform Installation | Offshore | .25 | 0 |
| Shore Base | Cold Bay | .5 | .1 |
| | Dutch Harbor | .5 | .22 |
| | St. Matthew | .5 | 0 |
| | St. Paul | .5 | 0 |
| Pipeline Construct. | Offshore | .25 | 0 |
| Oil Terminal | Remote transshipment point | .5 | 0 |
| | Road connected " " | .5 | .05 |
| | St. Matthew | .5 | 0 |
| | St. Paul | .5 | 0 |
| LNG Terminal | St. Matthew | .5 | 0 |
| | St. Paul | .5 | 0 |
| **Development/Production Phase** | | | |
| Development Drilling | Offshore | 0 | 0 |
| Aircraft/Vessels | | | |
| Aircraft | Cold Bay | 1.0 | .05 |
| | St. Matthew | 1.0 | 0 |
| | St. Paul | 1.0 | 0 |

TABLE J-10: RESIDENCY ASSUMPTIONS FOR OCS EMPLOYMENT, SALE 83 (NAVARIN BASIN) (Continued)

| Activity | Assumed Location | SEAR (a) | SELR (b) |
|---|---|---|---|
| Vessels | Dutch Harbor | .95 | .18 |
| | St. Matthew | .95 | 0 |
| | St. Paul | .95 | 0 |
| Shore Bases | Cold Bay | 1.0 | .22 |
| | Dutch Harbor | 1.0 | .22 |
| | St. Matthew | 1.0 | 0 |
| | St. Paul | 1.0 | 0 |
| Headquarters | Anchorage | 1.0 | 0 |
| Oil Terminal | Remote transshipment point | 1.0 | 0 |
| | Road connected " " | 1.0 | .15 |
| | St. Matthew | 1.0 | 0 |
| | St. Paul | 1.0 | 0 |
| LNG Terminal | St. Matthew | 1.0 | 0 |
| | St. Paul | 1.0 | 0 |
| Production Operations | Offshore | .95 | .08 |

(a) Share of employment to Alaska residents (for use in MAP model).

(b) Share of employment to residents of Aleutian Islands (share of workers not living in enclaves--for use in SCIMP model).

SOURCE: Based on Will Nebesky, "Patterns of Resident Employment in Alaska's Outer Continental Shelf Industry," in Lee Huskey, et al., "Economic and Demographic Structural Change in Alaska," OCS Technical Report Number 73 (Anchorage, BLM Alaska OCS Office, June 1982).

TABLE J-11. MAP MODEL OCS EMPLOYMENT INPUTS:
.6 Bbbl Case

| YEAR | EMCNX | EMP9 | EMT9X |
|---|---|---|---|
| 1980 | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. |
| 1985 | 210. | 0. | 0. |
| 1986 | 0. | 80. | 275. |
| 1987 | 0. | 120. | 293. |
| 1988 | 0. | 200. | 328. |
| 1989 | 263. | 200. | 328. |
| 1990 | 131. | 280. | 363. |
| 1991 | 695. | 329. | 346. |
| 1992 | 1390. | 659. | 366. |
| 1993 | 2085. | 1350. | 516. |
| 1994 | 695. | 1874. | 552. |
| 1995 | 695. | 2171. | 588. |
| 1996 | 0. | 2296. | 588. |
| 1997 | 0. | 2309. | 588. |
| 1998 | 0. | 2222. | 588. |
| 1999 | 0. | 2021. | 588. |
| 2000 | 0. | 1692. | 588. |
| 2001 | 0. | 1588. | 588. |
| 2002 | 0. | 1476. | 588. |
| 2003 | 0. | 1476. | 588. |
| 2004 | 0. | 1476. | 588. |
| 2005 | 0. | 1476. | 588. |
| 2006 | 0. | 1476. | 588. |
| 2007 | 0. | 1476. | 588. |
| 2008 | 0. | 1476. | 588. |
| 2009 | 0. | 1476. | 588. |
| 2010 | 0. | 1476. | 588. |
| 2011 | 0. | 1476. | 588. |
| 2012 | 0. | 1476. | 588. |
| 2013 | 0. | 1476. | 588. |
| 2014 | 0. | 795. | 294. |
| 2015 | 0. | 795. | 294. |
| 2016 | 0. | 0. | 0. |
| 2017 | 0. | 0. | 0. |
| 2018 | 0. | 0. | 0. |
| 2019 | 0. | 0. | 0. |
| 2020 | 0. | 0. | 0. |

EMCNX: Low wage construction employment
EMP9: Mining employment
EMT9X: Transportation employment

TABLE J-12. MAP MODEL OCS EMPLOYMENT INPUTS:
1.2 Bbbl Cases

| YEAR | EMCNX | EMP9 | EMT9X |
|---|---|---|---|
| 1980 | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. |
| 1985 | 210. | 0. | 0. |
| 1986 | 0. | 120. | 293. |
| 1987 | 0. | 320. | 380. |
| 1988 | 0. | 360. | 398. |
| 1989 | 263. | 360. | 398. |
| 1990 | 131. | 240. | 345. |
| 1991 | 593. | 330. | 393. |
| 1992 | 4371. | 789. | 509. |
| 1993 | 4668. | 1506. | 752. |
| 1994 | 890. | 2534. | 933. |
| 1995 | 297. | 3114. | 983. |
| 1996 | 0. | 3367. | 983. |
| 1997 | 0. | 3391. | 983. |
| 1998 | 0. | 3196. | 983. |
| 1999 | 0. | 2906. | 983. |
| 2000 | 0. | 2480. | 983. |
| 2001 | 0. | 2152. | 983. |
| 2002 | 0. | 2040. | 983. |
| 2003 | 0. | 2040. | 983. |
| 2004 | 0. | 2040. | 983. |
| 2005 | 0. | 2040. | 983. |
| 2006 | 0. | 2040. | 983. |
| 2007 | 0. | 2040. | 983. |
| 2008 | 0. | 2040. | 983. |
| 2009 | 0. | 2040. | 983. |
| 2010 | 0. | 2040. | 983. |
| 2011 | 0. | 2040. | 983. |
| 2012 | 0. | 2040. | 983. |
| 2013 | 0. | 2040. | 983. |
| 2014 | 0. | 2040. | 983. |
| 2015 | 0. | 2040. | 983. |
| 2016 | 0. | 2040. | 983. |
| 2017 | 0. | 820. | 502. |
| 2018 | 0. | 820. | 502. |
| 2019 | 0. | 0. | 0. |
| 2020 | 0. | 0. | 0. |

EMCNX: Low wage construction employment
EMP9: Mining employment
EMT9X: Transportation employment

TABLE J-13. MAP MODEL OCS EMPLOYMENT INPUTS:
2.4 Bbbl Case

| YEAR | EMCNX | EMP9 | EMT9X |
|---|---|---|---|
| 1980 | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. |
| 1985 | 210. | 0. | 0. |
| 1986 | 0. | 200. | 328. |
| 1987 | 0. | 480. | 450. |
| 1988 | 0. | 280. | 363. |
| 1989 | 263. | 440. | 433. |
| 1990 | 131. | 360. | 398. |
| 1991 | 593. | 370. | 411. |
| 1992 | 6751. | 974. | 594. |
| 1993 | 7048. | 1871. | 910. |
| 1994 | 1187. | 3224. | 1083. |
| 1995 | 593. | 4100. | 1184. |
| 1996 | 297. | 4459. | 1234. |
| 1997 | 0. | 4802. | 1234. |
| 1998 | 0. | 4614. | 1234. |
| 1999 | 0. | 4209. | 1234. |
| 2000 | 0. | 3691. | 1234. |
| 2001 | 0. | 3258. | 1234. |
| 2002 | 0. | 3042. | 1234. |
| 2003 | 0. | 2930. | 1234. |
| 2004 | 0. | 2930. | 1234. |
| 2005 | 0. | 2930. | 1234. |
| 2006 | 0. | 2930. | 1234. |
| 2007 | 0. | 2930. | 1234. |
| 2008 | 0. | 2930. | 1234. |
| 2009 | 0. | 2930. | 1234. |
| 2010 | 0. | 2930. | 1234. |
| 2011 | 0. | 2930. | 1234. |
| 2012 | 0. | 2930. | 1234. |
| 2013 | 0. | 2930. | 1234. |
| 2014 | 0. | 2930. | 1234. |
| 2015 | 0. | 2930. | 1234. |
| 2016 | 0. | 2930. | 1234. |
| 2017 | 0. | 2930. | 1234. |
| 2018 | 0. | 2930. | 1234. |
| 2019 | 0. | 2930. | 1234. |
| 2020 | 0. | 1145. | 617. |

EMCNX: Low wage construction employment
EMP9: Mining employment
EMT9X: Transportation employment

TABLE J-14: SCIMP MODEL OCS DIRECT EMPLOYMENT
INPUTS: .6 Bbbl Case

| YEAR | DDL | DIMPT | ODL | OIMPT |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 72. | 282. | 0. | 0. |
| 1986 | 14. | 68. | 42. | 149. |
| 1987 | 17. | 88. | 42. | 149. |
| 1988 | 23. | 127. | 42. | 149. |
| 1989 | 32. | 613. | 42. | 149. |
| 1990 | 34. | 410. | 42. | 149. |
| 1991 | 20. | 108. | 67. | 201. |
| 1992 | 10. | 48. | 118. | 305. |
| 1993 | 0. | 0. | 215. | 536. |
| 1994 | 0. | 0. | 240. | 605. |
| 1995 | 0. | 0. | 266. | 666. |
| 1996 | 0. | 0. | 266. | 675. |
| 1997 | 0. | 0. | 266. | 675. |
| 1998 | 0. | 0. | 266. | 675. |
| 1999 | 0. | 0. | 266. | 675. |
| 2000 | 0. | 0. | 266. | 675. |

DDL: Exploration and construction phase local resident employment
DIMPT: Exploration and construction phase enclave employment
ODL: Operations phase local resident employment
OIMPT: Operations phase enclave employment

TABLE J-15: SCIMP MODEL OCS DIRECT EMPLOYMENT INPUTS:
1.2 Bbbl Road-Connected Case

| YEAR | DDL | DIMPT | ODL | OIMPT |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 72. | 282. | 0. | 0. |
| 1986 | 17. | 88. | 22. | 78. |
| 1987 | 32. | 187. | 22. | 78. |
| 1988 | 36. | 207. | 22. | 78. |
| 1989 | 45. | 692. | 22. | 78. |
| 1990 | 31. | 390. | 22. | 78. |
| 1991 | 17. | 88. | 51. | 133. |
| 1992 | 26. | 346. | 95. | 215. |
| 1993 | 16. | 298. | 164. | 364. |
| 1994 | 0. | 0. | 215. | 488. |
| 1995 | 0. | 0. | 232. | 528. |
| 1996 | 0. | 0. | 234. | 540. |
| 1997 | 0. | 0. | 234. | 540. |
| 1998 | 0. | 0. | 234. | 540. |
| 1999 | 0. | 0. | 234. | 540. |
| 2000 | 0. | 0. | 234. | 540. |

DDL: Exploration and construction phase local resident employment
DIMPT: Exploration and construction phase enclave employment
ODL: Operations phase local resident employment
OIMPT: Operations phase enclave employment

TABLE J-16: SCIMP MODEL OCS DIRECT EMPLOYMENT INPUTS:
1.2 Bbbl Remote Case

| YEAR | DDL | DIMPT | ODL | OIMPT |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 72. | 282. | 0. | 0. |
| 1986 | 17. | 88. | 22. | 78. |
| 1987 | 32. | 187. | 22. | 78. |
| 1988 | 36. | 207. | 22. | 78. |
| 1989 | 45. | 692. | 22. | 78. |
| 1990 | 31. | 390. | 22. | 78. |
| 1991 | 17. | 88. | 51. | 133. |
| 1992 | 10. | 362. | 95. | 215. |
| 1993 | 0. | 314. | 164. | 364. |
| 1994 | 0. | 0. | 211. | 492. |
| 1995 | 0. | 0. | 225. | 535. |
| 1996 | 0. | 0. | 225. | 549. |
| 1997 | 0. | 0. | 225. | 549. |
| 1998 | 0. | 0. | 225. | 549. |
| 1999 | 0. | 0. | 225. | 549. |
| 2000 | 0. | 0. | 225. | 549. |

DDL: Exploration and construction phase local resident employment
DIMPT: Exploration and construction phase enclave employment
ODL: Operations phase local resident employment
OIMPT: Operations phase enclave employment

TABLE J-17: SCIMP MODEL OCS DIRECT EMPLOYMENT INPUTS:
2.4 Bbbl Case

| YEAR | DDL | DIMPT | ODL | OIMPT |
|---|---|---|---|---|
| 1980 | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. |
| 1984 | 0. | 0. | 0. | 0. |
| 1985 | 72. | 282. | 0. | 0. |
| 1986 | 23. | 127. | 22. | 78. |
| 1987 | 45. | 266. | 22. | 78. |
| 1988 | 29. | 167. | 22. | 78. |
| 1989 | 51. | 732. | 22. | 78. |
| 1990 | 40. | 449. | 22. | 78. |
| 1991 | 20. | 108. | 51. | 133. |
| 1992 | 17. | 604. | 109. | 243. |
| 1993 | 10. | 564. | 193. | 419. |
| 1994 | 0. | 0. | 254. | 594. |
| 1995 | 0. | 0. | 283. | 673. |
| 1996 | 0. | 0. | 298. | 724. |
| 1997 | 0. | 0. | 298. | 724. |
| 1998 | 0. | 0. | 298. | 724. |
| 1999 | 0. | 0. | 298. | 724. |
| 2000 | 0. | 0. | 298. | 724. |

DDL: Exploration and construction phase local resident employment
DIMPT: Exploration and construction phase enclave employment
ODL: Operations phase local resident employment
OIMPT: Operations phase enclave employment

# APPENDIX K

## ALEUTIAN ISLANDS BOTTOMFISHING EMPLOYMENT ASSUMPTIONS

This appendix discusses the calculation of Aleutian Islands bottomfishing employment assumptions used as inputs to the SCIMP model projections. The future development of the bottomfishing industry is highly uncertain. At present, only a small share of the total bottomfish harvest is caught by Americans. An even smaller share is processed by Americans, as most of the American harvest is sold to foreign processing ships under joint venture agreements. However, there is a great deal of interest among American fishermen in expanding bottomfish harvests and processing activities.

The implications of possible future changes in the bottomfish industry for the Aleutians will depend upon the rate of growth of the total American catch, how and where the catch is processed, and the residency patterns of workers in different industries. In order to develop projections about bottomfishing employment, we made a number of assumptions with respect to these factors, which are listed below. The assumptions were made in consultation with the Alaska OCS office. These assumptions and the resulting employment estimates are in no sense a prediction of the future. Instead, they are one example of what might happen, constructed in order to provide a backdrop against which to measure the possible effects of OCS development.

Bottomfish harvest assumptions and the allocation of this catch among different processing methods are shown in Table K-1. Coefficients for employment per metric ton harvested and Aleutian Islands residency shares of workers are shown in Table K-2. Finally, Table K-3 shows the resulting employment projections.

TABLE K-1.
BOTTOMFISH HARVEST ASSUMPTIONS
(Thousands of Metric Tons)

| YEAR | CATCH | CATCHJV | CATCHON | CATCHCP |
|---|---|---|---|---|
| 1981 | 87.3 | 78.5 | 0.4 | 8.4 |
| 1982 | 111.4 | 100.0 | 0.5 | 10.9 |
| 1983 | 174.7 | 160.0 | 0.7 | 14.0 |
| 1984 | 259.1 | 240.0 | 1.0 | 18.1 |
| 1985 | 344.8 | 320.0 | 1.4 | 23.4 |
| 1986 | 432.1 | 400.0 | 1.9 | 30.2 |
| 1987 | 521.7 | 480.0 | 2.6 | 39.1 |
| 1988 | 614.1 | 560.0 | 3.6 | 50.5 |
| 1989 | 670.1 | 600.0 | 4.9 | 65.2 |
| 1990 | 690.9 | 600.0 | 6.7 | 84.2 |
| 1991 | 718.0 | 600.0 | 9.2 | 108.8 |
| 1992 | 753.2 | 600.0 | 12.6 | 140.6 |
| 1993 | 798.9 | 600.0 | 17.3 | 181.6 |
| 1994 | 858.4 | 600.0 | 23.7 | 234.7 |
| 1995 | 935.6 | 600.0 | 32.4 | 303.2 |
| 1996 | 1036.1 | 600.0 | 44.4 | 391.7 |
| 1997 | 1166.9 | 600.0 | 60.8 | 506.1 |
| 1998 | 1337.0 | 600.0 | 83.2 | 653.8 |
| 1999 | 1558.6 | 600.0 | 113.9 | 844.7 |
| 2000 | 1559.0 | 311.8 | 155.9 | 1091.3 |

| | |
|---|---|
| CATCH | TOTAL U.S. BOTTOMFISH CATCH |
| CATCHJV | CATCH BY JOINT VENTURE TRAWLERS |
| CATCHON | CATCH FOR ONSHORE PROCESSING |
| CATCHCP | CATCH BY CATCHER PROCESSORS |

TABLE K-2.
COEFFICIENT ASSUMPTIONS FOR BOTTOMFISH
EMPLOYMENT CALCULATIONS*

| | Value | Value |
|---|---|---|
| Employment per metric ton harvested or processed | | |
| Joint venture fishing boats | .00222 | .00222 |
| Boats fishing for onshore processors | .00222 | .00222 |
| Onshore processing plants | .01010 | .01010 |
| Catcher-processors | .00718 | .00323 |
| Share of workers residing in Aleutians | | |
| Joint venture fishing boats | .10 | .10 |
| Boats fishing for onshore processors | .25 | .50 |
| Onshore processing plants | .25 | .50 |
| Catcher-processors | .10 | .10 |

*Values were assumed to change in a linear fashion from the starting values in 1981 to the ending values in 2000.

TABLE K-3.
BOTTOMFISH HARVESTING AND PROCESSING
EMPLOYMENT PROJECTIONS

| | EMPJV | EMPFON | EMPON | EMPCP | EMPNRV | EMPNRON | EMPR |
|---|---|---|---|---|---|---|---|
| 1981 | 174. | 1. | 4. | 60. | 212. | 3. | 25. |
| 1982 | 222. | 1. | 5. | 76. | 269. | 4. | 31. |
| 1983 | 355. | 2. | 7. | 95. | 406. | 5. | 47. |
| 1984 | 533. | 2. | 10. | 119. | 588. | 7. | 69. |
| 1985 | 710. | 3. | 14. | 149. | 775. | 10. | 91. |
| 1986 | 888. | 4. | 19. | 185. | 969. | 13. | 115. |
| 1987 | 1066. | 6. | 26. | 232. | 1172. | 18. | 140. |
| 1988 | 1243. | 8. | 36. | 289. | 1384. | 24. | 168. |
| 1989 | 1332. | 11. | 49. | 360. | 1530. | 32. | 191. |
| 1990 | 1332. | 15. | 68. | 447. | 1611. | 43. | 208. |
| 1991 | 1332. | 20. | 93. | 555. | 1711. | 57. | 232. |
| 1992 | 1332. | 28. | 127. | 688. | 1835. | 77. | 263. |
| 1993 | 1332. | 38. | 175. | 851. | 1987. | 103. | 305. |
| 1994 | 1332. | 53. | 239. | 1051. | 2175. | 139. | 361. |
| 1995 | 1332. | 72. | 327. | 1295. | 2405. | 185. | 436. |
| 1996 | 1332. | 99. | 448. | 1591. | 2685. | 248. | 537. |
| 1997 | 1332. | 135. | 614. | 1950. | 3027. | 331. | 673. |
| 1998 | 1332. | 185. | 840. | 2384. | 3441. | 442. | 857. |
| 1999 | 1332. | 253. | 1150. | 2904. | 3942. | 590. | 1107. |
| 2000 | 692. | 346. | 1575. | 3525. | 3968. | 787. | 1382. |

| | |
|---|---|
| EMPJV | EMPLOYMENT ON JOINT VENTURE TRAWLERS |
| EMPFON | EMPLOYMENT IN FISHING FOR ONSHORE PROCESSING |
| EMPON | EMPLOYMENT IN ONSHORE PROCESSING PLANTS |
| EMPCP | EMPLOYMENT ON CATCHER PROCESSORS |
| EMPNRV | NONRESIDENT WORKERS ON VESSELS |
| EMPNRON | NON-RESDIDENT ONSHORE EMPLOYMENT |
| EMPR | RESIDENT ON AND OFFSHORE EMPLOYMENT |

# APPENDIX L

## CALCULATION OF SCIMP MODEL LABOR FORCE PARTICIPATION RATES

Labor force participation rate data were not available in the form required by the SCIMP model, which requires breakdowns by age, sex, and race. In order to calculate these rates, a procedure was followed which amounted to assuming rates for Non-Natives and then calculating rates for Natives, which would be consistent with the total assumed labor force, total resident population, and total employment.

First, an unemployment rate of 6.6 percent was assumed, based on the average for the years 1970-1978 (see Chapter II). Given total resident employment of 1,469 (Table 28), 6.6 percent unemployment implies a total labor force of 1,573. Given a total population of 3,484, this implies an overall labor force participation rate of 42 percent. However, this is not yet in the form required by the SCIMP model.

The next step was to assume labor force participation rates for the Non-Native population. High rates were assumed on the theory that few Non-Natives would live in the Aleutians unless they were working there.

The assumptions for Non-Native labor force participation rates are shown in Table L-1. This table also shows the resulting labor force for Non-Natives by age and sex.

These figures result in a total Non-Native labor force of 636. Given a total labor force of 1,573, this implies a Native labor force of 937. If the same labor force participation rates were applied to Natives, they would imply a total Native labor force of 1,388. In order to calculate native labor force participation rates, the Non-Native rates were reduced by the fraction 937/1,388, or 67.5 percent. The resulting rates are shown in Table 31.

TABLE L-1.
CALCULATION OF NON-NATIVE LABOR FORCE

| | Assumed Labor Force Participation Rates for Non-Natives | | Total Labor Force Participation for Non-Natives* | |
|---|---|---|---|---|
| | Male | Female | Male | Female |
| 0 - 14 | 0 | 0 | 0 | 0 |
| 15 - 19 | .25 | .25 | 20 | 16 |
| 20 - 24 | 1 | .9 | 88 | 57 |
| 25 - 29 | 1 | .9 | 82 | 47 |
| 30 - 44 | 1 | .8 | 142 | 51 |
| 45 - 64 | 1 | .8 | 90 | 38 |
| 64 + | .5 | .1 | 4 | 1 |
| TOTAL | | | 636 | |

*Calculated by multiplying labor force participation rate by population for group (see Table 26).

636 Non-Natives are in labor force.

## APPENDIX M.

## NAVARIN BASIN STATE PROPERTY TAX REVENUE ASSUMPTIONS

This appendix discusses the state property tax revenue assumptions used in developing the MAP model impact projections. Table M-1 shows the assumed construction costs, completion dates, and depreciation periods associated with each case.

State property tax revenues were assumed to be 3 percent of total installed cost, depreciated in a straight-line fashion over the production period beginning in 1994. No depreciation was assumed for the shore base.

The following formula was used to calculate taxable value in nominal dollars:

$$\text{value} = \left(\begin{array}{c}\text{shore base}\\ \text{cost in}\\ \text{1981 dollars}\end{array}\right) + \left(\begin{array}{c}\text{other assets}\\ \text{cost in}\\ \text{1981 dollars}\end{array}\right)\left(1 - \frac{\text{year} - 1994}{\text{depreciation period}}\right) \times (1.075)^{(\text{year} - 1981)}$$

The resulting property tax receipts are shown in Table M-2.

TABLE M-1. ASSUMPTIONS USED IN CALCULATING SALE 83 (NAVARIN BASIN) STATE PROPERTY TAX REVENUES

| Facility | Cost[a] (millions 1981 $) | Completion[c] Date | Last Year[c] of Production | Depreciation[c] Period (years) |
|---|---|---|---|---|
| Shore Base | | | | |
| .6 Bbbl case | 10 | 1986 | - | - |
| 1.2 Bbbl case | 10 | 1986 | - | - |
| 2.4 Bbbl case | 10 | 1986 | - | - |
| Aleutians Transportation Terminal | | | | |
| .6 Bbbl case | 200 | 1994 | 2015 | 21 |
| 1.2 Bbbl case | 200 | 1994 | 2018 | 24 |
| 2.4 Bbbl case | 200 | 1994 | 2020 | 26 |
| Pipelines (3 miles, oil and gas) | | | | |
| 1.2 Bbbl case | 12.6 | 1994 | 2018 | 24 |
| 2.4 Bbbl case | 16.2 | 1994 | 2020 | 26 |
| St. Matthew/St. Paul Oil Terminal | | | | |
| 1.2 Bbbl case | 470 | 1994 | 2018 | 24 |
| 2.4 Bbbl case | 650 | 1994 | 2020 | 26 |
| St. Matthew/St. Paul LNG Terminal | | | | |
| 1.2 Bbbl case | 2698[b] | 1994 | 2018 | 24 |
| 2.4 Bbbl case | 3814[b] | 1994 | 2020 | 26 |

[a]Provided by Alaska OCS Office.

[b]Alaska OCS Office figures in 1982 dollars deflated by 7.5 percent.

[c]Based on manpower scenarios.

TABLE M-2. ASSUMED STATE OIL AND GAS PROPERTY TAXES
RESULTING FROM OCS SALE 83 (NAVARIN BASIN)
(Millions of Nominal Dollars)

| | .6 Bbbl Case | 1.2 Bbbl Case | 2.4 Bbbl Case |
|---|---|---|---|
| 1986 | .287 | .287 | .287 |
| 1987 | .309 | .309 | .309 |
| 1988 | .332 | .332 | .332 |
| 1989 | .357 | .357 | .357 |
| 1990 | .383 | .383 | .383 |
| 1991 | .412 | .412 | .412 |
| 1992 | .443 | .443 | .443 |
| 1993 | .476 | .476 | .476 |
| 1994 | 10.754 | 173.610 | 240.175 |
| 1995 | 11.036 | 178.877 | 248.279 |
| 1996 | 11.300 | 183.958 | 256.247 |
| 1997 | 11.542 | 188.795 | 264.014 |
| 1998 | 11.756 | 193.323 | 271.305 |
| 1999 | 11.938 | 197.468 | 278.635 |
| 2000 | 12.080 | 201.147 | 285.307 |
| 2001 | 12.177 | 204.267 | 291.412 |
| 2002 | 12.221 | 206.724 | 296.828 |
| 2003 | 12.202 | 208.401 | 301.418 |
| 2004 | 12.112 | 209.166 | 305.026 |
| 2005 | 11.940 | 208.873 | 307.480 |
| 2006 | 11.674 | 207.360 | 308.586 |
| 2007 | 11.301 | 204.446 | 308.129 |
| 2008 | 10.806 | 199.927 | 305.867 |
| 2009 | 10.173 | 193.581 | 301.533 |
| 2010 | 9.385 | 185.158 | 294.828 |
| 2011 | 8.421 | 174.384 | 285.421 |
| 2012 | 7.260 | 160.951 | 272.945 |
| 2013 | 5.878 | 144.522 | 256.991 |
| 2014 | 4.247 | 124.724 | 237.110 |
| 2015 | 2.338 | 101.144 | 212.801 |
| 2016 | 2.514 | 73.324 | 183.511 |
| 2017 | 2.702 | 40.763 | 148.632 |
| 2018 | 2.905 | 2.905 | 107.488 |
| 2019 | 3.123 | 3.123 | 59.336 |
| 2020 | 3.357 | 3.357 | 3.357 |