Alaska Economic Projections and the Effects of OCS Development

The structure of Alaska's economy will change over the next 25 years as it comes to rely increasingly on trade and other service industries, according to a recent report prepared for the U.S. Department of the Interior by the University's Institute of Social and Economic Research. The study, entitled Alaska Statewide and Regional Demographic and Economic Systems: Effects of OCS Exploration and Development, projects growth and structural change for the Alaska economy and population from 1983 to 2010, with special emphasis on the role expected from petroleum exploration and development on the federal Outer Continental Shelf.

Statewide Growth in Employment, Population, and Income

The study projects that annual growth in total employment will average 1.4 percent over the entire projection period. The pattern of growth is likely to be uneven, however, as shown in the following table. Growth will continue at a rapid pace until the late 1980s and then slow down to less than one percent per year in the late 1990s. The study projects that employment will begin to grow more rapidly again around 2000.

Employment in the basic sector of the economy, comprised of petroleum, fishing, and other resource-based extractive and manufacturing industries, will grow at a slightly slower rate than total employment. As a result, the share of the basic sector in total employment will decline from 24 percent to 23 percent between 1983 and 2010. Employment in federal, state, and local government will decline significantly as a share of the total, from 32 percent in 1983 to 22 percent in 2010. The support sector, which includes infrastructure, trade, and services, will offer more than 50 percent of all jobs by 2010, according to the study.

The table also shows growth rates for Alaska population. Although the study projects steady growth in population, the growth will be modest compared to that experienced over the past several years. Population growth is largely attributable to natural increase, with the number of immigrants approximating the number of emigrants over the 27-year period. During the 1980s there is continued net immigration, which is balanced by net emigration during the 1990s.

Growth in total real personal income (personal income after adjusting for the effects of inflation) follows trends for employment and population, as shown in the table. The study projects average annual real personal income growth of 2.1 percent from 1983 to 2010. Real per capita income, after declining until 1990, will rise by 1.4 percent per year after 2000. The decline projected in per capita real incomes largely results from state fiscal problems, which lead to higher tax rates and reduced or eliminated low-interest loans, permanent fund dividend distributions, and other transfers. The table shows that real per capita state general fund expenditures will decline by an average of 2.6 percent per year as a consequence of rising population and diminishing petroleum revenues.

The economic and demographic projections reported in the study were made using ISER’s Man-in-the-Arctic Program (MAP) econometric models. The projections were based on certain assumptions regarding the pace of future resource development and tourism activities, federal government activity in Alaska, state petroleum revenues and spending policy, and national economic growth. The projections assume that Alaska basic industry employment will grow modestly, with increases in forest products, mining (including oil and gas), fishing and processing, and agriculture based upon supply and demand for these products.

1 Other assumptions used for the projections are as follows:
- Consumer prices will rise 6.5 percent annually after 1985.
- The long-run U.S. unemployment rate will be 6 percent.
- Growth in real U.S. average weekly earnings and per capita income will average 1 percent and 1.5 percent, respectively.

(Continued on next page)

<table>
<thead>
<tr>
<th>Period</th>
<th>Employment Level Growth</th>
<th>Population Level Growth</th>
<th>Real Personal Income Growth</th>
<th>Real per Capita Personal Income Growth</th>
<th>Real per Capita State General Fund Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-1985</td>
<td>3.2</td>
<td>2.8</td>
<td>0.8</td>
<td>-1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>1985-1990</td>
<td>1.4</td>
<td>1.7</td>
<td>1.2</td>
<td>-0.5</td>
<td>-1.1</td>
</tr>
<tr>
<td>1990-1995</td>
<td>1.1</td>
<td>1.4</td>
<td>2.7</td>
<td>1.2</td>
<td>-5.3</td>
</tr>
<tr>
<td>1995-2000</td>
<td>0.5</td>
<td>0.9</td>
<td>1.9</td>
<td>0.9</td>
<td>-2.8</td>
</tr>
<tr>
<td>2000-2005</td>
<td>1.2</td>
<td>1.1</td>
<td>2.6</td>
<td>1.4</td>
<td>-2.4</td>
</tr>
<tr>
<td>2005-2010</td>
<td>1.4</td>
<td>1.4</td>
<td>2.9</td>
<td>1.4</td>
<td>-2.2</td>
</tr>
<tr>
<td>2008-2009</td>
<td>1.3</td>
<td>1.4</td>
<td>2.1</td>
<td>0.6</td>
<td>-2.6</td>
</tr>
</tbody>
</table>

* May not equal column 3 minus column 2 due to rounding.

Source: Alaska Statewide and Regional Economic and Demographic Systems: Effects of OCS Exploration and Development, Tables 7, 8, 9, A4, A5, and A11.
Projected Structural Change in the Economy

As noted above, the study projects that the services sector of the Alaska economy will continue to grow faster than the basic or government sectors. Approximately three-fourths of the new jobs created over the next 27 years will occur in the support sector, with the balance occurring in the basic sector. The study projects no long-term net growth in employment in the government sector.

On a regional basis, the study predicts that the economy of the Southcentral Region (Anchorage, the Matanuska-Susitna Borough, and the Kenai Peninsula Borough) will continue to grow faster than that of the state. Initially, during 1983 to 1995, 41 percent of Alaska’s new jobs and 47 percent of its population growth will occur in the Southcentral Region (which currently contains approximately 53 percent of state employment and 56 percent of the total state population). This pattern will result from the projected expansion during 1983-93 of resource-development industries such as OCS exploration and development in rural areas of the state. After 1996, however, the pattern will reverse itself, with 69 percent of statewide population and employment growth located in the Southcentral Region. From 1983 to 2010, inclusive, 56 percent of net new jobs created and 57 percent of the population growth will occur in the Southcentral Region.

Role of OCS Exploration and Development

The study projects that by the year 2000, approximately 10 percent of state population and employment will depend upon the ongoing OCS petroleum exploration and development program.  Employment growth attributed to both direct and indirect effects of OCS development will begin as the basic sector expands from OCS exploration and construction activity. By 2010, however, the indirect effects of OCS development will create twice as many jobs in the support and government sectors as in the basic sector. Although OCS development will increase total state revenues from petroleum property taxes on certain onshore facilities, population growth resulting from the increased job opportunities will cause a modest decline in real per capita state revenues and expenditures.

The study also examines the projected role of OCS development in regional growth in Southcentral Alaska. Since practically all the direct effects of future OCS development activities are assumed to take place outside the Southcentral Region, the increases in the region’s employment and population are expected to occur from indirect effects. Projected cumulative effects on the Southcentral Region from OCS development in Alaska include an increase in employment of 8.9 percent and an increase in population of 3.5 percent by 2010.

During 1983-1996, nearly two-thirds of new jobs and population associated in the OCS development will occur outside the Southcentral Region. Approximately one-half of projected statewide employment and population growth from non-OCS sources will occur in Southcentral Alaska. During this period, OCS development will directly add jobs and population to remote areas in northern and western Alaska more rapidly than it will create indirect jobs in the Southcentral Region.

From 1996 to 2010, however, a net decline will occur in direct and indirect OCS-related employment located outside the Southcentral Region, while indirect employment within the region will continue to increase. Southcentral’s share of statewide population growth attributable to the effects of OCS development will remain high, but less than 100 percent. This reflects an assumption that some of the OCS-related jobs projected to disappear in rural areas after 1996 will be held by Southcentral residents.

The authors used direct employment and onshore construction assumptions provided by the U.S. Department of the Interior, Minerals Management Service, to project likely cumulative development activities on the Alaska OCS.