Economic Constraints to Development in a Remote Region

By Scott Goldsmith

Alaska is huge and rugged with long, cold winters. Much of it is covered by forests, mountains and glaciers and is subject to harsh weather conditions. It is separated from the continental United States by many hundreds of miles. Yet these adverse conditions, industry and economic development have succeeded in Alaska by its rich endowment of natural resources. The resource extraction that has occurred periodically over the past two hundred years, however, has resulted in only limited economic development. The term “economic development” here refers to the growth of economic activities within the region for the processing of raw materials and subsequent manufacture of finished goods, and the establishment of a local support economy. In order for economic development to occur within a region it must contain natural resources for which markets exist, either inside or outside the region, and the resources must be available for exploitation. This usually requires private ownership, but in Alaska resource extraction has often taken place on public lands. When this is the case, those resources on public lands must be administered adequately, with efficient leasing procedures. These conditions for economic development exist in Alaska, but a number of factors have kept the cost of doing business in the region in fact, the costs of doing business in Alaska are higher than those in the lower 48 states. The high wages and high living costs are chiefly responsible for constraining economic development in the state today.

PUBLIC OWNERSHIP OF RESOURCES

Federal and state ownership of the majority of Alaska’s land is often cited as a constraint to economic development. Uncertainties about ownership arising from the process of land transfers from the federal government to the Alaska Native Claims settlements to the state of Alaska have undoubtedly delayed the development of some specific resource sites. However, petroleum development on state and federal owned lands is presently the most significant development force in the Alaska economy. The giant Prudhoe Bay field, for example, is on state-owned lands. Creation of public parks, wilderness areas and other reserves has also been cited as a development constraint in Alaska, but recent reports given by the U.S. Forest Service and by the state of Alaska have indicated that the cost of development for the Alaska National Wildlife Refuge on the North Slope, which is now more than a large, known petroleum deposits (1). Inadequate administration of public lands has for many years been argued as a development constraint in Alaska (2). The federal government has failed in its responsibility of managing the leasing and stipulations surrounding leasing of lands for petroleum exploration and development. Although government has undoubtedly affected the pace and cost of exploration and development of resources on its lands, the level of development will ultimately depend primarily on the cost of doing business.

THE COSTS OF HIGH PRICES

The cost of doing business in Alaska can be measured in several ways, three of which are shown in Tables 1-3. Table 1 shows average hourly earnings in various industries in Alaska with the national average, and shows the premium which an employer in Alaska must pay in order to hire an employee (4). Hourly rates in Alaska are commonly 3 to 50 percent higher than the US average and are in some cases double (partly due to excessive overtime pay). Table 2 compares the costs of a consumer market basket of goods and services in Anchorage with the national average. In 1981, Anchorage family budget cost at various standards of living were anywhere from 19 to 50 percent above the national average. Thus, employers demand higher wages in Alaska partly because living costs are higher (5). Table 3 shows construction costs for various locations in Alaska ranging from costs in Washington DC (6). This table clearly demonstrates that construction costs are heavily dependent on distance from supplier markets; in remote areas of Alaska where construction material comes from suppliers thousands of miles away, costs can be more than triple those in Washington DC.

The high costs reflected in these indicators inhibit both the export of the region’s resources and the development of the local economy. Exports are inhibited because of the cost that products are subject to the conditions of the world market; hence higher production costs cannot be compensated for by higher prices, but must instead be absorbed out of profits. Development of the local economy is inhibited by the low prices of imported goods and services which are often less expensive to produce and cheaper to buy than their locally produced counterparts.

<table>
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<tr>
<th>Industries</th>
<th>Alaska</th>
<th>US Average</th>
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<tbody>
<tr>
<td>Mining</td>
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<td>$18.30</td>
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<tr>
<td>Forest &amp; Mining</td>
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* Simple average of lumber and wood products and paper and allied products.

Table 1. Average hourly earnings, selected industries November 1981.

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Transportation Costs

Since the majority of goods and services consumed within Alaska are imported, transportation costs contribute directly to the price of most consumer and producer goods. These transportation costs, in turn, increase the wage rate, and consequently the cost of all locally produced goods. The importance of this factor, however, tends to be exaggerated, particularly for Alaskans who live in more urban areas. A study comparing the price differentials between remote and central markets in Alaska with similar placed locations in Canada indicated that transport costs alone should only account for 3 to 4 percent of the price differences between Anchorage and the contiguous United States (7).

Climate

As a result of Alaska’s harsh climate, certain operations such as geological prospecting, petroleum well drilling and road construction can take place during only a few months of the year. This short work season increases the costs of business because projects take longer to complete, equipment held idle can be a significant cost, and seasonal mobilization of men and materials is expensive.

The season short associated with some activities also contributes to contingency costs. A delay caused by bad weather or lack of spare parts may be intolerable if the operation cannot possibly be completed within the remaining months of the year, so budgeting for contingencies such as an enlarged inventory of spare parts, becomes crucial (8).

Small Market Size

An undeveloped economy such as Alaska’s has, by definition, small product markets as well as limited supplies of capital and marketing channels. Consumers and producers prefer imported goods and services which are less expensive due to economies of scale. Furthermore, small markets may result in monopolies, particularly in the provision of some services.

Lack of Infrastructure

The large physical size of Alaska, combined with its small population and history of limited tax base, has hampere the development of transportation, communication and public utilities. Small market size has also limited private infrastructure development.

Alaska’s lack of infrastructure hinders development because business itself must provide the infrastructure necessary to find and extract resources. For example, a mining company may need to build a hundred miles of road over the tundra to reach a mining site. Any operation where transport is more expensive than production facilities are inadequate encourages logistical problems which ultimately are magnified when the climate is unpredictable.

The extent to which private development in Alaska should be asked to pay their own way” by providing their own infrastructure is a policy question. Businesses may be forced to pay a premium to workers to compensate for private amenities or, if the companies operate on the tundra it may be necessary to create a complete living environment. The alternative might be a higher rate of labor turnover, productivity problems and low work ethic.

Fragile Physical Environment

The protection of the Arctic environment increases the cost of resource extraction. For example, on Alaska’s North Slope, some petroleum exploration well drilling activities are allowed only in the summer months when there is a snow cover and the ice offshore is stable. This seasonal damage to the environment and its cost is designed to minimize the impact of an oil spill.

Shortage of Information

The provision of Arctic environment and engineering is in its infancy, and the limited market for such information tends to hinder its expansion and adoption. Lack of information on opportunities for development hinders the flow of development capital into the region. Many investi-
Administrative Constraints

Because of its isolated location and unique region within a large federal system, some local regulations, and procedures applied nationally can have indescribable effects on the economy of Alaska. This fact directly contradicts development theories which state that a primary constraint is a development program.

Box 1. How Alaska Spends Its Oil Wealth

Before September 19, 1969, Alaska was one of the most disadvantaged sections of the U.S. Costs, living of doing business, and of delivering government services were much greater in Alaska than in any other state. Taxes were high and both federal and state government offices were far away, especially in Eskimos, Aleuts, and Negroes. There were no banks in Anchorage, and the local government was paid by check. As a result, Alaska's economy was relatively insulated from national trends.

A special position for Alaska's oil wealth, however, it is subject to cost overruns during construction because of logistical and technical complexity (10). Under these circumstances, the oil pipeline route (the 800 mile, 48 inch pipeline from Valdez to an oil spout at Point defiance near the southern coast of the state) illustrates how costs can multiply in a seemingly large Arctic project.

A feasibility study in 1968 estimated a cost of $1.06 billion to build the pipeline, but by the time the capital cost had reached $2.1 billion. About 2.5 million barrels of oil (the North Slope from the south coast and which provides the money for frivolous capital projects or excessive bureaucracy. The builders of the pipeline were fighting for a lot of money, and it did not take into account the Alaska economy.

Large Projects

Technological change has made large projects economically feasible. Large projects, however, are subject to cost overruns during construction because of logistical and technical complexity (10). Under these circumstances, the builders of the pipeline were fighting for a lot of money, and it did not take into account the Alaska economy.

After the state's 1964 sale of oil rights to the Alaska Petroleum Company, the Alaska Permanent Fund was created. This fund allows for appropriation of additional money, the legislature adjourned in 1964 after the General Assembly passed a budget, which was $6 billion in the final two days of the 1964 legislative session.

Despite the amendment which created the fund, oil revenues were still appropriated for additional money, the legislature adjourned in 1964 after the General Assembly passed a budget, which was $6 billion in the final two days of the 1964 legislative session.

Changes in the oil market are facing Alaska's permanent fund, but the fund does not have the capacity to deal with these changes. The fund has already been used to make decisions about more serious problems, such as building roads or buildings, but the fund's investment in such ventures is still limited.

The Alaska Permanent Fund's investment strategy is focused on long-term, low-risk assets. However, the fund has faced challenges due to changes in the oil market and regulatory changes. The fund's performance has been mixed, with some years showing strong returns and others struggling.

Despite the fact that the fund has been relatively successful, it still faces challenges. For example, the fund's investment strategy may not be aligned with the external economic environment, and changes in oil prices can significantly impact the fund's performance.

The fund's investment strategy has also faced scrutiny from some stakeholders, who argue that the fund should be invested in a wider range of assets to provide greater diversification and risk management.

The Alaska Permanent Fund is a key component of Alaska's economic strategy, and its performance is closely watched by both state officials and investors. As Alaska's oil wealth continues to be a major source of revenue, the fund's investment strategy and performance will continue to be a critical issue for the state and its residents.

References and Notes

2. In Alaska, the state budget is primarily funded by the sale of oil and gas leases.
3. In 1969, the state of Alaska was the largest oil producer in the United States.
4. In 1970, the state of Alaska produced 71% of its total output through crude oil.
5. The authors acknowledge the contributions of Peter J. Cairns, James C. Hensley, and James M. McClellan, who provided valuable feedback on the draft manuscript.

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The 800-mile-long Trans-Alaska Oil Pipeline shuttles oil from the North Slope to Prudhoe Bay in Valdez to refineries and export terminals. The pipeline is one of the world's longest and costliest projects, multiplying costs. The original estimate was $2.7 billion, but it eventually cost $17 billion. According to some estimates, the pipeline at $15 billion, but in the end, the final cost exceeded $20 billion. Photo: Alaska Division of Oil, Gas, and Mining, Juneau, Alaska.

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