PRICES AND INCOMES-
ALASKA AND THE U.S.

INTRODUCTION

High prices are as familiar as cold weather in Alaska,¹ long known as the state where just about everything costs more than anywhere else in the country. But Alaska's high living costs are accompanied by higher wages than are paid in other states, and in recent years federal statistics have shown Alaska leading the nation in per capita personal income as well as in living costs.

In 1977, the U.S. Bureau of Labor Statistics reported the cost of maintaining a moderate standard of living for a family of four in Anchorage stood at about $24,000 annually, 40 percent higher than the U.S. urban average for that standard. The same year, the U.S. Bureau of Economic Analysis recorded Alaska's per capita income at $10,586, about 50 percent higher than the 1977 U.S. per capita income of $7,019.²

However, prices and incomes not only vary greatly between Alaska and the rest of the country, but also within the 586,000-square-mile state. Alaskans in remote communities and urban Alaskans with low incomes are hardest hit by high costs of living. While maintaining a moderate standard of living for a family of four in Anchorage was reported to cost 40 percent more than the U.S. urban average for that standard, the cost of maintaining a low standard of living for a family of four in Anchorage was reported to be a staggering 66 percent above the U.S. urban average. This illustrates that low-income families in Anchorage pay even higher costs compared to their Lower Forty-eight counterparts than do high-income families (see Table 1).

Limited price surveys recently conducted by state agencies have found that Alaskans outside

*Autumn 1976 Urban Family Budgets and Comparative Indexes for Selected Urban Areas.* The BLS's family of four consists of an employed husband, age 38; a wife with no paying job; and their children, an 8-year-old daughter and a 13-year-old son. Per capita income figures are from the U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 58:6 (June 1978).

This issue also includes "Governance in the Beaufort Sea Region" (a final report summary) as well as various book reviews. See table of contents, p. 2.
Anchorage pay up to 70 percent more for a standard basket of foods than do Anchorage residents. Other goods and services also cost more outside Alaska’s largest city. Prices are generally highest in the most remote villages of western and northern Alaska, while residents of Fairbanks in the Interior and large communities of southcentral and southeast Alaska pay prices closer to those of Anchorage. Costs of fuel, utilities, construction, and transportation rise sharply in proportion to an area’s distance from a road system; in 1977, electricity cost nearly 600 percent more in Egegik in the Bristol Bay region than in Anchorage (see Table 2).

Despite these almost universally higher living costs outside Anchorage, many regions of the state in 1976 showed per capita personal incomes
that were significantly lower than those of Anchorage. In western Alaska, for example, per capita income of Bethel area residents that year was reported at less than half that of Anchorage area residents.

This Review article compares price changes, costs of living, and incomes in Alaska and the U.S. as a whole during the decade 1967-1977, and also looks at regional differences in living costs and incomes within Alaska. The first part of the article discusses (1) how the federal government measures costs of living, (2) what federal statistics have shown over time about living costs in Anchorage as compared with other U.S. cities, and (3) the relative costs around the state in 1976 of purchasing a fixed group of goods and services.

The second part of the article compares incomes of Alaskans and other Americans during the past decade. It examines how rising prices and differences in living costs have affected those incomes and how the real buying power of Alaskans stands in relation to that of other Americans. This part of the article also discusses how personal incomes have varied among regions of Alaska in recent years and how living-cost differences within the state affect those incomes.

### TABLE 1

Anchorage and U.S. Urban Average Budgets for a Four-Person Family at Three Standards of Living, Autumn 1977

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Budget(a)</td>
<td>Anchorage</td>
<td>$34,620</td>
<td>137</td>
<td>$24,019</td>
<td>140</td>
<td>$17,375</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>$25,202</td>
<td>170</td>
<td>$17,106</td>
<td>140</td>
<td>$10,481</td>
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<td>Food</td>
<td>Anchorage</td>
<td>5,641</td>
<td>115</td>
<td>4,849</td>
<td>118</td>
<td>3,950</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>5,159</td>
<td>118</td>
<td>4,098</td>
<td>118</td>
<td>3,190</td>
</tr>
<tr>
<td>Housing</td>
<td>Anchorage</td>
<td>9,416</td>
<td>155</td>
<td>6,561</td>
<td>163</td>
<td>4,601</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>6,085</td>
<td>105</td>
<td>4,016</td>
<td>105</td>
<td>2,083</td>
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<td>Transportation</td>
<td>Anchorage</td>
<td>2,210</td>
<td>116</td>
<td>1,871</td>
<td>127</td>
<td>1,395</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>1,913</td>
<td>105</td>
<td>1,472</td>
<td>105</td>
<td>804</td>
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<tr>
<td>Clothing</td>
<td>Anchorage</td>
<td>1,962</td>
<td>113</td>
<td>1,431</td>
<td>121</td>
<td>1,040</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>1,730</td>
<td>105</td>
<td>1,182</td>
<td>105</td>
<td>828</td>
</tr>
<tr>
<td>Medical Care</td>
<td>Anchorage</td>
<td>1,623</td>
<td>158</td>
<td>1,568</td>
<td>159</td>
<td>1,567</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>1,027</td>
<td>105</td>
<td>985</td>
<td>105</td>
<td>980</td>
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<tr>
<td>Personal Income Taxes(b)</td>
<td>Anchorage</td>
<td>8,450</td>
<td>170</td>
<td>4,291</td>
<td>183</td>
<td>2,302</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>4,980</td>
<td>170</td>
<td>2,342</td>
<td>183</td>
<td>720</td>
</tr>
</tbody>
</table>

\(a\)Some budget categories have been omitted here; therefore, costs of categories included will not total overall budget costs.

\(b\)Personal income tax category includes federal, state, and local tax payments.

TABLE 2
Sample Prices, Selected Alaska Communities

<table>
<thead>
<tr>
<th>Town</th>
<th>1 Residential Electric Bills, 500 kwh/mo. 1977a</th>
<th>2 Electric Bills as Percent of Anchorage Bill (Anchorage=100)</th>
<th>3 Total Costs of 45 Food Items, Sept. 1977b</th>
<th>4 Total Food Costs as Percent of Anchorage Cost (Anchorage=100)</th>
<th>5 Round-Trip Air Fares from Alaska Location to Seattle, Nov. 1978c</th>
<th>6 Air Freight Rates, 100 lbs., Seattle to Ak. Destination, Nov. 1978d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>$17.31</td>
<td>100%</td>
<td>$58.96</td>
<td>100.0%</td>
<td>$246.16</td>
<td>$35.50</td>
</tr>
<tr>
<td>Kenai</td>
<td>20.00</td>
<td>116</td>
<td>65.26</td>
<td>110.6</td>
<td>281.16</td>
<td>48.50</td>
</tr>
<tr>
<td>Fairbanks</td>
<td>26.85</td>
<td>155</td>
<td>62.78</td>
<td>106.5</td>
<td>294.86</td>
<td>35.50</td>
</tr>
<tr>
<td>Ft. Yukon</td>
<td>88.54</td>
<td>512</td>
<td>e</td>
<td>e</td>
<td>361.03</td>
<td>59.05</td>
</tr>
<tr>
<td>McGrath</td>
<td>77.55</td>
<td>448</td>
<td>e</td>
<td>e</td>
<td>330.90</td>
<td>44.30</td>
</tr>
<tr>
<td>Juneau</td>
<td>22.15</td>
<td>128</td>
<td>59.02</td>
<td>100.0</td>
<td>209.96</td>
<td>29.60</td>
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<tr>
<td>Ketchikan</td>
<td>24.69</td>
<td>143</td>
<td>60.10</td>
<td>101.9</td>
<td>163.50</td>
<td>16.45</td>
</tr>
<tr>
<td>Bethel</td>
<td>49.50</td>
<td>286</td>
<td>95.73</td>
<td>162.4</td>
<td>394.68</td>
<td>51.85</td>
</tr>
<tr>
<td>St. Mary's</td>
<td>e</td>
<td>e</td>
<td>e</td>
<td>e</td>
<td>408.36</td>
<td>52.20</td>
</tr>
<tr>
<td>Dillingham</td>
<td>60.99</td>
<td>352</td>
<td>e</td>
<td>e</td>
<td>377.16</td>
<td>48.75</td>
</tr>
<tr>
<td>Egegik</td>
<td>102.50</td>
<td>592</td>
<td>e</td>
<td>e</td>
<td>383.46</td>
<td>54.45</td>
</tr>
<tr>
<td>Cold Bay</td>
<td>53.00</td>
<td>306</td>
<td>e</td>
<td>e</td>
<td>559.36</td>
<td>76.50</td>
</tr>
<tr>
<td>Kotzebue</td>
<td>70.88</td>
<td>410</td>
<td>e</td>
<td>e</td>
<td>437.28</td>
<td>59.05</td>
</tr>
<tr>
<td>Barrow</td>
<td>60.00</td>
<td>347</td>
<td>e</td>
<td>e</td>
<td>457.06</td>
<td>62.90</td>
</tr>
<tr>
<td>Nome</td>
<td>e</td>
<td>e</td>
<td>93.47</td>
<td>158.5</td>
<td>437.28</td>
<td>58.70</td>
</tr>
</tbody>
</table>

bCooperative Extension Service, University of Alaska, Quarterly Report on Prices of Forty-five Food Items in Thirteen Alaska Communities. This survey was the last of the series; foods surveyed included bread, milk, flour, coffee, hamburger, butter, beans, and other common foods.
cAlaska Airlines, Wien Air Alaska, Reeve Aleutian Airways, and Alaska Aeronautical Industries.
dSame as "c" above. These air freight rates do not include applicable federal transportation taxes.
eNot available.

MEASURING U.S. AND ALASKA PRICES
General Description of Indexes

Typical cost-of-living indexes measure either (1) changes in prices for a fixed group of goods and services in a community over time, or (2) the differences in prices for the same or similar items in various communities at a given time. Economists or statisticians setting up a cost-of-living index try to include a group of items that provides, as nearly as possible, the same standard of living in all communities being compared. These cost-of-living indexes are built on the assumption that the costs of living in a location consist largely of the costs of goods and services families buy and the taxes they pay. Thus, changes in costs of living are actually changes in prices and taxes.4

The Consumer Price Index

The federal government publishes two measures of changes in living costs in Anchorage: (1) the Anchorage consumer price index, which records changes in prices in Anchorage over time, and (2) annual standardized budgets for families of four, which indicate how the cost of goods and services and taxes in Anchorage compare with costs in other cities.

The Bureau of Labor Statistics publishes its consumer price indexes monthly or every other month in twenty-eight cities across the country and issues a U.S. urban average index monthly. The Bureau also publishes regional price indexes for additional urban areas every other month.

Cost-of-living indexes are commonly built around purchasing patterns of families, but the Bureau of Labor Statistics also surveys "consumer units" of one or two persons as well as larger households in developing its consumer price indexes, discussed later in this article.
The consumer price indexes measure how much national and local prices have changed since 1967. The Anchorage Consumer Price Index is based on what a specific group of goods and services cost in Anchorage in 1967, while the U.S. urban average index is based on national urban prices for that year. The indexes do not reveal how prices differ between Anchorage and the U.S. as a whole, but rather how much prices for specific items have changed in Anchorage and in other urban areas during the past decade. Therefore, a comparison of the indexes will not show differences in costs of living between Anchorage and the U.S. urban average. It can show, however, rates of change in prices in Anchorage as compared to other individual U.S. cities; that is, it can show whether prices are rising faster or slower in Anchorage than in other urban areas.

The Bureau of Labor Statistics decides what kinds and quantities of items to be included in its price indexes based on nationwide consumer expenditure surveys that the bureau conducts periodically. In surveys made before 1972, the bureau confined its studies to spending habits of urban clerical and wage earners, and the full name of the price index was the Consumer Price Index for Urban Wage Earners and Clerical Workers. But based on a 1972-73 survey, the bureau in 1977 completed a $50-million revision of the price index and now issues two price indexes for Anchorage and other cities: (1) the revised Consumer Price Index for Urban Wage Earners and Clerical Workers, and (2) the new Consumer Price Index for All Urban Consumers, which the bureau says represents spending habits of almost all urban residents, or about 80 percent of the U.S. population.5

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5. The price indexes record changes in prices of food, housing, clothing, transportation, medical care, entertainment, and personal care. Within these major categories, the Bureau of Labor Statistics collects monthly or bimonthly price information on about 400 items from 15,000 stores and other businesses in eighty-five urban areas. Price information collected is very detailed—the price of oranges in a specific month or the price of a specific brand, kind, and quantity of breakfast cereal. The bureau recently estimated that in a year’s time bureau price collectors gather 700,000 food prices, 70,000 rent prices, and about three-quarters of a million prices of other items.

6. National press reports on increases in the Consumer Price Index generally refer to changes in the U.S. urban average index. This urban average is commonly cited by government officials and others as a measure of national inflation, an indication of the state of the U.S. economy, and a measure of changes over time in the purchasing power of the dollar. Rates of price inflation recorded by the national index have long been used by labor and management representatives negotiating cost-of-living wage increases in national labor contracts. Recently the Bureau of Labor Statistics estimated that changes in the national price index were used to adjust incomes of about one-half the American population—including not only those workers under collective bargaining agreements, but also social security recipients, retired federal and military personnel, postal workers, and beneficiaries of various federal anti-poverty programs. Also, cost-of-living clauses based on national or local price indexes are often written into child support orders and rental agreements.

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PRICE CHANGES IN ANCHORAGE AND THE LOWER FORTY-EIGHT

Anchorage is the only Alaskan community where the federal government currently surveys price changes;7 therefore, the Anchorage consumer price index and the Anchorage family budget series, to be discussed later, are now the only standard periodic measures available for comparing living costs of Alaskans with those of other Americans over time. The four graphs in Figure 1 compare the Anchorage consumer price index with the total U.S. urban average index for all items, as well as for three major components: food, housing, and medical care.

The Closing Price Gap

The first graph in Figure 1, illustrating the overall rates of change recorded by the Anchorage and the U.S. urban average indexes during the past 10 years, shows that from 1967 to 1972, prices in urban areas across the country were increasing at a faster rate than in Anchorage. During those years, the U.S. urban average index increased at an annual rate of from 3 to about 5.5 percent, while the Anchorage index recorded annual increases of between 1.5 and 3.5 percent. Economists believe the rate of price inflation in Anchorage at that time was lower than in other urban areas because the late sixties and early seventies saw development of more cost-efficient methods of transporting goods to Alaska, and an expanding Anchorage economy, with introduction of larger, more efficient businesses. Thus, price differences between Anchorage and other U.S. cities were narrowing somewhat during that period.

At the same time, Anchorage was still importing a very large percentage of its merchandise from the Lower 48; thus, price changes in Anchorage were closely tied to national price changes. Therefore, although Anchorage prices were increasing at a slower
Figure 1. Annual Rates of Increase of Consumer Price Indexes, Anchorage and U.S. Urban Average, 1967-1977

rate during that time, Anchorage's rate of increase showed the same pattern from year to year as did the national average. For example, when prices increased more across the U.S. in 1969 than they had in 1968, Anchorage prices also increased more in 1969 than they had in the previous year.

The Pipeline Era

Then in 1973, the start of a period of increased national inflation, prices in the U.S. as a whole and in Anchorage began increasing at higher rates than in the immediately preceding years. By 1974, construction of the Trans-Alaska oil pipeline had begun, and between 1974 and 1975 the Anchorage price index rose nearly 14 percent, exceeding the national rate of inflation by several percent. For the first time since Alaska became a state, consumer prices in Anchorage were increasing at a rate above the national urban average, even though at the same time prices were also rising at a sharply increased rate across the U.S.

Economists do not completely agree on the reasons for the difference between Anchorage's rate of inflation and that of the U.S. as a whole in 1974-1975. They do agree, however, that sizeable population increases and the resulting rapidly-increased demand for goods and services, combined with high pipeline-related wages during the pipeline era, played a large role. Graph 3, for example, illustrating the rate of increase of housing costs, clearly shows the 'housing crunch' that hit Anchorage between 1974 and 1975, a period when the city's population increased from about 153,000 to 178,000, and housing prices increased more than 16 percent.

During this period of very rapid inflation in Anchorage, overall differences in prices between Anchorage and the Lower 48, which had decreased in the immediate preceding years, once again increased. By 1977, Anchorage prices had slowed considerably but still were increasing at an annual rate of about 7 percent, compared with a 6-percent increase recorded by the U.S. urban average index that year. At the same time, the rate of increase of housing costs in Anchorage had dropped below the rate of increase in other urban areas.

By September 1978, the U.S. urban average index for all urban consumers stood at 199.3, while the Anchorage price index for all urban consumers was recorded at 193.2. This shows that despite the years of pipeline-related inflation, Anchorage prices have risen slightly less than the U.S. urban average since 1967. Therefore, overall price differences between Anchorage and other U.S. cities have narrowed slightly in the past 11 years. Economists have no specific explanation for this slower rate of price increase in Anchorage, but it can be reasonably assumed, as mentioned earlier, that conditions which have traditionally raised prices in Alaska (small markets, for instance) are changing as Anchorage's population and economy grow. Still, prices measured by the consumer price index in Anchorage and other urban areas have nearly doubled in slightly more than a decade.

LIVING COSTS--ANCHORAGE Vs. THE U.S. URBAN AVERAGE

Costs of Living at Three Levels

In addition to the price indexes that record changes in living costs in U.S. urban areas over time, the U.S. Bureau of Labor Statistics also publishes a comparison of living costs among urban areas of the country, based on annual standardized budgets for a specified family of four. These budgets specify costs of maintaining high, intermediate, and low standards of living in various urban locations for an employed husband, a wife without a paying job, their 13-year-old son and 8-year-old daughter. Unlike the price indexes, these budgets are intended to measure differences in costs of living among U.S. cities.

Incomes necessary for the hypothetical family of four to maintain the three standards of living in Anchorage can be compared, for instance, with those of the U.S. urban average. Also unlike the price indexes, these family budgets include not only costs of goods and services purchased but also personal income taxes. The budgets are published annually for forty U.S. cities and several nonmetropolitan areas; U.S. urban average budgets are also issued every year.

The items included in the family budgets for each standard of living are based on the Bureau of Labor Statistics' consumer expenditure surveys and on nutritional and health standards determined by various federal agencies. The budget expense categories are very similar to those of the consumer price index and include costs of food, housing, transportation, medical care, and personal care.

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9Based on 1967 equals 100.

10More information on how the family budgets are developed can be found in U.S. Bureau of Labor Statistics, Three Standards of Living for an Urban Family of Four Persons, Bulletin No. 1570-6 (Spring 1987).
transportation, clothing, medical and personal care. These budgets measure not how American families at various income levels actually spend their money, but rather the income necessary to buy the kinds and quantities of goods the federal government has determined are needed to maintain low, moderate, and high standards of living for a specific family of four in urban areas.

Figure 2 shows the ratio of Anchorage-to-U.S. urban average budget costs for the specified family of four at three standards of living from 1967 through 1977. The figure demonstrates that budget costs over the past decade in Anchorage have been significantly higher than the U.S. urban averages for all three standards of living. It has been at the lowest standard of living, however, that the most significant cost differences have occurred. At this level, Anchorage costs have ranged from 47 to 66 percent above those of the U.S. urban average. Over the same period, costs of an intermediate budget in Anchorage peaked at 42 percent above U.S. urban average costs for that standard, while costs of the high standard of living in Anchorage never rose more than 40 percent above that of the U.S. urban average.

During the late sixties and early seventies, costs of maintaining all three standards of living in Anchorage declined compared to the U.S. urban averages. This narrowing of the gap in living costs between Anchorage and other U.S. urban areas is consistent with the pattern shown by Anchorage and U.S. urban average price indexes in Figure 1. Prices in the U.S. as a whole were rising faster than Anchorage prices before 1974, and thus living-cost differences between Anchorage and other U.S. cities decreased. But in 1974, the start of pipeline construction, budget costs for all three standards of living in Anchorage began increasing compared to U.S. urban average costs. This trend is consistent with the rate of increase of consumer prices shown in Figure 1. During 1974 and 1975, Anchorage prices were rising considerably faster than prices in the Lower 48.

Although costs of maintaining all three standards of living in Anchorage increased relative to the U.S. averages during 1974-76, Figure 2 clearly

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**Figure 2. Ratios, Anchorage/U.S. Urban Average Annual Costs of Budgets at Three Levels of Living for a Four-Person Family, 1967-1977 (U.S. Urban Average=100)**

*Source: U.S. Bureau of Labor Statistics, Indexes of Comparative Cost Based on Three Standards of Living for a Four-Person Family, 1967-1977, with the exception of the year 1968, for which no budgets were issued. For this figure, probable ratios for 1968 were computed through the use of the Anchorage Consumer Price Index, 1968.*
shows that the low-income family of four was hardest hit by fast-rising prices. Costs of maintaining a low budget increased from 49 percent above the U.S. urban average in 1974 to 64 percent above in 1976. During the same period, costs of maintaining an intermediate standard of living in Anchorage rose from 33 to 42 percent above the U.S. urban average for that standard. The costs of the high standard of living in Anchorage increased from 28 to 40 percent above the U.S. urban average. By 1977, costs of maintaining moderate and high standards of living for the hypothetical family of four in Anchorage, as compared to the U.S. urban averages, had once again begun to decrease. However, costs of maintaining a low standard of living in Anchorage showed yet another increase, jumping to 66 percent above the U.S. urban average for that standard.

Of the cost differences that occur between Anchorage and the lower U.S. at all three standards of living, why does the largest difference consistently appear for the low standard? Two budget items, housing and personal income taxes, can largely explain this phenomenon. Since the budget series was begin in 1967, costs of housing and personal income taxes at all three budget levels have been the two main items pushing family living costs in Anchorage high above the national averages. But costs of these two items have loomed particularly high in the low-income budget. Table 1 shows the fall 1977 family budgets for Anchorage; the pattern of high housing costs and personal income taxes appearing in earlier budgets is also evident here.

**Personal Income Taxes**

In 1977, the hypothetical family of four at all three budget levels in Anchorage paid considerably more personal income taxes than the same family in the other states. But, the low-income family in Anchorage paid more than three times the personal income taxes the same family would have paid in the other states. Put another way, personal income taxes for the low-income Anchorage family totalled 13 percent of its entire budget in 1977, while the family at the same standard in other areas paid only 7 percent of its income in personal income taxes. Costs of personal income taxes in the 1977 Anchorage moderate and high-income budgets also stood far above U.S. urban average costs, measuring 83 and 70 percent more, respectively. These high income taxes paid by Alaskans result from progressive federal and state income tax rate structures which take over larger percentages of income as income increases. Thus, the hypothetical low-income family in Anchorage, with its much higher nominal income in 1977 ($17,000 compared to $10,000 for the same family in the lower U.S.) paid a larger percentage in taxes than did its counterpart. The progressive tax rate structure makes no provision for Alaska’s higher incomes being accompanied by higher costs of living. Thus, Alaskans, particularly Alaskans with lower incomes, pay disproportionately high federal income taxes. They also pay high state income taxes, since state taxes are calculated as a percentage of federal taxes.11

**Housing Costs**

The other budget item traditionally playing a large part in Anchorage’s high cost of living is housing. Again, housing costs weigh heaviest on low-income families. In 1977, housing costs for the low-income family in Anchorage were more than double those of the corresponding U.S. urban average. The Bureau of Labor Statistics assumes that all low-income families rent rather than own housing, and budgets from earlier years show that renting costs in Anchorage have consistently been double those of comparable housing in the U.S. as a whole. Also, the 1974-75 “housing crunch” in Anchorage resulted in very low vacancy rates and increased rents, with rents not dropping significantly by 1977. The same housing shortage also boosted costs of housing in the moderate and higher income budgets, but homeowners were not as hard hit as renters.

**LIVING COSTS—ANCHORAGE**

**Vs. OTHER PARTS OF ALASKA**

The preceding discussion has shown only how (1) Anchorage living costs have changed over time, and (2) how Anchorage costs are related to U.S. urban average costs. Little is known about how living costs in other areas of Alaska, particularly remote areas, compare to Anchorage living costs. It is generally assumed that the difficulties involved in supplying goods and services to small, remote locations with severe climates result in higher overall living costs in those areas.

Detailed statewide price information on many items has never been collected. In 1977, the state’s only intercity comparative price series was

11Alaska’s U.S. Senator Mike Gravel has introduced federal legislation that would raise the standard income tax deduction for Alaskans, thereby reducing the relative tax burden.
discontinued. Limited price surveys conducted by state agencies reveal substantial differences in costs of some items from community to community. But comparative costs of many items are simply not known, and virtually no information has been collected on what quantities of various items rural Alaskans use.

Table 2 shows a sampling of recent price information available on some items in various communities around the state. Column 1 shows comparative costs of equal amounts of electricity in urban and rural communities in 1977, and column 2 shows these costs as a percentage of Anchorage costs. While costs of electricity in other cities like Juneau, Ketchikan, Fairbanks, and Kenai were up to 50 percent higher than Anchorage costs that year, these differences pale in comparison with costs of electricity in smaller, more remote communities. For example, 500 kilowatt hours of electricity in Egegik in the Bristol Bay area cost nearly 600 percent more than in Anchorage in 1977. Even in larger rural communities like Kotzebue, Barrow, and Bethel, electricity was several hundred percent more expensive than in Anchorage.

Column 3 shows comparative costs of a standard market basket of forty-five food items in various Alaska regions in 1977. While the differences in costs from urban to rural locations were not as dramatic for food as for electricity, they were substantial. Column 4 shows comparative total food bills as a percentage of Anchorage costs. Costs of the standard market basket in urban locations hovered near Anchorage costs, but costs of the market basket in remote areas were as much as 60 percent higher than in Anchorage.

Column 5 of Table 2 shows comparative costs to Alaskans of a round-trip flight from their homes to Seattle and back in late 1978. Column 6 shows how much Alaskans in various communities would have had to pay to air-freight a 100-pound shipment from Seattle to their homes, also in late 1978.

While admittedly sketchy, this price information indicates the magnitudes of price differences rural Alaskans face. But translating known price differences into cost-of-living differences in Alaska is difficult for several reasons. First, as noted earlier, information on prices of many items statewide has not been collected, and there is little information on the relative importance of various items in the budgets of rural Alaskans. Second, comparing living costs of various communities requires comparing costs of maintaining the same standard of living in each location. In Alaska, however, urban and rural ways of life are not comparable. Since a cost-of-living index measures costs of a fixed group of items among communities, any single index for Alaska can only reflect costs of maintaining either a rural way of life or an urban way of life, but not both.

Recognizing these difficulties, ISER economists in 1977 developed a statewide cost-of-living index at the request of the state Department of Education. Because it was developed from limited information, this index (Table 3) is crude and at best gives only a rough indication of how living costs vary around the state, with Anchorage costs as a base. Further, because so little is known about buying habits of Alaskans outside Anchorage, the economists who set up the index used the same relative quantities of budget items that the Bureau of Labor Statistics uses in developing its annual budgets for Anchorage families at a moderate standard of living. Some adjustments were made for purchase of different kinds of goods in various areas of the state—for example, purchase and use of boats and

| Alaska Total Consumption Index,* Selected Areas, 1976 (Anchorage=100) |
|--------------------|----------------|----------------|
| Anchorage          | 100.0          | Valdez         | 113.5 |
| Kenai              | 100.6          | Juneau         | 100.2 |
| Kodiak             | 112.6          | Ketchikan      | 101.0 |
| Fairbanks          | 113.4          | Dillingham     | 160.0 |
| Yukon-             |                | Bethel         | 155.0 |
| Koyukuk            | 159.7          | Nome           | 167.5 |
| Cordova            | 114.8          | Barrow         | 166.3 |

* A discussion of how the total index and its individual components were developed appears in the Appendix.

**SOURCE:** Alaska Interregional Cost Differentials (Anchorage: University of Alaska and Center for Northern Educational Research, 1977), 152 pp., in cooperation with the Alaska State Finance Study Staff.

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12 Quarterly reports, which had been jointly funded by the state and federal governments, were issued from 1951 through 1977 by the University of Alaska's Cooperative Extension Service. They monitored prices of common food items in thirteen Alaskan communities. The reports were discontinued in 1977 when the governor vetoed state funds for the program for the following fiscal year.

13 In Fairbanks, the North Star Borough’s Community Information Center completed an Anchorage/Fairbanks cost-of-living comparison in Marilyn Forest and Susan R. Fison, *Fairbanks/Anchorage Cost of Living Comparison, Special Report No. 2 (July 1978).*
snowmachines rather than cars in areas not connected to road systems. Indexers assumed that these substitute items would provide a similar standard of living in each community.

Thus the index in Table 3 does not represent actual relative budget costs of Alaskan families in different regions of the state, nor does it measure how much it would cost rural Alaskans to maintain an acceptable rural standard of living from community to community. The index does provide a rough indication of what it would cost Alaskan families around the state to buy a moderate, urban standard of living (for example, this standard would have cost roughly 60 percent more in Dillingham than in Anchorage). A discussion of the budget items used in developing this index and an explanation of how indexers built the individual components of the index appears in the Appendix.

The index shows, as might be expected, that costs of providing an urban way of life do not vary substantially among urban communities connected by road systems, like Anchorage, Fairbanks, Kenai, and Valdez; costs in seaport communities such as Kodiak and Cordova, easily accessible by water, are similar. In southeastern communities like Juneau and Ketchikan, which are located on main waterways and nearer Seattle than other Alaskan communities, costs are virtually the same as in Anchorage.

But the cost of living rises in proportion to a community's isolation. For example, in the Yukon-Koyukuk area of the state's interior and in such northern and western communities as Nome, Dillingham, and Barrow, living costs are 60 percent higher than in Anchorage.

Although this index is admittedly rough, measuring only relative costs of an urban lifestyle, it does provide an indication of the differences in living costs faced by rural Alaskans.

The following section discusses the personal incomes of Alaskans versus those of other U.S. residents and explains how the differences in living costs affect Alaskans' actual buying power.

PERSONAL INCOME—ALASKA VS. THE OTHER STATES


On the basis of these numbers, it looks as if Alaskans have done very well during the past decade and particularly during the past few years, with per capita incomes far above those of the average American. This section of the article examines how, in view of Alaska's traditionally high costs of living and rapid inflation in recent years, Alaskans' incomes actually compare with those of other Americans. This section also looks at how Alaska's overall high per capita income varies in different regions of the state and examines how those Alaskans in areas with lower per capita incomes and higher costs of living fare compared to other Alaskans and other Americans.

The state's nominal per capita income nearly tripled from 1967-1977. However, price inflation, measured at 174\(^{14}\) by the 1977 Anchorage consumer price index, puts the real gain during that time at about 65 percent. Similarly, price inflation in the U.S., which brought the U.S. urban average price index to 180.6 in 1977, effectively cut real U.S. per capita income gains in the past decade to about 20 percent in 1967 dollars.

Figure 3 shows the annual rate of increase in per capita income in the U.S. and Alaska from 1967 to 1977, deflated by annual increases in the U.S. urban average price index and the Anchorage consumer price index, respectively. (Although changes in the Anchorage consumer price index do not necessarily indicate an overall price change statewide, there is no other measure available of price change in Alaska.) The Alaska portion of the graph shows that from 1967 to 1976, per capita personal income in the state increased faster than prices were rising; that is, the 4-percent increase in per capita income indicated for 1969 is the gain in income above the rate of price increase recorded for that year. Even when deflated by Anchorage's 14 percent inflation in 1975, per capita personal income for that year showed a gain of more than 15 percent. But by 1976, even though Alaska per capita income still increased in nominal terms (about 5 percent), Anchorage prices rose more than 7 percent, causing the actual loss of real per capita income shown in the graph. In 1977 as well, the Anchorage price index was still rising faster than per capita income, causing another loss of real income in the state. So although Alaska led the nation in per capita income in 1976 and 1977, inflation erased

\(^{14}\) Based on 1967 equals 100.
Figure 3. Real* Rate of Increase, Per Capita Personal Income, Alaska and U.S. Average, 1967-1977.


Note: For 1974-1977, BEA estimated pipeline wages in construction, of which 50 percent were estimated to have been earned by non-residents. To the extent that pipeline wages were earned in closely related industries such as transportation and business services, and an exceptional percentage went to non-residents, personal incomes of Alaska residents were overestimated in those years. More important, there is substantial disagreement between the 1975 resident population figures published by the BEA and the State of Alaska; the BEA figure is significantly lower, and may have caused an upward bias for Alaska per capita income that year. The 1973 bulge in per capita income seems to have been partially caused by an unusually large payment under the Alaska Native Claims Settlement Act that year.

In the U.S. as a whole during the late sixties and early seventies, the income picture was different than in Alaska. Inflation was higher in the U.S. than in Anchorage at that time, and during most years before 1973, U.S. residents posted average per capita income gains of 5 percent or less. In 1971, price increases and gains in per capita income were just about equal. Then between 1973 and 1974, a period of increased inflation in the U.S., price increases outstripped income gains. During 1974-1975, a period of substantial per capita income gains in Alaska, a recession caused Americans on the whole to lose buying power. By 1976, when Alaskans were losing income to inflation, Americans on the whole once again saw their per capita incomes rise faster than prices.

Overall then, except for 1976 and 1977, incomes of Alaskans on the whole fared better against inflation than did incomes of other Americans.

Although Alaska's nominal per capita income,
as we have seen, increased sharply during the past decade, that gain was not evenly distributed across various regions of Alaska. In 1969, year of the Prudhoe Bay oil discovery, most Alaska census districts, except for Juneau, had per capita incomes significantly below that of Anchorage. However, most larger urban areas like Fairbanks and Ketchikan posted per capita incomes similar to those of Anchorage that year. Table 4 shows how between 1969 and 1976 per capita income in several areas changed in relation to that of Anchorage.

Fishing communities like Cordova, Valdez, and Kodiak and smaller urban areas like Kenai had per capita incomes 25 percent or more below that of Anchorage in 1969. In the same year, more remote communities in the Yukon-Koyukuk area of the interior and Nome in western Alaska posted per capita incomes just half that of Anchorage. And 1969 per capita incomes in Bethel and the Bristol Bay region of southwest Alaska were recorded at just 30 percent that of Anchorage.

Columns 3 and 4 of Table 4 show that with few exceptions, census districts of the state improved their per capita incomes relative to Anchorage by 1976. But the percentage figures in column 4 also clearly show that while those census districts most affected by pipeline construction and related activities made large gains in per capita income, others not so directly affected made only small gains. Valdez and Fairbanks, both centers of pipeline activity, leaped far ahead of Anchorage in per capita income that year. Per capita income in Juneau, which had been nearly 25 percent ahead of the Anchorage figure in 1969, declined compared to Anchorage, remaining only slightly ahead by 1976. Smaller urban areas and fishing communities less directly affected by pipeline construction also showed improved per capita incomes in relation to Anchorage by 1976. Even remote communities of western and southwestern Alaska saw slight improvements relative to Anchorage in per capita income between 1969 and 1976. In 1976, however, residents of Bristol Bay and Bethel still had per capita incomes of only 40 percent that of Anchorage. Most areas of the state shared to some degree the per capita gains recorded for the state as a whole in recent years. However, many rural areas showed very modest gains, with large gains concentrated in centers of pipeline and pipeline-related activity.

The figures in Table 4 are not adjusted for cost-of-living differences. Adjusted figures are, however, given in Table 5, which examines actual 1976 buying power of residents of various Alaska census districts as compared with that of residents of several urban and rural areas in the lower 48 states. U.S. cities included in the table are among those which, like Anchorage, posted high 1976 per capita incomes; rural U.S. areas included here all showed 1976 per capita incomes below the U.S. urban average.

### TABLE 4

Per Capita Personal Income, Selected Alaska Census Districts, 1969 and 1976

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>$4,755</td>
<td>100%</td>
<td>$10,739</td>
<td>100%</td>
</tr>
<tr>
<td>Kenai-Cook Inlet</td>
<td>3,516</td>
<td>74</td>
<td>8,952</td>
<td>83</td>
</tr>
<tr>
<td>Cordova-McCarthy</td>
<td>3,996</td>
<td>84</td>
<td>7,251</td>
<td>68</td>
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<tr>
<td>Valdez-Chitina- Whittier</td>
<td>3,591</td>
<td>76</td>
<td>21,993</td>
<td>204</td>
</tr>
<tr>
<td>Kodiak</td>
<td>3,197</td>
<td>67</td>
<td>8,027</td>
<td>75</td>
</tr>
<tr>
<td>Fairbanks</td>
<td>4,476</td>
<td>94</td>
<td>13,389</td>
<td>125</td>
</tr>
<tr>
<td>Koyukuk</td>
<td>2,753</td>
<td>58</td>
<td>7,405</td>
<td>69</td>
</tr>
<tr>
<td>Juneau</td>
<td>5,826</td>
<td>123</td>
<td>11,229</td>
<td>105</td>
</tr>
<tr>
<td>Ketchikan</td>
<td>4,370</td>
<td>92</td>
<td>10,286</td>
<td>96</td>
</tr>
<tr>
<td>Bristol Bay</td>
<td>1,434</td>
<td>30</td>
<td>4,031</td>
<td>38</td>
</tr>
<tr>
<td>Bethel</td>
<td>1,634</td>
<td>34</td>
<td>4,200</td>
<td>40</td>
</tr>
<tr>
<td>Nome</td>
<td>2,575</td>
<td>54</td>
<td>6,844</td>
<td>64</td>
</tr>
</tbody>
</table>

In column 2 of Table 5, the per capita incomes of urban and rural areas outside Alaska were adjusted by variations from U.S. urban average living costs as recorded in the Bureau of Labor Statistics' 1976 urban family budgets for a moderate standard of living.\textsuperscript{15} Per capita incomes for all Alaska census districts were adjusted in column 2 by the differences in Anchorage/U.S. urban average living costs for a moderate standard of living; therefore, the figures in column 2 indicate roughly how incomes of various Alaska regions would compare with those of other U.S. areas, if all Alaska communities had the same 1976 living costs as Anchorage.

Column 2 in Table 5 shows how higher or lower living costs can decrease or increase effective per capita income, relative to other areas with differing living costs. The 1976 per capita income of

<table>
<thead>
<tr>
<th>Areas</th>
<th>Per Capita Personal Income, 1976</th>
<th>Per Capita Income, Adjusted by U.S. Urban Average Cost of Living Index\textsuperscript{a} (U.S. Urban Avg.=100)</th>
<th>Per Capita Income, Adjusted by Alaska Cost of Living Index\textsuperscript{b} (Anchorage=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Average</td>
<td>$6,396</td>
<td>$6,396</td>
<td>$6,396</td>
</tr>
<tr>
<td>Alaska</td>
<td>10,124</td>
<td>7,336</td>
<td>7,336</td>
</tr>
<tr>
<td>Anchorage</td>
<td>10,739</td>
<td>7,781</td>
<td>7,781</td>
</tr>
<tr>
<td>Fairbanks</td>
<td>13,389</td>
<td>9,702</td>
<td>9,566</td>
</tr>
<tr>
<td>Juneau</td>
<td>11,229</td>
<td>8,136</td>
<td>8,120</td>
</tr>
<tr>
<td>Ketchikan</td>
<td>10,286</td>
<td>7,454</td>
<td>7,380</td>
</tr>
<tr>
<td>Chicago, Ill.</td>
<td>7,785</td>
<td>7,558</td>
<td>7,568</td>
</tr>
<tr>
<td>Newark, N.J.</td>
<td>8,024</td>
<td>7,101</td>
<td>7,101</td>
</tr>
<tr>
<td>San Francisco, CA</td>
<td>8,412</td>
<td>7,935</td>
<td>7,935</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>8,454</td>
<td>8,288</td>
<td>8,288</td>
</tr>
<tr>
<td>Atlanta, Ga.</td>
<td>8,171</td>
<td>7,221</td>
<td>7,221</td>
</tr>
<tr>
<td>Houston, Tx.</td>
<td>7,617</td>
<td>7,934</td>
<td>7,934</td>
</tr>
<tr>
<td>Kenai-Cook Inlet</td>
<td>8,932</td>
<td>6,487</td>
<td>5,919</td>
</tr>
<tr>
<td>Kodiak</td>
<td>8,027</td>
<td>5,816</td>
<td>5,165</td>
</tr>
<tr>
<td>Koyukuk</td>
<td>7,405</td>
<td>5,365</td>
<td>3,369</td>
</tr>
<tr>
<td>Nome</td>
<td>6,844</td>
<td>4,959</td>
<td>2,960</td>
</tr>
<tr>
<td>Bethel</td>
<td>4,200</td>
<td>3,043</td>
<td>1,963</td>
</tr>
<tr>
<td>Vermont,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Counties</td>
<td>5,348</td>
<td>5,402</td>
<td>5,402</td>
</tr>
<tr>
<td>North Dakota,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Counties</td>
<td>5,583</td>
<td>6,068</td>
<td>6,068</td>
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<tr>
<td>Alabama,</td>
<td></td>
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</tr>
<tr>
<td>Rural Counties</td>
<td>4,374</td>
<td>5,027</td>
<td>5,027</td>
</tr>
<tr>
<td>Washington,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Counties</td>
<td>6,373</td>
<td>7,081</td>
<td>7,081</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Income figures adjusted on the basis of Indexes of Comparative Costs Based on an Intermediate Budget for a 4-Person Family, Autumn 1976, U.S. Bureau of Labor Statistics. All Alaska census district income figures were adjusted in column 2 by the ratio of 138, the ratio of Anchorage/U.S. urban average intermediate budget costs as reported in 1976. Ratios of other U.S. areas are as follows: Chicago, 103; Newark, 113; San Francisco, 106; Washington, D.C., 102; Atlanta, 93; Houston, 96; Vermont rural counties, 99; North Dakota rural counties, 92; Alabama rural counties, 87; Washington rural counties, 90. Ratios indicate comparative costs of total family consumption and do not include personal income tax payments.

\textsuperscript{b}Alaska income figures in column 3 are adjusted by family consumption comparisons as estimated in Alaska Total Consumption Index, Table 3.

Washington, D.C., for example, was deflated by a ratio of 1.02 since the federal government estimated the city's living costs at 2 percent above U.S. urban average costs in 1976. On the other hand, living costs in Atlanta, Georgia were reported at below U.S. urban average costs in 1976. Therefore, the relative income of Atlanta residents increased in column 2, compared to incomes of Americans who paid higher living costs. Likewise, the federal government put the cost of living in rural counties of Alabama at below national average. Thus, column 2 shows residents of rural Alabama gaining slightly in effective income compared to other areas.

Column 2 also shows that, when adjusted by Anchorage's cost of living, 1976 per capita incomes of residents of urban areas like Anchorage, Fairbanks, and Juneau, were very similar to 1976 per capita incomes of residents of San Francisco or Newark, New Jersey. And when adjusted by Anchorage's cost of living, such smaller Alaska urban areas as Kenai and fishing communities like Kodiak showed per capita incomes just slightly better than rural Vermont or North Dakota. Finally, rural communities like Bethel and Nome, when adjusted only by the Anchorage cost of living, showed per capita incomes at or below that of rural Alabama.

But as noted earlier, virtually all Alaska communities have living costs higher than Anchorage. Therefore, column 3 takes cost-of-living adjustments a step further and deflates Alaska regional per capita incomes\(^{17}\) by differences in living costs within Alaska as estimated in the Alaska Total Consumption Index in Table 3.

Column 3 shows the strong effect of much higher living costs in rural Alaska. After a second cost-of-living adjustment, urban areas with living costs close to those of Anchorage still showed 1976 per capita incomes above the U.S. average. However, incomes in smaller and more remote communities dropped significantly from column 2 to column 3, falling far below the U.S. per capita income. When adjusted for living costs approximately 60 percent above those of Anchorage, per capita incomes in Bethel, Nome, and Koyukuk in 1976 were effectively half the national average, significantly lower than the per capita income in rural Alabama that year.

Thus, although the adjustments made in column 3 are rough, they indicate just how much high living costs affect the incomes of rural Alaskans. Overall, Table 5 shows that when adjusted for differences in living costs, many urban areas in Alaska in 1976 still had per capita incomes among the highest in the nation. At the same time, rural Alaskans had effective per capita incomes not only considerably lower than the U.S. average, but even lower than those of rural Alabama, one of the poorest regions in the country.

In the past, low per capita incomes in rural regions of Alaska have often been attributed to many residents of those areas being either unemployed or voluntarily out of the work force. But Table 6 looks not at per capita income but at incomes of employed persons in various areas of the state. It shows that average earnings in rural areas in 1976 were significantly lower than those in urban areas. This is so, even recognizing that 1976 wages in some urban areas, particularly Fairbanks and Valdez, were temporarily increased because of pipeline construction. Overall, wages paid in urban areas that year were significantly higher than in rural areas.

Column 5 of Table 6 shows estimated "after tax" wages of Alaskan workers in various areas. These incomes have been adjusted by differences in living costs as estimated in the Alaska comparative index in Table 3. These figures show the same pattern evident in Table 5—much lower effective incomes in rural areas of the state. Nome, Dillingham, and Bethel, for instance, showed 1976 effective incomes about half that of Anchorage. Kodiak, with an estimated living cost about 15 percent above that of Anchorage, also showed an effective income considerably below that of the average Anchorage worker. Thus, Table 6 indicates that the lower wages paid in rural areas, as well as unemployment, play a part in the low per capita incomes recorded for those areas.

**CONCLUSIONS**

In looking at differences in living costs and incomes both between Alaska and the other states and among locations within Alaska, we have often made rough comparisons that at best give only an estimate of how incomes and living costs of Alaskans have stood in relation to those of other Americans during the past decade. In general, we have seen that inflation associated with the years of pipeline construction halted the trend of some narrowing price differences that had occurred between Alaska and the other states from 1967 to 1973. This suggests that in subsequent boom periods, the state would benefit from looking for ways to control inflation and deal with the inequities that inflation inflicts on residents at various income levels.

Low-income groups in Alaska, as elsewhere in

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\(^{16}\) Which recorded a 1976 per capita income among the lowest in the nation.

\(^{17}\) Which were already deflated by the difference in Anchorage/U.S. average living costs.
TABLE 6
Average Annual Wages and Tax Payments, Nonagricultural Workers, Selected Census Districts, 1976

<table>
<thead>
<tr>
<th>Census District</th>
<th>Average Annual Wages, Nonagricultural Workers(^a) 1976</th>
<th>FICA Taxes, 1976</th>
<th>State and Federal Income Tax(^b) 1976</th>
<th>Income After Taxes</th>
<th>Average Disposable Income Adjusted for Costs of Living(^c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>$19,685</td>
<td>$895</td>
<td>$3,302</td>
<td>$15,488</td>
<td>$15,488</td>
</tr>
<tr>
<td>Fairbanks</td>
<td>25,930</td>
<td>895</td>
<td>5,349</td>
<td>19,688</td>
<td>17,360</td>
</tr>
<tr>
<td>Nome</td>
<td>15,428</td>
<td>895</td>
<td>2,196</td>
<td>12,337</td>
<td>7,365</td>
</tr>
<tr>
<td>Juneau</td>
<td>16,966</td>
<td>895</td>
<td>2,542</td>
<td>13,529</td>
<td>13,501</td>
</tr>
<tr>
<td>Dillingham</td>
<td>13,540</td>
<td>792</td>
<td>1,770</td>
<td>10,778</td>
<td>6,861</td>
</tr>
<tr>
<td>Bethel</td>
<td>11,280</td>
<td>660</td>
<td>1,250</td>
<td>9,370</td>
<td>6,045</td>
</tr>
<tr>
<td>Kenai-Cook Inlet</td>
<td>20,900</td>
<td>895</td>
<td>3,665</td>
<td>16,340</td>
<td>14,908</td>
</tr>
<tr>
<td>Valdez-Chitina-Whittier</td>
<td>47,182</td>
<td>895</td>
<td>15,491</td>
<td>30,796</td>
<td>27,133</td>
</tr>
<tr>
<td>Kodiak</td>
<td>15,494</td>
<td>895</td>
<td>2,209</td>
<td>12,390</td>
<td>11,003</td>
</tr>
</tbody>
</table>


\(^b\) State and federal taxes calculated on the basis of 1976 income tax rates paid by a married worker, filing jointly, taking the standard deduction and claiming four exemptions. State income taxes calculated as 20 percent of federal taxes.

\(^c\) Adjusted by Alaska living costs differences as estimated in Table 3, "Alaska Total Consumption Index."

The United States are hardest hit by rising costs of living; in 1977, the Bureau of Labor Statistics' urban family of four in Anchorage paid 3.2 times more federal and state income taxes that its counterparts paid in the other states. The Anchorage family's housing costs stood at 221 percent of the national average. Thus, policymakers may be well-advised to consider the effects of tax policy on the distribution of economic gains from growth in Alaska.

Increases in income and prices are not distributed evenly across the state. In particular, additional attention needs to be given to the persistent problem of rural poverty in Alaska.

Much of this article has been based on what is known about prices and other living costs that Anchorage residents pay. Cost-of-living comparisons around the state were made on the basis of costs of maintaining a moderate standard of living in Anchorage. But rural Alaska is worlds apart from urban Alaska, and to assess the costs associated with Alaska's development, state policymakers need some measures of price and income changes outside Anchorage.

Currently, the state has few means of systematically monitoring or assessing the changing well-being of residents in different regions of the state.

APPENDIX

Methods and Sources, Alaska Total Consumption Index

The Alaska Total Consumption Index presented in Table 3 was originally prepared in 1977 for the publication *Alaska Interregional Cost Differentials* by the University of Alaska's Institute of Social and Economic Research and Center for Northern Educational Research. This was a report prepared for the state Department of Education on living cost differences around the state. A detailed explanation of sources and methods used in developing the index can be found in Chapter 2 of that report; the following are summaries of sources and methods used in constructing each of the individual indexes that make up the total index shown in Table 3.

Food Price Index. The index for food prices is based on findings of the state Division of Personnel and Labor Relations' 1976 report on a food price survey in thirty Alaskan communities. The state agency used the same methods that had been employed by the University of Alaska's Cooperative Extension Service in preparing its own quarterly reports on food prices in thirteen Alaskan communities from 1951 through 1977. The Division
of Personnel attempted to price forty-five standard food items in all surveyed communities; where specific items were not available, the index reflects the costs of the available items, compared to similar items in Anchorage.

Housing Index. This index lists separate costs of shelter, household furnishings, and household operations. The “shelter” portion of the index was prepared using (1) construction costs for standard low-income housing of about 700 square feet, as reported for various communities of the state by the federal Department of Housing and Urban Development, (2) fuel and utilities cost information from the Alaska State Energy Office and the Alaska Public Utilities Commission, and (3) mortgage cost information from Anchorage banks. Insurance costs were also included, and utility costs were adjusted to take into account use of gas instead of oil for heating fuel in some parts of the state. Where communities had no public water systems, adjustments were made for decreased hot water use. The relative “shelter” costs indicated here represent costs for small homes; relative cost differences among Anchorage and remote communities would be greater for larger homes, since extra heating fuel and utilities necessary for a larger home are several hundred percent more expensive in some parts of the state.

Relative “furnishings” costs indicated in the table are relative costs for purchasing and shipping a 100-pound, $200 order to the various locations; this is equivalent to about one-half the costs of household furnishings as computed by the Bureau of Labor Statistics for Anchorage. Some items in this category are often constructed by the user in many parts of Alaska. Other items, such as appliances, often last for several years and are thus purchased infrequently. Therefore, using a purchase-based index may overstate the differences around the state, but offsetting this is the likely higher cost and inconvenience of appliance repair in rural areas.

In this index, “household operations” costs are assumed to consist largely of costs of cleaning supplies, and since these items are handled and distributed much like canned foods, cleaning supplies show roughly the same price differences from place to place as do foods.

Transportation Index. Costs of transportation include local and intercity transportation costs in the standardized household budgets used by the Bureau of Labor Statistics. However, these costs are difficult to establish in Alaska. For those Alaska communities connected to a highway system, economists lacked systematic information on possible variations in car repair and maintenance costs around the state. Therefore, in setting up local portions of the transportation index, they assumed that except for differences around Alaska in the price of gas, the costs of operating cars in communities connected to highways were roughly the same as in Anchorage.

In areas where cars do not provide significant local transportation, they assumed that annual family transportation costs would include costs of operating a small boat in the Aleutians and southeast Alaska. Transportation costs would include both a boat and a snowmachine in areas north and west of the Alaska Range. The intercity portion of the transportation index assumes that annual transportation costs for families not connected by roads to major regional centers would include prices of twice yearly airline travel (allocated among the four family members) to the nearest major city (Anchorage, Fairbanks, Ketchikan, or Juneau). The index further assumes that families with road access to these regional centers drive to the nearest one several times a year.

Clothing Index. While clothing prices may vary by location in Alaska, there is little information on clothing costs statewide. Thus, in developing the clothing index, ISER economists assumed that (1) residents of remote communities could buy clothing during annual or semi-annual shopping trips to large communities (with costs of these shopping trips included in the transportation index), or (2) that rural Alaskans could order clothing parcel-post from mail-order catalogues and would therefore pay close to the same prices Anchorage residents pay.

Personal Care Index. The main expense items that the Bureau of Labor Statistics’ standardized family budgets included in this category are haircuts and toilet articles. The economists setting up this index assumed that the prices of haircuts are similar across the state, and that toilet articles, because they are handled and distributed in much the same way foods are, probably show the same price differences around the state.

Medical Care Index. The largest single category within medical care in the Bureau of Labor Statistics standardized budgets is health insurance. Because the types of insurance plans offered vary so widely around the state, it was impossible to determine whether or not insurance rates and other medical costs vary systematically in Alaska. It was therefore assumed that average family medical costs (except for transportation) are roughly the same across the state. The costs that rural residents incur in traveling to cities for medical care were included in the transportation index.
GOVERNANCE IN THE BEAUFORT SEA REGION: 
PETROLEUM DEVELOPMENT AND THE NORTH SLOPE BOROUGH

By Thomas A. Morehouse

Introduction

This study examines relationships between petroleum development and the evolution of local government institutions on Alaska's North Slope in the decade since the oil and gas discoveries at Prudhoe Bay in 1968. It focuses on the North Slope Borough and attempts to explain the formation and major operations of the borough essentially as responses to the problems and opportunities that arctic oil and gas development present to the Native people of the region.

Specifically, the report analyzes key issues of taxation, development, and environmental protection; it examines interactions of the borough and external organizations—federal and state government agencies and oil companies—concerning these issues. It also examines institutional relationships within the region, particularly those between the borough and the villages and between the borough and the Arctic Slope Regional Corporation. Finally, the report assesses some of the present meanings and effects of Native self-determination on the North Slope.

Borough Formation and Growth

By the late 1960s, the momentum of the land claims movement and the stimulus of the oil and gas discoveries of Prudhoe Bay provided necessary preconditions for the incorporation of the North Slope Borough. The Arctic Slope Native Association (ASNA) was the organizational vehicle for pursuing both land claims and borough formation. And by 1969, when ASNA began taking official steps toward incorporation of the North Slope, the borough idea had acquired a force of its own. By that time too, the magnitude and implications of the Prudhoe Bay discoveries were sufficiently clear: the North Slope now had a tax base of large and growing proportions, even a small part of which could apparently support a very ambitious borough development program. ASNA leaders, however, were repeatedly frustrated by what they perceived as overly cautious or otherwise objectionable positions taken on the claims issue by other regional associations and by the statewide Alaska Federation of Natives, which was dominated by regional groups other than their own. And in any case, it was not at all clear that a satisfactory settlement of the claims would ultimately be won. Thus, on the North Slope, borough incorporation became a second instrument of great potential for asserting Native control over North Slope lands and resources and for capturing some of the economic benefits of petroleum development, regardless of the final legislative outcome on land claims in Washington, D.C.

In 1972, the North Slope Borough started with an elected mayor and assembly, a handful of employees, and budgeted revenues of about $500 thousand. By 1977, it had 180 general government employees (not counting school district and seasonal construction workers), collected $30 million in revenues, and was in the third year of a projected $150 million capital improvements program. Nearly two-thirds of its revenues come from the taxation of oil properties at Prudhoe Bay, which comprise the largest concentration of property values in Alaska outside of Anchorage.

The state administration was at first reluctant to act favorably on incorporation of the borough primarily because it considered Prudhoe Bay a statewide and not a local taxable resource. Thus, since 1972, state laws and a series of oil company legal challenges to the borough's tax authority have kept the borough's taxing and spending programs in check.

The incorporation and growth of North Slope Borough government has thus been achieved in the face of varying amounts of opposition and resistance, primarily to the borough's tax authority. But the borough has also met resistance to its claims to control of the land, waters, and subsistence resources that are closely associated with traditional Native values. The borough's leaders have experienced persistent conflict with external agencies and interests. Accordingly, they have been preoccupied with strengthening and exercising the centralized regional authority necessary to defend (and extend) North Slope claims to self-determination against outside authorities and interests.

Through all of this, borough officials have also been attempting to follow through on their promises to North Slope villagers. Basic objectives of incorporation included gaining control of public educational programs and improving social and economic conditions in North Slope villages. And villagers' interests have not been ignored as the broader regional process of development has evolved. The Natives are direct beneficiaries of the services,
facilities, and jobs that are the major tangible products of the borough’s efforts. In borough leaders, they also have aggressive spokesmen defending more traditional Native values against perceived outside encroachments. But while villagers are beneficiaries of the region’s political development, they are not significant participants in it. They are primarily recipients and consumers of borough government goods. Given their past dependence on even more remote and less beneficent federal and state agencies, this does not necessarily represent a backward step. In material terms, it is clearly an advance.

North Slope Borough government has not yet stabilized into a “normal local government” pattern; financially and in its external relations, its vulnerabilities continually force it into reactive, “crisis government” modes.

Policy Issues and External Relations

The borough asks two basic questions of all proposed development activity: (1) will it pay, and (2) what will be its effect on subsistence resources? The borough must favor development in practice if not always in its pronouncements. It is committed to a $150 million capital improvements program—with facilities in place and debt service mostly paid before Native corporation lands become taxable after 1991. And, it is looking for economic viability in the longer run. It takes strong positions against developments that appear to have high environmental risks and relatively limited local economic pay-offs. In order to assure that existing and future developments will, indeed, pay off as desired, the borough must consistently seek ways of changing state tax laws and regulations that will expand its authority to tax. And it must be prepared to spend substantial time in court with the oil companies.

In exploiting the economic opportunities that began with the Prudhoe Bay discoveries, the borough has come to heavily depend on the petroleum property tax base. At the same time, borough leaders have attempted to protect Native villagers and their subsistence resource interests from the social and environmental disturbance and change that accompany oil development and growth in the region’s cash economy.

An underlying objective in the borough’s efforts to protect subsistence resources, traditional land-use areas, and other Native values is to extract increasingly greater shares of control over the North Slope region from federal and state agencies. As in the area of oil development and taxation, the borough is here demanding acceptance and recognition of its local governmental status and authority. The effective limits of the borough’s authority in a region formerly the exclusive province of federal and state agencies are still to be defined. The borough is continuously testing the limits of law, pressing into formerly exclusive federal and state agency domains, and asserting its prerogatives.

Thus, the North Slope Borough’s efforts to protect Native subsistence and related values are part of its broader campaign to achieve an identity and to be recognized as a legitimate and authoritative presence in the region—a local government that is “taken seriously” by federal and state governments and by oil companies. As a result, it is often difficult to distinguish the borough’s environmental protection responses from its broader political responses to federal and state actions affecting the region.

In a practical sense, the borough’s demands for environmental protection are not incompatible with its encouragement of petroleum development that offers potential economic benefits. Except for federal OCS development, which may have a smaller potential payoff for the borough than developments elsewhere in the region, borough officials have not sought seriously to impede exploration and development activities on North Slope lands. The borough instead is particularly seeking protection of subsistence resource habitats and specific Native traditional use lands. It is seeking protection that can be accommodated without significantly deterring oil exploration or development activities on the National Petroleum Reserve, on regional corporation lands, or at Prudhoe Bay and in adjacent areas. And, it is also making claims to some share of control over federal and state lands and waters, regardless of whether oil exploration and development activities are directly involved.

There are indications that borough relations with state and federal governments are increasingly taking more moderate and conventional forms. There are signs, too, that state and federal officials are responding to the borough’s plea to be “taken seriously.” The borough has had some success in lobbying Congress and the State Legislature and in its efforts to influence federal and state executive agency decisions. It has been able to find and cooperate effectively with influential allies. Currently, the borough is directly represented in several intergovernmental advisory groups, and it participates routinely in various federal and state development and environmental permitting processes affecting North Slope lands and waters.

Borough government has enabled North Slope leaders to both influence and participate in federal
and state decision-making as never before in the region’s experience. In this sense, the North Slope Borough is clearly serving as an effective means of enhancing regional self-determination, and it is progressively becoming integrated into an evolving federal-state-local intergovernmental system for the region.

**Regional Institutional Development**

Preoccupied with their external relations, borough leaders have sought to establish the borough’s presence and win acceptance of its rights and authority. The borough has also sought to ensure an expanding stream of revenues to support its growing expenditure programs and to meet village expectations for the delivery of promised material benefits. In the process, the North Slope Borough has become a highly centralized institution that depends on outside expertise to help guide it through a very insecure period of development.

North Slope oil and gas development has stimulated the formation and growth of a regional government that has used oil property tax revenues to provide an unprecedented level of new jobs, facilities, and services to the Native people of the North Slope. Further, borough activities in the villages, particularly capital improvement projects, have contributed to a new and higher level of organized public involvement in village affairs. Village council governments, however, already displaced in part by village corporations, have been further eclipsed by these developments. Villagers now look to borough leaders in Barrow to deliver jobs, services, and facilities and to exercise the local government powers transferred to the borough by the village councils.

Local government authority has largely been consolidated at the regional level, and it is exercised by the borough’s top executive officials and their advisors. The institutionally and personally strong borough executive, centered in the mayor’s office, is relatively autonomous and can chart the borough’s course unencumbered by significant internal institutional or political checks. Outside of Barrow, villagers are minimally represented in the borough structure. Villagers “participate” in borough affairs primarily as employees (in capital improvement projects) and consumers of borough goods. Borough officials are not responsible to oil company taxpayers as elected officials are to a voting constituency. Oil companies on the North Slope are outside institutional adversaries, not borough citizens. Within the borough structure, the assembly has yielded to the executive on all major matters, foregoing the usual legislative checks on executive power.

The Arctic Slope Regional Corporation is potentially the major regional institutional check on borough government, but it has not yet acted consistently or aggressively in this role. There is instead a pattern of non-interference, mutual accommodation, and even of cooperation between the two organizations, notwithstanding personal conflicts and other surface tensions between some of their officials. It is likely, however, that their institutional differences will grow, particularly as borough taxation increasingly impinges on corporation activities. There are already signs of corporation resistance to borough tax policies affecting the oil exploration programs in which the corporation is engaged both as a land owner and a business contractor.

For the present, it is primarily external rather than internal political and institutional forces that limit and check borough executive leaders. These are oil companies filing suits in the courts, state and federal laws reserving tax and regulatory powers over North Slope lands and resources, and federal and state agencies interpreting and administering these laws.

**State Interest**

On the North Slope, the drive toward self-determination has been based on the consolidation of new power and authority at the regional level through the development of a strongly executive-centered borough government. The borough has primarily served as an instrument for extracting and spending tax revenues derived from petroleum development at Prudhoe Bay and for claiming greater shares of local control over the terms and conditions of development on which the borough depends. But self-determination and dependence are not mutually exclusive conditions, as borough leaders undoubtedly know. The more they press and expand their claims on North Slope resources, the greater becomes their relative vulnerability to federal, state, and oil company decisions. The borough’s dependence on oil property tax revenues is the outstanding case, where borough access to its major source of funds is directly subject to state tax laws and regulations, oil company legal action, and federal and state leasing, exploration, and development policies.

The most important limit on borough taxation of oil properties is not oil company opposition but state government laws and regulations. The state government’s interest in assuring some measure of
statewide tax and revenue equity transcends the North Slope Borough’s interest in gaining unrestricted authority to tax the greatest concentration of oil company properties in Alaska. State policies directed toward achieving greater degrees of tax and service equity statewide are potentially the most important factors affecting local government institutional change in Alaska’s rural regions. Even in the North Slope case, where intraregional Native responses are so prominent, the state’s interest was and remains a dominant factor affecting the North Slope Borough’s terms of access to the Prudhoe Bay tax base. It is within this broader context of state tax and service equity considerations that resource development policies will affect future local government institutional responses and change in Alaska.

BOOK REVIEWS


There are two basic reasons why this book may be of interest to Alaskans. It discusses in sophisticated detail the why and wherefore of the remarkable Japanese energy and achievement motivation, so intuitively obvious to those Alaskans who must deal directly or even indirectly with this dynamic and economically important neighbor of ours. In addition, it may offer insights into at least one of the reasons why our own Alaskan Native population has experienced such difficulties in the face of culture change and “modernization.”

Among the crucial elements DeVos finds in the Japanese makeup is the tendency for parents to make use of the child’s dependency needs, and by gratifying them, to elicit a deep sense in the child of a need to “achieve” in order to repay this care. The child is thus deeply imbued with the belief that his achievements benefit both himself and his family, and hence they enhance the individual and allow him to extend the family’s honor into the future.

The kind of child rearing that instills a sense of responsibility and produces such competence, while demanding to the child, also tends to foster a tolerance for personal gratification and even hedonism, but only in the context of “earned rewards.”

This aspect of child rearing, the instilling of responsibility and controlled behavior (even controlled license), is more and more strongly correlated with “modern” populations cross-culturally. It is quite possible that “modern” capacities may not be achievable without some form of child rearing which inculcates these virtues, and this dynamic seems to be missing from most Alaska Native socialization.

DeVos’ work covers economic growth, status and role, relations between the sexes, deviancy, and includes an excellent section on lower-class entrepreneurs, Japanese suicide, and also the Japanese American. It is an extraordinarily good way to understand not only the Japanese, but the relationship between their culture, personality, and achievements.


This attractively bound book, clearly an extraordinary effort, sets out in chronological order every discernible voyage of discovery or expedition from 500 A.D. to 1920 A.D. “Expedition” is used in a very broad sense to include any voyage that resulted in a publication. In addition, the book also lists significant historical events and political actions. Each event entry is referenced by at least one bibliographic entry.

One interesting portion of the book’s content is the surprisingly extensive (if clouded) record of pre-Columbian Euro-American contact. Also, a positive characteristic that makes the book a pleasure to use is the care the authors took in annotation to include pertinent and interesting detail without being cumbersome.

This book belongs in the library of any serious scholar of the Northern latitudes of North America.


The bibliography was compiled over a 25-year period ending with the death of the compiler in 1964, and was then updated by the editors to include materials through 1976. The initial compiler was a resident of Alaska for 7 years and apparently
undertook the work as an avocation, although it is not clear that he was trained as an historical scholar. The editors who updated the manuscript are both researchers trained in the use of historical materials.

Though there is no easy way to determine the number of entries, the book appears to contain over 7,500, and it cross-references other substantial bibliographies such as the Arctic Bibliography. The editors caution that the bibliography does not purport to be exhaustive, but is rather to be seen as a useful introductory tool to the literature and contains materials “not listed elsewhere.”

Since compiling exhaustive bibliographies is clearly an almost insuperable task, the editors may not be faulted on these acknowledged limitations. Too, the book provides coverage of much specific material not contained herein by referring readers to other bibliographies.

The material presented includes a wide range of sources, levels of professionalism, and areas of interest. It includes primary sources, secondary sources, compilations, anecdotes and miscellaneous.

This reviewer was unable to determine with any ease exactly what criteria the author used in selecting items. However, a bibliography of bibliographies, which it in part, is a useful item in itself. And to add to such a work specific materials not usually found in similar bibliographies is clearly an economic and prudent way of fashioning a tool such as this work appears to be.

However, if the work was designed to be a major referral source to other bibliographies, it clearly makes some surprising omissions, (this may, however, reflect the time period covered). On the other hand, the compilers are to be congratulated on having found some very obscure and difficult sources.

While the work is a useful adjunct to historical, scholarly, and other less systematic research, its true potential is reached when it is used in conjunction with other resources.

For scholars, who will of course be familiar with the Scott Polar Collection, the materials of the Centre d'Etudes Artiques Archives, the Helm's bibliography, the Hippler-Wood bibliographies, the Peabody Museum Catalog, and others, the omissions will not be crucial. For the non-scholar or nonspecialist who is not likely to refer to standard works, especially those not listed, of whose existence he may not be aware, the work could lead to spurious assumptions about completeness which could be misleading, just because the bibliography is so vast.

This was clearly a labor of love to rescue a work otherwise condemned to disinterested abandonment. In general it is a successful attempt.

—Arthur E. Hippler

★★★★
Yukon-Porcupine Regional Planning Study

A joint effort by the University's Agricultural Experiment Station and the Institute of Social and Economic Research has resulted in an in-depth report on the social and physical characteristics of the Yukon-Porcupine region, as well as a projected range of possible future development.

The joint study, financed by the U.S. Forest Service, was designed to provide planning information for the proposed Porcupine National Forest, a 5.5-million-acre forest along the Porcupine River that was proposed in the Alaska Conservation Act of 1975.

The 300-page report, entitled Yukon-Porcupine Regional Planning Study, contains a wealth of information for those with an interest in the region. Written in three parts, it contains an overview of social and economic conditions, an inventory of natural resources, and a range of possible development alternatives.

Part I examines the rapidly changing social and economic conditions occurring in the region. It discusses the various components that form the lifestyle of the region's residents and tells how these components would be changed by new developments that affect the region and its inhabitants. Part II reviews the latest information about the natural resources in the region and discusses the economic and environmental constraints that would be associated with their development. Part III presents four possible ways that the region could develop, ranging from very limited development to very heavy development.

The report is the product of several authors. These include William Alves and Jack Kruse of the Institute of Social and Economic Research and Anthony F. Gasbarro, Susan K. Todd, Carol E. Lewis, Wayne C. Thomas, and Frank J. Wooding of the Agricultural Experiment Station. Copies of the report are available from the Librarian, Institute of Social and Economic Research, eighth floor Gruening Building, University of Alaska, Fairbanks. Telephone 479-7434.
RECENT INSTITUTE PUBLICATIONS

The Institute of Social and Economic Research was established in 1961 for the purpose of conducting interdisciplinary research in the social sciences and related fields. The institute is part of the University of Alaska and has branches in Anchorage, Fairbanks, and Juneau. In addition to the Alaska Review of Social and Economic Conditions, the institute published ISER Reports, Occasional Papers, Research Notes, and other special publications. Recent institute publications include:

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- Fairbanks Community Survey, Jack Kruse

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