



# REVIEW OF BUSINESS AND ECONOMIC CONDITIONS

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## ALASKA'S ECONOMY IN THE 1960'S

It is traditional at the close of a decade that there is an outpouring of review and commentary covering the events of the past ten years, accompanied by speculation on the course of future developments. The exercise is interesting and worthwhile as a taking of stock and a re-examination of goals, but it has the arbitrariness of the bookkeeper's fiscal year. It is only by chance that a particular decade embraces something unique or marks a true watershed in history. The tradition alone might justify departing from the regular format of the annual review of the Alaska economy for this particular issue. However, in Alaska's case, the decade of the 60's includes major periods of basic change, the most spectacular of which occurred in 1969.

Only ten years earlier, in January 1959, Alaska's first State Legislature convened and took its first steps as a newly created "sovereign state" of the Union. The political context of the economy was basically changed, as were the values and goals it was to serve. Alaska during the 1940's and 1950's had emerged from the former colonial-resource economy based on outside exploitation of the salmon, gold, and fur resources. The transition began with the frantic defense build-up of World War II in the early 1940's. Fiscal year 1947-48 launched a further boom as the outmoded World War II defense establishment was replaced by one based on the new technology of long-range bombers and electronic warning systems. A third boom began in 1959-60 with the introduction of missile technology and improved distant early warning systems. Thus, although the value of Alaska's fisheries, oil and gas, minerals, and forest products

industries steadily increased, the *major* "industry" of the state was based on the activities of the Department of Defense and, to a lesser extent, other federal government agencies, rather than on any internal natural resources.

As a result of the 1968 discovery of oil in commercial quantities on Alaska's North Slope, the state was presented the opportunity to enter the "big-time" of international resource development. The magnitude of this was demonstrated when, in September of 1969, representatives of the domestic and international petroleum industry made bonus payments of \$900 million on leases of state land on the North Slope, the richest lease sale thus far in the history of the United States. As further evidence of the prospects—and challenges—facing the state, route survey and design work commenced on the formidable task of constructing an 800-mile, 48-inch, pipeline from the Arctic Ocean to the Gulf of Alaska, and the Northwest Passage was explored by the giant ice-breaking tanker, *Manhattan*, the first commercial vessel ever to make that passage. The shape of the next ten years will be determined by how these events progress and by the responses of Alaskans to them.<sup>1</sup>

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<sup>1</sup>Humble Oil and Refining Co. has suspended research on Northwest Passage transportation of oil by ice-breaking tankers announcing that "ice-breaking tankers are economically feasible but pipeline transportation appears to have an economic edge at present." *Fairbanks Daily News-Miner*, Oct. 21, 1970.



specialized and spasmodic (i.e., the Gold Rush at the turn of the century and the brief revival of gold production on the eve of World War II, a couple of decades of major copper production, and others). On the other hand, Alaska has remained in the forefront of United States' fisheries production, despite initial and continuing mismanagement. Still, on balance, a look at Alaska's resource and development potentials and needs as late as 1937 was justifiably negative. One contributing agency then characterized our northern territory simply as a difficult-to-defend outpost of possible value in time of war and a high cost source of a few strategically important raw materials. (This was the agency that court-martialed General Billy Mitchell for expressing a contrary view.) In spite of this, the events of the last three decades were to demonstrate Alaska's importance in the terms that prompted "Seward's folly."

Alaska's first and continuing major significance to the nation is its strategic northern location. Situated on the marine transport Great Northern Circle Route between the continental land masses of the East and West, and at the crossroads of the North Polar air routes between Europe and the Far East, Alaska has become the United States' northern territorial foothold—a Stefansson's "Mediterranean" of the twentieth century.

The 1942 invasion of the Aleutian Islands by the Japanese indicated the importance of Alaska to national defense. The federal government subsequently developed the defense potential, so that by the 50's and 60's Alaska had become primarily an "exporter" of military defense, from the national point of view. Between 1951 and 1954 (construction of the DEW Line), spending by the Department of Defense in Alaska averaged \$412.9 million annually. This declined from a peak of \$512.9 million in 1953 to annual amounts fluctuating between \$264.6 million and \$352.0 million (reflecting the intermittent funding of radar installations in the Interior) during the decade of the 1960's (Table 1). If these expenditures could be adjusted to eliminate monetary inflation, the drop would be even more dramatic. The number of military personnel stationed in Alaska stabilized at about 33,000 persons and civilian employees of the department between 6,800 and 6,500 for the decade.

The late 50's had witnessed the end of developmental build-up of the defense establishment, followed by a plateau of maintenance and periodic

renewal. Although Alaska's strategic location is of continued importance to hemisphere defense, national attention during the decade of the 60's has steadily shifted to its natural resources (Table 2). Gold and furs are no longer significant, but fish continue to give Alaska top ranking among the nation's fisheries, and there has been rapid growth in outputs of forestry products and petroleum. Total natural resource production rose from a value of \$130.6 million in 1950 to about \$500 million by the end of the 60's. These values are projected to exceed two billion dollars by the last half of the 70's.

This trend started with forest products, the annual cut rising from 72.4 million board feet (MBF) in 1950 to 581.1 MBF in 1969. The maximum sustainable yield of the resource will probably level off at about 800 MBF by the end of the decade (Table 3). The development of the Cook Inlet-Kenai petroleum and natural gas fields reached its peak, or soon will, with production rising from about half a million barrels in 1960 to 74.7 million in 1969 (Table 4). These fields will continue as major producers throughout the decade and beyond, but the annual outputs soon will begin a downward trend.

The 1968 discoveries at Prudhoe Bay added an estimated five to ten billion barrels of crude oil to the nation's reserves, and it is anticipated that the total North Slope province will contain at least two more major fields and possibly add as much as fifty billion barrels of oil and three hundred trillion cubic feet of natural gas to national reserves. Exploration and development work will continue into the opening years of the decade, with production commencing near the mid-1970's. There will be other major discoveries elsewhere in Alaska, Bristol Bay being a likely candidate for the next development installment, probably after 1980. The actual scheduling will depend heavily on the outcome of the present massive programs for moving the North Slope production to market. Other minerals will be developed, both as a result of the external economies related to petroleum and forest products and in response to national and international demands.

Prior to World War II, Alaska's foreign trade was almost negligible, consisting of goods moving through Alaska to and from Canada's northern territories. It remained insignificant until the 1960's, when exports directly to foreign countries tripled in value from about \$20 million to \$60 million, most of this in shipments of forest products to Japan. Imports of pipe and industrial supplies and equipment from

TABLE 2.  
Value<sup>1</sup> of Major Alaska Natural Resources Production

Calendar Year	Crude Petroleum & Natural Gas	Fisheries Products	Other Minerals	Forest Products	Furs	Commercial Agri. Products	Total Natural Resource Production
Dollar Value <sup>2</sup> (Millions)							
1950	—	100.2	17.7	6.1	4.4	2.2	130.6
1955	—	69.7	23.6	29.5	4.6	3.4	130.8
1960	1.5	96.7	20.4	47.3	4.8	5.4	176.1
1961	17.8	128.7	16.9	48.0	4.2	5.5	221.1
1962	31.7	131.9	22.5	52.3	4.3	5.8	248.5
1963	33.8	109.0	34.0	54.1	4.4	5.5	240.8
1964	35.5	140.9	30.6	61.0	4.4	5.5	278.0
1965	35.6	166.6	47.6	57.5	5.8	5.2	318.3
1966	50.4	197.3	35.9	73.7	7.0	5.5	369.8
1967	95.5	126.7	39.2	81.5	5.5	5.5	353.9
1968	191.1	191.7	30.6	94.8	6.0	5.3	519.5
1969	218.7	137.7	25.9	106.0	6.0	4.5	498.8
1970	250.0	150.0	30.0	108.0	6.0	5.0	549.0
1975	900.0	200.0	50.0	150.0	6.0	7.0	1,313.0
1980	2,200.0	200.0	80.0	160.0	6.0	8.0	2,654.0

<sup>1</sup>*Fisheries products:* Wholesale market value, final stage of processing within Alaska.

*Petroleum and natural gas:* Crude oil and natural gas at well-heads price. Does not include estimate of value by manufacturing.

*Other minerals:* Average selling price of refined metals as computed by U.S. Bureau of Mines; land, gravel, stone at estimated value to construction industry.

*Forest products:* Value of pulp and lumber f.o.b. mill.

*Furs:* Raw fur value, includes U.S. share of sales of Pribilof furs at auction.

*Commercial agricultural products:* Wholesale market values.

<sup>2</sup>*All dollar values:* In unadjusted current dollars. 1970-80 estimates computed at 1968 unit values.

SOURCES: U.S. Department of the Interior agencies, Alaska Department of Natural Resources, Alaska Department of Fish and Game estimates by G. W. Rogers.

Japan also rose as resource development expanded (Table 5). Projections for total foreign trade in the future are based on amounts identified in existing or planned contracts for continuing major deliveries of wood products and petrochemicals to Japan. Interest is being shown in the entire range of Alaska's natural resources, including the purchase of fish and fish products from Alaska fishermen and shore plants.

There is now significant international investment in most phases of Alaska's recent developments in oil, forest products, minerals, and fisheries. The subsequent growth of Alaska's foreign trade that has accompanied this shift in investment points toward a growing international orientation.

TABLE 3.

Volume of Timber Cut from Government Managed Lands,<sup>1</sup>  
and Estimated Value of Wood Products, Alaska, 1950-1980

Calendar Year	U.S. Forest Service	U.S. Bureau of Land Management	Alaska Division of Lands	Bureau of Indian Affairs	Total	(Millions \$) Estimated Value of Wood Products <sup>2</sup>
(Thousands of board feet)						
1950	59,961	12,396	—	—	72,357	36.1
1955	218,766	12,348	—	—	231,114	29.5
1960	351,109	14,913	210	—	366,232	47.3
1965	404,444	3,263	24,161	—	431,868	57.5
1966	476,000	848	31,220	7,132	515,200	73.7
1967	476,816	100 <sup>3</sup>	45,816 <sup>3</sup>	9,067	531,799	81.5
1968	533,303	100 <sup>3</sup>	47,974 <sup>3</sup>	8,192	589,569	94.8
1969	523,341	50 <sup>3</sup>	49,018 <sup>3</sup>	8,684	581,093	106.0
1970	550,000	100	50,000	9,000	609,100	108.0
1975	745,000	10,000	55,000	10,000	820,000	150.0
1980	805,000	15,000	60,000	10,000	890,000	160.0

<sup>1</sup>Timber volumes cut from private lands in Alaska are negligible except in 1969 when an estimated 15.3 million board feet of logs were cut and exported as round logs to Japan at a declared value of \$1,800,000.

<sup>2</sup>Value of products f.o.b. mills.

<sup>3</sup>Estimated figure based on timber sales.

SOURCES: U.S. Forest Service, Regional Office, Juneau, Alaska; State Division of Lands, Annual Report; U.S. Bureau of Indian Affairs.

**ALASKA'S RESIDENT ECONOMY**

Statistics on federal spending in Alaska and total wholesale value of resource production do not give a true picture of the Alaska economy. Much of the construction and procurement expenditures never enter the resident economy because the equipment and supplies must be imported. Some local resources may be converted into construction materials and local resale activities may be generated, but only a fraction of the money actually enters the state and the multiplier effect in the Alaska economy is low.

The construction work force has a strong nonresident bias, and a great deal of the total value of natural resources likewise escapes the resident economy in the form of profits, interest, equipment and supplies purchases, transport, and seasonal wages paid to nonresidents.

The Alaska economy can be better represented and analyzed in terms of standard statistical series on population, employed work force, and personal income received by resident Alaskans. The total figures for each series give a composite impression of

TABLE 4.

Crude Oil Production, By Regions  
1960 - 1985

Calendar Year	Cook Inlet-Kenai Fields	North Slope Fields	
		Moderate Development	Rapid Development
(Thousands of bbls. annually)			
1960	559	—	—
1961	6,327	—	—
1962	10,259	—	—
1963	10,740	—	—
1964	11,059	—	—
1965	11,128	—	—
1966	14,358	—	—
1967	28,917	—	—
1968	66,145	—	—
1969	74,698	—	—
1970	70,000	—	—
1972	66,000	—	180,000
1975	60,000	219,000	292,000
1980	36,000	365,000	730,000
1985	20,000	730,000	1,460,000

SOURCE: 1960-69: Alaska Department of Natural Resources, 1970-85: Stanford Research Institute, *Planning Guidelines for the State of Alaska*, (Menlo Park: 1969), p. 5.

TABLE 5.  
Alaska's Foreign Trade<sup>1</sup>

Annual Average for Periods:	Exports		Imports	
	Total	Japan	Total	Japan
	(millions of dollars <sup>2</sup> )			
1931 - 1940	0.4	—	0.3	—
1948 - 1953	2.8	—	1.4	—
1954 - 1959	7.3	—	2.9	—
Calendar Year				
1960	19.5	—	5.7	—
1961	25.2	—	6.5	—
1962	24.4	18.6	8.1	—
1963	32.1	26.3	8.1	0.8
1964	36.0	30.4	6.9	0.9
1965	36.7	29.1	7.9	2.2
1966	43.3	38.9	10.1	2.2
1967	47.4	41.5	11.7	5.2
1968	55.3	47.3	23.7	5.5
1969 (est.)	60.0	50.0	70.0	50.0 <sup>3</sup>
1970	70.0	60.0	300.0	260.0 <sup>3</sup>
1975	120.0	100.0	80.0	50.0
1980	350.0	200.0	100.0	50.0

<sup>1</sup>Direct shipments to and from Alaska. Does not show foreign products shipped via the continental U.S. or Alaska products shipped to the continental U.S. destined for foreign markets.

<sup>2</sup>Current unadjusted dollars.

<sup>3</sup>Includes TAPS pipe from Japan.

SOURCE: U.S. Department of Commerce, Bureau of the Census. Estimates by G. W. Rogers.

the relative size of the total economy and its trends (Table 6). Although growth has been continuous, rates of increase were highest during the 1950's. Work force declined as a percentage of total population during that decade, reflecting an increase in the number of families (dependent-worker ratios). Increases in income have done better than just keep up with inflation during the 60's.

Table 7 summarizes the annual estimates by the U.S. Bureau of the Census (1950-70)<sup>2</sup> for military personnel and resident civilians and presents the major components of change. This series indicates that the spectacular upsurge in population between the 1940 and 1950 census enumerations continued into the early 50's, after which the rate of increase began to decline (in two years there was an absolute decline). Military movements played the dominant role in generating marked immigrations between 1950 and 1953 and out-migrations between 1956 and 1960. The Alaska earthquake of 1964 and its reconstruction aftermath account for much of the fluctuation in migration between 1964 and 1967, and the North Slope oil boom and related activities account for the final upsurge of in-migration in 1969. Natural net increase rose sharply during the first half of the 1950's, in part because of the growing population base, but primarily as a reflection of the increasing effectiveness of public health programs in reducing the tragically high Native death rates. Subsequent declines reflect a leveling off of reduced death rates and a decline in birth rates.

The total impact of the Department of Defense on the economy requires special accounting and analysis, but the impact on the resident population is obvious and directly recorded in the summing up of military personnel, civilian employees, and their dependents (Table 8). Even these partial data (workers and dependents of private contractors with the department are not included) indicate that military-associated population accounted for 32 per cent of total resident population in 1964 and 25 per cent in 1969.

Annual data on employed work force by industrial classification give a good representation of the structure of the Alaska economy and its shifts over time (Table 9). Trends in both the defense and

commodity producing components of the economy were discussed in the previous section. By translating these components from dollar expenditures and product values into employment, we have illustrated the degree to which they are shared between the Alaska and Outside economies. The rise in employment in commodity producing industries between 1950 and 1969 has been modest for two decades of development. The 1950 level of 13,900 was not exceeded until 1967. Contributions to the significant rises since and those projected to 1980 come from the oil and gas and the construction industries, but the employment growth rates fall far below those for the corresponding value data because much of the petroleum industry is capital-intensive. Distributive industries and nondefense government employment grew most dynamically and caused continual change in the structure of the total economy from 1959 to 1969. These components require further analysis and comment.

Distributive industries (transportation, communication, public utilities, wholesale and retail trade, finance, insurance, real estate and services) are generally considered support activities for commodity producing industries and serve the total population. In a developed and stable economy it can be assumed that the relative position of these industries in the total employment pattern is fairly constant. During past periods of slow growth or stagnation, this was also true of Alaska's employment patterns (see data for 1950 and 1955, Table 9, for example). Since 1958, however, the Alaska economy has been in a period of growth and change in industrial composition, with distributive industries' employment increasing both absolutely and relative to population and total employment (Table 10). During this period, the establishment of the Department of Defense early warning and communications systems were completed and substantial staffing was assumed by private contractors. Since the mid-1950's, the urbanization of Alaska's population has continued at accelerating rates, accompanied by declines in rural population. Urban populations are more heavily dependent on distributive industries than are rural populations. Growth in tourism is evidenced by continuous and significant increase in travel to and from Alaska and the high demand for space on cruise ships, the Alaska ferry system, and airlines during the summer. This impact was also registered in distributive industries. Finally, since the early 1950's there has been a continuous shifting of headquarters functions in

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<sup>2</sup>Final 1970 Census figures released in November 1970 indicated the state's population at 302,173.

TABLE 6.

Estimated Total Population, Employed Workforce,  
Participation Rates, and Personal Income Received  
By Residents, 1950-1980

Calendar Year	Total Population <sup>1</sup>	Total Employed Workforce <sup>2</sup>	Participation Rate <sup>3</sup>	Total Personal Income
	(12 month average, thou. persons)		(%)	(Millions \$) <sup>4</sup>
1950	138.0	78.5	56.9	322
1955	221.0	108.8	49.2	505
1960	228.0	100.1	43.9	649
1961	235.0	106.8	45.4	635
1962	243.0	108.7	44.7	666
1963	251.0	113.1	45.1	704
1964	256.0	117.5	45.9	791
1965	267.0	114.0	42.7	858
1966	272.0	116.5	42.8	915
1967	278.0	121.7	43.8	1,017
1968	285.0	123.6	43.4	1,136
1969	295.0	131.0	44.4	1,272
1970	305.0	137.0	44.9	1,350
1975	365.0	160.0	43.9	1,600
1980	407.0	178.0	43.7	1,800

<sup>1</sup>Population: 12 month moving average. Centered on July.

<sup>2</sup>Includes members of the armed forces and other Department of Defense employees.

<sup>3</sup>Employed workforce a percentage of total population.

<sup>4</sup>Personal income in current dollars. Projections for 1969-1980 in 1968 dollars.

SOURCES: Population from U.S. Bureau of the Census, *Current Population Reports*. Series P-25 and Alaska Department of Labor.

Workforce from Alaska Department of Labor, *Workforce Estimates, Alaska By Industry* (annual summary), plus estimates military personnel from population estimates.

Personal income estimates by Office of Business and Economics, U.S. Department of Commerce.

1970 and 1980 estimates: G.W. Rogers worksheets for Alaska Department of Labor, *Alaska's Manpower Outlook—1970's*.

TABLE 7.

Estimates of Total Alaska Resident Population and  
Components of Change, 1950-1969

July 1	Population Composition <sup>1</sup>			Components of Change <sup>2</sup>			
	Total Population	Military	Civilian	Total	Natural Increase	Net Migration Military	Civilian
	(thousands of persons)						
1950	138.0	26.0	112.0	8.0	2.5	(4.0)	9.5
1951	164.0	38.0	126.0	26.0	2.8	12.0	11.2
1952	196.0	50.0	146.0	32.0	3.8	12.0	16.2
1953	212.0	50.0	162.0	16.0	5.0	—	11.0
1954	218.0	49.0	169.0	6.0	6.1	(1.0)	0.9
1955	221.0	50.0	171.0	3.0	6.4	1.0	(4.4)
1956	220.0	45.0	175.0	(1.0)	6.5	(5.0)	(2.5)
1957	228.0	48.0	180.0	8.0	6.7	3.0	(1.7)
1958	213.0	35.0	178.0	(15.0)	6.5	(13.0)	(8.5)
1959	220.0	34.0	186.0	7.0	6.5	(1.0)	1.5
1960	228.0	33.0	195.0	8.0	6.3	(1.0)	2.7
1961	235.0	33.0	202.0	7.0	6.3	—	0.7
1962	243.0	33.0	210.0	8.0	6.4	—	1.6
1963	251.0	34.0	217.0	8.0	6.5	1.0	0.5
1964	256.0	35.0	221.0	5.0	6.5	1.0	(2.5) <sup>3</sup>
1965	267.0	33.0	234.0	11.0	6.3	(2.0)	6.7 <sup>3</sup>
1966	272.0	32.0	241.0	5.0	5.8	(1.0)	0.2
1967	278.0	33.0	245.0	6.0	5.5	2.0	(1.5)
1968	285.0	33.0	252.0	7.0	5.4	—	1.6
1969	295.0	32.0	263.0	10.0	5.3	(1.0)	5.7

<sup>1</sup>Estimates are 12 month moving averages centered on July 1.

<sup>2</sup>Decreases are net out-migrations shown in parentheses.

<sup>3</sup>Reflects effects of 1964 earthquake and 1965 reconstruction.

SOURCES: 1950-1966: U.S. Bureau of the Census, *Current Population Reports*, Series P-25; 1967-1969: Alaska Department of Labor *Current Population Estimates, Alaska*.

Alaska's private industry from Seattle and other outside places to Anchorage and other urban centers in Alaska. This was first noticed immediately after World War II in the increase in wholesale trade employment relative to retail trade employment. It is now most evident in the evolution of the Alaska petroleum industry, which has a larger administrative and support service work force based in the state than have any of Alaska's past major industries. For the future, it is assumed that these trends will continue, but at a declining rate, and will level off by the end of the decade.

Federal government employment in Alaska has always been abnormally high relative to population and total employment. In part, this is because of a

number of special programs associated with managing the huge acreage of public domain lands in Alaska (approximately half of all lands owned by the federal government are located in Alaska), the relatively large number of indigenous peoples who are nominally wards of the federal government (approximately one-fifth of Alaska's total population), and the basic transportation and communications functions performed by federal agencies that are private responsibilities elsewhere (Alaska Communications System, Alaska Railroad, etc.). The largest single factor contributing to the high level of federal employment, however, is Alaska's importance to national defense. Besides its obvious direct effect on employment, the defense establishment also increases federal involvement in transportation, communications, and public works.

TABLE 8.

Department of Defense Military, Civilian Employees, and Dependents in the State of Alaska, 1964-1969

YEAR	MILITARY	CIVILIAN EMPLOYEES <sup>1</sup>	MILITARY DEPENDENTS	CIVILIAN DEPENDENTS	TOTAL MILITARY ASSOCIATED POPULATION
1964	35,000	5,700	37,100	3,500	81,300
1965	33,000	6,200	34,700	7,700	81,600
1966	32,000	6,200	32,900	7,600	78,700
1967	33,000	6,200	32,400	7,700	79,300
1968	33,000	6,300	31,800	8,000	79,100
1969	32,000	5,860	30,360	4,990	73,210

<sup>1</sup>These data do not check exactly with Alaska Department of Labor data because of different reporting bases.

SOURCE: Alaskan Command records.

TABLE 9.  
TOTAL EMPLOYED WORKFORCE—STATE OF ALASKA, 1950-1980

	1950	1955	1960	1965	1966	1967	1968	1969	1975	1980
	(12 month average—thousands of persons)									
TOTAL EMPLOYED WORKFORCE	78.5	108.8	100.1	114.0	116.5	121.7	123.6	130.9	160.0	178.0
DEPARTMENT OF DEFENSE	31.0	59.0	41.5	39.5	39.7	40.4	39.4	39.0	38.5	38.5
Military Personnel	26.0	50.0	33.0	33.0	33.2	33.7	32.6	32.4	31.7	31.7
Civilian Employees	5.0	9.0	8.5	6.5	6.5	6.7	6.8	6.6	6.8	6.8
COMMODITY PRODUCING INDUSTRIES	13.9	12.7	12.8	13.8	13.9	14.6	15.4	17.2	25.8	27.6
Oil and Natural Gas	0.5	0.1	0.4	0.7	1.0	1.6	2.2	3.2	4.5	4.3
Other Mining	1.4	1.2	0.7	0.4	0.4	0.4	0.3	0.3	1.7	2.4
Construction	6.3	6.4	5.9	6.4	5.9	6.0	6.0	6.7	9.3	8.9
Manufacturing										
Food Processing	4.7	2.9	2.8	3.0	3.4	3.1	3.3	2.7	2.7	2.8
Wood Products <sup>1</sup>	0.6	1.5	2.2	2.3	2.3	2.6	2.5	2.5	4.1	4.8
Other	0.4	0.6	0.8	1.0	0.9	0.9	1.1	1.8	3.5	4.4
DISTRIBUTIVE INDUSTRIES	12.2	16.8	21.4	27.0	28.4	30.5	32.2	36.0	46.5	54.7
Transportation, Communications, and Public Utilities	3.7	5.0	6.8	7.2	7.3	7.5	7.8	8.8	10.9	13.0
Trade,										
Wholesale	0.4	0.9	1.4	1.9	2.1	2.4	2.5	2.8	4.5	5.3
Retail	4.5	5.5	6.3	8.1	8.7	9.4	10.0	11.2	13.5	15.7
Finance, Insurance, etc.	0.4	0.9	1.4	2.2	2.3	2.3	2.5	2.6	4.2	5.4
Services and Miscellaneous	3.2	4.5	5.5	7.6	8.0	8.9	9.4	10.6	13.4	15.3
GOVERNMENT (NONDEFENSE)	10.7	10.4	14.2	23.2	24.3	25.1	25.4	26.8	34.7	40.7
Federal (other than Defense)	8.6	8.7	7.1	10.9	11.0	10.7	10.1	9.9	10.1	11.2
State (Territory)	0.9	1.8	3.9	7.0	7.6	8.1	8.7	9.3	14.0	17.0
Local	1.2	1.9	3.2	5.3	5.7	6.3	6.6	7.6	10.6	12.5
NONWAGE & NONSALARY EMPLOYMENT	10.7	9.9	10.2	10.5	10.2	12.0	11.2	11.9	14.5	16.5

<sup>1</sup>Logging, lumber, pulp.

SOURCE: Alaska Department of Labor, *Workforce Estimates*. Military from 1950 and 1960 Census and 1960-1969 annual *Current Population Estimates*. 1975 and 1980 projection from Alaska Department of Labor, *Alaska's Manpower Outlook—1970's*, worksheets.

Since the mid-1960's, a modest but continuing decline in federal nondefense employment (from 10,900 in 1965 to 9,900 in 1969) has accompanied the final phases of transfer of certain functions to the new state government (Table 11). For the future, it is assumed that federal programs in Alaska will share the same expansionist forces operating elsewhere in

the nation, but there will be deflating forces in the form of continuing transfer of land management functions to the State of Alaska and the implications of provisions included in pending Native lands legislation, which would make the future of Native education, health, and social services a state responsibility.

TABLE 10

Shifts in Distributive Industries Employment  
Relative to Total Population and Total Employment,  
State of Alaska

Calendar Year	Total Population	Total Employment <sup>1</sup>	Distributive Industries
1950			
Thousand persons <sup>2</sup>	138.0	78.5	12.2
% of total population	100.0	56.9	8.9
% of total employment	—	100.0	15.5
1955			
Thousand persons	221.0	108.8	16.8
% of total population	100.0	49.2	7.6
% of total employment	—	100.0	15.4
1960			
Thousand persons	228.0	101.1	21.4
% of total population	100.0	43.9	9.4
% of total employment	—	100.0	21.2
1965			
Thousand persons	267.0	114.0	27.0
% of total population	100.0	42.7	10.1
% of total employment	—	100.0	23.7
1969			
Thousand persons	291.0	130.5	35.9
% of total population	100.0	35.6	12.3
% of total employment	—	100.0	27.5

<sup>1</sup>Includes military personnel

<sup>2</sup>Population: 12 month moving average centered on July 1.

Employment: 12 month average for calendar year

SOURCE: Table 9.

TABLE 11.

Shifts in Nondefense Government Employment  
Relative to Total Population  
and Total Employment

Calendar Year	Total Population	Total Employment <sup>1</sup>	Nondefense Federal Government <sup>2</sup>	State (Territory)- Local Government
<b>1950</b>				
Thousand persons	138.0	78.5	8.6	2.1
% of total population	100.0	56.9	6.2	1.5
% of total employment	—	100.0	10.9	2.7
<b>1955</b>				
Thousand persons	221.0	108.8	6.7	3.7
% of total population	100.0	49.2	3.0	1.7
% of total employment	—	100.0	6.3	3.4
<b>1960</b>				
Thousand persons	228.0	101.1	7.1	7.1
% of total population	100.0	43.9	3.1	3.1
% of total employment	—	100.0	7.0	7.0
<b>1965</b>				
Thousand persons	267.0	114.0	10.9 <sup>3</sup>	12.3
% of total population	100.0	42.7	4.1	4.6
% of total employment	—	100.0	9.5	10.8
<b>1969</b>				
Thousand persons	291.0	130.5	9.9	16.9
% of total population	100.0	35.6	3.4	5.8
total employment	—	100.0	7.6	13.0

<sup>1</sup>Includes military personnel.

<sup>2</sup>Excludes all military personnel and civilian employees of the Department of Defense.

<sup>3</sup>Includes some temporary expansion associated with Alaska's 1964 earthquake recovery and new poverty and development programs.

SOURCE: Table 9.

Changes in the levels of employment in state and local government should reflect population change and development requirements. Alaska's experience has clearly demonstrated, however, that the most dynamic influence has been changes in revenue availability. Shortly after statehood, for example, the formula for calculating federal funds for highway construction in Alaska was changed to acquire generous federal funding for a token state participation (approximately five cents state money for every dollar of highway construction funds). This resulted in a dramatic increase in state government employment caused by the expansion of the Department of Highways. Since the growth of the petroleum industry has provided an expanding source of state revenues, which has more than kept pace with the rate of state government expenditures and employment growth, the growth of state and local government employment has been at a greater rate than that of population or total employment (Table 11).

By the mid-1960's, the State of Alaska had substantially accomplished the transfer of functions performed by the federal government during the territorial period. The establishment of an adequate local government system, however, is still in process. On the state level, it is assumed that the expenditure and/or investment of the September 1969 oil lease sales bonuses and anticipated production revenues will exert an upward influence beyond that required to meet the bare necessities of population growth and development requirements. In the rural north and west there will be further growth factors created by shifting Native health and education programs from the federal to the state and local levels in the aftermath of a Native lands settlement, and by establishing local government units in the present "unorganized borough" areas through legislation and funding.

Coming to Alaska to make a quick fortune appears to be an enduring American myth. Much of this has its basis in reports of high wages made on emergency construction projects, an unusually large salmon harvest, or the gold and oil bonanzas. The rest of the facts of life are conveniently omitted: too many Alaskans in the rural villages live at or close to a bare subsistence survival level; high earnings realized in a brief summer season must be made to carry others over the lean off-season months, and the high cost of living drastically deflates the U.S. dollar in Alaska.

A truer picture of income in Alaska can be gained from published statistics on average incomes and living costs. Table 12 summarizes the U.S. Department of Commerce's annual estimates of per capita income for Alaska, the Far West, and the United States. Although generally above the national average, the trend toward increase in Alaska's per capita income has slowed in relation to both national and Far West trends. In 1957 through 1959, Alaska actually dropped below the Far West averages and has since remained near that level. From a 1950 high of 1.59 times the national per capita income, Alaska's personal income fell to about 1.21 of national averages. Because Alaska's much higher cost of living has not been considered in these comparisons (they are all expressed in current unadjusted United States dollars), the magnitude of this relative decline in per capita income is not fully revealed (Table 13).

Again, population data give additional insight into the economic and geographic dimensions of change in Alaska during the 1960's (Table 14). The 30.2 per cent increase between April 1, 1960 and July 1, 1969 was not evenly shared throughout the state. Five of the original twenty-four election districts of the state actually experienced significant loss of population (because of migration and declining birth rates) and four had net increases by 1969 of less than 10 per cent of their 1960 population. At the other end of the scale, eleven districts exceeded the state's relative growth, the highest being the Kenai-Cook Inlet district with a 122.1 per cent increase and the Barrow district with 110.3 per cent, almost all of which occurred between 1967 and 1969.



## ALASKA'S ECONOMY IN 1969

To preserve continuity with past issues of the annual review, this section will comment on statistics customarily published here that have not already been included above.

### PRIVATE AND GOVERNMENT FINANCE

Banking continued to grow in the state during the year, according to the Alaska Department of Commerce. Loans and discounts from commercial banks stood at \$85.9 million for calendar year 1959. This figure had grown to \$239.5 million by June 30, 1969. The growth in demand and time savings

TABLE 12.

Per Capita Personal Income  
Alaska, Far West, and United States  
1950-1969

Calendar Year	Alaska	Far West <sup>1</sup>	United States	Ratio: Alaska to United States
(current unadjusted dollars)				
1950	\$2,385	\$1,788	\$1,496	1.59
1951	2,835	1,975	1,653	1.72
1952	2,614	2,068	1,734	1.51
1953	2,493	2,103	1,805	1.38
1954	2,302	2,089	1,785	1.29
1955	2,275	2,210	1,876	1.21
1956	2,446	2,326	1,976	1.24
1957	2,325	2,397	2,045	1.14
1958	2,357	2,430	2,068	1.14
1959	2,509	2,572	2,161	1.16
1960	2,835	2,621	2,215	1.28
1961	2,681	2,691	2,264	1.18
1962	2,731	2,808	2,368	1.15
1963	2,785	2,906	2,455	1.13
1964	3,052	3,043	2,586	1.18
1965	3,226	3,182	2,765	1.17
1966	3,473	3,410	2,980	1.17
1967	3,798	3,602	3,162	1.20
1968	4,116	3,895	3,421	1.20
1969	4,513	4,158	3,680	1.23

<sup>1</sup>California, Washington, Oregon, Nevada.

SOURCE: Office of Business Economics, U.S. Department of Commerce. 1960-69 revised estimates; *Survey of Current Business*, April 1970.

TABLE 13.

## Indexes of Intercity Differences in the Cost of Equivalent Goods and Services

Anchorage, Fairbanks, Juneau, and Ketchikan Alaska, Compared with Seattle Washington<sup>1</sup>

Autumn 1964, 1965, 1966, 1967, and 1968 (Costs in Seattle = 100)

City and Year		All Items	Food <sup>2</sup>	Total <sup>3</sup>	Housing Rental <sup>4</sup>	Apparel and Upkeep	Other Goods and Services <sup>5</sup>	All Items Less Housing
Anchorage	1964	123	121	132	162	110	120	119
	1965	122	123	130	157	110	117	118
	1966	122	123	130	152	112	116	118
	1967	121	122	130	146	108	116	117
	1968	119	119	127	142	110	115	115
Fairbanks	1964	134	138	143	188	124	127	130
	1965	133	140	141	187	124	123	129
	1966	132	139	141	180	122	122	127
	1967	132	142	140	179	120	121	127
	1968	132	139	141	176	126	120	127
Juneau	1964	124	123	133	150	118	119	120
	1965	124	126	134	151	116	116	119
	1966	125	127	135	147	115	117	120
	1967	127	132	137	147	115	119	122
	1968	126	130	135	146	117	117	121
Ketchikan	1964	119	118	121	126	117	117	117
	1965	117	119	121	127	116	113	116
	1966	118	122	122	127	114	113	116
	1967	118	123	122	126	117	113	117
	1968	119	121	122	124	118	115	117

<sup>1</sup>Based on the average pattern of expenditures of Alaskan wage and clerical-worker families of two or more persons who were full-year residents in the state during 1959 or 1960. (Average expenditures of families living in Anchorage, Fairbanks, Juneau, or Ketchikan were combined with a system of weights based on the estimated number of consumer units in each city as derived from the 1960 Census of Population).

<sup>2</sup>Includes food at home and away from home.

<sup>3</sup>Includes rent, hotel and motel rates, homeownership costs (mortgage principal and interest payments, taxes, insurance, maintenance, and repairs), fuel and utilities, household furnishings and operation. (Intercity indexes measure differences in the costs of maintaining a home as reflected in principal payments and mortgage interest charges. These indexes cannot be used to measure changes in acquisition costs, i.e., interest rates and the prices of owned homes purchased in current markets.)

<sup>4</sup>Average contract rent for tenant-occupied, 2-, 3-, 4-, and 5-room dwellings meeting defined standards, plus cost of heating fuel, utilities, and specified equipment when the cost of these items is not included in the monthly rent.

<sup>5</sup>Includes transportation, medical care, personal care, recreation, reading and education, tobacco, beverages, and miscellaneous expenses.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE 14.

Estimates<sup>1</sup> of Total Resident Population of Alaska  
By Election District, July 1, 1969 and April 1, 1960

ELECTION DISTRICT <sup>2</sup>	July 1	April 1	NET CHANGE		Military
	1969	1960	Number	Per cent	Personnel
ALASKA	294,560	226,170	68,390	30.2	32,360
1 Ketchikan-Prince of Wales, Total	14,910	11,840	3,070	25.9	330
Ketchikan (2)	12,810	10,070	2,740	27.2	330
Prince of Wales (1)	2,100	1,770	330	18.6	—
2 Wrangell-Petersburg (3)	5,970	4,180	1,790	42.8	20
3 Sitka (4)	7,770	6,690	1,080	16.1	70
4 Juneau (5)	13,330 <sup>3</sup>	9,750	3,580	36.7	230
5 Lynn Canal-Icy Straits (6)	3,620	2,950	670	22.7	20
6 Cordova-Valdez, Total	4,540	4,600	-60	-1.3	70
Cordova-McCarthy (7)	2,240	1,760	480	27.3	70
Valdez-Chitina-Whittier (8)	2,300	2,840	-540	-19.0	—
7 Palmer-Wasilla-Talkeetna (9)	7,000	5,190	1,810	34.9	—
8 Anchorage (10)	114,150 <sup>4</sup>	82,830	31,320	37.8	14,460
9 Seward (11)	2,700	2,960	-260	-8.8	50
10 Kenai-Cook Inlet (12)	13,550	6,100	7,450	122.1	450
11 Kodiak (13)	9,870	7,170	2,700	37.7	1,670
12 Aleutian Islands (14)	8,660	6,010	2,650	44.1	3,660
13 Bristol Bay (15)	5,040	4,020	1,020	25.4	470
14 Bethel (16)	7,750	5,540	2,210	39.9	100
15 Yukon-Kuskokwim, Total	6,780	6,400	380	5.9	1,000
Kuskokwim (17)	2,850	2,300	550	23.9	270
Yukon-Koyukuk (18)	3,930	4,100	-170	-4.1	730
16 Fairbanks-Fort Yukon, Total	48,900	45,030	3,870	8.6	9,170
Fairbanks (19)	47,320	43,410	3,910	9.0	5,920
Upper Yukon (20)	1,580	1,620	-40	-2.5	250
17 Barrow-Kobuk, Total	9,060	5,690	3,370	59.2	240
Barrow (21)	4,480	2,130	2,350	110.3	100
Kobuk (22)	4,580	3,560	1,020	28.7	100
18 Nome (23)	6,390	6,090	300	4.9	290
19 Wade Hampton (24)	4,570	3,130	1,440	46.0	100

<sup>1</sup>All data including 1960 Census data have been rounded to the nearest ten.

<sup>2</sup>1960 Election (Census) district indicated in parentheses.

<sup>3</sup>Special Census taken December 1968 tabulated 12,853.

<sup>4</sup>Special Census taken October 1968 tabulated 113,522.

SOURCE: Alaska Department of Labor, *Current Population Estimates by Election District Alaska, 1969.*

deposits has also been substantial—from \$334.3 million in 1965 to \$415.2 million in 1969. The State Department of Commerce reported all assets of Alaskan commercial banks at \$462.1 million (see Table 15).

The state's general fund statement on June 30, 1969 showed \$198.1 million in revenues, opposed to expenditures of \$210.1 million. Federal program augmentation during the year amounted to \$73.4 million to the state, while \$61.3 million in taxes were collected.

Individual income taxes amounted to \$25.2 million during fiscal 1969 while corporate income taxes contributed \$4.3 million to the state's treasury. This compared to \$22.6 million individual, and \$3.9 million corporated income tax during fiscal 1968. Total taxes collected during 1969 were \$10.4 million more than in 1968. Total revenues to the state were down \$61,588, while expenditures were up \$29.0 million from fiscal 1968 (see tables 16 and 17).

## OIL, GAS AND OTHER MINERALS

Value of mineral production in Alaska totaled \$244.5 million compared with \$221.7 million in 1968, with crude oil and natural gas from the Kenai Peninsula and offshore Cook Inlet fields accounting for \$219 million or 89 per cent of total mineral production. Value of sand and gravel decreased from \$20.4 million to \$15.1 million; tonnage and value of coal were appreciably less, with practically all production from the Nenana (Healy River) field (Table 18). Activity on the North Slope, where Atlantic Richfield Co. and Humble Oil and Refining Co. made a spectacular oil discovery in 1968, was at an intense pitch as operators sought data for use in evaluating lease blocks offered in the state's fall lease sale. Value of Alaskan crude oil, which in 1968 increased almost 100 per cent over the figure for 1967, was up by 13 per cent in 1969. Except for a minor quantity produced for onsite use on the North Slope, all crude came from the Cook Inlet Basin.

TABLE 15.

Selected Banking Statistics for State of Alaska<sup>1</sup>  
1965-1969<sup>2</sup>

	(In thousands of dollars)				
	1965	1966	1967	1968	1969
Total Assets	362,254	373,398	400,396	432,032	462,085
Total Deposits:	334,266	345,388	370,405	394,001	415,188
Demand	177,994	176,012	191,775	197,712	223,482
Time	156,271	169,375	178,630	196,289	191,707
Cash and Due from Banks	40,068	49,689	54,898	50,067	67,426
U.S. Government's	87,895	73,376	88,824	65,762	51,638
Other Securities	19,109	37,575	36,101	81,085	84,716
Loans and Discounts	197,235	204,725	202,091	217,387	239,469

<sup>1</sup>Commercial banks only. Excludes mutual savings banks.

<sup>2</sup>As of June 30 for each year.

SOURCE: Department of Commerce, State of Alaska.

TABLE 16.

## GENERAL FUND

## Comparative Statement of Operations

	Fiscal Year Ended		Difference
	June 30, 1969	June 30, 1968	
Beginning Fund Balance	\$ 22,585,186.	\$ 23,763,092.	\$ (1,777,907.)
Additions:			
Unrestricted Revenue			
Alaska Court System	1,110,473.	970,922.	139,551.
Taxes	61,330,973.	50,922,272.	10,408,701.
Net Income Taxes			
Individual	25,222,244.	22,582,089.	2,640,155.
Corporation	4,307,360.	3,865,353.	442,007.
Fiduciary	10,324.	16,940.	(6,616.)
Alaska Business License Tax (Gross income)	4,148,756.	3,833,224.	315,532.
Motor Fuel Taxes			
Highway	6,792,580.	6,277,445.	515,135.
Aviation	1,567,983.	778,486.	789,497.
Marine	771,624.	749,891.	21,733.
Severance & Production Taxes			
Raw Fish	2,317,871.	1,929,244.	388,627.
Fish—Cold Storage	283,338.	233,207.	50,131.
Fish—Freezership	198,927.	126,935.	71,992.
Oil & Gas Production	4,007,078.	1,186,991.	2,820,087.
Mines & Mining	78,279.	57,575.	20,704.
Disaster Severance	1,612,094.	780,559.	831,535.
Consumption Taxes			
Alcoholic Beverage Excise	3,943,106.	3,740,694.	202,412.
Insurance Premiums	2,200,987.	1,946,854.	254,133.
Cigarette	986,339.	945,776.	40,563.
Other			
Disaster relief	1,211,698.	467,130.	744,568.
School (poll tax)	1,264,921.	956,971.	307,950.
Elect-Tel. Coop.	302,836.	274,676.	28,160.
Inheritance	102,628.	169,650.	(67,022.)
Property tax	<u>                    </u>	<u>2,580.</u>	<u>                    </u>
Business Licenses, Permits, Fees	2,117,585.	1,831,809.	285,776.
Nonbusiness Licenses, Permits, Fees	5,195,846.	4,740,953.	454,893.
Charges, Misc. Receipts	34,280,240.	45,972,297.	(11,692,057.)
Federal Government Funds	8,610,683.	8,269,135.	341,548.
Total Unrestricted Revenue	\$112,645,800.	\$112,707,388.	\$ (61,588.)

TABLE 16. (Continued)

	Fiscal Year Ended		Difference
	June 30, 1969	June 30, 1968	
Restricted Revenue (Program Augmentation)			
Federal	\$ 73,449,187.	\$ 61,716,635.	\$ 11,732,552.
Other	2,023,747.	3,204,001.	(1,180,254.)
Total Restricted Revenue	\$ 75,472,934.	\$ 64,920,636.	\$ 10,552,298.
Nonrevenue Receipts	\$ 81,409,320.	\$ 94,779,191.	\$ (13,369,871.)
Other Additions:			
Cash In Transit, Accounts Receivable, <i>Current</i>	\$ 13,554,457.	\$ 16,922,480.	\$ (3,368,023.)
Reserves, <i>Previous</i>	112,650,115.	55,988,038.	56,662,077.
Appropriated Matching Funds, <i>Current</i>	94,325,374.	96,128,034.	(1,802,660.)
Total Other Additions	\$220,529,946.	\$169,038,552.	\$ 51,491,394.
Total Additions	\$490,058,000.	\$441,445,768.	\$ 48,612,232.
Beginning Balance Plus Additions	\$512,643,185.	\$465,208,860.	\$ 47,434,325.
Deductions:			
Disbursements			
Personal Services	\$ 60,073,017.	\$ 60,950,505.	\$ (877,488.)
Travel	2,971,692.	3,443,452.	(471,760.)
Contractual Services	27,862,158.	27,529,068.	333,090.
Commodities	7,730,496.	6,597,100.	1,133,396.
Equipment	1,039,261.	1,168,239.	(128,978.)
Capital Improvements	47,522,852.	29,264,489.	18,258,363.
Grants, Claims, Shared Revenue	54,642,859.	44,372,444.	10,270,415.
Other Expenses	8,217,891.	7,766,272.	451,619.
Total Disbursements	\$210,060,229.	\$181,091,568.	\$ 28,968,661.
Nonexpense Transactions	\$ 71,065,798.	\$ 87,791,344.	\$ (16,725,546.)
Other Deductions:			
Cash In Transit, Accounts Receivable, <i>Previous</i>	\$ 16,922,480.	\$ 17,235,028.	\$ (312,548.)
Reserves, <i>Current</i>	111,056,391.	112,650,115.	(1,593,724.)
Appropriated Matching Funds, <i>Previous</i>	96,128,034.	43,855,619.	52,272,415.
Total Other Deductions	\$224,106,907.	\$173,740,761.	\$ 50,366,146.
Total Deductions	\$505,232,934.	\$442,623,674.	\$ 62,609,259.
Ending Fund Balance	\$ 7,410,252.	\$ 22,585,186.	\$ (15,174,933.)

SOURCE: Annual Financial Report, State of Alaska.

TABLE 17.  
State of Alaska  
All Funds  
Combined Balance Sheet  
June 30, 1969

ASSETS	Total All Funds	General Fund
Fund in Treasury	\$ 41,310,980.50	\$ 13,931,125.69
Imprest Cash and Advances	1,066,188.25	1,066,188.25
Accrued Interest Purchased	8,688.22	
Investments	51,329,938.02	
Accounts Receivable, Program Receipts	13,465,921.33	12,830,928.32
Accounts Receivable, Revenue Less Reserve	3,699,242.01 (3,699,242.01)	2,273,484.26 (2,273,484.26)
Loans and Contracts Receivable	7,781,330.38	
Loans to Other Governmental Units Less Reserve	4,495,203.29 (4,495,203.29)	4,495,203.29 (4,495,203.29)
Inventory	2,540,834.81	
Equipment—Depreciated	4,420,701.79	
Repossessed Property	79,080.12	
Construction in Progress and Completed	157,496,509.85	
Appropriated Federal Matching and Other Funding	100,350,567.60	94,325,373.82
Bonds Authorized—Unissued	40,161,000.00	
 Total Assets	 \$420,011,740.87	 \$122,153,616.08
 LIABILITIES, RESERVES AND FUND BALANCES		
Payroll Taxes and Withholding	\$ 3,468,044.98	\$ 2,121,599.78
Due Other Funds	2,330,944.84	
Retained Percentages on Contracts	1,565,372.21	1,565,372.21
Reserve for Encumbrances	26,483,549.82	18,781,789.57
Reserve for Continuing Programs	102,890,682.51	90,110,317.57
Reserve for Federal Programs	719,254.72	719,254.72
Reserve for Other Programs	1,445,029.60	1,445,029.60
Reserve for Bond Redemption	1,085,664.63	
Fund Principal	167,362,393.58	
Reserve for Retirement	47,349,788.23	
Sport Fish Fund Balances	560,321.55	
Game Fund Balances	708,573.22	
Earned Fund Balances	992,775.47	
Available Fund Balances	22,888,345.51	7,410,252.63
Reserve for Authorized and Unissued Bonds	40,161,000.00	
General Obligation Bonds Payable	105,333,000.00	105,333,000.00
Less Reserve	(105,333,000.00)	(105,333,000.00)
 Total Liabilities, Reserves, and Fund Balances	 \$420,011,740.87	 \$122,153,616.08

SOURCE: Annual Financial Report, State of Alaska.

TABLE 18.  
Mineral Production in Alaska

MINERAL	1968		1969 <sup>P</sup>	
	Quantity	Value (thousands)	Quantity	Value (thousands)
Antimony ore and concentrate short tons, antimony content	3	W	—	—
Barite—thousand short tons	W	W	95	W
Coal (bituminous)—thousand short tons	W	W	W	W
Gold (recoverable content of ores, etc.)—troy ounces	21,262	\$835	16,000	\$679
Lead (recoverable content of ores, etc.)—short tons	W	W	—	—
Natural Gas—million cubic feet	17,343	4,388	49,424	8,364 <sup>1</sup>
Peat—short tons	—	—	—	—
Petroleum (crude)—thousand 42-gallon barrels	66,204	186,695	74,698	210,372
Sand and gravel—thousand short tons	18,013	20,366	13,542	15,105
Silver (recoverable content of ores, etc.)—thousand troy ounces	4	8	1	2
Value of items that cannot be disclosed: Copper, gem stones, mercury, platinum-group metals, stone, tin, and values indicated by symbol W	n.a.	9,425	n.a.	10,028
Total	n.a.	221,717	n.a.	244,550

<sup>P</sup>Preliminary. W Withheld to avoid disclosing individual company confidential data.  
n.a. Not Applicable.

<sup>1</sup>“Marketed gas only; lower 1969 unit value reflects first Alaska use for petrochemical plant feed and for liquefaction plant feed.”

SOURCE: U.S. Bureau of Mines, *Mineral Production in Alaska*, Preliminary Area Report A-34, December 31, 1969.

In development of petroleum refining and petrochemicals, Phillips Petroleum Corp. and Marathon Oil Co. in mid-August dedicated the liquefaction plant at Nikiski on the Kenai Peninsula. In November, the *M.V. Polar Alaska* delivered the first shipment of 30,000 tons of LPG to Yokohama. Collier Carbon and Chemical Corps. (a Union Oil Company of California subsidiary) put its combination ammonia-urea plant on stream in the spring. The \$50 million Collier fertilizer complex was designed to produce 530,000 tons of ammonia and 350,000 tons of prilled urea annually. Japan Gas-Chemical Co., Ltd., was associated with Union in the urea operation. Alaska's first independent oil refinery, owned by Tesoro-Alaskan Petroleum Corp. went into production in mid-November on a test basis. Tesoro will purchase 15,000 barrels of crude per day from the State of Alaska, which has the option of receiving its royalty (12½ per cent) in cash or in kind. The \$18 million Kenai refinery will produce jet fuel for the Air Force under contract and diesel fuel for the Alaska market.

Atlantic Richfield and Humble Oil put into operation a \$2 million 1,000-barrel-per-day crude oil topping plant at Prudhoe Bay to produce arctic fuel used in heating and heavy engines. In the Fairbanks area, Earth Resources Co. announced plans for a \$30 million petroleum refinery and electric power generation complex that would process 15,000 barrels of crude daily and produce automotive grade gasoline for Interior markets and power up to 45,000 kilowatts.

Spectacularly high bids marked the September lease sale of North Slope lands. The State accepted bids on 164 of the 179 tracts offered with bonus payments totaling \$900 million. One tract of 2,560 acres, adjacent to the Prudhoe Bay discovery, drew a bid of \$72.2 million, or \$28,233 per acre—the largest per-acre bid ever for oil land drilling rights in the United States. Overall, the sale drew the highest revenue ever received.

In other mineral developments, interest in Alaska's offshore placers continued to be strong. At Nome, Shell Oil Co. and American Smelting and Refining Co. were active in drilling through the ice to probe submerged gold-bearing placers. Alaska's known iron deposits received renewed interest with a reported agreement between Marcona Corp. and Marubeni Co. of Japan for development of the Snettisham deposits southeast of Juneau. Marcona

also was active in the Klukwan area, leasing 700 acres of iron-bearing lands from the Klukwan Indians, where U.S. Steel also has major holdings, and Trans-Pacific Resources completed an extensive mapping program at its holdings on Magnetic Island in Tuxedni Bay.

Cortella Coal Co. of Cordova was negotiating for a 21,000-ton trial shipment of the high quality coals of the Bering River field to Japan for use as a blending coal and for briquetting. Barite was mined at Castle Island near Petersburg in Southeastern Alaska and processed in a Cook Inlet floating plant for use as drilling mud by the petroleum industry. In Interior Alaska, prospectors filed 41 claims on a promising barite deposit 30 miles up the Yukon River from Circle City. Patented claims were optioned covering the old Kennicott Mother Lode property in the McCarthy district (copper), and Kennicott Copper Corp. continued development work on the bornite deposit in the Kobuk, north of the Arctic Circle.

## FISH, TIMBER AND AGRICULTURAL PRODUCTS

### Fish

In terms of value of product, Alaska's fisheries dropped to second place among resource industries during 1969, although they continued as the largest employer of seasonal labor, with 30,000 fishermen and shore workers directly employed and many more in related services. Total catch and wholesale market value were considerably off the 1968 record levels (catch dropped from 449.5 million pounds in 1968 to 346.8 million pounds in 1969 and value from \$191.7 million to \$136.7 million) primarily because of major drops in pink salmon and king crab catches (Table 19).

### Timber

With an estimated value of products of \$107.8 million f.o.b. mill, or declared value of round logs exported, Alaska's timber industry ranked third in terms of value among resource industries, but first as employer of year-round labor. The total timber harvest for the year 1969 was estimated at 596.9 MBF from government and private lands.

*National Forest:* Total timber production from National Forest lands in Alaska is down somewhat from last year. The harvest included 204.6 MBF of Sitka spruce, 307.5 MBF of hemlock, and 9.9

TABLE 19.

## Alaska Fisheries Catch and Wholesale Market Value of Products

Species	1968 (Final)		1969 (Preliminary)	
	Catch in Pounds	Wholesale Market Value	Catch in Pounds	Wholesale Market Value
Salmon:				
King	\$ 11,245,726	\$ 5,727,601	\$ 9,037,034	\$ 4,699,258
Red	48,695,827	30,505,219	60,974,552	34,755,495
Coho	20,968,421	10,084,951	4,250,917	1,997,931
Pink	148,445,896	58,795,133	99,273,517	36,731,202
Chum	55,916,199	18,731,797	16,085,302	5,308,150
TOTAL	\$285,272,069	\$123,844,704	\$189,621,322	\$ 83,492,036
Halibut	\$ 13,205,395	\$ 3,273,937	\$ 21,326,000	\$ 5,118,240
Crab:				
King	\$ 82,037,496	\$ 42,520,686	\$ 55,837,492	\$ 28,477,121
Dungeness	13,247,670	2,990,299	10,428,840	2,294,345
Tanner	3,246,822	551,148	10,189,197	1,630,272
Shrimp	\$ 42,077,104	\$ 7,079,045	\$ 47,847,127	\$ 8,612,483
Scallops (shucked)	\$ 1,713,512	\$ 1,751,332	\$ 1,729,302	\$ 1,590,958
Miscellaneous Fish, Shellfish and by-products	\$ 8,743,205	\$ 9,675,337 <sup>1</sup>	\$ 9,865,760 <sup>2</sup>	\$ 6,457,383 <sup>1</sup>
TOTAL	\$449,543,273	\$191,686,488	\$346,845,040	\$137,672,838

Note: Catch figures represent round weight of salmon, shellfish, and herring and landed weight of other species (except scallops).

<sup>1</sup>Market value includes salmon roe, herring roe, and by-products.

<sup>2</sup>Includes fish heads, tails, and viscera for bait.

SOURCE: Alaska Department of Fish and Game.

MBF of other species (red and yellow cedar, cottonwood, etc.) for a total cut for 1969 of 523.3 MBF. The total stumpage paid was \$2,509,952—an average of \$4.80 per thousand board feet. This represents an increase from 1968 of \$1.12 MBF for all grades of timber including pulpwood. The estimated end-product value of this production, including pulp, cants, lumber, chips, and minor volume of export logs, is \$100,570,000—an increase

of \$11.3 million over last year. Annual sales were 211.7 million feet at an average bid rate of \$16.19. During 1969, Ketchikan Pulp Co. started construction of a “baby square” mill at its mill site for output of products suitable for the Japanese building trade without further manufacture and U.S. Plywood-Champion Papers, Inc., announced selection of Echo Cove, Berners Bay, north of Juneau, as the site for their \$100 million pulp mill.

TABLE 20.

Estimated Value<sup>1</sup> of Selected Agricultural  
Commodities Produced in Alaska

COMMODITY	1968	1969	DIFFERENCE
Milk	\$1,882,000	\$1,926,000	+44,000
Eggs	490,000	341,000	-149,000
Meat			
Poultry	21,000	15,000	-7,000
Beef & Veal	351,000	383,000	+32,000
Pork	88,000	70,000	-18,000
Lamb & Mutton	17,000	14,000	-3,000
Reindeer	324,000	270,000	-54,000
Grain			
Oats	68,000	14,000	-54,000
Barley	117,000	59,000	-58,000
Silage	344,000	257,000	-87,000
Hay	588,000	532,000	-56,000
Vegetables			
Potatoes	654,000	378,000	-276,000
Cabbage	41,000	21,000	-20,000
Carrots	61,000	20,000	-41,000
Lettuce	118,000	65,000	-53,000
Other	63,000	58,000	-5,000
Wool	92,000	94,000	+2,000
TOTAL	\$5,319,000	\$4,517,000	-802,000

<sup>1</sup>Production values, not sales value. Products for home use or for use in further production (i.e., silage, hay, etc.) have been assigned a wholesale value.

SOURCE: Statistical Reporting Service, U.S. Department of Agriculture.

*State of Alaska:* Alaska Division of Lands reports that 49.0 MBF were harvested from State land for the calendar year 1969. The stumpage value of this production was \$221,371 for an average of \$4.52 per thousand board feet. Annual sales were 246.4 million feet at an average value of \$5.25.

*Bureau of Indian Affairs:* The BIA reports an annual cut for 1969 of 8.7 MBF, at a total stumpage value of \$142,958. This represents an average stumpage value of \$16.46, 7.8 million of this from tribal lands (Annette Island).

*Bureau of Land Management:* Very little timber was cut from the Public Domain lands in Alaska during the past year because of the timber freeze in connection with the Native land claims. BLM reports that approximately 280,000 board feet were harvested from their Alaska lands in 1969.

*Private:* A substantial volume of timber was harvested from private lands in Alaska during the year, mostly for round log export. Based on customs reports, it has been estimated that 15.3 MBF of logs were cut from private lands, with a declared valuation of approximately \$1,820,000.

#### Agriculture

A long-term decline in the value of the 17 selected agricultural commodities produced in Alaska in 1969 continued, with a decrease of \$802,000 from the total reports for 1968 (Table 20). Major declines were in potatoes (down \$276,000 from 1968), eggs (\$1,149,000), grain (\$113,000), silage and hay (\$143,000), reindeer products (\$54,000), and lettuce (\$53,000). Milk continued as the most important product, with hay, beef and veal, potatoes, eggs, reindeer, and silage following in that order.

# # #

### REVISION OF THE REVIEW MAILING LIST

Periodically, the Institute of Social, Economic and Government Research (ISEGR) attempts to correct and update its distribution list for the *Alaska Review of Business and Economic Conditions*. Since its inception in 1964, circulation has grown to an average of 6,000 for each issue. Although the *Review* is directed primarily to an Alaskan audience, there are now regular "subscribers" across the United States and in many foreign countries. Most of the recipients are individuals, but an increasing number of federal, state, and local agencies, businesses, banking and financial concerns, and libraries and educational institutions are now on the mailing list.

In an attempt to determine the accuracy of the list, we have enclosed with

this issue a self-addressed postcard, which should be filled out and returned to the Institute of Social, Economic and Government Research by those who wish to continue receiving the *Review*. A new mailing list will be drawn from the returned cards. We ask that the cards be returned to ISEGR by February 1, 1971; only those cards received by that date will be included on the new list.

Forthcoming issues of the *Review* planned for 1971 include a discussion of the impact of Department of Defense expenditures on Alaska's economy, which will be the first number of Vol. VIII, articles concerning Alaska's transportation, resource industries, and pollution problems, as well as studies of state and regional economic conditions.

James D. Babb, Jr.  
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