

STUDIES ON ALASKA REGIONAL INFLATION*

by

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P R E F A C E

This collection consists of three very different kinds of reports. Chapter I outlines the author's intuitive understanding of the causes of exceptionally high costs, prices, and wage rates in Alaska, arrived at through several years of acquaintance with specific problems of Alaska's economic development. It neither is a true research report analyzing primary data, nor does it present a predictive econometric model of Alaska's economy in which the price level is a key variable. The chapter presents a *prima facie* case for the following theses:

(1) "Real cost factors," such as transportation costs caused by remoteness from the U. S. mainland, and climatic extremes, explain little if any of the price and wage differentials between the more populated southcentral and southeastern portions of Alaska and the rest of the United States.

(2) Middle- and upper-income urban white Alaskans, whether wage-and-salary employees or entrepreneurs, generally do not suffer materially from the effects of "regional inflation." The same cannot be said for low-income families, either Native or non-Native.

(3) The largest aggregate burden of high costs in the state is borne by the federal treasury through higher construction, procurement, and personnel costs, and through lower natural resource prices.

(4) "Cost-push" mechanisms in the form of business monopoly and collusion, labor union policies, and government-encouraged cartels or supply restrictions can be pointed out; but attention to these elements does not explain why they are more effective in Alaska than elsewhere in the United States.

(5) The critical element in generating regional inflation is federal expenditures, assisted by federal mortgage guarantee procedures, regulatory policies, and natural resource disposal policies. Federal expenditures directly or indirectly account for something in the order of three-fourths of value added in Alaska, and much of the demand from federal activities is effectively "inelastic" with respect to price. Inflation is sustained by the willingness of the federal government to pay the inflated "prevailing" wages and prices, and is spread by both demand-pull and cost-push mechanisms throughout the entire Alaska economy.

(6) Two and a half decades of fiscally induced inflation in Alaska has had a large part in forming the present structure of the Alaska economy, and the induced distortions are not easily corrected. No one federal agency alone now has much choice but to continue its support of existing distortions. Any effective disinflationary policy must be pursued across the board by all federal agencies in Alaska, in conformity with a better understanding of the state's economy than any agency has at present. An interagency program is suggested, preferably under the leadership of the Bureau of the Budget. Attention is directed to efforts to increase factor and commodity supplies as well as to control aspects of demand.

Chapter II, by R. W. Fischer, examines four pairs of real estate properties constructed in 1967-68, each pair consisting of similar structures built in the Anchorage area and the Seattle area. Total construction and operating costs, and costs per square foot were broken down in each case according to functional inputs (land, survey and architectural, site improvement and excavation, concrete, etc.), and according to factor inputs (land, labor, materials, management, and capital). Despite the limited number of observations, this study is the first detailed analysis of construction and real estate operating costs in Alaska. All the examples were in the private sector--in these cases, substantially higher Alaska costs were found in almost every category.

The author of Chapter II was unable to point to any single "culprit" within the industry as a distinctive cause of high costs. The author's hypotheses center around the inadequate supply of capital and construction labor, the small scale of construction enterprise, the low quality of entrepreneurship and labor, and the generally inefficient practices associated with all these conditions. These findings and conclusions are consistent with, but give no special support to, the analysis of Chapter I.

Chapter III, by Gene Erion, examines the call reports for federally insured commercial banks in Alaska. He too finds evidence of a limited supply of bank capital and inefficient operations in Alaska. Banks in the state charged higher interest rates and paid lower rates than their counterparts in other states. Alaska bank profit rates and overhead rates were higher, measured against assets, equity, or transactions. In these circumstances, it is not surprising to find that the ratio of deposits in Alaska banks to personal income was barely half the national figure. Erion does not draw policy conclusions from his findings; but an earlier version of his study was widely cited as evidence that Alaska banking laws together with state and federal regulatory policy have unduly restricted entry into banking, particularly by out-of-state capital and enterprise. To the extent that the shortage of capital has generally raised costs in

Alaska, demonstration of these impediments is an important contribution to the understanding of the peculiarities of Alaska's regional economy.

All of the three chapters are based on somewhat obsolete primary data. Another shortcoming is that they do not deal either with the specific influence of Alaska's present oil boom in worsening inflationary pressures in the short run, and in inducing long-run changes in the structure of the state's economy. These last issues are as important as any of those raised in this paper, but neither the data nor the analyses here are adequate to deal confidently with the dynamics of Alaska price and wage levels in the face of economic change. Superficially, however, the following generalizations seem reasonable.

(1) The growth of a substantial private sector subject to competitive cost pressures should in the long-run work to reduce price differentials. This influence would work both through increases in the overall scale of the Alaska economy, and through dilution of the relative importance of federal government activities.

(2) One *short-run* effect of Arctic Slope oil exploration and development, and particularly the construction of the Trans Alaska Pipeline (said to be the biggest private construction project in history), will certainly be a worsening inflationary pressure in Alaska. This impact is already acute in the Fairbanks area, where rates on new rental agreements were typically \$170-\$200 *per room* in the summer of 1969.

(3) The shortage of housing, utilities, and other facilities during the oil and construction boom will result in great pressures on the federal government to help alleviate these pressures by constructing the facilities, providing grants, loans, or loan guarantees. While federal action offers opportunities to contribute to a resolution of the problems of development, it presents dangers:

(a) Increases in federal expenditures in the already overheated Alaska economy may do more to feed inflation in the short run than new facilities can do to reduce it.

(b) Construction at present inflated costs and extension or underwriting of credit for this purpose build high amortization and service costs into the economy for a long time into the future. It will also increase the number of persons having a vested interest in continued inflation to protect overvalued investments.

(c) Large investments in housing and infrastructure to meet boom conditions, particularly in the Fairbanks vicinity and northern Alaska, may not be

justified by the area's long-term economic prospects. Overinvestment now may contribute to a severe post-pipeline recession.

The possibility that present boom conditions can have a "ratchet effect" on price and cost levels if successful efforts are not made to smooth out the flow of private and public investment and to improve the working of competitive forces in labor, capital, and commodity markets, should be taken seriously.

These issues are among the most critical ones for federal policy and for public policy generally in Alaska. The authors believe that these essays will be useful as a starting point toward the understanding necessary to intelligent policy making in this field. They are, however, only a starting point--the most important conclusion of this paper is the urgency of devoting greater critical attention to the federal role in influencing Alaska price and cost levels.

Arlon R. Tussing

Anchorage, Alaska
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CHAPTER I

ALASKA REGIONAL INFLATION: AN OVERVIEW OF THE PROBLEM FROM THE STANDPOINT OF FEDERAL GOVERNMENT POLICY

by Arlon R. Tussing*

Introduction and Summary

Alaska's high prices and high money wages are legendary. To the typical American, and to many Alaskans, these conditions are no mystery; Alaska is generally seen as a remote place with a hostile climate, and these circumstances alone are a sufficient explanation. It is the thesis of this paper that "Alaska regional inflation"¹ is explained only in part--and in the most populous part of the state, hardly at all--by "real cost factors"; e.g., climate and extra transportation charges stemming from physical isolation. It is suggested here that Alaska consumer and business costs remain at levels far above national averages largely because of programs and policies of the federal government, and that the federal budget in turn bears much of the burden of the regional inflation to which it contributes.

The analysis in the following pages is not complete, nor is it fully documented. The purpose of this chapter is to establish a *prima facie* case that the abnormal price level in Alaska is an issue worthy of attention by the federal government on an interagency basis and that it is a condition which can be influenced substantially by deliberate policy choices on the part of the federal government. The formal conclusions and recommendations of this paper are limited to (1) establishment of a federal government working group on Alaska regional inflation composed of representatives of the Bureau of the Budget, Treasury department, Civil Service Commission, Council of Economic Advisers, the Labor department, some of the federal agencies

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¹The term "regional inflation" is used to denote not the change in price and wage levels over time, but the chronic differentials in their levels between Alaska and the lower 48 states.

having disproportionately large activities in the State of Alaska; and (2) the support of further research into the levels, structure, and origins of the abnormal prices and costs which prevail in the state.

It should be emphasized that this report was written as a working staff paper, and does not necessarily reflect the views or conclusions of the Chairman or members of the Federal Field Committee for Development Planning in Alaska.

Price Levels and Trends

There are no reliable official indexes comparing the cost of living or the costs of doing business in Alaska communities with corresponding United States averages. The Bureau of Labor Statistics published through 1967 "Indexes of Intercity Differences in the Cost of Equivalent Goods and Services" in Anchorage, Fairbanks, Juneau, and Ketchikan, using Seattle prices as a base. These indexes, being the only published approximation of price-level differentials, are widely cited (and abused). They are also widely criticized; and Bureau of Labor Statistics personnel freely acknowledge their shortcomings in concept, in construction, in weights, and--except in the case of Anchorage--in the quality of the primary price data from which they are constructed. Dissatisfaction with the indexes has apparently caused the Bureau to suspend their publication; no 1968 figures have been released. Nevertheless, the figures for 1956 to 1967 in Table 1-1 give a useful first impression of the magnitude and the trend in the price differentials.²

Other sources of comparative data are the prices of 25 food items in selected Alaska cities published by the Alaska Agricultural Experiment Station, and a construction-cost index for Alaska published by the Army Corps of Engineers and based upon the Corps' experience in the kinds of projects it carries out. The February 1967 figures are shown in Table 1-2. In Chapter II of this report, R. W. Fischer has calculated 1968 production and occupancy costs for individual

²The Bureau of Labor Statistics collects and processes data for Anchorage which correspond to those published for 39 metropolitan areas in the United States in the *City Workers Family Budget for a Moderate Standard of Living*. The publication of these figures would be the cheapest and simplest way by which the federal government could furnish a more reliable indicator than any now published of relative living costs between (one community in) Alaska and the rest of the United States.

TABLE 1-1

BUREAU OF LABOR STATISTICS INDEXES OF INTERCITY DIFFERENCES
 IN THE COST OF EQUIVALENT GOODS AND SERVICES, 1956-1967
 ANCHORAGE, FAIRBANKS, JUNEAU AND KETCHIKAN
 Seattle, Washington = 100

City and Year	All Items	Food	Housing		Apparel and Upkeep	Other Goods and Services
			Total	Rental		
Anchorage						
1956	141					
1957	139					
1958	135					
1959	130					
1960	127	129	140	178	112	117
1961	126	128	139	177	112	115
1962	125	128	136	172	112	115
1963	123	123	135	172	111	115
1964	124	121	132	162	110	120
1965	123	123	130	157	110	117
1966	122	123	130	152	112	116
1967	122	122	130	146	108	116

Fairbanks						
1956	154					
1957	156					
1958	145					
1959	148					
1960	136	144	154	219	118	122
1961	136	146	153	213	122	120
1962	135	143	152	202	119	120
1963	136	142	151	205	119	120
1964	134	138	143	188	124	127
1965	133	140	141	187	124	123
1966	132	139	141	180	122	122
1967	130	142	140	179	120	121

TABLE 1-1 (cont.)

City and Year	All Items	Food	Housing		Apparel and Upkeep	Other Goods and Services
			Total	Rental		
Juneau						
1956	124					
1957	129					
1958	121					
1959	122					
1960	123					
1961	123	125	137	177	116	113
1962	123	123	136	175	113	113
1963	123	122	137	180	114	114
1964	122	123	133	150	118	119
1965	123	126	134	151	116	116
1966	125	127	135	147	115	117
1967	125	132	137	147	115	119

Ketchikan						
1956	123					
1957	123					
1958	120					
1959	119					
1960	119					
1961	119	121	122	148	113	115
1962	117	120	118	143	110	116
1963	117	119	118	146	110	117
1964	119	118	121	126	117	117
1965	117	119	121	127	116	113
1966	118	122	122	127	114	113
1967	118	123	122	126	117	113

Note: 1956-1959 indexes are for August for all places; 1960-1964, October, and 1965-1967, November, in Anchorage; 1960-1965, October, and 1966-1967, November, in Fairbanks; and 1960-1967, November, in Juneau and Ketchikan. Over the period covered by this table, there have been at least two changes in calculation procedures, so that the figures do not constitute a valid time series.

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

TABLE 1-2

U. S. ARMY CORPS OF ENGINEERS
 CONSTRUCTION COST INDEXES FOR ALASKA, FEBRUARY, 1967
 Seattle, Washington = 100

City	Index
Point Barrow	360
Nome	230
Kenai	210
Kodiak	200
Fairbanks	190
Sitka	180
Juneau	180
Anchorage	170

TABLE 1-3

REAL ESTATE COSTS PER SQUARE FOOT
 ANCHORAGE, ALASKA, 1968

	Production Cost		Total Occupancy Cost	
	Seattle = 100	U. S. = 100	Seattle = 100	U. S. = 100
Single-family dwelling	177	190	176	187
Multi-family dwelling	126	130	146 (rental 139)	150 (rental 147)
Shopping center	151	159	224 (rental 226)	228 (rental 230)
Commercial warehouse	134	142	144	157

Source: R. W. Fischer, Chapter II of this report.

representatives of four different types of private construction in the Anchorage area and compared them with comparable instances outside of Alaska. His findings are summarized in Table 1-3. In Chapter III of the report, Gene Erion examines the call reports for insured commercial banks in Alaska and finds average interest charges on bank loans during the period 1960 to 1966 32 percent higher than the comparable national average. The average rates of interest plus service charges and fees together were 43 percent higher than the national figures.

In using indexes with a Seattle base to judge Alaska cost levels, it should be kept in mind that Seattle is itself one of the highest cost market areas in the contiguous 48 states; the total cost of family consumption in the *City Workers Family Budget* for 1966 was 7 percent higher than the average for the urban United States. Seattle's position should also be kept in mind in evaluating the *trend* of Alaska prices. Viewing the overall differentials in the intercity indexes since 1956 makes it apparent that Anchorage and Fairbanks made spectacular improvements in their relative positions in the late 1950's, but the indexes show little if any additional improvement during the 1960's if the 4 percentage point increase over the same period in Seattle's cost of living relative to the national average is taken into account. Seen in this light, the relative situation in Juneau has become substantially *worse* in recent years, and the existence of any improvement in Ketchikan is doubtful. All generalizations based upon the indexes mentioned here must be used with extreme caution; but it appears beyond a doubt that (1) living costs in urban Alaska remain at least 20 to 40 percent higher than national averages; that (2) housing costs are the most outstanding component of this differential; and that (3) despite past reductions in differentials, there is little indication that Alaska costs and prices will converge with their national counterparts in the foreseeable future.

Impact of Regional Inflation

It is not apparent that the typical non-Native resident of urban Alaska suffers significant reductions in welfare because of higher price levels. Wages and salaries in Alaska are substantially higher than those in comparable industries and occupations "outside"--the fact that net in-migration to the state from the lower 48 is continuing in apparent response to Alaska employment opportunities suggests that money income differentials are, on the average, sufficient to offset higher money levels in the cost of living. On the surface, for instance, Table 4-1 indicates that the 25 percent tax-free cost-of-living allowance for federal employees seems to result in some disadvantage for lower grade personnel and in an overpayment to those in the highest grades, at least in the Anchorage area, where the greatest number of personnel are stationed. It is widely believed--but we have not confirmed--that individual positions in Alaska tend to be upgraded over the classification they have elsewhere. If this belief is correct, Table 1-4 understates the adequacy of the cost-of-living allowance in compensating for higher prices.

TABLE 1-4

NATIONAL EQUIVALENT PURCHASING POWER OF ALASKA (ANCHORAGE)
 SALARIES OF FEDERAL CLASSIFIED EMPLOYEES
 FALL, 1967

Grade (Step 1)	Base Pay	Equivalent Purchasing Power of Salary Plus COLA	Alaska Purchasing Power Penalty (-) or Advantage (+)
GS - 1	3,776	3,550	-6%
2	4,108	3,915	-5
3	4,466	4,257	-5
4	4,995	4,761	-5
5	5,565	5,297	-5
6	6,137	5,853	-5
7	6,734	6,434	-4
8	7,384	7,099	-4
9	8,054	7,796	-3
10	8,821	8,590	-3
11	9,657	9,455	-2
12	11,461	11,330	-1
13	13,507	13,464	0
14	15,841	15,921	+1
15	18,404	18,638	+1
16	20,982	21,389	+2
17	23,788	24,410	+3
18	27,055	27,939	+3

Source: Note to Appendix Tables 2-9; equivalent figures by linear interpolation. Anchorage data, family of four.

The industry categories in Table 1-5 are too wide for the figures on hourly earnings of private-sector employees in Alaska and the United States to be strictly comparable. Nevertheless, most of the wage ratios are far above the 1.26 (Ketchikan) to 1.39 (Fairbanks) cost-of-living ratios given by the Bureau of Labor Statistics intercity indexes adjusted for the Seattle/U. S. differential. Even if the Alaska figures are taken as requiring a large discount for seasonality and uncertainty, the magnitudes of the differentials are such to indicate that, on the average, local wage rates *more than compensate for* high local commodity prices.

In the Bureau of Labor Statistics intercity indexes, the largest differentials are found in food and housing, especially rental housing; these items account for the greatest proportion of the Seattle/U. S. differential as well. Since the proportion of family income spent on these items is greatest at lower incomes, high consumer prices in Alaska must have their most severe impact on the poor. Our data are inadequate to test the proposition, but we are convinced that *middle- and upper-income* urban whites in Alaska are on the whole materially better off than their occupational and status counterparts in other states. (See Appendix tables 2 through 9.)

The ratios in Tables 1-8 and 1-9 show business markups and net profits, measured against either sales or equity, are (or were in 1965) consistently much higher in Alaska than in the United States as a whole. These figures in themselves do not prove that Alaska businessmen either cause or "profit from" regional inflation, but they do indicate that the returns to capital and entrepreneurship, like employee compensation, are generally sufficient to more than compensate for higher living costs. Erion's analysis of the Alaska banking industry in Chapter III has a similar implication for that sector, but Fischer's four real estate examples in Chapter II do not support this pattern.

It is apparent that the federal government bears the major direct burden of Alaska regional inflation. Several agencies have attempted to total federal outlays in or on Alaska, but we are not aware of any which is comprehensive or even composed of comparable items. Our own rough estimate of wages, salaries, and allowances paid to civilian and military personnel of the federal government stationed in Alaska; outlays for construction at sites within Alaska; federal procurement from vendors doing business in Alaska; and transfers to Alaska state and local governments were in the order of \$650 to \$750 million in fiscal year 1969. (This compares with an Alaska gross domestic product on the order of \$1.5 billion.) With the conservative assumption of an average 25 percent inflation factor on a federal outlay of \$700 million, the price and wage differentials for Alaska would have a direct cost to the Treasury of \$140 million. Because of the crudeness of the primary expenditure estimate and the lack of a satisfactory general equilibrium model of the Alaska economy, it is not in order to estimate tax effects or other second- or higher-order impacts.

TABLE 1-5

AVERAGE HOURLY EARNINGS OF PRODUCTION WORKERS
MAJOR INDUSTRIAL DIVISIONS
ALASKA AND U. S., 1967

	Alaska	U. S.	Ratio Alaska to U.S. X 100
Mining	\$ 5.44	\$ 3.19	171
Contract Construction	7.50	4.11	182
Manufacturing	4.86	2.83	171
Food Processing	3.31	2.64	125
Lumber and Wood Products (including pulp)	4.74	2.51*	189
Wholesale Trade	4.34	2.88	151
Retail Trade	3.50	2.01	174
Finance, Insurance, and Real Estate (weekly)	111.21	95.46	116

*Weighted average of Lumber and Wood Products and Paper and Allied Products, Alaska Weights.

Source: *Monthly Labor Review*; and Alaska Department of Labor, Employment Security Division, *Statistical Quarterly*.

Regional inflation can be expected also to place a substantial direct and indirect burden on the subsistence sector, the rural unemployed and underemployed, and Alaska Natives generally. The bias of the price structure against low income people has been noted above. In addition, a substantial component of the cash income enjoyed by these people lacks any explicit or implicit cost-of-living adjustment; this is true of state welfare programs as well as the prices of furs, fish, etc., produced by traditional methods. It is, on the other hand, in the remote Native villages where price differentials are most extreme. The hypothesis that prevailing high money wage levels also reduce Native employment opportunity by imparting to Alaska industry an additional bias in favor of capital and skill intensity deserves to be investigated.

Finally, there is a strong presumption that high prices and high money wages retard the development of both "export" industries and of some, but not all, import substitution in Alaska.

Explanations for Regional Inflation

"Real Cost" Differentials

The most obvious explanatory factors, and the conventional explanations, for high prices and wages in Alaska are the extremity of the state's climate and the high transportation costs occasioned by its isolation from the economic heartland of the nation. Regardless of the historic influence of these factors, and regardless of their continuing importance in small villages and isolated sites in northern or western Alaska, these factors are wholly inadequate to explain the persistence of price differentials of the magnitude which prevail in Alaska even at ice-free ports and along the Alaska Railroad and the continental highway system. There are a number of intuitive and analytic grounds on which to believe that "real" factors should not account for a differential of greater than 5 to 10 percentage points in the Anchorage-Cook Inlet area and in the towns of Southeast Alaska, and 10 to 20 percent in the Fairbanks area.

Two crude comparisons of Alaska communities with similar places in Canada may be suggestive. Ketchikan, Alaska, and Prince Rupert, British Columbia, are both on tidewater, less than 100 miles apart, and have similar climates and economic structures--they are both dependent on wood products and fisheries. Prince Rupert has direct rail and highway connections with the rest of the continent, but railcars and vans must reach Ketchikan by barge, ferry, or ship. This handicap might explain a real cost differential of 1 or 2 percent, but it can hardly come to grips with the contrast between a price level in Ketchikan in the order of 20 percent higher than that of Seattle and a price level in Prince Rupert not significantly different from that of Vancouver. An even more powerful comparison can be made between the Fairbanks trade area and Yukon Territory. In this instance the balance of "real" advantage seems to be on the side of Fairbanks. Whitehorse, the Yukon's largest community, is some 500 miles southeast of Fairbanks and correspondingly closer to the population centers of the continent; but it is barely one-fifth Fairbanks's size, and its main economic connections to the outside are an antiquated narrow-gage railway and a highway to the Alaska port of Haines. The rest of the Yukon does not have even these advantages. Interior Alaska and the Yukon have similar climatic extremes, yet the Yukon's cost-of-living differential with the rest of Canada is apparently much less than that of Fairbanks with the rest of

the United States. Table 1-6 presents this comparison in a form not susceptible to rigorous statistical scrutiny, but one which is intuitively suggestive. The comparisons in the table are strengthened by the addition of comparable figures for Juneau, Alaska, a close neighbor of Whitehorse (only by air, however), which has over the latter the advantages of a tidewater location and much milder winter temperatures.

Transport Costs

Despite comparisons such as the ones above, we have no satisfactory basis for judging just what proportion of the cost differentials are indeed explained let alone "justified" by climate and distance. Other intuitive approaches, however, argue in the same direction as comparisons with adjacent Canadian communities--that the physical factors do exist, but that their current influence is highly exaggerated. Transportation is one case in point. Ocean freight rates including terminal charges between Pacific Coast and Alaska ports are generally lower than truck or rail tariffs for the same commodities between the Midwest and the West Coast. (Why, then, should Oregon lumber and California lettuce be more expensive in Anchorage than in the eastern states?) Of course, almost all commodities consumed or processed in Alaska originate on the West Coast or beyond, so that outside of Alaska's own natural resource inputs, there are very few items (steel construction material from Japan is an important exception) whose CIF wholesale price would not be expected to be somewhat higher than its Pacific Coast counterpart. Yet (1) the transportation industries in general account for only about 3 percent of value-added in the national economy; (2) freight and express revenues of railroad, trucking, airline, and domestic shipping companies were about 4 percent of the gross value of U. S. commodity production in 1967; (3) the demand for transportation services of Alaska business and industry, if measured by the direct and indirect demand coefficients in the 1958 interindustry input-output table of the United States, weighted by 1967 Alaska payrolls, would have been 2.9 percent of their gross sales. Accordingly, the *doubling* of the transport component of total costs over national averages could be expected to increase the price of imported commodities in Alaska 3 or 4 percent on the average. If there were no other cost-inflating factors operative, import substitution and other adaptive responses should make the overall cost of living or business cost differentials somewhat less than 3 to 4 percent.

There is no avoiding the fact that very small and very remote places in Alaska, served by only one or two transportation modes and only one or two common carriers, accessible only seasonally if at all by surface modes, burdened with cumbersome lighterage problems for sea transportation or with airstrips which accommodate only light planes,

TABLE 1-6

ESTIMATED PRICE DIFFERENTIALS ON CONSUMER GOODS AND SERVICES
 FAIRBANKS AND JUNEAU/UNITED STATES
 AND YUKON/CANADA, 1966

Category	Fairbanks (U.S. = 100)	Juneau (U.S. = 100)	Yukon Territory (Canada = 100)
Food	147	135	125
Housing (Total)	147	140 (shelter)	130
(Renter Cost)	214	175 (operation)	129*
Apparel and Upkeep	134	126	110

*Subcategories weighted by Bureau of Labor Statistics Alaska Weights.

Source: Alaska: Bureau of Labor Statistics, Intercity Differentials, 1966, Table 1-1, multiplied by corresponding indexes for Seattle vs. Urban U. S. in *City Workers Family Budget*, Autumn, 1966. Yukon: Appendix Table 1.

will have expensive transportation and high commodity prices. Less than one-fifth of the state's population, however, lives in such places; their special problems are outside the scope of this discussion, except to the extent that high costs arising from small volumes of activity and an unfavorable transportation situation are added onto the abnormally high costs in Alaska's market towns.³

Climate-Related Costs

As with transportation costs, we have only indirect evidence on the real impact of climate. Cold winters ought to affect particularly the cost of housing operation, through some combination of more severe structural requirements (insulation, etc.) and higher fuel consumption; it also would be expected to increase the cost of actually producing equivalent structures because of some combination of seasonal restrictions on construction with higher costs of on-site operation in the winter (heating of the premises during construction, snow removal, lower productivity due to worker discomfort, etc.).

We have attempted to find a statistical association between indicators of climatic severity and housing costs in the United States outside of Alaska, but these attempts have not been wholly satisfactory. The strongest association between the two is a Spearman rank correlation coefficient of .36 between the number of degree days and total housing costs for 28 U. S. cities in the *City Workers Family Budget*. By linear least-squares regression, climate expressed in degree days explains only about one-fifth ($r^2 = .22$) of the variation in housing costs, and the standard error of estimate is greater than the entire range of cost variation in the sample. Deflating housing costs by an index of total consumer costs or by SMSA per capita personal income allows for the climate to explain about one-third of the variation in cost ($r^2 = .34$ in both cases), but here each thousand degree days adds on the average only about 1 percentage point to the index of total housing costs.

Even if the relationship were a clear and consistent one, it need not be linear; a far better fitting function for lower-49 data might not be expected to predict "normal" values for real estate costs in places with climates as extreme as Barrow or Fairbanks. But Table 1-7 makes a simple comparison of Alaska places with the four coldest

³See the Joint Federal/State Transportation Task Force, *Transportation and Economic Development in Alaska*, Anchorage: Federal Field Committee for Development Planning in Alaska, 1968; and Federal Maritime Commission, Bureau of Domestic Regulation, *Alaska Trade Study*, Washington, D. C., July 1967.

TABLE 1-7
 SEVERITY OF CLIMATE;
 HOUSING AND CONSTRUCTION COSTS, SELECTED ALASKA AND U. S. CITIES
 1966

	Degree Days, Normal Year	Mean Daily Minimum, Coldest Month	Consumer Housing Cost, B.L.S. (Seattle =100)	Construction Cost Index, Army Engineers (Seattle=100)
BARROW	20,174	-24.4°F		360
FAIRBANKS	14,279	-21.4	141	190
ANCHORAGE	10,648	- 1.0	130	170
Duluth	10,000	- 0.6		
JUNEAU	9,075	4.3	135	180
Minneapolis	8,382	2.3	101	
Milwaukee	7,635	12.8	109	
Portland, Me.	7,511	11.7	99	
SITKA	7,464	28.8		180
KETCHIKAN*	7,069	30.3	122	
Buffalo	7,062	18.2	103	
Seattle	5,145	33.0	100	100
New York	4,871	26.9	115	
Los Angeles	1,799	45.0	94	
Honolulu	0	65.8	124	

*Climate data for Annette, Alaska.

cities included in the *City Workers Family Budget*: Minneapolis, Milwaukee, Portland (Maine), and Buffalo; and indicates at least that housing costs for Southeastern Alaska points and for Anchorage are substantially out of line from what one might expect from the operation of climatic factors alone. This judgment is further strengthened by the fact that elsewhere in the United States housing costs seem to be *inversely* related to size of place; for instance, in the *City Workers Family Budget* for 1966, total housing costs in nonmetropolitan areas--which would normally include all of the Alaska places listed in Table 1-7--averaged 17 percent lower (!) than those for metropolitan areas--which include all the non-Alaska places in the table. Using the number of degree days and the metropolitan-nonmetropolitan division alone as the basis for prediction, Anchorage, Juneau, and Ketchikan ought to have slightly *lower* housing costs than the national average!

Market Power--Monopoly, Unions

Another popular line of explanation for Alaska regional inflation centers on the cupidity of entrepreneurs and of labor unions; a more sophisticated version of the same argument is analogous to the concept of cost-push inflation as an explanation of price rises over time. That is, certain sectoral interests, particularly industries or trades represented by only one or a handful of enterprises in each community, plus a group of effective labor unions, have sufficient market power that they can successfully raise their own prices without suffering an offsetting loss in sales volume, or raise their own wages without suffering unemployment. The same power, it is believed, allows them to "pass on," rather than to absorb, increases generated elsewhere in the economy.

This explanation is at least in part supported by the evidence. The money wage rate ratios between Alaska and U. S. averages, Table 1-5, are indeed ranked in the same order as the degree of unionization of the respective industrial sectors in Alaska. Tables 1-8 and 1-9 indicate that markups and the resulting profits in Alaska business are consistently higher than in the rest of the country. In 24 of 27 industry groups in Alaska, gross margins are higher than United States averages. In 15 of 16 cases, net profits on net sales are higher; and in 16 of 16 cases, net profits on tangible net worth are higher in Alaska. These figures establish a presumption that businessmen in Alaska successfully *overcompensate* for the higher cost levels.⁴

⁴As Gene Erion points out in his illustration on page 72 with respect

TABLE 1-8

COST OF DOING BUSINESS RATIOS--U. S. AND ALASKA CORPORATIONS
(Percentage of Business Receipts)

SIC	INDUSTRY AND NUMBER OF CORPORATIONS REGISTERED IN ALASKA, 1965	COST OF GOODS SOLD				GROSS MARGIN			
		U. S.		Alaska		U. S.		Alaska	
		1962	1963	1964	1965	1962	1963	1964	1965
		-63	1963	1964	1965	-63	1963	1964	1965
10-14	MINING (53)	60.3	38.3	37.9	38.0	39.7	61.7	62.1	62.0
10	Metal Mining (15)	55.0	64.0	49.0	52.2	45.0	36.0	51.0	47.8
13	Crude Petroleum & Natural Gas (31)	57.7	30.9	31.5	33.2	42.3	69.1	68.5	66.8
15-17	CONTRACT CONSTRUCTION (218)	84.0	82.3	81.5	62.7	16.0	17.7	18.4	37.3
15	Building Construction (56)	89.1	79.5	85.8	80.6	10.9	20.5	14.2	19.4
16	Nonbuilding Contractors (40)	82.8	89.7	84.7	84.5	17.2	10.3	15.3	15.1
17	Special Trade Contractors (112)	79.6	78.9	73.9	70.8	20.4	21.1	26.1	29.2
20-39	MANUFACTURING (129)	71.0	68.2	66.1	71.4	29.0	31.8	33.9	28.6
20	Food & kindred canning & preserving (56)	79.7	76.0	78.7	82.8	20.3	24.0	21.3	17.2
203	Canneries (43)	76.2	78.2	81.8	87.8	23.8	21.8	18.2	12.2
24	Lumber & wood products (29)	77.4	58.0	59.1	62.7	{22.6}	42.0	40.9	37.3
26	Paper & allied products (2)	69.1				{30.9}			
27	Printing, publishing (13)	65.5	49.7	52.1	50.3	34.5	50.3	47.9	49.7
41-49	TRANSPORTATION, COMMUNICATIONS, PUBLIC UTILITIES (155)	--	--	--	--	--	--	--	--
42	Motor freight (33)	67.5	65.7	65.7	66.3	32.4	34.3	34.3	33.7
44	Water transportation (34)	72.2	52.3	47.0	49.3	27.8	47.7	53.0	50.7
45	Air transportation (36)	67.9	47.3	59.3	58.3	32.1	52.7	40.7	41.7
48	Communications (22)	51.3	41.7	44.5	36.2	{48.7}	58.3	55.5	63.8
		66.3				{33.7}			
483	Radio & television (10)	57.1	46.9	50.5	43.5	42.8	61.3	49.5	56.5
49	Electric, Gas, and Sanitary Services (13)	39.9	68.5	70.5	48.7	{60.1}	31.5	29.5	51.5
		61.5				{38.5}			
50-59	WHOLESALE & RETAIL TRADE (418)	79.6	75.7	75.1	75.4	20.4	24.3	24.9	24.6
50	Wholesale trade (128)	85.3	79.5	80.7	79.8	14.7	20.5	19.3	20.2
501	Motor Vehicles & Automotive Equipment (11)	82.8		73.4	71.8	17.2		26.6	28.2
521	Retail Trade--Lumber, Construction Materials (15)	85.4	81.0	80.4	81.2	14.6	19.0	19.6	18.8
53	Retail Trade--General Merchandise (38)	64.9	69.8	69.0	70.3	35.1	30.2	31.0	29.7
54	Retail Trade--Food (20)	79.5	80.2	77.6	76.8	20.5	19.8	22.4	23.2
55	Automotive Dealers, Gasoline Service Stations (53)	85.4	81.5	78.2	81.6	14.6	18.5	16.8	18.4
551-552	Motor Vehicle Dealers (27)	87.0	82.8	80.0	82.1	13.0	17.2	20.0	17.9
56	Apparel & Accessories (22)	65.8	61.3	61.3	61.7	34.2	38.7	38.7	38.3
57	Furniture, Home Furnishings (17)	66.4	64.0	63.4	65.1	33.6	36.0	36.6	34.9
58	Eating & Drinking places (39)	48.7	42.6	50.1	50.3	51.3	57.4	49.9	49.7
59	Retail Trade--Miscellaneous (55)	80.6	64.4	64.5	63.6	{19.4}	35.6	35.5	36.4
		57.3				{42.7}			
70-99	SERVICES (115)	--	--	--	--	--	--	--	--
70	Hotels & Rooming Houses (30)	46.5	37.5	41.3	39.5	53.5	62.5	58.7	60.5
72	Personal Services (14)	53.2	38.2	31.5	34.6	46.8	61.8	68.5	65.4
		41.8				58.2			

Source: United States: Dun and Bradstreet, *Key Business Ratios*, calculated from *Source Book of Statistics of Income*, U. S. Department of the Treasury, Internal Revenue Service, Statistics Division. Alaska: calculated by Roger A. Bye from Alaska state business tax returns.

TABLE 1-9
 SELECTED BUSINESS RATIOS, U. S. AND ALASKA CORPORATIONS
 MEDIANS, 1965

SIC	INDUSTRY		Current	Net	Net	Net	Net	Total
			Assets	Profits	Profits	Sales to		
			to	on	on	Tangible	Net	Debt to
			Current	Net	Tangible	Net	Sales to	Tangible
			Debt	Sales	Net Worth	Worth	Inventory	Net
			TIMES	PERCENT	PERCENT	TIMES	TIMES	Worth
								PERCENT
15	General Building Contractors	U. S.	1.5	1.4	9.7	7.2	--	196.0
		Alaska	3.4	6.6	29.1	7.6	--	171.1
162	Heavy Construction Contractors	U. S.	1.7	3.2	11.5	3.7	--	109.3
		Alaska	3.0	12.5	76.4	9.2	--	161.0
171	Plumbing, Heating, Air Conditioning Contractors	U. S.	1.8	1.7	9.0	5.8	--	156.1
		Alaska	4.3	4.7	28.0	8.3	--	88.1
173	Electrical Contractors	U. S.	2.1	2.2	11.7	5.3	--	119.4
		Alaska	3.5	4.9	32.1	5.7	--	52.3
20	Food & Kindred Products Manufactures	U. S.	2.7	5.0	13.6	8.6	31.1	95.4
		Alaska	5.0	5.3	19.1	3.2	2.4	69.2
203	Canners	U. S.	1.7	2.5	10.1	3.6	4.5	95.4
		Alaska	4.4	5.2	14.6	2.8	2.0	57.2
242	Lumber Manufacturing	U. S.	2.4	3.9	10.0	2.6	5.6	70.5
		Alaska	7.8	11.1	35.5	3.2	3.2	44.6
27	Printing, Publishing, Etc.	U. S.	3.0	7.4	14.7	2.7	--	81.5
		Alaska	14.3	14.1	37.6	3.1	--	161.4
501	Motor Vehicle & Supply Wholesalers	U. S.	2.7	2.5	9.8	4.2	5.0	154.3
		Alaska	5.1	2.7	14.5	5.4	1.7	62.1
504	Grocery Wholesalers	U. S.	2.7	1.2	10.0	11.0	50.5	150.8
		Alaska	5.4	2.1	24.2	18.0	5.4	290.3
508	Machinery, Equipment Wholesalers	U. S.	2.5	1.9	9.6	4.8	6.8	112.0
		Alaska	2.6	8.6	33.9	3.6	2.1	110.5
509	Miscellaneous Wholesalers	U. S.	2.4	2.4	12.9	11.4	2.2	154.7
		Alaska	17.4	2.4	19.1	7.7	5.1	372.2
521	Lumber & Other Building Materials Dealers	U. S.	3.7	1.9	7.4	3.4	7.7	89.7
		Alaska	2.5	2.8	27.6	5.8	2.8	214.1
541	Groceries and Meats Dealers	U. S.	2.0	1.3	12.2	9.0	16.6	87.1
		Alaska	2.9	2.3	13.7	6.4	7.3	167.8
551	Automobile Dealers	U. S.	1.9	1.3	10.7	8.4	8.8	138.5
		Alaska	2.4	1.5	15.7	13.7	4.5	287.7
561	Clothing & Furniture Stores	U. S.	3.4	2.6	8.8	3.9	6.7	124.5
		Alaska	14.9	4.4	12.3	3.0	1.2	37.4

Sources: United States: Dun and Bradstreet, *Key Business Ratios*, 1965. Alaska: calculated from state business tax returns by Roger A. Bye.

The small size of Alaska's economy and of the local service economy in the various Alaska communities, together with their relative distance from one another and from the rest of the country, certainly offer a substantial number of monopoly situations and opportunities for formal or informal collusion. The market power of other groups, particularly in the professions and in the "regulated" industries, is strengthened by protectionist or cartel-fostering provisions of local, state, and federal law. Emphasis upon market power and cost-push factors alone fails to explain why merchants and unions in Alaska are more successful in the exercise of market power than in other states. Conventional cost-push inflation can be perpetuated only if the banking authorities are willing to let the money supply expand to finance inflation. Otherwise the rise in administered prices will ultimately be halted by declining sales, excess capacity, and unemployment. Monopoly, price-fixing, and protectionism are not unique to Alaska; their existence is not an adequate explanation for existence of Alaska price and wage levels substantially higher than those in communities of comparable sizes elsewhere. The question remains, *How is chronic regional inflation financed?*

The Federal Role in Financing Regional Inflation

In our view, the answer to the above question is found in the disproportionately large role of the federal government. Simply put, for almost 30 years the federal government has dominated the economy of Alaska; and each federal agency has been willing to pay whatever prices were demanded of it for the goods and services necessary to accomplish its mission. Each agency has accepted the prevailing wage and price structure; and by doing so, has helped to validate and to perpetuate it. In technical terms, the largest exogenous component of demand in the Alaska economy has been almost totally inelastic with respect to prices.

The biggest individual item in this demand over the whole period has undoubtedly been defense construction. Whatever the mode of contracting or the cost rationale at the particular time, defense construction has been *de facto* a "cost-plus" operation since the beginning of World War II, and remains so today. Defense department

to bank interest rates, a higher price level requires only *equal* percentage rates of profit, interest, or markup to obtain an equal level of "real" business income.

missions have been charged with exceptional urgency; and if they had cost constraints, they were certainly small compared with those of other government programs, and virtually nonexistent compared to the normal situation in private industry. The small number of contractors with the experience and capability to operate in Alaska and the requirement that defense contractors pay "prevailing wages" in an area where the current wages prevail precisely because the government is willing to pay for them--has provided a bonanza for contracting entrepreneurs and transient construction laborers alike.⁵ Thus, it is instructive to see that construction wage differentials are the highest among the industrial groups in Table 1-5 (after those of the wood-products industry for which there is a similar explanation based on federal policies). Nor is it surprising that heavy-construction contractors constitute the most profitable business sector in Table 1-9, with a median (!) net profit in 1965 of 76.4 percent against tangible net worth, 6.6 times the comparable proportion for the United States. The other lines of business which are spectacularly more profitable consist of the other contractor categories, and lumber and building-materials dealers.⁶

Market power in the construction industry is based upon "normal" (i.e., of the same kind which exist elsewhere in the United States) barriers to entry of labor, capital,⁷ and enterprise, and upon the sluggish adjustment of these factors to increases in demand, coupled with a willingness of the federal government to pay whatever costs "prevail" under these circumstances. The rates of return to

⁵Another cost-inflating aspect of the Alaska construction situation which federal agencies have consistently accepted and probably exacerbated in their contracting practices is the extreme seasonality of Alaska construction activity, even in those areas with relatively mild climates. Coupled with this seasonality is the practice of paying for great amounts of overtime during the short construction season--this despite evidence that construction crews accomplish little more in twelve hours than in eight.

⁶Lumber manufacturing as an industry does not serve primarily an Alaska market, and should not be considered in this group. The explanation for its high profitability, however, is similar. See page 23.

⁷The conclusions of R. W. Fischer in Chapter II, and Gene Erion in Chapter III point to a sticky supply of bank capital as one inflationary factor. A relative shortage of loanable funds is further suggested by the fact that the ratio of current assets to current debt is higher in Alaska in 15 of 16 industrial groups in Table 1-9. It is the author's belief that this situation is exacerbated by state restrictions on entry into banking by out-of-state interests.

labor, to capital, and to entrepreneurship in government contracting have thus become the opportunity costs of the respective productive factors in the private housing market and in business construction. It would not be surprising if inefficient patterns of work and of seasonal activity, developed in a sector where cost constraints are minimal, were also carried over into the nongovernment sector. To the extent that parts of the local service sector also have market power, to the extent that federal recognition of differentials becomes a benchmark for other markups, and to the extent that construction payrolls and profits provide the income with which to finance inflated prices for other goods and services, federal contracting and procurement sustain both the demand factors "pulling" and the cost factors "pushing" up Alaska prices.

Our intention here is not to single out defense contracting and defense procurement as a culprit. Almost every federal agency and almost every federal program in Alaska has participated in the inflationary process to the extent that it was required to pay Alaska prices for construction, materials, services, and personnel. Earthquake and flood recovery projects underwritten by the Corps of Engineers and the Small Business Administration; projects of the Economic Development Administration for depressed areas; real estate appraisals of the Federal Housing Authority, the Veterans Administration, and other mortgage-guarantee agencies; cost levels authorized by the Bureau of Public Roads in Alaska highway projects; and, very importantly, the 25 percent tax-exempt overseas cost-of-living allowance for federal employees, and the setting of wage-board rates for federal personnel on the basis of rates prevailing in Alaska, are all part of the picture. In addition, federal regulatory agencies seem to have been especially tolerant of, if not favorable to, transport monopolies, and have been inclined to predicate rates upon the protection of particularly inefficient carriers.

The inability of competitive cost constraints in the private sector of Alaska's economy so far to hold down the prices and wages paid by the federal government reflects the fact that the private economy is relatively small and is composed almost entirely of a few natural-resource industries which, because of the institutional regime in each one, are unable to resist inflationary pressures generated elsewhere, and of service activities dependent almost entirely upon the multiplier effects of income from federal expenditures and (much less) from crude-materials exports. The most recent year for which Alaska gross product has been estimated and disaggregated is 1965; the state's economic structure for that year is shown in Table 1-10. Less than 1 percent of value-added was accounted for by agriculture, forestry, and fisheries combined (!); and mining accounted for less than 4 percent of the total. Manufacturing, including both the processing of primary products (fish packing, lumber and pulp manufacture, etc.), and residentiary manufactures (like baking, soft-drink bottling, and printing and publishing) together contributed 8 percent of the total. Commodity production in

TABLE 1-10

ALASKA GROSS PRODUCT, 1960-1965
 (Millions of Current Dollars)
 (Italics denote percent)

	1960	1961	1962	1963	1964	1965
Agriculture, Forestry and Fishery	4.3 <i>0.6</i>	5.7 <i>0.8</i>	6.3 <i>0.8</i>	5.2 <i>0.6</i>	5.8 <i>0.6</i>	8.3 <i>0.8</i>
Mining	28.3 <i>3.8</i>	34.4 <i>4.6</i>	38.8 <i>4.8</i>	37.2 <i>4.5</i>	36.2 <i>3.9</i>	38.3 <i>3.7</i>
Contract Construction	98.9 <i>13.2</i>	64.1 <i>8.7</i>	64.8 <i>8.4</i>	69.2 <i>8.4</i>	105.3 <i>11.2</i>	117.5 <i>11.4</i>
Manufacturing	65.4 <i>8.8</i>	58.0 <i>7.8</i>	61.0 <i>7.9</i>	65.1 <i>7.9</i>	68.7 <i>7.3</i>	82.3 <i>8.0</i>
Transportation	45.0 <i>6.0</i>	42.7 <i>5.8</i>	45.0 <i>5.8</i>	47.6 <i>5.8</i>	52.6 <i>5.6</i>	56.4 <i>5.5</i>
Communications	34.2 <i>4.6</i>	59.8 <i>8.1</i>	55.1 <i>7.2</i>	55.5 <i>6.7</i>	53.0 <i>5.6</i>	55.0 <i>5.3</i>
Electric, Gas, and Sanitary Services	9.4 <i>1.3</i>	11.0 <i>1.5</i>	13.8 <i>1.8</i>	15.7 <i>1.9</i>	18.2 <i>1.9</i>	21.0 <i>2.0</i>
Wholesale and Retail Trade	85.2 <i>11.4</i>	96.1 <i>13.0</i>	95.3 <i>12.4</i>	100.2 <i>12.1</i>	109.3 <i>11.6</i>	126.1 <i>12.3</i>
Finance, Insurance and Real Estate	42.6 <i>5.7</i>	44.8 <i>6.0</i>	51.1 <i>6.6</i>	58.4 <i>7.1</i>	66.6 <i>7.1</i>	77.4 <i>7.5</i>
Services	42.6 <i>5.7</i>	44.8 <i>6.0</i>	50.4 <i>6.5</i>	51.4 <i>6.2</i>	66.9 <i>7.1</i>	74.5 <i>7.2</i>
Government and Government Enterprise	290.8 <i>39.9</i>	279.8 <i>37.7</i>	291.0 <i>37.8</i>	321.0 <i>38.8</i>	369.9 <i>38.2</i>	372.2 <i>36.2</i>
Totals	746.8 <i>100.0</i>	741.2 <i>100.0</i>	770.7 <i>100.0</i>	826.5 <i>100.0</i>	942.1 <i>100.0</i>	1029.5 <i>100.0</i>

Source: Bradford H. Tuck, *An Aggregate Income Model of a Semi-Autonomous Alaskan Economy*, prepared for the Federal Field Committee for Development Planning in Alaska, Anchorage, 1967, p. 68.

its totality, then, made up only about one-eighth of the volume of activity in Alaska's economy. On the other hand, government activity alone directly produced well over one-third of Alaska gross income and product; and as late as 1968, federal payrolls were more than one-third of Alaska personal income, and federal, state, and local government employment accounted for about two-fifths of all employment and for about one-half of all wage and salary payments in the state. In addition, the activity of the service sectors of the private economy and of construction ultimately depend largely upon the income injected into the state from government expenditures. Prior to the Arctic Slope oil boom of 1968-69, federal expenditures must have been responsible through income multipliers and "backward linkages" for about three-fourths of Alaska's gross product.

Natural-Resource Industries

The three important groups of natural-resource industries in Alaska are petroleum and natural gas, the fisheries, and the wood-products industries. This is not the occasion for a lengthy discourse on the economics of natural resources, but a critical feature of each of these industries in Alaska is the fact that the basic resource stocks are either government-owned or "unowned" (the case of fisheries). The prices of final products exported from Alaska by these industries are determined in national or world markets.⁸ The price levels of construction, supplies, and labor help determine the location of the "economic margin" in extractive industries, but they exert little pressure on average enterprise profit expectations because competitive petroleum leasing and the appraisal practices for Forest Service timber allow these higher costs to be passed "backward" to the landlord (federal and state governments). In the regulated fisheries, including the salmon fishery which dominates the industry in Alaska, open access to the resource requires the conservation authorities to use cost-inflating regulatory tools in order to insure the escapement necessary to preserve the fish stocks. The regulated fisheries are a totally buffered system in which catch volume and consumer prices are both independent of the regional price level.⁹

⁸The fact that the product markets for Alaska timber products and for crude oil are far from competitive is a matter of great public importance, but does not concern us here.

⁹For a full explanation of the dynamics of the fisheries, see James A. Crutchfield and Giulio Pontecorvo, *The Pacific Salmon Fisheries, a Study of Irrational Conservation*. Baltimore: The Johns Hopkins Press, 1969.

Among the natural resource industries in Alaska, the wood-products industry deserves special attention because it is another instance in which federal government policies in the pursuit of other ends have fostered and perpetuated regional inflation. It is our belief that Forest Service timber-sale policies are the most important factor perpetuating regional inflation in the timber-producing areas of Southeast Alaska.¹⁰ The Forest Service objective has been the establishment of wood-processing industry within the region in order to assure stable and permanent local employment. Since, for whatever reason, price and wage levels in the communities of Southeast Alaska were at the outset higher than those of British Columbia, the Puget Sound area, or Japan, establishment of sawmills or pulp mills in Alaska did not appear attractive to private enterprise. There has in addition been chronic unemployment and excess mill capacity in the Pacific Northwest, so that the "normal" pattern would be for Alaska logs to be purchased by operators with mill capacity outside the state. Competitive sale of timber would have conformed to this pattern, and would also have maximized returns to the federal treasury from the sale of government-owned timber. The Forest Service decision to emphasize local industrial development at the expense of timber-sale revenues and, incidentally, of national economic efficiency, required insulating the Alaska timber-processing industry from competitive forces. The wage and price differentials which existed because of either physical factors or monetary-fiscal factors were "validated" in fifty-year exclusive timber-sale contracts at prices for stumpage a small fraction of the competitive value. These stumpage prices are subject to further renegotiation as "costs of production" change, so that the incentives for the timber industry in Alaska either to strive for technical efficiency or to resist union demands for higher money wages are extremely weak. In other words, just as federal agencies throughout the state have been willing to pay the inflated "going rates" for whatever they require, so the Forest Service has been willing to pay--indeed has insisted upon paying, through depressed timber revenues to the government--inflated prices and money wages in the mill towns of Southeast Alaska. The Forest Service seems to assume that manufacturing in Alaska will always be noncompetitive and, by basing policy on this assumption, virtually guarantees it will be true.

¹⁰These policies and their economic dynamics are analyzed at length in *Federal Land Laws and Policies in Alaska*, a study prepared by the University of Wisconsin, School of Natural Resources, Center for Resource Policy Studies and Programs, for the Public Land Law Review Commission (Madison: March, 1969, Chapter III, "Timber," pp. 359-561). Further evidence for this analysis is found in Michael R. C. Massie and Robert C. Haring, *The Forest Economy of Haines, Alaska: A Study of Current Forest Utilization, Forest Management, Utilization Alternatives, and Resultant Economic Impact*, University of Alaska, Institute of Social, Economic and Government Research, 1969.

The Federal Policy Dilemma

Even if the above analysis is wholly accepted--that the federal treasury has financed and continues to finance regional inflation in Alaska by its across-the-board acceptance of, and willingness to pay, "prevailing" wage and price levels--the remedy is not easily apparent. Each federal agency operating in Alaska is still faced with the situation it faced all along. If it would obtain the structures, supplies, and personnel necessary to accomplish its mission, it has no choice but to pay the going prices. There is no single tool like currency devaluation to bring Alaska price levels quickly into line with those of the "Outside." Withdrawing the cost-of-living allowance from federal personnel would be a serious injustice to those employees who remain in Alaska, and would make it almost impossible to fill their positions. Refusal to pay inflated construction costs would mean simply that federal construction would not be accomplished, and the sudden exposure of the Southeast Alaska timber industry to competitive pressures for log supplies would generate serious unemployment in the pulp and lumber mills. No one agency or type of action has sufficient economic leverage to deflate the regional economy, and any adjustments to disinflationary policies will inevitably be both slow and uneven. A history of decades of high prices has introduced and perpetuated economic distortions and innocently vested interests in inefficiency, neither of which will be easily or painlessly corrected. In addition, there are clearly groups which greatly benefit from the existing situation--if our hypothesis is correct, they benefit largely at the expense of the federal treasury--and vigorous political opposition can be expected to disinflationary policies.

The federal government, however, does itself have substantial "market power" as the biggest customer of Alaska private enterprise and the state's biggest employer. It is probably, through the Small Business Administration, the Federal Housing Authority, etc., the state's leading banker. We propose that the government make concerted use of this market power.

For the reasons listed above, any set of policies aimed at reducing the government's contribution to and burden from regional inflation must be gradual and must operate on many fronts. These policies require operationally realistic goals, operational measures of success, and a strategy applied across the board in the federal government. It obviously entails an unusual degree of interagency coordination and cooperation. For this reason, we suggest that an interagency task force on Alaska regional inflation be established under the leadership of the Bureau of the Budget.

Elements of a Federal Programs

The following remarks are intended merely as suggestions of elements which might make up a federal program to cope with regional inflation in Alaska. Further research in price and wage levels and structures, and on the dynamics of the regional economy are warranted; and each of these suggestions requires intensive scrutiny.

The program's goals would be (1) a rough parity within ten years in cost-of-living levels between Alaska population centers having year-round surface transportation and levels in the Pacific Northwest. Differences at the end of ten years would be limited to those justified by real cost differentials. And (2) elimination of the cost-of-living allowance for federal employees in Alaska--and of its necessity--and a rough equivalence of Alaska wage-board rates to Pacific Northwest averages.

These objectives are not aimed at by means of *reducing* the money values of any individual wage or price, but by the retardation of increases in Alaska, allowing price and wage levels in other states to converge upward toward Alaska levels over a period of ten years. *It is important to emphasize here that any set of policies which would be either fair or politically acceptable would have to attack inflation by increasing factor and commodity supplies as well as by controlling demand.*

The federal government would *announce* its position on regional inflation--that it is not justified by physical cost factors and that the Treasury will not continue to finance private windfalls or noncompetitive economic activity in Alaska. The operational goals and their timetables should be announced along with the progress expected toward those goals during the forthcoming two or three fiscal years. *These announcements are themselves one of the most essential parts of a strategy against regional inflation because of their impact on business and employee expectations.* That is, public knowledge of such a policy on the part of the government will, *if the government's seriousness is believed*, prevent the expectation of future inflation from being capitalized into higher values for land and for existing homes and businesses. It can also be expected to affect investment plans predicated on continued inflation, to reduce relatively the demands of individual unions and planned increases in individual commodity prices.

In demonstrating the government's seriousness, the Bureau of the Budget should prescribe and publicize guidelines for federal agencies concerning contracting and procurement, which provide gradual, scheduled reductions in the differentials permitted between Alaska and the lower 48 in prices paid for materials and services, or prices *paid by contractors* for materials and labor used on government-financed projects.

Similar guidelines would be established regarding the appraisal of residential and business properties whose financing is underwritten or guaranteed by federal agencies.

Similar schedules would be established for the reduction of federal pay differentials. For classified personnel, one approach would be to increase the cost-of-living allowance for each position to a level equivalent to 30 percent of basic salary (in place of the present 25 percent), but to make the allowance taxable. Doing so would result in a slight net saving to the Treasury over the present arrangement, but would remove the steeply regressive character of the present allowance.¹¹ The allowance would be *redefined in dollar terms* rather than as a percentage, and each grade's allowance would be frozen for the next five years at the fiscal-year-1970 dollar amount. The allowance would be phased out completely over the second five years. Over the same ten-year period, a formula would be in effect to move the private labor market base for calculation of wage-board rates to parity with the averages in the Pacific Northwest states.

The federal government might flatly refuse to approve new civilian public works in Alaska where the anticipated construction cost is more than a specified percentage, declining from an initial 25 percent at 2-1/2 percentage points per year, above the costs which would be justified by physical factors alone. The federal financing of all such public works should be examined with special scrutiny; and, in view of the state's prospective wealth from mineral leasing revenues, there seems no justification for the federal government to entertain proposals to finance transportation facilities and other elements of the economic infrastructure (apart from those programs normally available to all the states, judged by the cost standards applied to other states). Renegotiation of contracts or payment for overruns on federal contracts as a result of wage or price increases exceeding the guideline figures would not be permitted.

The federal government would attempt to increase the available local supply of skilled labor, particularly in the construction trades, by on-the-job training and apprenticeship programs aimed at the unemployed and underemployed in Alaska, particularly Alaska Natives. It would not cooperate in other programs directed at achieving "local hire" by restricting labor-market entry.¹² Federal

¹¹See Appendix Tables 6 through 9.

¹²There have been instances in the past where military commanders in Alaska, in response to local pressures, have attempted to discourage military personnel from "moonlighting," and to discourage military dependents from taking jobs in the local labor market.

regulatory policy toward interstate carriers and public utilities in Alaska ought to be directed at achieving rate parity rather than at perpetuation of existing differentials.

The primary-processing requirement should be progressively relaxed on new federal timber sales in Alaska, and timber-appraisal practices should provide for a gradual adjustment of appraised prices to represent after ten years the full range of production and export possibilities which would exist in competitive markets.

An effort should be made to obtain state participation in the program of disinflation and the coordination of state personnel and contracting practices with those of the federal government. The adoption of a federal policy, however, should not be made conditional upon state participation, because of the higher vulnerability of the state to sectoral pressures.

Necessary Research:

Confirmation of the hypothesis outlined here and the implementation of the strategy based upon it require additional research and analysis. Among the tools required are:

(1) A study of the level and structure of existing price and wage differentials and the design of indexes for continuing assessment of these differentials.

(2) A reliable set of quarterly regional economic accounts is required along the lines initiated by Bradford H. Tuck in the study cited as reference for Table 1-10. More detailed industrial divisions are required, separating forestry from fisheries; oil and gas production from building materials production and from hardrock mining; lumber manufacturing, pulp manufacturing, and fish processing ought to be separated from one another and from other manufacturing; and federal government should be segregated from state and local government.

(3) An econometric model is needed of the Alaska economy by which the impact of changes in federal fiscal behavior could be simulated. Construction of such a model would rely upon the same primary data and would ideally be expressed in the same variables as the regional accounts. The two projects should probably be combined.

(4) A more comprehensive study of real estate costs in Alaska along the lines of Chapter II of this report, but encompassing a larger sample, instances from Fairbanks and Juneau as well as from Anchorage, and including representative government- or institutional-type structures.

(5) A study of federal government contracting policies and practices in Alaska.

(6) A new comprehensive assessment and analysis of Alaska regional inflation superseding the treatment presented here, using the findings of new research projects such as those listed above.

CHAPTER II

REAL ESTATE PRODUCTION AND OPERATING COSTS IN ALASKA

by R. W. Fischer, SRA*

Introduction

The cost of living index in Anchorage, Alaska, in the fall of 1967 was 22 percent above that of Seattle, Washington, according to the United States Bureau of Labor Statistics.¹ A primary cause of the excessive cost of living in Anchorage and Alaska is the high cost of housing.

Based on a cost of 100 in Seattle, where the cost of living is 7 percent above the national average, a breakdown of the index reveals that the cost of all types of housing in Anchorage was 20 percent over Seattle, and contract rent was 46 percent higher. Food costs were 22 percent higher in Anchorage than in Seattle, apparel costs were 8 percent higher, and costs of other goods and services were 16 percent higher.

The Bureau of Labor Statistics indexes are commonly used in Alaska, and regardless of their lack of precise accuracy, do indicate that a primary cause of excessive costs of living in Alaska is the higher cost of housing. In fact, the apparent excessive cost of housing is indicative of problems that affect other segments of the economy. The generally higher costs of real estate investments directly contributes to the higher cost of all of the other segments of living costs.

The purpose of this study is to analyze the available information on housing costs in Anchorage and to fortify this information with primary research. No previous comparative study based upon the total cost of production, rather than merely comparative costs of

*Institute of Social, Economic and Government Research, University of Alaska, College, Alaska, November, 1968.

¹U. S. Department of Labor, Bureau of Labor Statistics, "Indexes of Consumer Prices and Living Costs for Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska," Autumn, 1967. Taking into account the 7 percent differential between Seattle living costs and U. S. averages in the Department of Labor's *City Workers Family Budget*, Anchorage consumer costs become 30 percent higher than the national average.

"bricks and mortar," has been made of real estate costs between Alaska and other areas of the United States.

The result of the analysis will not be definitive because of the limited scope of the study. Basic information is scarce and inconsistent. However, the study is helpful in outlining a future course of studying the high cost of real estate in Alaska and in prescribing some methods of solving the problem.

During the course of the study, it became apparent that the typically accepted indexes of differences in the total production costs of real estate in Anchorage vary from 21 percent to 70 percent over Seattle. There are also significant variances, ranging from 39 percent to 77 percent, in the four specific case studies included in this report.

In general, the difference in occupancy costs between Seattle and Anchorage is greater than the difference in production costs. Occupancy costs in Anchorage range in our case studies from 44 percent to 124 percent over Seattle costs. Single-family residential occupancy costs in Anchorage are 76 percent over Seattle costs, and multi-family costs are 46 percent over Seattle. This compares to 1960 U.S. Census Bureau figures² which show a difference in occupancy costs in Anchorage of 97 percent over Seattle and to current Bureau of Labor Statistics figures which show a difference in Anchorage occupancy costs of 30 percent over Seattle.

Another conclusion drawn from this study is the apparent lower quality of housing in Alaska as compared to housing outside Alaska. The occupancy costs and total value of properties in Alaska are not consistent with differences in costs between Seattle and Anchorage, or for that matter, between different parts of the state.³

The study indicates that a specific medium-income family cannot afford as good quality housing in Alaska as it could outside Alaska. The study also raises the question of the adequacy of income levels in Alaska on the presently accepted index of 25 percent over Seattle.

Further study of this subject is warranted. As discussed above, the effect of the higher cost of real estate ownership in Alaska significantly affects the higher cost of living; and the more

²U. S. Department of Commerce, "Census of Housing," 1960.

³*Ibid.*

that can be learned about this subject, the better it can be dealt with.

Generally, the study questions the entire concept of housing in Alaska. There appears to be lack of imagination in providing living space and working space in Alaska--an area where a greater proportion of time must be spent inside buildings by the inhabitants than in other parts of the United States.

Project Outline

The primary research consists of four case studies. Each case study compares a real estate investment in Seattle with a similar investment in Anchorage. The cases are a single-family residence, an apartment house development, a shopping center development, and a warehousing development.

The total cost of production, as well as the total cost of occupancy of the specific properties, is analyzed. The analysis of cost of production includes not only the "bricks and mortar" but the entire cost of development, including financing, land, and entrepre-neuring.

The four types of properties are analyzed by dissecting them into elements of the total cost of production in an effort to discover which elements contribute most heavily to the excess cost of real estate development in Alaska. By so doing, it may be ascertained which elements are susceptible to meaningful reduction.

The study then goes from the four specific cases to the more general data available through numerous sources illustrating the cost of real estate production and investment in Alaska. Comparisons are made between different sources of data. Throughout this process, conclusions are formed about the cost of developing real estate in Alaska.

The difficulty in conducting such a study is in finding properties sufficiently similar to derive a meaningful comparison. This difficulty results from the inherent nature of real property. No two parcels of real estate are exactly alike. In fact, any person can readily distinguish one parcel from another. This characteristic of real estate is precisely the reason a study such as this has not been accomplished in the past. It explains the air of mystery about the reasons for the much higher cost of real estate in Alaska as compared with other parts of the United States.

A direct comparison of similar properties is considered the only meaningful approach to an analysis of this nature. The reader should be cautioned because there is a possibility the samples used may not be typical. These properties do represent "typical" properties, but as discussed above, the very nature of real estate defies exact comparison. The property may have sold for a higher or lower price than is typical.

The Anchorage and Seattle comparisons are actual and existing properties. The additional property compared in each case study assumes a hypothetical property similar to the Seattle property. This last breakdown is based upon appraisal manuals, national cost indexes, and national operating statements. It is helpful in comparing our costs with national costs.

Following the discussion of each property are three breakdowns. One, mentioned previously, is a breakdown into the various elements in the production of the specific property, such as plumbing, heating, concrete, etc. Another is a breakdown between land, labor, material, and management. The breakdown of land, labor, material, and management was considered to be helpful in giving a dual analysis of production costs. Third, a comparison breakdown of occupancy costs, including tenant occupancy costs, as these relate to the real estate, is shown. The breakdowns in cost vary in the different types of property because certain elements are more important in a specific type of property.

A SINGLE-FAMILY CASE STUDY

A property that sold recently in the Seattle area is fortunately quite comparable to a property recently sold in Anchorage. The Seattle property is located in Lynnwood, a medium-income residential suburb. It is a new, split-entry residence with a two-car, built-in garage. All public facilities such as water, sewer, and paving are available in the area. The home represents a median value in the neighborhood. It contains 1,200 square feet on the main floor, and has a 1,182 square foot basement. It has three bedrooms on the main floor, plus two baths, a living room, and a combination kitchen-family room. The basement area is unfinished except there is provision, with rough-in plumbing and heating, for finishing the area not devoted to the garage. The materials used in the house are typical of materials found in the Seattle area. It has hardwood floors in the bedrooms and living room, and vinyl tile in the family room and kitchen. There is the typical use of paneling and gypsum board on the walls and ceilings. The home has a deck on the back side and two fireplaces, one unfinished and located in the basement. The home is heated with electric heat, typical of the Seattle area. As shown in Table 2-1, this home sold for \$23,000. The sale price was \$19.17 per square foot of living area.

The property in Anchorage is located in Sand Lake, a medium-income residential neighborhood. The home is a new, wood-frame, split-entry structure. It has three bedrooms, a combination living room-dining room, a kitchen, and two baths on the main floor. It also represents a median value home for the neighborhood. This home contains 1,258 square feet of living area.

The basement area contains 1,238 square feet, has a two-car, built-in garage, and is provided with rough-in plumbing and heating. There are two fireplaces in the structure, one unfinished and located in the basement. Instead of the hardwood floors found in the Seattle home, the floors in the structure are finished with carpeting, and instead of electric heat, the structure is heated with gas-fired baseboard hot water heat. The quality of insulation is coincidentally the same because the structure in Seattle has electric heat which requires greater insulating. The concrete footings are deeper in the case of the Anchorage property because of the difference in climatic conditions. Except for the small difference in the size, the heating system, and the footings, the properties are extremely similar. The Anchorage home sold for \$42,750, or \$33.98 per square foot of living area including the land.

Table 2-1 shows the actual sale price for the Anchorage single-family property as \$42,750, compared to a sale price for the Seattle property of \$23,000. The Anchorage property, therefore, sold

TABLE 2-1

ELEMENTS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	± Anchorage ± Seattle	± Anchorage ± National
	\$42,750	\$33.98	100.0%	\$23,000	\$19.17	100.0%	\$21,500	\$17.92	100.0%	1.77	1.90
Land	7,542	6.00	17.6	3,905	3.25	17.0	3,800	3.17	17.7	1.85	1.89
Survey & Architectural Site Improvement & Excavation	300	.24	.7	125	.10	.5	200	.17	.9	2.40	1.41
Concrete	4,655	3.70	10.9	1,875	1.56	8.1	1,848	1.54	8.6	2.37	2.40
Framing	6,373	5.07	14.9	4,271	3.56	18.6	3,916	3.26	18.2	1.42	1.56
Plumbing	2,031	1.61	4.8	1,300	1.08	5.6	1,387	1.16	6.4	1.49	1.39
Heating	1,131	.90	2.6	412	.34	1.8	500	.42	2.3	2.65	2.14
Electrical	1,073	.85	2.5	487	.41	2.1	500	.42	2.3	2.07	2.02
Roofing	575	.46	1.4	325	.27	1.4	304	.25	1.4	1.70	1.84
Finish Items	5,500	4.37	12.9	2,727	2.27	11.8	2,851	2.38	13.3	1.93	1.84
Flooring	1,339	1.06	3.1	657	.55	2.9	564	.47	2.6	1.93	2.26
Painting	1,051	.84	2.5	500	.42	2.2	400	.33	1.9	2.00	2.55
Miscellaneous	648	.52	1.5	233	.19	1.0	200	.17	1.0	2.74	3.06
Interim Loan Costs	2,147	1.71	5.0	385	.32	1.7	350	.29	1.6	5.34	5.90
Closing Fees & Discounts	3,408	2.71	8.0	1,720	1.43	7.5	1,000	.83	4.6	1.90	3.27
Real Estate Commission	2,138	1.70	5.0	1,150	.96	5.0	1,075	.90	5.0	1.77	1.89
Profit and Overhead	2,105	1.67	4.9	2,278	1.90	10.0	1,949	1.62	9.1	.88	1.03

for 86 percent more than the Seattle property. When adjusting this for the slight variance in size, a difference in sale price of 77 percent is indicated. While the home in Anchorage is of better quality because of the heating system and foundation, it gives essentially the same amount of livability as the Seattle home. The person buying the Anchorage property knew he was somewhat above the median sale price of homes in the Anchorage area, which is currently \$35,500 according to the local Federal Housing Administration Office. The family purchasing the Seattle home at \$23,000 paid slightly below the median price of new homes in the Seattle area. The United States Department of Commerce reports a current median sale price for new homes in the United States of \$24,000, which indicates the average sale price of homes in Seattle is approximately \$25,000.⁴ The hypothetical national sample, therefore, was also slightly below the price of the average home built and sold in today's national market.

Table 2-1 shows the relative contribution to the total sale price of the various elements of cost in each of the three properties being analyzed. It also shows the percentage difference in cost of each item in Anchorage compared to Seattle and in Anchorage compared to the national average.

As shown in Table 2-1, land cost was consistently about 17 percent of the total sale price. Costs of framing, plumbing, electrical, roofing, finish items, flooring, painting, and commissions were also similar percentages of the sale price in the Anchorage and Seattle properties. Survey and architectural costs were significantly higher in Anchorage than in Seattle because of less re-use of plans. The cost of site improvements was lower as a percentage of the sale price in Anchorage because Anchorage properties typically are not landscaped as well as properties outside Alaska.

Concrete costs, as a percentage of total price, were somewhat more in Anchorage because of the higher price of concrete and the fact that this item has a high percentage of labor to material cost. Where labor greatly contributes to the end product, the end product generally tends to cost more. This is primarily because of less efficient utilization of labor. Overtime must be offered to get good labor on a job and automatically causes less efficient labor. The fact that one-half again as much is paid for an hour's work does not mean one-half again as much work is accomplished. When a man works more hours per week, his efficiency per hour decreases.

The heating system cost, as expected, was substantially more in Anchorage than in Seattle. The heating system in the Anchorage

⁴U.S. Department of Commerce, "Sales of New Single-Family Homes," April, 1968.

property was hot water as opposed to electric heat in the Seattle and national properties. Miscellaneous fees in the Anchorage property were apparently out of line, but this is not considered significant. Closing fees and discounts were approximately the same in Anchorage and Seattle because the buyers acquired new mortgages which were guaranteed by the Federal Housing Administration. The Seattle home mortgage was sold to the private mortgage market at a 6 percent discount. The Federal National Mortgage Association bought the Anchorage mortgage for a 7.5 percent discount. In addition to the discounts in Seattle of 6 percent, there is also a 1 percent transfer tax on real estate in the State of Washington. The closing fees outside Washington State on a national basis are somewhat less as a percentage of the total sale price because the transfer tax is not typical of other states, and discounts are commonly lower than in Seattle.⁵

One area of substantial difference between the Anchorage and Seattle home costs was interim financing. This is significant both as a percentage of the total sale price and as a dollar amount. The higher cost in Anchorage was primarily because of the slower turnover of homes for the Anchorage builder. The Seattle builder is a larger and faster builder.

The one item of cost that was substantially less in Anchorage than in Seattle is profit and overhead. It was a similar dollar amount in Anchorage as compared to Seattle and the national sample. This is not considered a typical situation and has developed recently with the advent of increased discounts in Anchorage and in Alaska on Federal Housing Administration insured mortgages. This has caused a squeeze in profits to Anchorage builders, and in the near future, is likely to result in a reduced number of builders in the Anchorage and Alaska home building markets.

One would assume profits would actually be a higher proportion of the total sale price in Anchorage than in Seattle. This appears to have been the case in the past. There is a relatively smaller market in Alaska which causes a higher risk for the builder in that he may have to hold the home longer before a buyer is found. A builder would also typically demand a higher profit in Anchorage because of climatic conditions. His total yearly profit must come in a shorter season.

When analyzing the three properties on the basis of factors in the total cost of production shown in Table 2-2, a consistency is again found in the cost of land as a percentage of total cost. Labor costs as a percentage of total production cost are the same in Anchorage as

⁵House and Home Magazine, "Homebuilders Mortgage Market Quotations," July, 1968.

TABLE 2-2
FACTORS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	\div Seattle	\div National
	\$42,750	\$33.98	100.0%	\$23,000	\$19.17	100.0%	\$21,500	\$17.92	100.0%	1.77	1.90
Land	7,542	6.00	17.6	3,905	3.25	17.0	3,800	3.17	17.7	1.85	1.89
Labor	11,318	8.99	26.5	6,104	5.09	26.5	6,677	5.56	31.1	1.77	1.62
Materials	14,092	11.20	33.0	7,458	6.22	32.4	6,649	5.54	30.9	1.80	2.02
Management	9,798	7.79	22.9	5,533	4.61	24.1	4,374	3.65	20.3	1.69	2.13

in Seattle but are slightly less on a national basis. This item will be discussed in detail later in the study. The interesting observation, at this juncture, is that while labor costs on an hourly basis are about 50 percent higher in Anchorage than in Seattle, the labor cost in the sample is 77 percent more in Anchorage than in Seattle.

A similar disparity of about 76 percent is found in the cost of occupancy in the Anchorage residence over the Seattle residence, as shown in Table 2-3. This higher total cost of occupancy exists even though the Anchorage residence required a substantially larger down payment of \$4,050 as compared to the down payment in the Seattle area of \$1,600--two and one-half times as much. As expected, a higher percentage of heat cost is found in Anchorage as compared to Seattle and also a higher percentage of cost of lights as compared to Seattle. The mortgage payment, as a percentage of total occupancy cost, is slightly less because of a lower percentage of loan-to-value ratio in the higher priced Anchorage home. One component that is substantially higher in the Anchorage sample is insurance. The cost is almost three times as much in Anchorage as in Seattle. This item is somewhat offset by the lower cost of taxes as a percentage of total cost in Anchorage over areas outside Alaska. Although this is not reflected in the Seattle comparison, it is in the national hypothetical sample. The sample shows a tax cost of 2 percent of value nationally, whereas the Anchorage cost is 1.5 percent of value.⁶

In summary, the cost of elements in the development of a single-family residence are consistently about 75 percent higher in Anchorage than in Seattle. The two items that deviate most substantially from this 75 percent figure are the cost of a heating system and interim loan costs.

The 75 percent difference is also found in the cost of occupancy. The primary differences from this norm appear to be the higher costs of insurance and heat.

⁶U.S. Department of Commerce, "Property Tax Rates in Selected Major Cities and Counties," May, 1968.

TABLE 2-3

COST OF OCCUPANCY -- SINGLE FAMILY

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Rental	Rental Per Square Foot	Contri- bution To Total	Total Rental	Rental Per Square Foot	Contri- bution To Total	Total Rental	Rental Per Square Foot	Contri- bution To Total	±Anchorage ±Seattle	±Anchorage ±National
RENTAL, INCLUDING UTILITIES	\$415	\$.3298	100.0%	\$225	\$.1875	100.0%	\$215	\$.1792	100.0%	1.76	1.87
Mortgage Payment	267	.2122	64.3	157	.1308	69.8	145	.1208	67.5	1.62	1.76
Taxes	55	.0437	13.4	31	.0258	13.8	36	.0300	16.7	1.69	1.46
Insurance	20	.0159	4.8	5	.0042	2.2	5	.0042	2.3	3.79	3.79
Water	8	.0064	1.9	4	.0033	1.7	3	.0025	1.4	1.94	2.56
Heat	35	.0278	8.4	12	.0100	5.3	11	.0092	5.1	2.78	3.02
Lights	20	.0159	4.8	8	.0066	3.6	7	.0058	3.3	2.41	2.74
Maintenance	10	.0079	2.4	8	.0066	3.6	8	.0066	3.7	1.20	1.20

A MULTI-FAMILY CASE STUDY

The comparison between an apartment house in Seattle and an apartment house in Anchorage was made in much the same manner as in the single-family residence case. In this case, the apartment house chosen for analysis in the Seattle area is a five-story, 34-unit, wood-frame structure. It has a basement, which includes parking area, and four upper floors. The structure contains 2,584 square feet in the basement plus a covered parking area of 1,880 square feet. The upper floors of living area contain a total of 33,212 square feet. It is located near the heart of downtown Seattle on a site that contains 14,400 square feet. There is one bachelor apartment, 21 one-bedroom apartments, 5 two-bedroom apartments with one bath, 5 two-bedroom apartments with one and one-half baths, and 2 three-bedroom apartments, one with one and one-half baths and one with two baths. The units contain an average of 975 square feet of living area.

The floors all use lightweight concrete for soundproofing. The walls are well soundproofed and finished with gypsum board. The unit has one elevator. The floors are finished with wall-to-wall carpeting except in the kitchen and bathrooms where there is vinyl asbestos tile. Each unit has a refrigerator, range, dishwasher, and garbage disposal and is heated by an individually metered baseboard electric system. The property was recently sold for \$700,000 (\$20,588 per unit) including the land, or \$21.08 per square foot of living area.

The Anchorage property is very similar to the Seattle property although it is substantially larger. It contains a total of 57 units. The bottom floor is a basement, which includes a parking garage. There are three upper floors of living area. The basement, including the parking garage, contains 18,344 square feet. Each of the upper floors contains 17,464 square feet. Therefore, there is a total of 52,392 square feet of living area in the structure. It is located near the heart of downtown Anchorage on a site that contains 35,000 square feet. There are 10 efficiency apartments, 24 one-bedroom apartments, and 23 two-bedroom apartments with two baths. The units contain an average of 923 square feet, slightly smaller than the Seattle apartment house.

The floors, as in the Seattle property, use lightweight concrete for soundproofing; and the walls are well soundproofed. The interior wall finish is gypsum board. The unit has one elevator. The floors are finished with wall-to-wall carpeting except in the kitchen and bathrooms where there is vinyl asbestos tile. Each unit has a full range of built-in appliances. The property differs from the Seattle property in that it is heated with a gas-fired hot water baseboard system. The apartment house has one sauna bath, and one-third of the units have fireplaces.

The property has not been sold, but it is valued at approximately \$1,400,000. Thus, the property has a value of \$24,561 per unit, or 20 percent more than the Seattle property. The value per square foot of living area is \$26.62, or 26 percent more than the Seattle property.

Table 2-4 reflects the elements in the total cost of production of the Anchorage property as compared to the Seattle property. It also shows a comparison to the hypothetical national sample. As in the case of the single-family residence comparison, the national sample was derived by the use of national appraisal and cost manuals.

In this comparison, a significant difference is found in the land value as a percentage of total value. The land value in the Anchorage property was 10 percent of the overall value. In the Seattle property, the land value was over 17 percent of the total value.

Survey and architectural costs were a higher percentage of the total cost in the Seattle sample because the contractor provided the architectural supervision in the Anchorage property. The site improvements and excavation were significantly less as a percentage of the total value in Anchorage because the Seattle property was on severely sloping land with more difficult subsoil conditions. Also, there were more site improvements made in the case of the Seattle property.

Concrete cost for the Anchorage property was significantly higher than for the Seattle property. Contributing to this is the much higher effective cost of labor in Anchorage and the higher cost of material. Also, there is more concrete per square foot of living area in the Anchorage property than in the Seattle property.

As expected, heating and electrical costs were substantially more in the Anchorage property than in the Seattle property. The roofing costs were substantially higher in the Anchorage property because it has more roof area per unit than the Seattle property. The interim loan costs were significantly more a percentage of total cost in the Anchorage case due to the longer construction time and the slightly higher interest rate in Anchorage.

Table 2-5 shows a comparison of the cost of the different factors in the total cost of production. As mentioned above, the land contributed a lower percentage of the total value in Anchorage than in Seattle. Labor costs are slightly higher in Alaska as a proportion of total value, probably because of greater inefficiency of labor. It is mandatory that contractors work men more than 40 hours a week to get qualified people. These additional hours are not as productive as the original forty.

TABLE 2-4

ELEMENTS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	±Seattle	±National
	\$1,400,000	\$26.62	100.0%	\$700,000	\$21.08	100.0%	\$680,000	\$20.47	100.0%	1.26	1.30
Land	140,000	2.66	10.0	120,000	3.61	17.1	120,000	3.61	17.7	.74	.74
Survey & Architectural Site Improvement & Excavation	20,350	.39	1.4	15,000	.45	2.2	15,000	.45	2.2	.87	.87
Concrete	22,577	.43	1.6	23,150	.70	3.3	19,624	.59	3.0	.61	.77
Framing	180,143	3.43	12.9	39,530	1.19	5.7	39,126	1.18	5.8	2.88	2.90
Plumbing	281,070	5.34	20.1	152,200	4.58	21.7	159,417	4.80	23.4	1.17	1.11
Heating	71,604	1.36	5.1	37,300	1.12	5.3	37,299	1.12	5.5	1.21	1.21
Electrical	56,487	1.07	4.0	19,500	.59	2.8	21,852	.66	3.2	1.81	1.62
Roofing	57,800	1.10	4.1	19,500	.59	2.8	19,968	.60	3.0	1.86	1.83
Finish Items	10,600	.20	.8	2,300	.07	.3	1,946	.06	.3	2.86	3.33
Flooring	174,476	3.32	12.5	89,325	2.69	12.8	79,326	2.39	11.7	1.23	1.39
Painting	86,413	1.64	6.2	45,700	1.38	6.5	43,176	1.30	6.3	1.19	1.26
Miscellaneous	27,550	.52	2.0	15,800	.48	2.3	13,999	.42	2.0	1.08	1.24
Interim Loan Costs	22,650	.43	1.6	11,200	.34	1.6	10,000	.30	1.4	1.26	1.43
Profit & Overhead	52,100	.99	3.7	10,000	.30	1.4	9,000	.27	1.3	3.30	3.67
	196,180	3.73	14.0	99,495	3.00	14.2	90,267	2.72	13.2	1.24	1.37

TABLE 2-5

FACTORS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference	
	Total Value	Value Per Square Foot	Contribution To Total	Total Value	Value Per Square Foot	Contribution To Total	Total Value	Value Per Square Foot	Contribution To Total	Per Foot Anchorage ÷ Seattle	Per Foot Anchorage ÷ National
	\$1,400,000	\$26.62	100.0%	\$700,000	\$21.08	100.0%	\$680,000	\$20.47	100.0%	1.26	1.30
Land	140,000	2.66	10.0	120,000	3.61	17.2	120,000	3.61	17.6	.74	.74
Labor	448,541	8.53	32.1	196,093	5.90	28.0	186,288	5.61	27.4	1.45	1.52
Material	563,179	10.71	40.2	274,412	8.26	39.2	274,445	8.26	40.4	1.30	1.30
Management	248,280	4.72	17.7	109,495	3.30	15.6	99,267	2.99	14.6	1.43	1.58

Material costs were consistently higher in Alaska. Management costs, which would include profit, overhead, and financing costs, were slightly higher in Anchorage than in Seattle as a percentage of total cost.

Although the square foot cost in the Anchorage property, including land, was only 26 percent higher than in Seattle, a different picture emerges when land is excluded from consideration. When land is excluded, Anchorage construction cost is 37 percent over Seattle cost.

Table 2-6 shows the total occupancy costs in the apartment house and the occupancy costs per unit. The occupancy costs, on a square footage basis, were 46 percent higher in Anchorage than in Seattle. The taxes on the apartment house in Anchorage were fairly consistent with those in Seattle as a percentage of the total occupancy cost. However, taxes in Anchorage and Seattle are significantly lower than they are nationally.⁷ Insurance cost was fairly consistent in this particular comparison. Both units are located close to downtown, and insurance rates in downtown Anchorage are similar to Seattle and national rates.

Heat was expectedly higher in the Anchorage property, and the cost of electricity was significantly higher. The higher cost of electricity was probably due to the particular design of the Anchorage unit, which demanded electrically heated piping in the first floor of the structure as well as electrically heated automobile headbolt heaters. Management cost was a higher percentage of total cost in the Anchorage property but is not considered significant. Maintenance cost was slightly lower in Anchorage as a percentage of total cost, which is apparently due to a lower quality of maintenance in the Anchorage property. Interest and principal payment in the case of the Anchorage property were lower as a percentage of the total rental because of the lower percentage loan-to-total-value in this case. This is considered typical for Alaskan properties where there is a lower percentage of loan-to-total-value available. Cash flow was significantly higher in the case of the Anchorage property, due partially to the higher equity in the Anchorage property compared with the Seattle property, and also due to the better return on investments demanded in Alaska as compared to the other states. Because of the limited supply of equity money available in Alaska, lack of competition allows investors to earn a higher return on their equity in investments.

National occupancy costs are similar to those in Seattle, except that the national average for taxes is substantially higher than in Seattle.⁸

⁷*Ibid.*

⁸*Ibid.*

TABLE 2-6

OCCUPANCY COSTS -- APARTMENT HOUSE

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference	
	Total Rental	Rental Per Square Foot	Contri- bution To Total	Total Rental	Rental Per Square Foot	Contri- bution To Total	Total Rental	Rental Per Square Foot	Contri- bution To Total	Per Foot	
		=Anchorage =Seattle	=Anchorage =National								
TOTAL RENTAL INCOME	\$198,144	\$3.77	100.0%	\$86,000	\$2.59	100.0%	\$83,500	\$2.51	100.0%	1.46	1.50
EXPENSES:											
Taxes	24,180	.46	12.2	11,000	.33	12.7	13,600	.41	16.3	1.39	1.12
Insurance	3,840	.07	2.0	1,700	.05	2.0	1,600	.05	2.0	1.40	1.40
Water & Garbage	2,448	.05	1.2	1,200	.04	1.4	1,000	.03	1.1	1.25	1.67
Heat	5,900	.11	3.0	1,300	.04	1.5	1,100	.03	1.3	2.75	3.67
Lights	9,438	.18	4.8	1,300	.04	1.5	1,100	.03	1.3	4.50	6.00
Management	12,360	.24	6.2	3,950	.12	4.5	3,841	.12	4.7	2.00	2.00
Maintenance	12,000	.23	6.0	6,700	.20	7.8	6,000	.18	7.1	1.15	1.28
Interest & Principal Payment	96,360	1.83	48.6	47,136	1.42	54.8	46,116	1.39	55.3	1.29	1.32
Cash Flow	31,618	.60	16.0	11,914	.36	13.8	9,143	.28	10.9	1.67	1.14

OCCUPANCY COSTS PER UNIT
ONE BEDROOM, ONE BATH, 750 SQUARE FEET

TOTAL RENTAL INCOME	\$250		100.0%	\$180		100.0%	\$170		100.0%	1.39	1.47
EXPENSES:											
Taxes	30		12.0	23		12.8	28		16.5	1.30	1.07
Insurance	5		2.0	4		2.2	3		1.7	1.25	1.67
Water & Garbage	3		1.2	2		1.1	2		1.2	1.50	1.50
Heat	8		3.2	4		2.2	2		1.2	2.00	4.00
Lights	12		4.8	2		1.1	2		1.2	6.00	6.00
Management	16		6.4	9		5.0	8		4.7	1.78	2.00
Maintenance	15		6.0	14		7.8	12		7.1	1.07	1.25
Interest & Prin- cipal	121		48.4	98		54.5	94		55.3	1.23	1.29
Cash Flow	40		16.0	24		13.3	19		11.2	1.67	2.11

The second portion of Table 2-6 is a comparison of occupancy costs on a unit basis in Anchorage and Seattle. In both cases, the units are located close to downtown. In the Seattle case, however, the downtown land is at more of a premium than in Anchorage, as reflected by the significantly higher land value in the Seattle property. In fact, there is a 39 percent difference in the total cost of occupancy in the Anchorage unit as compared to the Seattle unit. This is a lower percentage difference on a unit cost than on a square footage cost because of the difference in rentals on different size apartments.

In summary, the cost of production on a square footage basis for the Anchorage property was 26 percent over the Seattle property. However, the value of the land as a percentage of total cost was significantly lower in Anchorage than in Seattle. When land is extracted from both comparisons, cost per square foot in the Anchorage property was 37 percent higher than in the Seattle property. In this case, therefore, the land was responsible for significantly lowering the total cost of production.

Total occupancy costs were 46 percent higher in Anchorage than in Seattle on a square footage basis and 39 percent higher on a unit basis.

A WAREHOUSE CASE STUDY

In this case, the property chosen in the Seattle area is a warehouse and manufacturing building in Andover Park south of Seattle in the Boeing/Seattle-Tacoma International Airport area. The building was recently completed and good information as to the value of the property, as well as a breakdown of the cost of production of the building, was available. The building contains 30,000 square feet. It is a tilt-up concrete structure with glulam beam roof. The major portion of the building is unfinished on the interior walls, floors, and ceilings. There is approximately 3,000 square feet of finished office area. A reliable estimate places its value at \$275,000. The structure is heated with gas-fired unit heaters and electric baseboard convection. It is on a parcel of land containing 94,336 square feet.

The property in Anchorage is a warehouse containing 36,601 square feet. It is a concrete block structure with a glulam beam roof and is heated with individual gas-fired heaters. The interior walls, floors, and ceilings of the structure are unfinished except in the office area containing approximately 3,000 square feet. The property is located on a parcel of land that contains 80,000 square feet. It is a grocery wholesale distribution facility. A reliable estimate of value of the Anchorage property is \$450,000.

The quality of the structure in Seattle is generally considered better than the unit in Anchorage because of the tilt-up concrete construction. The heating facilities in the building in Anchorage are necessarily better because of the more severe climatic conditions. The building in Seattle is finished on the exterior in a more attractive manner than the building in Anchorage. The finish materials, however, are consistent with the finish of materials in Seattle; whereas, the finish materials in the Anchorage facility are consistent with buildings in the Anchorage area. The value per square foot of the Anchorage building is \$12.29, including the land; whereas, the value of the Seattle building, including the land, is \$9.17 per square foot. The value of the Anchorage facility, therefore, is approximately 34 percent greater on a square footage basis. In essence, the market in Anchorage is paying 34 percent more for an inferior quality facility.

Table 2-7 indicates a breakdown in the total value of the two properties into their various elements. Again, a third comparison is made to a hypothetical national average sample.

Once again, land was a significantly smaller portion of the total investment in Anchorage than it was in Seattle. The survey and architectural costs were a higher percentage of total value in Anchorage. This was because of the existence of a larger number of the same type

TABLE 2-7

ELEMENTS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	±Anchorage ±Seattle	±Anchorage ±National
	\$450,000	\$12.29	100.0%	\$275,000	\$9.17	100.0%	\$260,000	\$8.67	100.0%	1.34	1.42
Land	60,000	1.64	13.3	60,000	2.00	21.9	60,000	2.00	23.0	.82	.82
Survey & Architectural Site Improvement & Excavation	13,834	.38	3.0	5,000	.17	1.9	5,000	.17	2.0	2.24	2.24
Concrete	30,738	.84	6.9	16,642	.55	6.0	15,600	.52	6.0	1.53	1.62
Framing	102,273	2.79	22.8	57,416	1.91	20.9	56,290	1.88	21.6	1.46	1.48
Plumbing	57,135	1.56	12.7	31,301	1.04	11.3	35,380	1.18	13.7	1.50	1.32
Heating	7,000	.19	1.6	3,235	.11	1.1	3,070	.10	1.2	1.73	1.90
Electrical	21,500	.59	4.8	7,710	.26	2.9	7,220	.24	2.8	2.27	2.46
Roofing	26,274	.72	5.8	13,800	.46	5.0	12,760	.43	5.0	1.57	1.67
Finish Items	22,206	.61	5.0	4,600	.15	1.7	4,800	.16	1.8	4.07	3.81
Flooring	24,999	.68	5.6	16,726	.56	6.0	17,020	.57	6.5	1.21	1.19
Painting	2,000	.05	.4	1,500	.05	.6	1,300	.04	.5	1.00	1.25
Miscellaneous	1,500	.04	.3	1,975	.07	.7	1,800	.06	.7	.57	.67
Interim Loan Costs	5,854	.16	1.3	2,559	.09	1.0	2,000	.07	.8	1.78	2.29
Profit & Overhead	9,000	.25	2.0	3,000	.10	1.0	3,000	.10	1.1	2.50	2.50
	65,687	1.79	14.6	49,536	1.65	18.0	34,760	1.16	13.4	1.08	1.54

buildings in Seattle and because of a saving on this item by re-use of plans. Site improvements were consistently higher in Anchorage. The cost of concrete was slightly more in Anchorage than in Seattle as a percentage of total cost. This is a very significant item in the cost of production of the properties because they have concrete walls and there is relatively little finish work. This is a high labor cost item which indicates a substantially higher cost in Anchorage than in Seattle.

The framing cost was higher in Anchorage than in Seattle. The same was true of the plumbing cost. The heating cost was significantly more in Anchorage, which is expected. The roofing cost was also a great deal more in Anchorage, apparently because this is a rather high labor cost item. The electrical cost was higher in Anchorage. The cost of finish items was also higher in Anchorage over Seattle. Flooring and painting were fairly consistent, but in the Anchorage property the painting cost was less as a proportion of total cost because less painting was accomplished on the property. Interim loan costs were proportionately more than double in Anchorage because of the longer period of construction and the slightly higher interest rate.

The profit and overhead item on the Anchorage property was consistently higher than Seattle. This is not considered to be a normal situation. Property of this type in Anchorage is typically owner-occupied and is not built to make a profit on the real estate. In the Seattle area, warehouses are built for the sake of the real estate investment. There is a relatively limited number of lessees in the Anchorage market as compared to the Seattle market where buildings of this nature are not normally owner-occupied.

When comparing individual elements of cost in the Seattle property with those in the national property, relative consistency is found in the Seattle property as compared to our hypothetical national average sample. The variances are primarily where the costs of labor or materials are higher or lower in Seattle than on a national average.

Table 2-8 reflects a comparison of the factors of production. Here, again, the land was a significantly lower cost factor on a percentage basis in Anchorage than in Seattle. Labor is a much higher item in the case of this type building in Anchorage than in Seattle. It is what might be called a "bare bones building," and the labor cost is more significant as a portion of the total cost in Anchorage.

The remaining items were consistently higher in Anchorage than in Seattle and little can be learned from these.

Table 2-9 compares the occupancy costs of the three buildings projected above and shows that the total occupancy cost, including

TABLE 2-8
FACTORS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	Anchorage ÷Seattle	Anchorage ÷National
	\$450,000	\$12.29	100.0%	\$275,000	\$9.17	100.0%	\$260,000	\$8.67	100.0%	1.34	1.42
Land	60,000	1.64	13.3	60,000	2.00	21.9	60,000	2.00	23.1	.82	.82
Labor	157,609	4.31	35.0	77,920	2.58	28.3	78,245	2.61	30.1	1.67	1.65
Material	157,704	4.31	35.1	84,544	2.82	30.7	83,995	2.80	32.3	1.53	1.54
Management	74,687	2.04	16.6	52,536	1.75	19.1	37,760	1.26	14.5	1.17	1.62

TABLE 2-9
OCCUPANCY COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Rental Income	Rental Per Square Foot	Contri- bution To Total	Total Rental Income	Rental Per Square Foot	Contri- bution To Total	Total Rental Income	Rental Per Square Foot	Contri- bution To Total	Anchorage ÷Seattle	Anchorage ÷National
	\$76,610	\$2.09	100.0%	\$43,450	\$1.45	100.0%	\$40,000	\$1.33	100.0%	1.44	1.57
Tenant Utilities & Maintenance	14,000	.38	18.3	10,200	.34	23.5	10,100	.34	25.2	1.12	1.12
Total Rental	62,610	1.71	81.7	33,250	1.11	76.5	29,900	1.00	74.8	1.54	1.71
<hr/>											
<u>Operating Expenses:</u>											
Maintenance	1,500	.04	2.0	500	.02	1.2	500	.02	1.3	2.00	2.00
Real Estate Taxes	9,700	.27	12.7	2,688	.09	6.2	5,200	.17	13.0	3.00	1.59
Insurance	1,200	.03	1.6	600	.02	1.3	600	.02	1.5	1.50	1.50
Management	4,000	.11	5.2	1,200	.04	2.8	1,880	.06	4.7	2.75	1.83
Interest & Prin- cipal Payments	26,100	.71	34.0	17,412	.58	40.0	14,880	.50	37.2	1.22	1.42
Cash Flow	20,110	.55	26.0	10,850	.36	25.0	6,840	.23	17.1	1.53	2.39

tenant utilities and maintenance, was 20.9¢ per square foot in Anchorage. The occupancy cost in the Seattle property was 14.5¢ per square foot. This means that the Anchorage occupancy costs totaled approximately 44 percent higher than in Seattle. Tenant utilities and maintenance, as a percentage of total occupancy costs, were lower in Anchorage because of lower maintenance level than in the Seattle property.

In this case, real estate taxes in Anchorage were a significantly higher proportion of the total occupancy cost than in Seattle. Insurance costs were slightly higher in Anchorage, and management cost was higher; but interest and principal payments were lower as a percentage of total cost. The tax item in this case is not considered typical. The tax rate on this property appears to be higher than is normal for the Anchorage area. The insurance cost and management costs are also not considered to be indicative of a significantly higher cost in Anchorage than Seattle for these items. The interest and principal payments were lower as a percentage of the total occupancy cost in Anchorage in this case because of the lower percentage loan-to-total-value available to the Anchorage property than is to the Seattle property. This is also the reason the cash flow in this case was higher in Anchorage than in Seattle.

Our national figures are significant only in that the tax amount in the Anchorage property, although more than double the amount of the Seattle property, is consistently higher than the national hypothetical sample reflecting that property taxes on a national level are significantly higher than in Seattle.

In summary, total production costs were 34 percent greater in Anchorage than in Seattle. However, when land is extracted from consideration, the difference in building production is 49 percent higher in Anchorage than in Seattle. Again, in this case, land was responsible for significantly lowering the total cost of production. Total occupancy cost in Anchorage was 44 percent higher than Seattle.

A SHOPPING CENTER CASE STUDY

The property chosen for analysis in the Seattle area is a shopping center located south of Seattle. The facility was just completed and recently sold at a price of \$1,000,000. It has a total of 49,524 square feet and is located on a parcel of land containing 185,000 square feet. It is a one-story, frame and masonry building with pre-cast concrete tilt-up walls and a glulam beam ceiling structure. The floors are finished with vinyl asbestos tile, the interior walls are plasterboard, and the ceilings are suspended acoustical tile. The building has a sprinkler system for fire control. Heating is by individual gas-fired heaters. The building is leased to a drugstore, a grocery store, a restaurant, and a general merchandise store. The property sold for \$20.19 per square foot, including the land.

The property chosen for analysis in the Anchorage area is located south of Anchorage. The facility contains a total of 101,461 square feet. The land contains 392,040 square feet. The structure is of basically concrete block construction with glulam beam roof structure. The interior walls are gypsum board, the floors are finished with vinyl asbestos tile, and the ceilings are finished primarily with acoustical tile. The building is very similar to the building in Seattle except that it is of concrete block construction instead of tilt-up concrete, and the heating system, although similar to the Seattle property, is larger. Also, the concrete foundation walls in the Anchorage structure are deeper. The value of the property is reliably estimated to be \$3,100,000. This is a value of \$30.55 per square foot, including the land, which is approximately 51 percent more per square foot than the Seattle property.

When comparing elements of the total cost of production in Table 2-10, it is found that the land cost in the case of the Anchorage property was significantly lower than in the case of the Seattle property. The survey and architectural costs were consistently higher in the Anchorage property. The cost of site improvements in the Anchorage case was significantly less as a percentage of the total investment because the land improvement in Seattle was more extensive. Here, as with the other case studies, the concrete cost was a significantly larger part of the total investment in Anchorage than in Seattle. This item has a high labor-to-material ratio. Framing costs were slightly more as a percentage of the total investment, thus reflecting the higher cost of labor in Anchorage as opposed to Seattle. Plumbing was slightly more expensive as a portion of the total cost in Anchorage. Electrical costs were higher as a proportion of total cost in Anchorage than in Seattle, and again, roofing cost was significantly higher. These items are high labor factor items which probably reflect a greater inefficiency of labor in Anchorage over Seattle. Finish items were also

TABLE 2-10

ELEMENTS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference	
	Total	Value Per Square Foot	Contribution To Total	Total	Value Per Square Foot	Contribution To Total	Total	Value Per Square Foot	Contribution To Total	Per Foot	
	Value			Value			Value			÷Seattle	÷National
	\$3,100,000	\$30.55	100.0%	\$1,000,000	\$20.19	100.0%	\$950,000	\$19.18	100.0%	1.51	.59
Land	225,000	2.22	7.3	211,000	4.26	21.1	200,000	4.04	21.0	.08	.18
Survey & Architectural	125,000	1.23	4.0	36,800	.74	3.7	35,000	.71	3.7	1.66	.73
Site Improvement & Excavation	190,560	1.88	6.2	95,048	1.92	9.5	93,548	1.89	9.9	.98	.99
Concrete	480,828	4.74	15.5	105,013	2.12	10.5	105,013	2.12	11.1	2.24	2.24
Framing	296,512	2.92	9.6	78,950	1.59	8.0	83,105	1.68	8.8	1.84	1.74
Plumbing	106,449	1.05	3.4	29,256	.59	2.9	28,404	.57	3.0	1.78	1.84
Heating	332,116	3.27	10.7	67,600	1.36	6.8	64,381	1.30	6.8	2.40	2.52
Electrical	238,656	2.35	7.7	59,231	1.20	5.9	56,953	1.15	6.0	1.96	2.04
Roofing	96,000	.95	3.1	21,320	.43	2.1	20,305	.41	2.1	2.21	2.32
Finish Items	214,568	2.11	6.9	63,071	1.27	6.3	66,639	1.35	7.0	1.66	1.56
Flooring	72,400	.71	2.3	16,670	.34	1.7	16,343	.33	1.7	2.09	2.15
Painting	76,664	.76	2.5	19,847	.40	1.9	18,886	.38	2.0	1.90	2.00
Miscellaneous	167,684	1.65	5.4	47,068	.95	4.7	36,343	.73	3.8	1.74	2.26
Interim Loan Costs	124,500	1.23	4.0	39,700	.80	4.0	36,400	.73	3.8	1.54	1.68
Profit & Overhead	353,063	3.48	11.4	107,162	2.16	10.7	88,680	1.79	9.3	1.61	1.94

a higher percentage of total cost in Anchorage, but the Anchorage property has more small shops, which would account for this item. Flooring was slightly higher in Anchorage as a portion of total cost as were painting and miscellaneous costs. These are not considered significant.

Interim loan costs were similar in the Anchorage case to Seattle as a portion of the total investment. The consistency in this item as compared to the other case studies appears to be due to the construction of this building by a contractor as efficient in the construction of this type building as the Seattle contractor. Profit and overhead were consistently higher in the Anchorage property over the Seattle property.

The analysis between the Seattle and national properties reflects primarily the difference in cost of individual items such as carpentry, for which the cost in Seattle is actually lower than the national average, and electrical, for which the cost is higher in Seattle than the national average.

When analyzing the factors in the production cost shown in Table 2-11, land as a primary factor was a lower percentage of the total investment in the Anchorage case than in Seattle, Labor was higher as a percentage of total cost, again because of the less efficient labor available in Anchorage. Materials were very significantly higher in Anchorage than in Seattle because of the use of many more expensive pre-finished materials in the Anchorage property. The management factor is higher in the Anchorage property over the Seattle property.

Table 2-12 indicates the total occupancy cost in Anchorage as opposed to Seattle and on a national basis. The table reflects tenant utilities in addition to rentals.

The table shows that rentals in Anchorage on this type of property are almost 125 percent more than in Seattle. When analyzing the reasons for this, it is found that, while taxes and maintenance are a lower percentage of total occupancy cost, the primary factor is the amount of cash flow in Anchorage over Seattle. This is partially because of a better return on investments of this nature in Anchorage over Seattle resulting from less equity capital competition in Anchorage. It is also due to the higher percentage of loan that was available on the Seattle property as compared to the Anchorage property.

National rents are similar to those in Seattle. A higher proportion of the rent is paid for taxes, management, and maintenance. This reflects the higher national tax level and apparently a slightly better quality of management and maintenance than is found in Seattle.

TABLE 2-11
FACTORS IN TOTAL PRODUCTION COST

	ANCHORAGE			SEATTLE			NATIONAL			Relative Difference Per Foot	
	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	Total Value	Value Per Square Foot	Contri- bution To Total	±Anchorage ±Seattle	±Anchorage ±National
	\$3,100,000	\$30.55	100.0%	\$1,000,000	\$20.19	100.0%	\$950,000	\$19.18	100.0%	1.51	1.59
Land	225,000	2.22	7.3	211,000	4.26	21.1	200,000	4.04	21.1	.52	.55
Labor	1,144,170	11.28	33.7	307,608	6.21	30.8	307,008	6.20	32.3	1.82	1.82
Material	1,353,267	13.34	43.6	334,520	6.75	33.4	317,912	6.42	33.5	1.98	2.08
Management	447,653	4.71	15.4	146,862	2.97	14.7	125,080	2.53	13.1	1.59	1.86

TABLE 2-12
OCCUPANCY COST

	ANCHORAGE		SEATTLE		NATIONAL		Relative Difference Per Foot	
	Total Occupancy Cost Per Square Foot	Contri- bution To Total	Total Occupancy Cost Per Square Foot	Contri- bution To Total	Total Occupancy Cost Per Square Foot	Contri- bution To Total	÷Seattle	÷National
Total Occupancy Cost	\$ 4.70	100.0%	\$ 2.10	100.0%	\$ 2.06	100.0%	2.24	2.28
Tenant Utilities	.11	2.3	.07	3.3	.06	2.9	1.57	1.83
Total Rental	4.59	97.7	2.03	96.7	2.00	97.1	2.26	2.30
<u>Operating Expenses:</u>								
Maintenance	.04	.9	.06	2.9	.10	4.9	.67	.25
Advertising & Promotion	.01	.2	.01	.5	.04	1.9	1.00	.11
Real Estate Taxes	.41	8.7	.26	12.4	.36	17.5	1.58	1.14
Insurance	.16	3.4	.02	1.0	.03	1.5	8.00	5.33
Management	.14	3.0	.05	2.4	.13	6.3	2.80	1.08
Interest & Principal Payments	2.72	57.9	1.27	60.5	1.00	48.5	2.14	2.72
Cash Flow	1.11	23.6	.36	17.0	.34	16.5	3.08	3.26

There is, however, a lower proportion of the national total paid for interest and principal payments, primarily because of a slightly lower interest rate on a loan on a national property as opposed to a Seattle property.

In summary, the overall cost of production for the Anchorage property was 51 percent more than for the Seattle property. In this case, when land is extracted from consideration, the difference in production cost of the improvement was 78 percent more in Anchorage than in Seattle. The occupancy cost showed a 125 percent higher cost in Anchorage than in Seattle.

Other Cost Indicators

There are numerous publications and sources available that give cost indicators for Anchorage, as well as other places in Alaska, based on national or Seattle costs. An analysis of these may be helpful in explaining the disparity of real estate development costs in Alaska.

The 1960 census gives the median value of homes in Anchorage.⁹ The following chart shows a comparison of this median value with that of other larger cities in Alaska, Seattle, and the average in the United States:

<u>City</u>	<u>Median Value</u>
Anchorage	\$16,700
Fairbanks	13,200
Juneau	17,000
Ketchikan	11,800
Seattle	13,600
United States Average	11,900

The average value of housing in Seattle in 1960 was approximately 19 percent more than the national average, and the average in Alaska was 40 percent over the national average. Further, the *median* value of homes in Anchorage was approximately 23 percent over the *median* value of homes in Seattle. If it is assumed that: (1) the percentage difference in value is *currently* consistent with the 1960 census figures, and (2) the foregoing case study showing a difference of 77 percent in a *similar* quality single-family property is accurate, indications are that the quality of housing in Anchorage and the remainder of Alaska is significantly poorer than in Seattle or the United States as

⁹U.S. Department of Commerce, "Census of Housing," 1960.

a whole.

Contract rent is another comparison that can be drawn from the census reports. The census reports¹⁰ indicate that the total median housing cost in Anchorage was \$154 per month in 1960. Fairbanks' total median housing cost was \$138 per month. Juneau was \$108 per month, and Ketchikan was \$87 per month. Seattle's average, according to the 1960 census, was \$78 per month; and the national census average was \$71 per month. Total housing costs, therefore, in 1960 were 10 percent more in Seattle than the national average and 117 percent more than the national average in Anchorage. Also, rentals in Anchorage were 97 percent over rentals in Seattle, according to the 1960 census.

Incidentally, the figures within Alaska show that housing is poorer in Fairbanks than in Anchorage. The cost of construction is more in Fairbanks than in Anchorage, but the total median housing cost is substantially lower in Fairbanks than in Anchorage.

The above statistics gathered in 1960 are, of course, more than eight years old. They should, however, be regarded as important in our overall analysis by virtue of the thoroughness of the census reports. The age of the data would tend to explain why the Anchorage case study rental was only 46 percent more than Seattle rather than the 97 percent indicated by the census reports. The cost of multi-family housing in Anchorage has not been increasing as rapidly as the rental housing cost in Seattle. The reason is that fewer new multi-family housing units were constructed in Anchorage as compared with Seattle in the past eight years. This has been due primarily to the lack of mortgage money for this type of investment in Anchorage as compared to Seattle, and the slower rate of growth in Anchorage as compared to Seattle in the segment of the population demanding multi-family units.

It should be remembered also that the census reports do not compare units of similar quality in their 97 percent difference. This study did make a comparison of similar quality units. Recent Bureau of Labor Statistics reports also show that the cost of rental housing in Anchorage has tended to increase at a much slower rate than the cost of Seattle rental housing units.¹¹

¹⁰*Ibid.*

¹¹U.S. Bureau of Labor Statistics, "Indexes of Consumer Prices and Living Costs for Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska," Autumn, 1967.

The United States Department of Labor, Bureau of Labor Statistics, reports that the index of total housing cost in Anchorage over a Seattle base of 100 is currently 130. The report places Fairbanks at 140, Juneau at 137, and Ketchikan at 122. The figures reflect rent, hotel and motel rates, home ownership costs (including mortgage principal and interest payments), taxes, insurance, maintenance and repairs, fuel, utilities, and household furnishing. The average *contract rent* indexes reflected by the Bureau of Labor Statistics on a Seattle base of 100 is 146 for Anchorage, 179 for Fairbanks, 147 for Juneau, and 126 for Ketchikan. This represents the "average contract rent of *tenant-occupied, two-, three-, four-, and five-room dwellings, meeting defined standards*, plus the cost of heating, fuel, utilities, and specified equipment when the cost of these items is not included in the monthly rent."¹² These figures are taken on a different basis from the Bureau of Census figures mentioned above. The Bureau of Labor Statistics figures apparently are intended to reflect the differences in housing costs of *similar* type units; whereas, the Bureau of Census figures reflect only the median rental of *all* types of units. The Bureau of Labor Statistics figures are particularly important because they are used as the base for determining the difference in cost of living in Alaska as opposed to outside Alaska. This has a bearing on the 25-percent, tax-free, cost of living differential paid federal government employees and also has an effect upon state and private differentials paid to employees. The Bureau of Labor Statistics is in the process of compiling a new study on the cost of housing, but it was not available at the time of this writing.

Construction Cost Indexes

Perhaps the most frequently used construction cost index for Alaska is the one published by the Corps of Engineers. The February, 1967, index, based upon Seattle at 100, placed Anchorage costs at 170, Fairbanks at 190, and Juneau at 180 but gave no index for Ketchikan.¹³ However, the Ketchikan index is probably similar to the index for Juneau. The indexes are based upon the Corps of Engineers' actual experience in the same kinds of construction in the Seattle area as compared to areas in Alaska. Although some housing projects are included, the indexes would tend not to include the kinds of projects that would have the greatest effect on the cost of living in Alaska.

¹² *Ibid.*

¹³ U.S. Army Corps of Engineers, "Construction Cost Index for Alaska," February, 1967.

A Seattle architect, active in the Alaska market, reports the same index for Anchorage as the Corps of Engineers in the type of construction in which they are active. His is primarily apartment house construction but does include some commercial structures. However, his Juneau index is 190, where the Corps of Engineers' index is 180. He did not have sufficient experience with Fairbanks and Ketchikan to quote indexes for those cities.

"Civil Engineering Magazine" states that the area unit adjustment factors for Alaska are as follows: Anchorage, 1.7; Fairbanks, 1.9; Juneau, 1.8.¹⁴ No index is given for Ketchikan. The figures were furnished by the Defense Department and appear to be the same as those discussed above from the Corps of Engineers.

The Boeckh Building Valuation Manual gives widely different indexes for Alaska over their national base than those mentioned above. The quotation for August of 1968 on frame construction for their residential manual for Alaska compared to the Seattle index of 109 is: Anchorage, 132; Fairbanks, 145; Juneau, 139.¹⁵ The index for Anchorage is 21 percent over Seattle and is apparently based only upon a difference in cost of materials and labor in Alaska as compared to the national average. It does not appear to take into account small markets or the higher cost of other factors such as less efficient labor and higher money cost or entrepreneuring costs. The Boeckh Building Valuation Manual index is substantially lower than other indexes used in other building manuals for Alaska.

The same method was apparently used to compute the Marshall Stevens Valuation Service¹⁶ index as was used for the Boeckh index. Differences in cost of specific labor and material items are merely computed, but some other items seem to be included. This valuation service reports an index for wood-frame construction of 160 in Anchorage over the national base, 170 in Fairbanks, and 170 in Juneau. Seattle's index for 1968 was given as 107. Based upon the Marshall Stevens Valuation Service, costs in Anchorage are 50 percent over Seattle.

¹⁴Civil Engineering Magazine, "Relative Prices Around the World," July, 1966.

¹⁵American Appraisal Company, "Boeckh Building Valuation Manual," 1967.

¹⁶Marshall and Stevens Publication Company, "Marshall Valuation Service Manual," 1962.

A reliable contractor, active in building in Alaska and in Seattle, said that Alaska construction costs ranged from 25 percent to 75 percent over Seattle. He reported that the lower percentage cost difference was directly related to the complexity of construction. In the simpler structures with a high labor factor and few prefinished materials, there tended to be a greater difference in costs between Alaska and Seattle. The more complex structures would have a higher proportion of prefabricated and prefinished elements, and the labor factor would be substantially less. In this type structure, the additional cost of freight would be only a small percentage over Seattle, and the overall cost would tend to be similar to Seattle costs. An example he gave was a hotel structure erected in Anchorage for only about 15 percent more than it would have cost in Seattle.

Actual experience of local contractors tends to be the opposite from that shown by the cost indexes given by various valuation services. The valuation manuals in use in Alaska in all cases show a wider difference in construction costs in more complex buildings than in simpler structures. This divergence can be attributed to the manner in which cost indexes are formulated. Considered in these indexes are only such factors as hourly labor cost and unit material cost. The higher percentage of labor in simpler types of construction tends to be overlooked, and other factors in the total cost of production, such as financing, are not included.

It can be readily seen from the foregoing that there tends to be little agreement on estimating costs in Alaska over costs outside Alaska. The four case studies reported show a high disparity in construction costs because the comparisons made were based upon structures with similar usability rather than construction detail. Using a Seattle base of 100, the investigation shows the following indexes: single-family, 177; multi-family, 131; warehouse, 149; shopping center, 178. The figures exclude the land cost and are on case studies using different types of construction in Anchorage than in Seattle. Also, they are based upon value and not merely construction cost.

The Bureau of Labor Statistics' total cost of living difference, which should have a relation to construction costs, was 130 in Anchorage over Seattle. The Corps of Engineers' index for Anchorage was 170, and the index derived from a Seattle architect was 170. The Boeckh Building Valuation Manual was 128, and the Marshall Stevens Valuation Service was 150.

If any correlation can be made from the above, it would be that the Corps of Engineers and the Seattle architect's indexes of 170 tend to be the most indicative of the overall cost of real estate in Anchorage over Seattle. The primary conclusion from the above, however, is that there is a tremendous disparity between the accepted methods of

comparing Alaska costs with Seattle and national costs.

Conclusions

It can be concluded that the cost of real estate in Alaska is significantly higher than in the remainder of the United States. The figure for total housing cost is probably closer to approximately 50 percent over Seattle rather than the Bureau of Labor Statistics' figure of 30 percent. If the common index of 25 percent used to measure the cost of living in Anchorage over the United States is sufficient to attract people to the state, it is not because it reflects the same standard of housing in Alaska as compared with the remainder of the United States. There are amenities offered in Alaska not offered outside Alaska, and people appear to be willing to settle for a lower standard of housing. These amenities include outdoor facilities, low-cost recreational activities not available outside Alaska, and lack of congestion in most of Alaska.

On the basis of this paper and other observations, it can be seen that there is little definitive information available on the cost of owning and operating real estate in Alaska as compared to outside Alaska.

The four case studies showed a general tendency for the expected differences in costs because of the climatic conditions. Concrete was expected to be slightly higher as a percentage of total production cost in Alaska because of deeper freezing conditions. The higher cost, however, also appears to be related to higher labor costs.

Heating was also expected to be a higher percentage of the total construction cost. There also appears to be a tendency for financing and entrepreneuring to be a higher percentage of total cost in Anchorage, and probably throughout Alaska. Contributing to this tendency is a lack of larger markets and volume entrepreneurs in the state. Further contributing to the higher cost of management is the lack of large quantities of equity capital in the state. To attract a knowledgeable contractor or developer to Alaska, a greater profit incentive would be required because of the poorer living conditions in the state, which is, of course, the very problem with which this study attempts to deal.

The cost of occupancy in all four case studies showed a larger disparity between Anchorage and Seattle than did the total production costs. The exception was the single-family property which showed a total production cost difference of 77 percent, whereas the total occupancy cost difference was 76 percent. The overall production

cost difference of the apartment house was 26 percent, whereas the overall cost of occupancy was 39 percent greater. The warehouse property cost difference was 34 percent, but the cost of occupancy difference was 44 percent greater. The shopping center property was an even more exaggerated 51 percent in production cost difference as compared to 125 percent difference in the cost of occupancy.

The reason for the higher differences of occupancy costs is related to the returns on equity investment. This is not true of the single-family residence, which is not built primarily as a real estate investment. On the other hand, the multi-family and shopping center properties are investment properties. The higher return on equity investment is due partly to the higher percentage of equity to total value required in Alaska on mortgage loans. More important, however, is the demand by the investment market to return the investment at a faster rate. Faster return of invested capital dictates a shorter economic life. The physical quality of a structure is typically poorer in Alaska, and the uses of a specific parcel of land change more rapidly in Alaska, as compared to outside Alaska. These factors in the cost of occupancy weave through Alaska's entire historical economic picture. Alaska has been, and to an extent still is, the place to make the "fast buck."

There also appears to be a tendency for real estate construction to cost more in Alaska in comparison to areas outside Alaska in the more labor-intensive investments such as single-family homes. An averaging of the four trades making a primary contribution to the construction of real estate investments shows a wage scale of 48 percent over Seattle. However, the tendency to offer more than 40 hours of work a week to get good labor, in conjunction with adverse climatic conditions, further increases the cost of labor in Alaska. A reliable contractor estimated that these factors contribute another 15 percent to 25 percent to labor costs in Alaska as compared to Seattle, which is relatively consistent with this study's findings. Single-family labor costs were 77 percent more in Anchorage than Seattle; multi-family labor costs were 45 percent more; warehouse labor costs were 67 percent more; and shopping center labor costs were 82 percent more.

The tendency in Alaska toward a more stable work force will, over a period of time, significantly contribute to a lower overall labor cost. This appears to have been the tendency in the past decade.

The gradual decrease of the contribution to costs by labor will also lower real estate costs in Alaska. For example, over the past twenty years, the cost of painting in a building has *decreased* about 50 percent because of the higher proportion of prefinished materials used today over twenty years ago. While the wages of painters and the cost of paint have increased, cost of painting has significantly

declined.

The same tendency is true with other elements in the overall cost picture. Changing materials and greater prefabrication outside Alaska will decrease the cost of real estate investments in Alaska as compared with costs outside Alaska.

All of the elements of cost can certainly be attacked as individual items. The cost of land in Alaska appears to be a lower percentage of the total production cost in most real estate investments. Land cost appears to contribute more heavily to higher costs of single-family properties than to the other three types of properties analyzed. Single-family residential lots are, however, more sensitive to the cost of utilities and paving than other land; and there is as much or more difference between Anchorage and Seattle in the installation cost of utilities than other construction costs. In addition, the difficulty of financing a speculative venture such as subdividing residential land tends to shrink competition. Major strides can be taken if the Federal Housing Administration's Title 10 insurance program for subdivision development were used in Alaska. Developers could more readily obtain money for subdivision development. More competition would be created which would tend to make prices of residential lots increase at a slower rate than other elements in the economy.

The Federal Housing Administration Mortgage Insurance Program #207 can also be a valuable ingredient in the building of multi-family structures. With an aggressive program of insuring multi-family residences, the Federal Housing Administration could simplify the process of acquiring mortgage insurance commitments. Because of the lower cost of loans insured by the Federal Housing Administration, greater competition would result in the multi-family market. Less equity money would be required than with a conventional loan, and comparatively lower rates necessary to amortize a multi-family investment would result.

The current rate of interest on Federal Housing Administration insured loans across the United States is the same as Alaska, 7.25 percent. Included is the 1/2 of 1 percent mortgage insurance premium. The discount on these loans in Alaska is currently 7.50 percent, while current discount in the Seattle area is 6 percent. Nationally, the loans are demanding an average discount of about 5 percent.¹⁷ The rates on Federal Housing Administration loans in Alaska are, therefore, reasonably competitive with the remainder of the United States. Greater utilization of Federal Housing Administration programs would

¹⁷House and Home Magazine, "Homebuilders Mortgage Market Quotations," July, 1968.

tend to equalize prices in Alaska with those outside Alaska.

The cost of conventional money is also a real factor in higher Alaska costs. The maximum legal contract interest rate in Alaska is 8 percent. Based upon this, the conventional mortgage loan rate in Alaska has typically been through the years 8 percent. In some cases, prior to the current increase in rates across the nation about three years ago, there was some softening of the rate. A number of loans were made at 7 and 7.5 percent prior to this period.

Outside investors in Alaska mortgages have usually wanted a one point spread over Seattle; that is, where the rate on a real estate loan in Seattle would be 6.5 percent, the rate desired in Alaska would be 7.5 percent. Over a period of years, it appears that investors in mortgages have actually been receiving something near this amount. The average difference in real estate loans made in Alaska by "outside" investors has probably been about three-quarters of one percent as compared to similar loans outside the state.

Currently, prime real estate loans in the Seattle area are being committed at 7.75 percent. With the maximum legal rate in Alaska set at 8 percent, there is not enough difference in our rate to attract investors into the Alaska market.

The Alaska real estate market began to feel the impact of this situation during the fall of 1968. It is expected that there will be few new loans made in Alaska by outside banks and insurance companies until rates across the country decrease. Exceptions are Federal Housing Administration insured loans, or loans for extremely large projects that could demand a rate of 7.25 percent in the Seattle area.

The study essentially discounts the local banks and savings and loan institutions because of their minimal effect on the real estate market. They are still committing loans at 8 percent to a limited extent, and their current position has allowed them to commit on only extremely prime loans at a low percentage of market value.

It seems unreasonable that there should be a 3/4 to 1 percent difference in real estate loans in Anchorage as compared to Seattle when the typical spread on interest from the East to the West Coast of the United States in real estate loans is from 1/4 to 3/4 percent. This is partly the result of an undeserved poor image of Alaska. A more important factor, however, seems to be the knowledge by a relatively small segment of the mortgage market in the United States that these rates can be obtained in Alaska. The mortgage investors outside the state that know Alaska feel that the economy in the state is not enough different from the rest of the United States to demand the significantly higher rate. As long as the number of mortgage loan investors is as

it presently is, much higher rates of return can be acquired in Alaska.

Additional and continuing efforts must be made by Alaskans to acquaint mortgage and bond markets with the economy of Alaska.

The cost of money in Alaska weaves through the entire cost of construction and affects every item. As Charles Abrams said in Anchorage in 1967, "The way to lower the cost of housing is to lower the cost of money."

The effect of the higher cost of money on single-family land values has already been discussed. Individual subcontractors are affected by the fact that they must occupy financed properties in their business and must finance their businesses. Profit must be greater because of the greater risks and the greater difficulty in obtaining mortgage money. The difficulty in obtaining money regardless of the interest rate is an intangible factor, but certainly is a real one. To obtain a sizeable mortgage loan in Alaska from an outside investor several trips outside Alaska are necessary, as well as numerous telephone calls, all of which contribute to the higher cost of investment.

Smaller individual efforts can certainly be made to reduce costs in each of the other areas of the total investment in real estate, such as plumbing, heating, electrical items. It appears, however, that immediate progress can be made in the areas of money cost and entrepreneuring.

Time and growth of the market will tend to attract more sophisticated and efficient entrepreneurs and builders. Time will also improve the position of equity investors currently in the market by the natural increase in the credit position of the Alaskan investors.

CHAPTER III

INSURED COMMERCIAL BANKS IN ALASKA, 1960-1966

by Gene Erion*

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All of the analyses and interpretations, of course, are my own responsibility.

Introduction

This study of insured commercial banks in Alaska for the period 1960-1966 was conceived in the framework of a larger study of the differentials between prices in Alaska and prices in the rest of the United States. Commercial banks are unique among financial institutions in that their liabilities include demand deposits, the chief type of money in our economy. They also are more diversified than other financial institutions in their lending and investing activities. Consequently, commercial banks generally are considered to typify the financial, or credit, system of an economy.¹

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¹Nine of thirteen commercial banks in Alaska, as of December 31, 1960, were members of the F.D.I.C.; by December 31, 1966, ten of

Are the prices of credit (interest rates), along with most other prices, higher in Alaska than in the rest of the United States? If so, why? This study attempts to provide some insight; but even in terms of insured commercial banks, it does not pretend to have *the* answer, nor *all* the answers, to the second question; nor an unqualified answer to the first question.

Throughout, only data that are publicly available are used. Unless otherwise indicated, all basic data are from the *Annual Reports of the Federal Deposit Insurance Corporation*, 1960-1965, and the June and December *F.D.I.C. Call Reports* of that period. This involved two significant risks, which at times may well be related to each other. One is the risk of the outsider committing errors in interpreting what the data signify. The second risk is that the data may chiefly reflect the practices of one or a few of the larger banks.

Chiefly, the analysis taken is that of comparing ratios, or percentages, derived from F.D.I.C. data for insured commercial banks in Alaska with those for all insured commercial banks in the United States. In addition, comparison is made, where possible and when considered appropriate, between Alaska and the other states in the Thirteenth National Bank Region: Idaho, Montana, Oregon, and Washington. These states also could be referred to, obviously, as the northwest region of the contiguous 48 states. Throughout the study, any reference to Region 13 is exclusive of Alaska.

Summary of Findings

The comparing of insured commercial banks in Alaska with insured commercial banks in the rest of Region 13 and in the United States as a whole, for the years 1960-1966, leads to the following conclusions:

- (1) Rates of earnings on loans and discounts were higher, and rates of interest paid on time deposits were lower, in Alaska. The higher rates on loans and discounts could not be attributed to higher prices (costs) in Alaska; nor, entirely, to greater riskiness of loans.

twelve. The insured banks had 91.1 percent of total deposits in commercial banks in 1960; 98.3 percent in 1965 (the F.D.I.C. did not publish the data for individual states for 1966). In the United States as a whole, insured commercial banks had 99.3 percent of the total deposits at commercial banks in both 1960 and 1965.

- (2) Profit rates on sales--current operating revenues--were lower in Alaska. Profit rates on capital invested were higher, but only because of the lower equity of owners in Alaska banks.
- (3) As measured by net income per employee, assets per employee, and assets per bank office, Alaska banks were relatively inefficient.
- (4) Assets per bank, however, were greater in Alaska. Alaska banks chose to serve Alaska's relatively sparse population by branching; thereby the proliferation of even smaller, weaker, and more inefficient unit banks was avoided.
- (5) Assets per bank office and per bank employee, as well as the ratios of demand and time deposits to personal income, indicate that the scale of operation of Alaska banks was relatively smaller, with the distinct possibility that economies of large-scale operation were thereby precluded, and that some of the relative inefficiency of Alaska banks resulted therefrom.
- (6) The ratios of demand and time deposits to personal income indicate that Alaska banks got a disproportionately small share of the domestic market for bank services, indicating that more aggressive competition, including price (rate) competition, might have led to a larger share of the market, and perhaps a larger market.

A Highly Simplified Hypothetical Case

Before proceeding to consider the F.D.I.C. data, it might be well to consider the relationship between prices, loans, bank profits, and bank profit rates. If all prices--consumer prices, wage rates, prices of raw materials, rents, etc.--in Alaska *except* interest rates were twice as high as in State X, then an otherwise comparable firm would need to borrow twice as much in Alaska as in State X to finance the same physical volume of business. But, a commercial bank in Alaska could lend at the *same* rate as a bank in State X and still have *twice* as much profit, producing the *same* rate of profits to capital accounts and to sales (current operating revenues). The following strictly hypothetical, and highly simplified, figures illustrate the point:

	<u>Alaska</u>	<u>State X</u>
Loan, at 10% (Alaska twice State X)	\$2,000,000	\$1,000,000
Current operating revenue (10% of loan)	200,000	100,000
Current operating expense (Alaska twice State X)	150,000	75,000
Net operating earnings (Profits)	50,000	25,000
Capital accounts (Alaska twice State X)	1,000,000	500,000
Rate of profit:		
(a) On current operating revenue (sales)	25%	25%
(b) On capital accounts	5%	5%

The fact that other prices are higher in Alaska does not, in itself, mean that interest *rates* on loans must also be higher.

Rates of Earnings on Loans by Alaska Banks

Banks generally do not advertise their selling prices--the rates at which they make loans--nor the other costs, such as service charges, which borrowers must meet. Even if they did, making a very accurate comparison of Alaska with the whole of the United States, or with the rest of Region 13, would be a large undertaking.²

²Probably the chief difficulty would lie in collecting the data as to the volume of loans outstanding at each different rate, including service charges and other fees, for each period of time involved in the study. Designing samples for banks in the rest of Region 13 and in the nation might present interesting problems, too.

An alternative approach has been taken here, using the rates of earnings on loans as a proxy for rates charged. It has the disadvantage of concealing the different rates on different types of loans, and of consequently concealing their relative importance. This will be discussed further below.

To obtain rates of earnings on loans, the "interest and discounts on loans" reported as part of current operating revenues were computed as a percentage of average loans and discounts. In effect, a weighted average of rates was directly obtained in this way.³ For the whole period, 1960-1966, the results were:

Alaska	7.8%
Region 13	6.4
United States	5.9

The Alaska average rate was 22 percent above that for the rest of Region 13, and 32 percent above that for the United States as a whole.

As already mentioned, interest and discounts are not the only costs to borrowers. There also are service charges and fees.⁴ As a percentage of average loans and discounts, these also were higher in Alaska from 1960 through 1966:

Alaska	0.8%
Region 13	0.1
United States	0.1

With service charges and fees added to interest and discounts, the average cost of loans from insured commercial banks was 32 percent higher in Alaska than in the rest of Region 13, and 43 percent higher than in the United States as a whole from 1960 through 1966.⁵

If loans in Alaska were more risky, it might well be contended that higher rates were necessary in Alaska to compensate for the greater riskiness. Losses and recoveries on loans presumably should provide some indication of the degree of risk involved in loans, subject to the qualification noted below; and taking them into consideration should permit the calculating of net earnings on loans. Most

³The data for the individual years, as well as the averages for the entire period, are given in Table 1 in the Appendix.

⁴For annual data, see Table 2 in the Appendix.

⁵The annual data for the combination are in Table 3 in the Appendix.

commercial banks make accounting provisions for losses and recoveries through reserves; others use actual losses and recoveries in deriving their net income before related taxes. The F.D.I.C., however, provides data for all insured commercial banks as to actual losses and recoveries each year, and those data were used to obtain the calculated rates of net earnings on loans.

The rates of net earnings on loans and discounts for 1960-1966, including service charges and fees, and after providing for losses and recoveries, were:⁶

Alaska	8.0%
Region 13	6.4
United States	5.9

Unquestionably, taking provision for losses and recoveries into account reduces the differential between earnings on loans in Alaska and earnings on loans in the rest of Region 13 and in the whole of the United States. Nevertheless, the average rate of net earnings on loans and discounts for the period were 25 percent higher in Alaska than in the rest of Region 13, and 36 percent higher than in the whole United States.

The question still can be raised as to whether what was involved was the greater riskiness of loans in Alaska, or the greater willingness (perhaps for better or for worse) of bank managements in Alaska to assume risk.

The preceding would seem to indicate that the prices of credit at commercial banks were higher in Alaska. On the other hand, the higher cost of loans in Alaska might have been due, not to higher rates and fees charged, but to a difference in the composition of Alaska bank-loan portfolios from those of the rest of Region 13 and the whole United States. For instance, the rate charged on smaller, or longer term, loans could be expected to run higher generally, than on larger, or shorter term, loans. And the former types might be predominant in Alaska; the latter, elsewhere. The approach used here, as noted above, conceals any such differences. The relative importance of broad types of loans can be calculated from F.D.I.C. data, as presented in Table 3-1.⁷ (The "other" category includes such

⁶The annual rate of net earnings on loans are shown in Table 4 in the Appendix.

⁷Data for the three principal categories for individual years are shown in Table 5 through 7 in the Appendix.

items as loans to other banks, loans on securities, loans to other financial institutions, federal funds sold.) The chief divergence for Alaska banks is the high percentage of real estate loans, and the low percentage of loans in the "other" category.

TABLE 3-1

VARIOUS TYPES OF LOANS AS A PERCENTAGE OF TOTAL LOANS AND DISCOUNTS
AVERAGE FOR 1960-1966

	Alaska	Region 13	United States
Real Estate Loans	39.0%	26.4%	23.7%
Commercial and Industrial Loans	33.1	31.2	34.6
Personal Expenditure Loans to Individuals	25.1	23.1	21.8
Other	<u>2.8</u>	<u>19.3</u>	<u>19.9</u>
TOTAL	100.0%	100.0%	100.0%

Perhaps it can be assumed that rates on personal expenditure loans to individuals would be higher than those on commercial and industrial loans; that the rates on real estate loans would be somewhere between those; and that the rates for the "other" category generally would be lowest. It still would be necessary to know the particular rates applicable, during the specified periods of time, to the different volumes of different types of loans to give an unqualified answer to the question of whether the cost of insured commercial bank credit was higher in Alaska because of higher rates, or because of the types of loans involved.

Profitability of Alaska Banks

While subject to considerable government intervention, directly and indirectly, commercial banks in the United States are private enterprises; and the seeking of profits presumably is an important part of the motivation for the management of any private enterprise. Did the pricing policies of Alaska's insured commercial

banks, along with the other complex factors involved, result in relatively higher or lower profit rates during the years 1960-1966? The F.D.I.C. data apparently can be used to provide either answer, depending upon the base used for comparison; but the more valid answer is that the Alaska banks were relatively less profitable.

Profits can be considered either before or after taxes. While profits before taxes provide higher profit rates, of course, the choice does not affect the relative position of Alaska banks to others. It does make a difference, however, with what profits are compared to obtain profit rates. Should profits be stated as a percentage of sales--in this case, current operating revenue--or as a percentage of invested capital--that is, capital accounts? The two approaches apparently produce opposite results, as can be seen in Table 3-2.⁸

TABLE 3-2
PROFIT RATES OF INSURED COMMERCIAL BANKS, 1960-1966

	Net Income Before Taxes as a Percentage		Net Income After Taxes as a Percentage	
	Of Capital Accounts	Of Current Operating Revenues	Of Capital Accounts	Of Current Operating Revenues
Alaska	16.5	16.3	10.5	10.4
Region 13	15.5	22.9	9.5	14.1
United States	13.8	24.4	9.0	15.8

If net income is compared with capital accounts, the profit rate was higher in Alaska than in the rest of Region 13 and the United States. If net income is compared with current operating revenues, the profit rate was lower in Alaska. The latter comparison is the more valid one for most purposes: the reason for the difference is that capital accounts were a lower percentage of total assets in Alaska than in the rest of Region 13 and the whole United States:⁹

⁸The annual data for the four approaches are in Tables 8 through 11 in the Appendix.

⁹For annual data, see Table 12 in the Appendix.

Alaska	6.0%
Region 13	7.6
United States	8.2

Had the ratio of capital accounts to total assets been the same for Alaska's insured commercial banks as for those in the whole United States from 1960 through 1966, net income before taxes would have been 12.1 percent of capital accounts, below the national average of 13.8 percent. With the same ratio as the rest of Region 13, net income would have been 13.0 percent of capital accounts, below the regional average of 15.5 percent. With net income after taxes, the adjusted percentages would have been 7.7 and 8.3, again lower than the national and regional average rates of 9.0 and 9.5 percent, respectively.¹⁰

As suggested above, pricing policies with respect to loans are not all that affect rates of profit. The most that the data examined so far can be said to demonstrate is the higher costs to borrowers of loans made by insured commercial banks in Alaska were *not* accompanied by higher rates of profit. It is possible that *lower* interest rates and other charges on loans would have produced higher profit rates through a larger volume of business, a reduction in the average risk on loans, or some combination of the two. A study of the price elasticity of the demand for loans, which should include determining the extent to which Alaska business firms borrow from banks outside Alaska, in conjunction with the affects on costs of different scales of operation, would be necessary to test that hypothesis.¹¹

¹⁰While capital accounts were a smaller percentage of total assets for the Alaska banks, the rate at which they retained net income after taxes was about a third greater than the average rate for other insured commercial banks in the nation. See Table 13 in the Appendix.

¹¹In an era of tight money and high interest rates, when Alaska bankers are referring to the state's statutory maximum lending rate of 8 percent on loans over \$10,000 as unrealistically low, the above suggestions may appear impractical or irrelevant. Perhaps it should be stressed that what is involved in the suggestions are rate *differentials*, not the general level of rates. Should the statutory maximum be raised or repealed, or conditions of monetary ease return, the suggestions might again become quite relevant. In that case, it could be expected that the greatest direct benefits resulting from such a study would accrue to Alaska's banks.

Other Current Operating Revenues

While loans were the most important source of earnings for insured commercial banks in the period 1960-1966, the banks did have other current operating revenues, of course, as can be seen from Table 3-3.¹² Interest and dividends on securities were the second

TABLE 3-3
TYPES OF CURRENT OPERATING REVENUES AS PERCENTAGES OF
TOTAL CURRENT OPERATING REVENUES, 1960-1966

	Alaska	Region 13	United States
Interest on U. S. Government obligations	14.2%	13.6%	14.9%
Interest and dividends on other securities	4.4	5.8	6.9
Interest and discounts on loans	61.8	64.5	64.1
Service charges and fees on loans	6.2	1.5	1.2
Service charges on deposit accounts	8.6	9.0	5.2
Other charges, commissions, fees, etc.	3.7	2.2	1.9
Trust Department	0.4	2.3	4.2
Other current operating revenue	<u>0.8</u>	<u>1.2</u>	<u>1.7</u>
Total Current Operating Revenue	100.0%	100.0%	100.0%

most important type of current operating revenues; and, if the percentages for all earnings on loans and securities are grouped

¹²For annual data on the percentages the various types of current operating revenues comprised of total current operating revenues, see Table 14 through 21 in the Appendix.

together for Alaska, the rest of Region 13, and the United States, the resulting subtotals are quite similar:

Alaska	86.6%
Region 13	85.4
United States	87.1

The percentage of current operating revenue derived from service charges on deposit accounts is conspicuously high for Alaska and for the rest of Region 13 as well, while the percentage provided by the trust departments of Alaska banks is conspicuously low, as compared with the banks elsewhere.

The average rate of return on securities for Alaska's insured commercial banks was approximately the same as for the rest of Region 13 and the United States, either with or without considering losses and recoveries, during the period 1960-1966.¹³ The average net rate of earnings (after providing for losses and recoveries) for the period were:

Alaska	3.4%
Region 13	3.3
United States	3.3

It should be pointed out, however, that the Alaska average is pulled up by the extraordinarily high rates of return on both U. S. Government obligations (4.5 percent) and other securities (3.6 percent) in 1965, as can be seen in Tables 22, 23, and 24 in the Appendix. Also, the variation in the rates of return on securities was greater for insured commercial banks in Alaska during the period than the average for banks in the rest of Region 13, and in the United States as a whole.

Perhaps Alaska's insured commercial banks might have had larger current operating revenues, and thus lower rates on loans or higher profit rates, had some of their policies been different during the period. Service charges on deposit accounts produced a higher percentage of current operating revenue in Alaska than in the United States as a whole, but that does not indicate whether the rates charged customers were higher. And the percentage is no higher than that for their closest competitors, the insured commercial banks in the rest of Region 13, although again this tells us nothing about comparative rates

¹³For annual rates of earnings on U. S. Government obligations, on other securities, and on all securities, see Tables 22 through 24 in the Appendix.

charged customers. If service charges on deposit accounts were higher in Alaska than elsewhere, lower rates might have meant more revenue; but here, again, a study of price elasticity of demand--in this case, demand for accounts--would be necessary to test the hypothesis.

One thing is certain: the ratio of demand deposits, at insured commercial banks, to personal income was much lower in Alaska in the period 1960-1966 than it was in the rest of Region 13 and in the nation. The ratio was 45 percent greater in the rest of Region 13, 79 percent greater in the whole United States. For that period, demand deposits as a percent of personal income averaged:¹⁴

Alaska	15.2%
Region 13	22.0
United States	27.2

Those percentages undoubtedly are open to various explanations and interpretations. One thing they would seem to indicate is that Alaska's banks had a considerable potential, but unrealized, market at the levels of development and income that existed during 1960-1966.

The current operating revenues of insured commercial banks in Alaska would have been several hundred thousand dollars greater annually during the period 1960-1966 had their trust departments produced the same percentage of total revenue as the average in the United States, or even at the lower average percentage for the rest of Region 13. The differences between the average percentages for trust department revenues, however, probably indicate more the future potential opportunities for Alaska banks as their markets and their scales of operation grow, rather than present or past unexploited opportunities.

Current Operating Expenses

It could be expected that the cost of bank operation in Alaska is higher than in the rest of Region 13, and higher than in the United States, on the average. This is borne out by the data for employee compensation for the period 1960-1966. Average annual compensation (including benefits) per employee (officers and others) was as follows:

¹⁴The annual percentages are in Table 25 in the Appendix. Data for personal income are from the *Survey of Current Business*, Office of Business Economics, Department of Commerce.

Alaska	\$7,087
Region 13	5,663
United States	5,716

The Alaska average is about one-fourth higher than the other two. The same is true of the average annual salary or wage payment for employees other than officers: it was about 25 percent higher in Alaska from 1960 through 1966 than in the rest of Region 13 and in the United States as a whole. The differential for officers' salaries, however, was considerably greater. The average annual salary per officer in the Alaska banks was \$14,329, or 48 percent above the \$9,688 average for the rest of Region 13; and 40 percent above the national average of \$10,204.¹⁵

The percentages various types of current operating expenses, and net operating earnings, comprised of total current operating revenues during the period 1960-1966 are shown for the insured commercial banks in Alaska, the rest of Region 13, and the United States in Table 3-4.¹⁶

The Alaska banks, it can be seen, had a higher percentage of total expenses represented by employee compensation and the cost of bank quarters, and a lower percentage represented by interest on time deposits. Net operating earnings were a smaller percentage of current operating revenues.

Compensation of Employees

The higher employee costs of the Alaska banks, and the higher proportion that employee compensation comprises of total bank expenses in Alaska, might reflect payment for relatively high average productivity of Alaska bank employees.¹⁷

¹⁵The annual data on average salaries of officers, salaries and wages of other employees, and average total compensation (including benefits) of all employees are in Tables 26 through 28 in the Appendix.

¹⁶The annual data for the percentages for the various current operating expense categories, and net operating earnings, are in Tables 29 through 37 in the Appendix.

¹⁷Employees productivity may reflect the quality of the employees. It may also reflect the scale of operation, the quality of equipment with which they work, the efficiency of organization, and other factors. Judgment as to which factor or factors may have been operative, and

TABLE 3-4
CURRENT OPERATING EXPENSES AND NET OPERATING EARNINGS AS
PERCENTAGES OF TOTAL CURRENT OPERATING REVENUES
1960-1966

	Alaska	Region 13	United States
Salaries of officers	12.3%	10.4%	8.6%
Salaries and wages of other employees	19.8	16.3	15.1
Officer and employee benefits	2.8	3.2	3.4
Subtotal: Employee compensation	(34.9)	(29.9)	(27.1)
Interest and time deposits	20.2	26.1	25.9
Interest and discounts on borrowed money	0.2	0.3	0.9
Net occupancy expense	5.3	4.0	4.2
Furniture and equipment	3.6	2.7	2.3
Other current operating expenses	<u>13.1</u>	<u>11.1</u>	<u>11.5</u>
All current operating expenses	77.3	74.1	71.9
Net operating earnings	<u>22.7</u>	<u>25.9</u>	<u>28.1</u>
Total current operating revenues	100.0%	100.0%	100.0%

That profits--net income--before taxes as a percentage of net operating revenues were lower in Alaska than in the rest of Region 13 and the nation has already been seen. (And they were lower as a percent of capital accounts after adjustment for differences in the ratios of capital accounts to total assets.) Consequently, it is not surprising that net income before taxes per employee was lower in Alaska than in the rest of Region 13 and in the nation. For 1960-1966, the net income before taxes per employee was:¹⁸

to what degree, is not what is involved here. It is, simply, whether there was a greater dollar output comparable to the higher average employee compensation.

¹⁸The annual data are in Table 38 of the Appendix.

Alaska	\$3,340
Region 13	4,390
United States	5,240

Net income per employee for the rest of Region 13 averaged 31 percent above that for Alaska; and for the nation as a whole it was 56 percent higher.

Another indication of employee productivity is dollars of assets per employee. Were productivity on a par with that of the rest of Region 13 or with that of the United States as a whole, the higher prices prevailing in Alaska should be reflected in more dollars of assets per employee. The dollar assets per employee for 1960-1966, however, were:¹⁹

Alaska	\$335,000
Region 13	375,000
United States	464,000

The amount for the rest of Region 13 exceeds that for Alaska by 12 percent; that for the United States exceeds that for Alaska by 39 percent.

Assets of insured commercial banks in Alaska increased relatively more in the period 1960-1966 than did the assets of insured commercial banks in the rest of Region 13, or in the whole United States. The percentage increase in Alaska was 82 percent; in the rest of Region 13, 53 percent; and in the nation, 57 percent.²⁰ Despite the lesser rate of growth in assets, assets per employee in 1966 were 9 percent greater in the rest of Region 13, and remained 39 percent greater in the United States as a whole in 1966. As compared with the nation, the more rapid growth in assets of the Alaska banks was offset by the more rapid growth in the number of employees of Alaska banks.

The employees of Alaska's insured commercial banks may have been very efficient individuals, on the average, in the years 1960-1966. If so, they were handicapped by other factors which prevented their efficiency from being revealed by the data on income and assets per employee.

¹⁹Annual data are in Table 39 in the Appendix.

²⁰The comparison of each year with 1960 is in Table 40 in the Appendix.

Interest on Time Deposits

As can be seen in Table 3-4, in the period 1960-1966 interest on time deposits was 20 percent of total current operating revenues of insured commercial banks in Alaska, but 26 percent for such banks in the rest of Region 13 and in the United States as a whole. Those data, in themselves, do not necessarily show that interest *rates* paid on time deposits by the Alaska banks were lower than the interest rates paid by banks elsewhere. More indicative are proxy interest rates computed by dividing the time deposits reported for December 31 of each year by the "interest paid on time and savings accounts" reported as part of current operating expenses that year. This approach is similar to that used for rates of earnings on loans and discounts above; and again it provides, in effect, a weighted average of rates. The results can be seen in Table 3-5.

TABLE 3-5

AVERAGE INTEREST RATES ON TIME DEPOSITS*

Year	Alaska	Region 13	United States
1966	3.54%	3.65%	3.89%
1965	3.13	3.45	3.43
1964	2.68	3.14	3.21
1963	2.90	3.18	3.10
1962	2.23	3.07	2.90
1961	1.88	2.67	2.54
1960	1.63	2.59	2.44
Average	2.71%	3.19%	3.19%

*Time deposits as of December 31 of each year.

The computed rates on time deposits, it can be seen, tended to move upward throughout the period in all three cases--Alaska, the rest of Region 13, and the United States. Furthermore, the differential between the computed rate for insured commercial banks in Alaska and the computed rates for banks in the rest of the nation was becoming less: the computed rate for the United States, for instance, was about 50 percent greater than the Alaska rate in 1960, but only 10 percent greater in 1966. Nevertheless, throughout the period the computed rate for the Alaska banks was less than that for the others.

Were the lower computed rates for the Alaska banks due to the lower rates paid on time deposits, or to the different composition of total time deposits at the Alaska banks as compared with the composition of total time deposits in the insured commercial banks in the rest of Region 13 and in the United States as a whole? (This is comparable to the question raised as to the composition of bank loan portfolios in the discussion of the computed rates of earnings on loans and discounts above.) Table 3-6 shows the average 1960-1966 composition of time

TABLE 3-6
TYPES OF TIME DEPOSITS AS PERCENTAGES OF TOTAL TIME DEPOSITS
AVERAGE FOR 1960-1966

	Alaska	Region 13	United States
Individuals, partnerships, and corporations:			
Savings deposits	51.2%	77.2%	65.4%
Other time deposits	6.9	15.5	23.5
Government:			
Federal	9.5	0.3	0.2
States and subdivisions	32.1	6.7	7.6
Foreign	--	0.3	2.9
Other	<u>0.4</u>	<u>--</u>	<u>0.4</u>
TOTAL	100.0%	100.0%	100.0%

deposits by major categories for insured commercial banks in Alaska, the rest of Region 13, and the United States. "Other time deposits" of individuals, partnerships, and corporations were a smaller fraction of total time deposits for the Alaska banks than for the others; and that "other" category includes certificates of deposit on which rates are higher than on savings deposits. Government deposits, on which rates could be expected to be lower than on savings deposits (if differing at all) were a larger fraction of total time deposits for the Alaska banks. The data, then, do not afford a definite answer to the question of whether the lower computed rates for Alaska should be attributed to lower rates paid, or to differences in the composition of total time deposits.

Evidence does indicate, nevertheless, that Alaska's insured commercial banks were not as successfully competitive in seeking and retaining time deposits as were the insured commercial banks in the rest of the nation in the years 1960-1966. Time deposits as percentages of personal income during that period were:²¹

Alaska	9.7%
Region 13	20.4
United States	21.5

Time deposits of insured commercial banks as a percentage of personal income were 110 percent higher in the rest of Region 13 than in Alaska, and were 122 percent higher nationally. The differentials here are considerably greater than those noted above for demand deposits as a percentage of personal income.

Further evidence is provided by the relative importance of time deposits as compared with demand deposits; that is, the percentage time deposits and demand deposits each comprise of banks' total liabilities and capital accounts. Historically, demand deposits used to be much the larger fraction of total liabilities and capital accounts. But in recent years the balance has been shifting. Higher interest rates on time deposits at commercial banks and other financial institutions (as well as higher prospective earning rates, including capital gains, on other investments) have led to a reduction in the *relative* importance of demand deposits. The data indicate that Alaska's insured commercial banks lagged behind in the shift, relatively, from demand deposits. As a percentage of total liabilities and capital accounts, demand and time deposits, 1960-1966, were:²²

	<u>Demand Deposits</u>	<u>Time Deposits</u>
Alaska	39.1%	25.1%
Region 13	39.6	36.8
United States	39.9	31.6

The disparity as to demand deposits is not significant; the disparity as to time deposits is considerable.

The reason for commercial banks offering interest on time deposits (apart from competition) is that reserve requirements are lower on time deposits than on demand deposits. With a given amount of legal reserves, the greater proportion of those liabilities in time deposits

²¹Annual data are shown in Table 41 in the Appendix.

²²Annual data are in Tables 42 and 43 in the Appendix.

and the less the proportion in demand deposits, the greater the deposit liabilities a bank may have. And, the greater the deposit liabilities of the bank, the greater can be its earning assets. Consequently, while higher interest rates on time deposits increase current operating expenses, the result may well be a still greater increase in current operating revenues, and hence, an increase in profits.

Had Alaska's insured commercial banks offered higher interest rates on time deposits in the years 1960-1966, would the increase in time deposits have been worthwhile for those banks? The low ratio of time deposits to personal income in Alaska, and the low ratio of time deposits to demand deposits at Alaska banks, certainly suggests that there was the potential for a substantial increase in time deposits at Alaska banks. Whether the increase in earning assets that might have been made possible thereby would have been profitable is another question, answering which would involve a study of the unsatisfied demand for credit. As will be discussed below, however, there is some reason to believe that one of the handicaps of Alaska banks is the smallness of the scale of their operations. A larger scale of operation in the years 1960-1966 might have reduced their current operating expenses per dollar of current operating revenue.

Seasonality of Bank Operations in Alaska

A seemingly obvious factor that would contribute to relatively higher expenses of operation for Alaska banks is that of seasonality. With the seasonal variations in such important industries as construction, logging, tourism, and commercial fishing, it might also be expected that bank activities in Alaska would show considerable seasonal variation. Such seasonality might be expected to be reflected in series of data on total assets, loans and discounts, total deposits, and demand deposits. And while monthly, or even weekly, data should be used for studying seasonality, it might seem that semi-annual data from call reports for June 30 and December 31 of each year would give sufficient evidence of the presence of seasonality.

It was expected that the data for the series mentioned would show seasonal variations for Alaska's insured commercial banks that were opposite to the seasonal variations in the series for banks in the whole United States. It was expected, that is, that the Alaska series would show peaks on June 30, troughs on December 31; and that the United States series would show troughs on June 30, peaks on December 31. *None of the Alaska series showed any such thing.* The expected seasonal movement generally was evident in the United States series; but in the Alaska series, such seasonality as seemed evident generally was the opposite of that expected. This is clearest in the

case of the demand deposit series which are shown in the accompanying chart. (The vertical scale in the chart is logarithmic to permit a proper comparison of two series of such different magnitudes.)

It is strongly suspected, nevertheless, that a seasonal pattern for Alaska banks, similar to that hypothesized but with different timing for the peaks and troughs, does exist. To test that hypothesis, however, would require the monthly data referred to above.

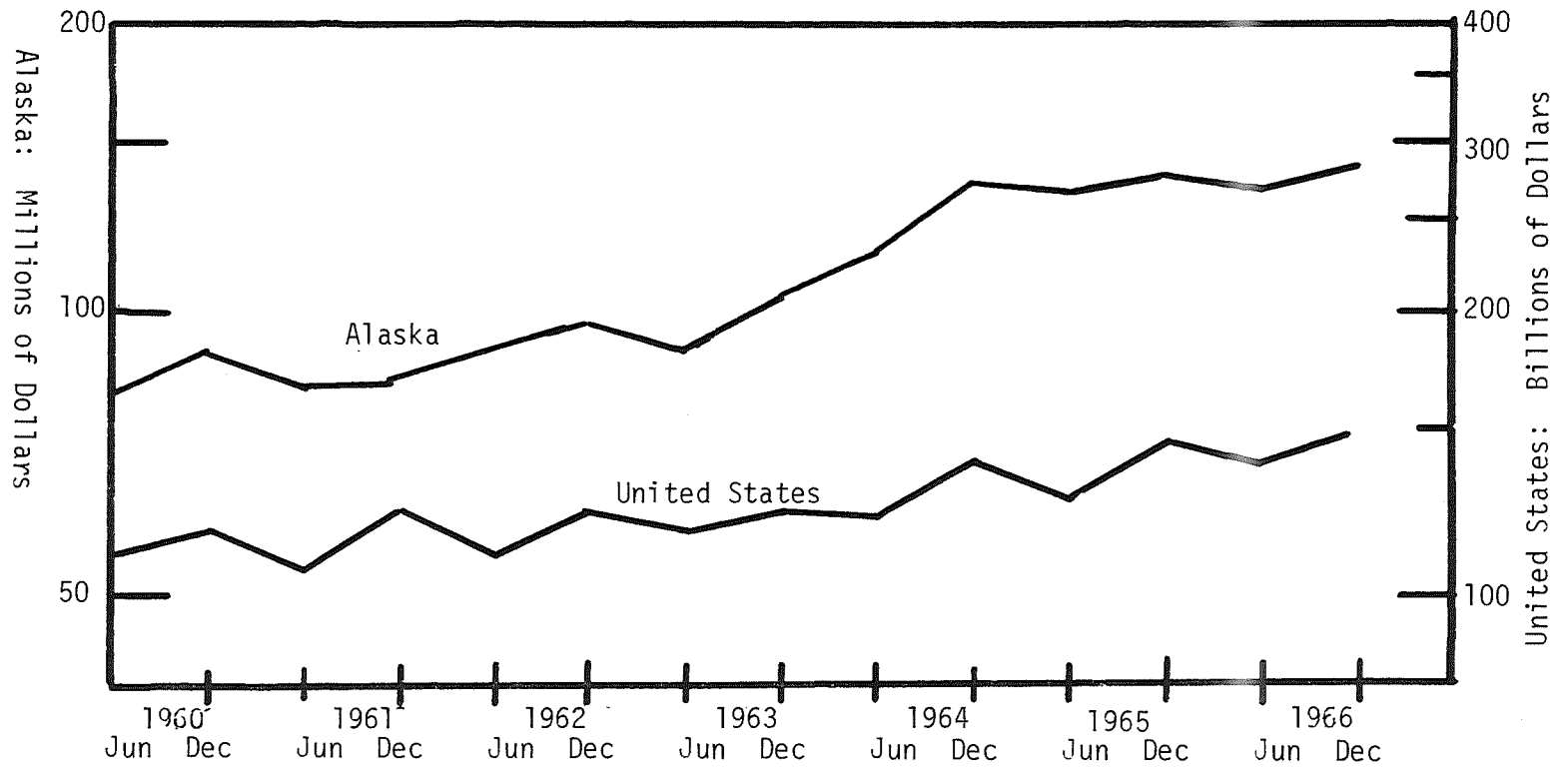
Scale of Bank Operations

The scale of bank operations, particularly the relatively small scale of operations of Alaska's insured commercial banks, already has been referred to several times. The size of banks and their operations depends in part on the size of the market for their services. With larger bank size, economies of scale may be realized. Larger banks can better afford computers, trust departments with highly specialized personnel, research departments, and the handling of large foreign accounts. In part, the size of the market for services of banks depends upon the size and density of population, the level of income, and the volume of financial transactions involved in producing that income.²³

In 1960, the United States as a whole had a population density of 50.5 persons per square mile, while Alaska had only 0.4 persons per square mile. The estimated population of Alaska in 1966

²³According to Stuart I. Greenbaum, available evidence suggests ". . . that small banks--say \$10 million or less in assets--are probably grossly inefficient. It seems likely that significant economies of scale prevail well beyond the \$10 million asset size, but they are probably of a smaller order of magnitude. The conditions under which banks of more than \$300 million in assets operate are much more difficult to judge." "Competition and Efficiency in the Banking System: Empirical Research and Its Policy Implications," *Journal of Political Economy*, August, 1967, 75 (4-11), p. 473. See also Paul M. Horvitz, "Economies of Scale in Banking," in Commission on Money and Credit, *Private Financial Institutions*, Englewood Cliff, N. J.: Prentice-Hall, Inc., 1963, pp. 1-54; and David A. Alhadeff, *Monopoly and Competition in Banking*, Berkeley: University of California Press, 1954.

FIGURE 3-1: DEMAND DEPOSITS IN INSURED COMMERCIAL BANKS IN ALASKA AND THE UNITED STATES, 1960-1966.



was 272,000. In 1960 there were 48 cities in the United States with populations larger than Alaska's, including Seattle, Washington, and Portland, Oregon, in Region 13.²⁴

In view of the smallness of Alaska's population, the data on dollar assets per insured commercial banks are both surprising and misleading as indicators of the relative scale of Alaska bank operations. As of December 31, 1966, there were \$37.3 million of assets per insured commercial bank in Alaska, \$34.9 million per bank in the rest of Region 13, and \$29.8 million per bank in the United States: 7 percent more in Alaska than in the rest of Region 13; 25 percent more in Alaska than in the United States as a whole.²⁵

A quite different picture is presented, however, by the data on assets per office. As of December 31, 1966, eight of the ten insured commercial banks in Alaska had branches, and there were 55 such branch offices. There were \$5.6 million of assets per bank office in Alaska, \$8.8 million per office in the rest of Region 13, and \$12.7 million per office in the United States: assets per bank office were 36 percent less in Alaska than in the rest of Region 13, and 56 percent less than in the nation.²⁶

The providing of banking services to smaller communities and suburbs through branches of larger banks certainly should have been a more efficient approach than having a larger number of small unit banks. Nevertheless, the assets per bank office data do indicate that the scale of operations of Alaska banks was relatively small. In part, relatively larger bank size was achieved by the banks spreading themselves relatively thin.²⁷

²⁴Population data are those of the Bureau of the Census, Department of Commerce, as given in the *Statistical Abstract of the United States, 1967*.

²⁵Data for the period 1960-1966 are in Table 44 in the Appendix.

²⁶Data for the period 1960-1966 are in Table 45 in the Appendix.

²⁷"The sparse evidence on the effects of consolidating unit banks into branch systems suggests that important savings result, even if the output of the consolidated banks does not exceed the output of the components. As might be expected, the savings from such consolidations are not so great as those obtained when numerous unit banks are consolidated into one large unit bank, but they are still far from negligible." Greenbaum, *loc. cit.*

Dollar assets per insured commercial bank employee already have been considered as a measure of employee productivity above. They may also be looked upon as a measure of the relative scale of operation. The fact that in the period 1960-1966 the dollar assets per employee of insured commercial banks were 12 percent greater in the rest of Region 13 and 39 percent greater in the United States as a whole than in Alaska is also indicative of the smaller scale of Alaska bank operations.

The size of banks and the scale of their operations depend in part on the size of the market for their services. It also depends upon how much of the market any bank, or group of banks, gets. The data on the ratios of demand deposits and of time deposits to personal income suggest that Alaska's banks could get a larger share of the domestic market. The data on assets per office and per employee suggest that costs might not rise proportionately. And, if lower earnings rates on loans were one of the techniques used to obtain a larger share of the market, that in turn could contribute to a more rapid growth of the Alaskan economy--and a larger market for the services of Alaska banks.

APPENDIX TO CHAPTER I

TABLE 1

ESTIMATED PRICE DIFFERENTIALS
ON CONSUMER GOODS AND SERVICES,
YUKON TERRITORY VS. CANADA
1966

	Canada	Yukon
Food	100%	125%
Tobacco and alcoholic beverages		
Tobacco products and smoker's accessories	100	100
Alcoholic beverages excluding beer	100	110
Beer	100	200
Clothing and personal furnishings		
Men's and boys' clothing	100	110
Women's and children's clothing	100	110
Footwear	100	110
Laundry and dry cleaning	100	110
Other	100	110
Shelter	100	130
Household operation		
Fuel	100	180
Electricity	100	200
Gas	100	125
Telephone	100	120
Furniture	100	110
Home furnishings	100	110
Appliances, radios and television sets	100	110
Other	100	110
Transportation		
Streetcar, railway and other fares	100	110
New automobiles, used automobiles and house trailers	100	100
Automotive operating expenses	100	130
Personal and medical care and death expenses		
Medical and dental care	100	110
Hospital care, private duty nursing, accident and sickness insurance, prepaid medical care	100	110
Other	100	110
Miscellaneous		
Motion picture theatres	100	100
Newspapers and magazines	100	110
Net expenditure abroad	100	100
Other	100	110

Sources: Touche, Ross, Bailey and Smart, *Yukon Territory Taxation Study, 1968*, Montreal, citing Dominion Bureau of Statistics Publication "National Accounts Income and Expenditure" (Cat. 13-201) supplemented by additional data provided by the Dominion Bureau of Statistics, various government departments, and industries supplying consumer goods to the Yukon.

Notes to Tables 2 Through 9

Tables 2 through 9 employ the 1967 subgroup indexes of the 1967 Bureau of Labor Statistics intercity indexes for Alaska (Table 1-1) and the Bureau of Labor Statistics *City Workers Family Budget For A Moderate Standard of Living* to obtain estimates of the national average equivalent purchasing power of Alaska pretax incomes, differentiated by income and family size. These estimates, although based upon the Alaska Intercity Indexes, take into account the following additional factors:

1. The difference between Seattle and U. S. average consumer cost levels.
2. The differential effect of federal income taxes at different income levels and for different family sizes.
3. The different composition of consumption at different incomes and with different family sizes.

The tables do *not* indicate large variations based upon the second and third factors. To the extent that lower income families and larger families consume proportionally more food and housing services, for which price differentials are highest, this disadvantage seems about matched by the higher tax liabilities on smaller families and higher incomes. A similar result was obtained in manipulation of consumer data from the City Workers Family Budget for twenty cities in 1963 in a study by the National Industrial Conference Board (*Comparative Living Cost In 20 Cities*, Technical Paper No. 14, New York, 1964).

The tax effect does become important, however, in Tables 6 through 9, which compares the effectiveness of the taxable and tax-exempt variants of the 25 percent cost-of-living-allowance for federal employees in Alaska. Tax exemption makes the impact of the allowance very regressive and substantially benefits only single persons and high-income families.

The method of calculation was as follows:

For each level of pretax income (\$500 intervals to \$50,000 were used in the original calculation) and each family size, income tax liability was calculated using income splitting in the case of families of two or more persons and using standard deductions.

The last Alaska consumer expenditure survey was taken in 1959. The number of cases in that survey was not sufficient to

give usable relationships among income, family size, and consumption behavior. For this reason, we have used the 1960-61 consumer expenditure survey for the United States in which there are separate tables relating the composition of consumption by family size and level of income; here the samples are large enough to give reliable functional relationships between consumption and income in each family size group.

The disaggregation of total consumption could be no finer than that of the least detailed set of data going into the calculation, which in this case were the indexes of intercity differences between Alaska cities and Seattle. These latter have only five commodity groupings, and the Bureau of Labor Statistics declined to give us the more detailed components which go into these indexes.

The consumption behavior implied in the estimates that family expenditure in each consumption category is composed of an invariant ("necessity") portion and a portion directly and linearly related to disposable income ("luxuries"). Accordingly, the data from the family expenditure tables for each family size group was used to estimate by least-squares methods the following behavioral function:

$$\text{Expenditure} = a + b(\text{disposable income}).$$

These relationships were assumed to remain constant in real terms over time and among different places; that is, the intercept a could be adjusted by means of appropriate price indexes for their respective commodity groups to give the dollar cost of an equivalent quantity of goods and services in some other place and time than the one in which the survey was taken. To obtain the 1967 Alaska values for this intercept, the U. S. consumer price index was used to adjust for the passage of time between 1960-61 and 1967. The figures from the city workers' family budget for a moderate standard of living were used to adjust U. S. figures to Seattle equivalents, and the 1967 intercity price indexes for Alaska were used to adjust the Seattle intercepts to values for the four Alaska communities. Since the regression coefficient or marginal propensity to consume for a particular commodity group is a ratio (between expenditure and disposable income), it is not affected by changes in the value of money; and so it is assumed to remain the same in 1967 in Alaska as it was in the United States in 1960-61.

Disposable income figures for each pretax income level were obtained from the tax program mentioned above; and these figures, together with the adjusted intercepts and consumption coefficients, give estimated levels of expenditure (for each income level and family size group) for each commodity group in each of the Alaska communities. Savings (or dissavings) are the residual from disposable income after subtraction of expenditures on each commodity group. The current U. S.

dollar value of Alaska expenditures in each group is found by dividing the latter by the product of the Alaska/Seattle and Seattle/U.S. price indexes. Savings are valued one-third at Alaska prices (as indicated by the ratio between total consumption expenditures in Alaska and their equivalent price in the United States) and two-thirds at U. S. prices. Dissavings are valued at Alaskan prices. The value of each level of Alaska-after-tax income is then the sum of the U. S. equivalents of Alaska consumption in each commodity group and the adjusted value of Alaska savings or dissavings. This last sum becomes the input to a final program, which calculates the pretax income necessary in the United States to achieve the corresponding level of disposable income. These figures are summarized in Tables 2-5.

TABLE 2

NATIONAL PURCHASING POWER EQUIVALENT OF ANCHORAGE GROSS INCOME, 1967

FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	\$ 2,217	\$ 2,224	\$ 2,257	\$ 2,290	\$ 2,295	\$ 2,308
4,000	3,008	2,990	3,007	3,002	3,031	3,069
5,000	3,832	3,743	3,752	3,752	3,747	3,793
7,000	5,416	5,384	5,256	5,240	5,230	5,260
9,000	7,002	6,963	6,847	6,763	6,733	6,803
12,000	9,355	9,369	9,251	9,162	9,138	9,161
15,000	11,641	11,711	11,595	11,507	11,475	11,498
20,000	15,367	15,640	15,496	15,379	15,318	15,278
25,000	18,990	19,541	19,386	19,250	19,156	19,063
30,000	22,709	23,479	23,294	23,130	23,002	22,841

NATIONAL PURCHASING POWER EQUIVALENT OF AVERAGE ANCHORAGE DOLLAR, 1967
(Cents)

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FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	.74	.75	.75	.76	.77	.77
4,000	.75	.75	.75	.75	.76	.77
5,000	.77	.75	.75	.75	.75	.76
7,000	.77	.76	.75	.75	.75	.75
9,000	.78	.77	.76	.75	.76	.76
12,000	.78	.78	.77	.76	.76	.76
15,000	.78	.78	.77	.77	.77	.77
20,000	.77	.78	.78	.77	.77	.76
25,000	.76	.78	.78	.77	.77	.76
30,000	.76	.78	.78	.77	.77	.76

TABLE 3

NATIONAL PURCHASING POWER EQUIVALENT OF FAIRBANKS GROSS INCOME, 1967

FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	\$ 1,957	\$ 1,996	\$ 2,019	\$ 2,063	\$ 2,071	\$ 2,101
4,000	2,369	2,663	2,684	2,700	2,734	2,790
5,000	3,399	3,334	3,353	3,358	3,367	3,444
7,000	4,858	4,766	4,695	4,687	4,687	4,739
9,000	6,308	6,256	6,094	6,024	6,010	6,106
12,000	8,451	8,478	8,316	8,213	8,188	8,264
15,000	10,520	10,634	10,479	10,378	10,353	10,409
20,000	13,854	14,219	14,042	13,912	13,856	13,843
25,000	17,074	17,789	17,601	17,446	17,360	17,265
30,000	20,340	21,381	21,168	20,988	20,867	20,679

NATIONAL PURCHASING POWER EQUIVALENT OF AVERAGE FAIRBANKS DOLLAR, 1967
(Cents)

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FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	.65	.67	.67	.69	.69	.70
4,000	.66	.67	.67	.68	.68	.70
5,000	.68	.67	.67	.67	.67	.69
7,000	.69	.68	.67	.67	.67	.68
9,000	.70	.70	.68	.67	.67	.68
12,000	.70	.71	.69	.68	.68	.69
15,000	.70	.71	.70	.69	.69	.68
20,000	.69	.71	.70	.70	.69	.69
25,000	.68	.71	.70	.70	.69	.69
30,000	.68	.71	.71	.70	.70	.69

TABLE 4

NATIONAL PURCHASING POWER EQUIVALENT OF JUNEAU GROSS INCOME, 1967

FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	\$ 2,117	\$ 2,149	\$ 2,160	\$ 2,197	\$ 2,204	\$ 2,218
4,000	2,870	2,863	2,876	2,880	2,911	2,948
5,000	3,666	3,584	3,589	3,593	3,591	3,642
7,000	5,191	5,125	5,029	5,017	5,011	5,038
9,000	6,720	6,690	6,547	6,456	6,432	6,507
12,000	8,972	9,021	8,879	8,787	8,765	8,783
15,000	11,158	11,286	11,150	11,063	11,033	11,042
20,000	14,712	15,078	14,912	14,803	14,742	14,672
25,000	18,160	18,842	18,670	18,542	18,444	18,309
30,000	21,661	22,636	22,442	22,289	22,154	21,937

NATIONAL PURCHASING POWER EQUIVALENT OF AVERAGE JUNEAU DOLLAR, 1967
(Cents)

FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	.71	.72	.72	.73	.73	.74
4,000	.72	.72	.72	.72	.73	.74
5,000	.73	.72	.72	.72	.72	.73
7,000	.74	.73	.72	.72	.72	.72
9,000	.75	.74	.73	.72	.71	.72
12,000	.75	.75	.74	.73	.73	.73
15,000	.74	.75	.74	.74	.74	.74
20,000	.74	.75	.75	.74	.74	.73
25,000	.73	.75	.75	.74	.74	.73
30,000	.72	.75	.75	.75	.74	.73

TABLE 5

NATIONAL PURCHASING POWER EQUIVALENT OF KETCHIKAN GROSS INCOME, 1967

FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	\$ 2,261	\$ 2,227	\$ 2,287	\$ 2,318	\$ 2,328	\$ 2,351
4,000	3,064	3,031	3,046	3,044	3,075	3,122
5,000	3,888	3,793	3,799	3,805	3,807	3,854
7,000	5,472	5,414	5,321	5,314	5,314	5,343
9,000	7,059	7,040	6,931	6,864	6,848	6,911
12,000	9,408	9,460	9,357	9,289	9,282	9,288
15,000	11,694	11,821	11,722	11,660	11,649	11,646
20,000	15,418	15,779	15,660	15,580	15,549	15,463
25,000	19,036	19,707	19,586	19,497	19,443	19,286
30,000	22,750	23,675	23,533	23,428	23,349	23,100

NATIONAL PURCHASING POWER EQUIVALENT OF AVERAGE KETCHIKAN DOLLAR, 1967
(Cents)

FAMILY INCOME BEFORE TAXES	NUMBER OF PERSONS IN FAMILY					
	1	2	3	4	5	6 or more
\$ 3,000	.75	.76	.76	.77	.77	.78
4,000	.77	.76	.76	.76	.77	.78
5,000	.78	.76	.76	.76	.76	.77
7,000	.78	.77	.76	.76	.76	.76
9,000	.78	.78	.77	.76	.76	.77
12,000	.78	.79	.78	.77	.77	.77
15,000	.78	.79	.78	.78	.78	.78
20,000	.77	.79	.78	.78	.78	.77
25,000	.76	.79	.78	.78	.78	.77
30,000	.76	.79	.78	.78	.78	.77

TABLE 6

EFFECT OF COST OF LIVING ALLOWANCE AND TAX EXEMPTION
ON PURCHASING POWER OF ANCHORAGE INCOME DOLLAR, 1967
(Cents)

BASE FAMILY INCOME BEFORE TAXES	Single Person			Family of Four Persons		
	No COLA	Taxable 25% COLA	Exempt 25% COLA	No COLA	Taxable 25% COLA	Exempt 25% COLA
\$ 3,000	.74	.93	.97	.76	.94	.95
4,000	.75	.96	1.00	.75	.94	.95
5,000	.77	.96	1.01	.75	.94	.95
7,000	.77	.97	1.03	.75	.94	.96
9,000	.78	.98	1.05	.75	.95	.98
12,000	.78	.97	1.07	.76	.96	.99
15,000	.78	.96	1.09	.77	.96	1.00
20,000	.77	.95	1.12	.77	.96	1.02
25,000	.76	.95	1.15	.77	.96	1.03
30,000	.76	.95	1.17	.77	.97	1.04

TABLE 7

EFFECT OF COST OF LIVING ALLOWANCE AND TAX EXEMPTION
ON PURCHASING POWER OF FAIRBANKS INCOME DOLLAR, 1967
(Cents)

BASE FAMILY INCOME BEFORE TAXES	Single Person			Family of Four Persons		
	No COLA	Taxable 25% COLA	Exempt 25% COLA	No COLA	Taxable 25% COLA	Exempt 25% COLA
\$ 3,000	.65	.82	.85	.69	.85	.86
4,000	.66	.85	.88	.68	.84	.85
5,000	.68	.86	.91	.67	.84	.85
7,000	.69	.87	.93	.67	.84	.85
9,000	.70	.88	.95	.67	.85	.87
12,000	.70	.88	.96	.68	.86	.89
15,000	.70	.87	.98	.69	.87	.91
20,000	.69	.85	1.00	.70	.87	.92
25,000	.68	.85	1.03	.70	.88	.93
30,000	.68	.85	1.05	.70	.88	.94

TABLE 8

EFFECT OF COST OF LIVING ALLOWANCE AND TAX EXEMPTION
ON PURCHASING POWER OF JUNEAU INCOME DOLLAR, 1967
(Cents)

BASE FAMILY INCOME BEFORE TAXES	Single Person			Family of Four Persons		
	No COLA	Taxable 25% COLA	Exempt 25% COLA	No COLA	Taxable 25% COLA	Exempt 25% COLA
\$ 3,000	.71	.89	.93	.73	.90	.92
4,000	.72	.92	.95	.72	.90	.91
5,000	.73	.92	.97	.72	.90	.91
7,000	.74	.93	.99	.72	.90	.91
9,000	.75	.94	1.00	.72	.91	.93
12,000	.75	.93	1.02	.73	.92	.95
15,000	.74	.92	1.04	.74	.92	.96
20,000	.74	.91	1.07	.74	.93	.98
25,000	.73	.90	1.09	.74	.93	.99
30,000	.72	.90	1.12	.75	.93	1.00

TABLE 9

EFFECT OF COST OF LIVING ALLOWANCE AND TAX EXEMPTION
ON PURCHASING POWER OF KETCHIKAN INCOME DOLLAR, 1967
(Cents)

BASE FAMILY INCOME BEFORE TAXES	Single Person			Family of Four Persons		
	No COLA	Taxable 25% COLA	Exempt 25% COLA	No COLA	Taxable 25% COLA	Exempt 25% COLA
\$ 3,000	.75	.95	.99	.77	.95	.97
4,000	.77	.97	1.01	.76	.95	.97
5,000	.78	.97	1.02	.76	.95	.97
7,000	.78	.98	1.04	.76	.96	.97
9,000	.78	.98	1.05	.76	.97	.99
12,000	.78	.97	1.07	.77	.97	1.00
15,000	.78	.97	1.09	.78	.97	1.02
20,000	.77	.95	1.12	.78	.97	1.03
25,000	.76	.95	1.15	.78	.98	1.04
30,000	.76	.95	1.17	.78	.98	1.05

APPENDIX TO CHAPTER III

TABLE 1
INTEREST AND DISCOUNTS ON LOANS AS PERCENTAGES OF LOANS

	Alaska	Region 13	United States
1966	7.7	6.6	6.2
1965	7.8	6.4	5.9
1964	7.8	6.1	5.8
1963	7.7	6.4	5.9
1962	8.1	6.4	5.9
1961	8.0	6.3	5.8
1960	7.6	6.2	5.9
Average	7.8	6.4	5.9

TABLE 2
SERVICE CHARGES AND FEES ON LOANS AS PERCENTAGES OF LOANS

	Alaska	Region 13	United States
1966	0.7	0.2	0.1
1965	0.8	0.2	0.1
1964	0.8	0.1	0.1
1963	0.8	0.2	0.1
1962	0.9	0.2	0.1
1961	0.8	0.1	0.1
1960	0.7	0.1	0.1
Average	0.8	0.1	0.1

TABLE 3
INTEREST, DISCOUNTS, SERVICE CHARGES AND FEES
AS PERCENTAGES OF LOANS

	Alaska	Region 13	United States
1966	8.4	6.8	6.3
1965	8.6	6.6	6.0
1964	8.6	6.4	5.9
1963	8.5	6.6	6.0
1962	9.0	6.6	6.0
1961	8.8	6.4	5.9
1960	8.3	6.3	6.0
Average	8.6	6.5	6.0

TABLE 4

NET EARNINGS ON LOANS (AFTER RECOVERIES AND LOSSES)
AS PERCENTAGES OF LOANS

	Alaska	Region 13	United States
1966	7.5	6.7	6.1
1965	8.2	6.3	5.8
1964	7.8	6.4	5.8
1963	8.2	6.4	5.8
1962	8.6	6.5	5.9
1961	8.9	6.4	5.8
1960	7.7	6.2	5.8
Average	8.0	6.4	5.9

TABLE 5

REAL ESTATE LOANS AS PERCENTAGES OF LOANS AND DISCOUNTS*

	Alaska	Region 13	United States
1966	38.1	25.3	24.1
1965	37.6	26.9	24.2
1964	37.6	27.4	24.6
1963	38.4	27.6	24.5
1962	39.1	26.3	24.0
1961	39.6	26.3	23.9
1960	41.0	27.9	23.9
Average	39.0	26.4	24.1

*All loan figures are as of December 31 of each year. Loans and discounts are gross: before recoveries and losses.

TABLE 6

COMMERCIAL AND INDUSTRIAL LOANS AS PERCENTAGES
OF LOANS AND DISCOUNTS*

	Alaska	Region 13	United States
1966	35.4	33.8	35.5
1965	35.0	30.5	34.2
1964	37.6	31.9	33.3
1963	32.4	31.6	33.7
1962	31.3	32.0	34.8
1961	30.4	28.9	35.3
1960	30.4	27.2	35.3
Average	33.1	31.2	34.6

*All loan figures are as of December 31 of each year. Loans and discounts are gross: before recoveries and losses.

TABLE 7

PERSONAL EXPENDITURE LOANS TO INDIVIDUALS AS
PERCENTAGES OF LOANS AND DISCOUNTS*

	Alaska	Region 13	United States
1966	23.4	23.3	21.9
1965	23.9	22.5	22.3
1964	24.6	22.0	22.1
1963	26.3	21.3	21.7
1962	27.3	21.6	21.8
1961	28.3	26.0	21.9
1960	27.6	32.2	21.5
Average	25.1	23.1	21.8

*All loan figures are as of December 31 of each year. Loans and discounts are gross: before recoveries and losses.

TABLE 8

NET INCOME BEFORE TAXES AS PERCENTAGES OF
CAPITAL ACCOUNTS

	Alaska	Region 13	United States
1966	11.9	13.4	12.0
1965	26.1	14.1	12.3
1964	12.2	15.0	13.0
1963	14.8	14.9	13.9
1962	14.4	15.4	14.4
1961	16.3	17.1	16.0
1960	20.3	19.6	17.0
Average	16.5	15.5	13.8

TABLE 9

NET INCOME AFTER TAXES AS PERCENTAGES OF
CAPITAL ACCOUNTS

	Alaska	Region 13	United States
1966	10.6	9.1	8.7
1965	17.0	9.4	8.7
1964	8.0	9.4	8.7
1963	8.6	9.0	8.9
1962	6.4	8.9	8.8
1961	9.1	9.8	9.4
1960	12.7	11.2	10.0
Average	10.5	9.5	9.0

TABLE 10

NET INCOME BEFORE TAXES AS PERCENTAGES OF
CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	11.2	17.7	19.0
1965	22.9	19.8	21.1
1964	12.0	22.1	22.8
1963	14.8	22.7	25.0
1962	15.0	24.1	26.2
1961	18.2	27.9	30.7
1960	22.4	31.5	31.6
Average	16.3	22.9	24.4

TABLE 11

NET INCOME AFTER TAXES AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	9.7	12.0	13.8
1965	15.0	13.3	15.0
1964	7.9	13.7	15.2
1963	8.4	13.7	15.9
1962	6.7	14.0	16.4
1961	10.2	15.8	18.0
1960	13.8	18.0	18.7
Average	10.4	14.1	15.8

TABLE 12

CAPITAL ACCOUNTS AS PERCENTAGES OF TOTAL ASSETS

	Alaska	Region 13	United States
1966	6.0	7.6	8.4
1965	6.4	7.7	8.4
1964	6.5	7.7	8.3
1963	6.1	7.6	8.1
1962	6.1	7.6	8.1
1961	5.8	7.6	8.1
1960	6.0	7.3	8.0
Average	6.0	7.6	8.2

TABLE 13

RETAINED EARNINGS AS PERCENTAGES OF NET INCOME AFTER TAXES

	Alaska	Region 13	United States
1966	75.1	49.3	51.3
1965	85.6	53.8	52.2
1964	60.1	53.2	52.3
1963	66.1	52.3	53.8
1962	51.6	50.6	53.0
1961	69.3	53.6	55.2
1960	71.4	63.0	58.5
Average	72.4	53.6	53.6

TABLE 14

INTEREST ON U. S. GOVERNMENT OBLIGATIONS AS PERCENTAGES
OF TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	11.2	11.2	11.9
1965	14.4	12.1	13.2
1964	15.1	13.3	14.9
1963	16.3	14.4	16.1
1962	15.5	15.8	17.1
1961	14.3	15.9	17.2
1960	13.7	14.9	16.7
Average	14.2	13.6	14.9

TABLE 15

INTEREST AND DIVIDENDS ON SECURITIES, OTHER THAN U. S. GOVERNMENT
OBLIGATIONS, AS PERCENTAGES OF TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	5.8	6.7	7.9
1965	6.2	6.4	7.6
1964	3.1	5.5	7.2
1963	3.0	5.5	6.8
1962	3.1	5.4	6.2
1961	4.0	5.3	5.7
1960	3.7	4.8	5.4
Average	4.4	5.8	6.9

TABLE 16

INTEREST AND DISCOUNTS ON LOANS AS PERCENTAGES OF
TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	64.5	66.3	66.9
1965	61.1	65.6	65.4
1964	62.4	65.2	64.0
1963	60.9	63.8	63.0
1962	60.7	62.0	62.0
1961	60.3	62.3	62.3
1960	60.6	63.7	62.5
Average	61.8	64.5	64.1

TABLE 17

SERVICE CHARGES AND FEES ON LOANS AS PERCENTAGES OF
TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	6.3	1.5	1.2
1965	6.3	1.6	1.2
1964	6.0	1.5	1.2
1963	6.6	1.5	1.2
1962	6.6	1.5	1.1
1961	6.2	1.4	1.1
1960	5.4	1.1	1.0
Average	6.2	1.4	1.1

TABLE 18

SERVICE CHARGES ON DEPOSIT ACCOUNTS AS PERCENTAGES OF
TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	8.2	8.4	4.7
1965	7.8	8.7	5.0
1964	8.5	8.9	5.2
1963	8.8	9.2	5.8
1962	9.2	9.7	5.6
1961	9.3	9.3	5.7
1960	9.1	9.1	5.5
Average	8.6	9.0	5.2

TABLE 19

OTHER SERVICE CHARGES, FEES, COMMISSIONS, ETC., AS PERCENTAGES
OF TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	3.1	2.2	1.8
1965	3.0	1.9	1.8
1964	3.4	2.0	1.9
1963	3.3	2.1	1.8
1962	3.7	2.3	1.9
1961	4.8	2.4	2.0
1960	5.9	2.4	2.0
Average	3.7	2.2	1.9

TABLE 20

INCOME FROM TRUST DEPARTMENTS AS PERCENTAGES
OF TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	0.5	2.3	3.9
1965	0.4	2.4	4.1
1964	0.4	2.4	4.2
1963	0.4	2.3	4.2
1962	0.3	2.3	4.5
1961	0.4	2.3	4.5
1960	0.3	2.1	4.3
Average	0.4	2.3	4.2

TABLE 21

OTHER CURRENT OPERATING REVENUES AS PERCENTAGES
OF TOTAL CURRENT OPERATING REVENUES

	Alaska	Region 13	United States
1966	0.5	1.2	1.8
1965	0.9	1.2	1.6
1964	1.1	1.1	1.5
1963	0.7	1.1	1.4
1962	1.0	1.1	1.5
1961	0.8	1.2	1.6
1960	1.3	1.9	2.6
Average	0.8	1.2	1.7

TABLE 22

AVERAGE RATES OF INTEREST ON U. S. GOVERNMENT OBLIGATIONS*			
	Alaska	Region 13	United States
1966	4.2	4.1	4.1
1965	4.5	3.7	3.7
1964	3.6	3.5	3.6
1963	3.6	3.3	3.4
1962	3.1	3.2	3.2
1961	2.9	3.0	3.1
1960	2.5	3.0	2.9
Average	3.5	3.4	3.4

*Interest on U. S. Government obligations as percentages of the average value of U. S. Government obligations.

TABLE 23

AVERAGE RATES OF INTEREST AND DIVIDENDS ON SECURITIES OTHER THAN U. S. GOVERNMENT OBLIGATIONS*

	Alaska	Region 13	United States
1966	3.0	3.3	3.3
1965	3.6	3.2	3.1
1964	2.2	2.9	3.0
1963	2.5	2.9	2.9
1962	2.6	2.9	2.9
1961	3.0	2.8	2.9
1960	2.8	2.7	3.0
Average	2.9	3.0	3.0

*Interest and dividends on securities other than U. S. Government obligations as percentages of the average value of those other securities.

TABLE 24

NET EARNINGS RATES ON ALL SECURITIES*

	Alaska	Region 13	United States
1966	2.9	3.3	3.4
1965	4.4	3.7	3.5
1964	3.2	3.3	3.4
1963	3.4	3.1	3.4
1962	3.4	3.2	3.3
1961	2.9	3.1	3.3
1960	3.1	3.2	2.9
Average	3.4	3.3	3.3

*Interest and dividends, minus provision for losses and recoveries, as percentages of the average value of all securities.

TABLE 25
DEMAND DEPOSITS AS PERCENTAGES OF PERSONAL INCOME

	Alaska	Region 13	United States
1966	15.4	21.7	25.0
1965	16.1	21.1	26.1
1964	16.6	21.6	27.2
1963	14.6	21.7	26.8
1962	14.8	21.3	28.1
1961	13.7	23.6	29.7
1960	14.2	22.8	29.3
Average	15.2	22.0	27.2

TABLE 26
AVERAGE SALARY OF OFFICERS

	Alaska	Region 13	United States
1966	15,886	10,408	11,076
1965	14,940	10,074	10,710
1964	14,308	9,873	10,356
1963	14,291	9,624	10,101
1962	13,931	9,404	9,787
1961	13,405	9,154	9,710
1960	12,412	8,909	9,366
Average	14,329	9,688	10,204

TABLE 27
AVERAGE WAGE OF OTHER EMPLOYEES

	Alaska	Region 13	United States
1966	5,387	4,222	4,239
1965	5,166	4,125	4,162
1964	5,176	4,052	4,087
1963	4,889	3,929	3,951
1962	4,821	3,827	3,853
1961	4,477	3,746	3,770
1960	4,405	3,600	3,615
Average	4,942	3,944	3,966

TABLE 28

AVERAGE ANNUAL COMPENSATION OF EMPLOYEES
OFFICERS AND OTHERS*

	Alaska	Region 13	United States
1966	7,955	7,767	6,310
1965	7,655	6,069	6,132
1964	7,495	5,910	5,978
1963	7,030	5,680	5,764
1962	6,805	5,529	5,588
1961	6,303	5,374	5,432
1960	5,730	4,614	4,589
Average	7,087	5,663	5,716

*Includes benefits

TABLE 29

SALARIES OF OFFICERS AS
PERCENTAGES OF CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	11.9	9.7	7.8
1965	11.2	10.3	8.3
1964	12.5	10.5	8.5
1963	12.6	10.5	8.8
1962	13.1	10.6	9.0
1961	13.1	10.9	9.3
1960	12.5	10.5	9.0
Average	12.3	10.4	8.6

TABLE 30

SALARIES AND WAGES OF EMPLOYEES OTHER THAN OFFICERS AS
PERCENTAGES OF CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	18.4	14.9	13.2
1965	17.4	15.3	14.1
1964	19.6	11.2	14.9
1963	20.1	16.8	15.6
1962	21.6	17.1	16.2
1961	22.6	17.7	16.9
1960	22.5	18.1	17.1
Average	19.8	16.3	15.1

TABLE 31

BENEFITS OF OFFICERS AND OTHER EMPLOYEES AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	2.8	3.2	3.1
1965	2.9	3.2	3.1
1964	2.8	3.2	3.3
1963	2.4	3.2	3.4
1962	2.6	3.2	3.4
1961	2.3	3.2	3.4
1960	--	--	--
Average	2.8	3.2	3.3

TABLE 32

INTEREST ON TIME DEPOSITS AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	25.1	31.1	32.1
1965	21.8	30.1	30.1
1964	21.4	26.2	27.2
1963	20.2	25.5	25.6
1962	18.8	24.8	23.3
1961	14.0	21.1	19.0
1960	12.4	18.9	16.6
Average	20.2	26.1	25.9

TABLE 33

INTEREST AND DISCOUNTS ON BORROWED MONEY AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	0.4	0.6	1.5
1965	0.1	0.4	1.1
1964	0.1	0.4	0.8
1963	--	0.2	0.8
1962	0.2	0.2	0.5
1961	0.1	0.1	0.3
1960	0.8	0.4	0.8
Average	0.2	0.3	0.9

TABLE 34

NET OCCUPANCY EXPENSE AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	5.6	4.2	4.1
1965	5.0	4.4	4.4
1964	5.5	4.4	4.5
1963	5.7	4.4	4.5
1962	6.1	4.4	4.6
1961	6.5	3.0	4.6
1960	2.1	2.3	2.7
Average	5.3	4.0	4.2

TABLE 35

FURNITURE AND EQUIPMENT EXPENSE AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	3.9	2.8	2.4
1965	3.4	2.9	2.4
1964	3.6	2.9	2.4
1963	3.5	2.8	2.3
1962	3.5	2.5	2.2
1961	3.4	2.4	2.0
1960	3.6	2.4	2.0
Average	3.6	2.7	2.3

TABLE 36

OTHER CURRENT OPERATING EXPENSES AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	11.5	10.6	10.5
1965	11.1	10.4	10.7
1964	11.7	10.6	10.9
1963	13.3	10.8	11.0
1962	13.5	10.5	11.1
1961	14.6	10.8	11.6
1960	20.2	15.2	16.4
Average	13.1	11.1	11.5

TABLE 37

NET OPERATING EARNINGS AS PERCENTAGES OF
CURRENT OPERATING REVENUE

	Alaska	Region 13	United States
1966	20.5	23.1	25.4
1965	27.0	23.1	25.8
1964	22.7	25.7	27.5
1963	22.0	26.0	28.1
1962	20.8	26.7	29.7
1961	23.5	29.5	32.8
1960	25.8	32.2	35.3
Average	22.7	25.9	28.1

TABLE 38

DOLLARS OF NET INCOME BEFORE TAXES PER EMPLOYEE

	Alaska	Region 13	United States
1966	2,680	3,980	4,990
1965	5,570	4,190	5,070
1964	2,580	4,380	5,120
1963	2,950	4,240	5,210
1962	2,760	4,300	5,220
1961	3,010	4,720	5,640
1960	3,670	5,090	5,560
Average	3,340	4,390	5,240

TABLE 39

DOLLARS OF ASSETS PER EMPLOYEE
(Thousands)

	Alaska	Region 13	United States
1966	\$373	\$407	\$520
1965	375	390	511
1964	357	386	485
1963	326	375	461
1962	305	364	439
1961	284	356	422
1960	297	342	392
Average	335	375	464

TABLE 40

ASSET GROWTH, 1960-1966
(December 31, 1960 = 100)

	Alaska	Region 13	United States
1966	182.4	152.6	157.2
1965	176.7	141.5	146.5
1964	160.9	129.7	134.6
1963	129.7	119.9	121.6
1962	128.8	117.2	115.5
1961	101.5	106.8	108.2
1960	100.0	100.0	100.0

TABLE 41

TIME DEPOSITS AS PERCENTAGES OF PERSONAL INCOME*

	Alaska	Region 13	United States
1966	10.3	24.7	24.7
1965	10.9	22.5	24.4
1964	10.8	21.1	22.9
1963	9.7	19.5	21.6
1962	9.3	18.6	19.9
1961	8.1	17.9	18.1
1960	7.4	16.5	16.8
Average	9.7	20.4	21.5

*As of December 31 each year.

TABLE 42

DEMAND DEPOSITS OF INDIVIDUALS, PARTNERSHIPS AND CORPORATIONS AS
PERCENTAGES OF TOTAL LIABILITIES AND CAPITAL ACCOUNTS

	Alaska	Region 13	United States
1966	37.5	36.1	35.8
1965	37.8	37.5	37.0
1964	39.8	38.9	38.9
1963	38.7	40.5	39.6
1962	36.9	38.8	41.7
1961	41.6	43.5	44.5
1960	43.9	44.3	45.5
Average	39.1	39.6	39.9

TABLE 43

TIME AND SAVINGS DEPOSITS OF INDIVIDUALS,
PARTNERSHIPS AND CORPORATIONS
AS PERCENTAGES OF TOTAL LIABILITIES AND CAPITAL ACCOUNTS

	Alaska	Region 13	United States
1966	26.3	41.1	35.3
1965	25.7	40.0	34.7
1964	25.8	38.0	32.7
1963	25.6	36.3	32.1
1962	23.0	33.8	30.0
1961	24.7	33.0	26.9
1960	22.8	32.1	26.1
Average	25.1	36.8	31.6

TABLE 44

DOLLARS OF ASSETS PER BANK
(Millions)

	Alaska	Region 13	United States
1966	\$37.3	\$34.9	\$29.8
1965	36.2	32.2	27.7
1964	32.9	29.9	25.6
1963	29.5	28.1	23.5
1962	29.3	27.6	22.5
1961	20.8	25.3	21.1
1960	22.7	24.0	19.5
Average	28.7	28.9	24.2

TABLE 45

DOLLARS OF ASSETS PER BANK OFFICE
(Millions)

	Alaska	Region 13	United States
1966	5.6	8.8	12.7
1965	5.5	8.1	12.1
1964	4.9	8.1	11.5
1963	4.6	8.0	11.1
1962	4.7	7.9	10.7
1961	4.6	7.7	10.4
1960	4.8	7.9	10.1
Average	5.0	8.1	11.3