

Internal Migration and Income

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Their interrelationships in Alaska

With just 46 years of statehood behind it, Alaska is one of the youngest of the 50 states, and its population is quite mobile. This report examines the interaction between income and migration from one borough or census area to another within Alaska.

It was found that urban residents who relocate to rural areas have significantly lower incomes than those who remain in urban Alaska. Rural dwellers who move, whether to another rural area or to an urban area, have approximately the same incomes as those who don't move. Frequent moves correlate with low income. Finally, differences are evident in occupation patterns between urban and rural residents.

Data

The subjects for this study were all persons who both filed for an Alaska Permanent Fund Dividend

and worked at a job covered by unemployment insurance for at least one quarter each year between 2000 and 2004. These two criteria provided a set of people who resided in Alaska and worked steadily during the 2000-2004 period.

The criteria presented approximately 172,000 subjects for the study. As a point of reference, in 2002, near the midpoint of the study period, there were approximately 320,000 Alaskans between 18 and 65 years of age. Therefore, slightly more than half of all working-age Alaskans were included in this study.

Methods

The state was divided into two areas: the urban areas, consisting of the Municipality of Anchorage, the Matanuska-Susitna Borough, the Fairbanks North Star Borough, and the Juneau Borough, and the rural areas consisting of the rest of the state. These simple divisions correspond to the generally accepted division between urban and rural Alaska. The U.S. Census Bureau gives these terms very different definitions.

The income differences between those who moved, those who did not move, and those who moved every year were investigated. The income differences between those who moved from rural to urban areas and vice versa, and those who moved from one rural or urban area to another rural or urban area, were analyzed. Significant differences between most of these groups were evident. Moves within a borough or census area were not included in this study.

1 Movers and Non-movers By average annual income, 2000–2003

	Number	Income
Never Moved	155,218	\$35,480
Never Moved, Urban	90,597	\$37,992
Never Moved, Rural	64,621	\$31,959
Moved At Least Once	20,221	\$29,517
Moved Each Year	152	\$16,643

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

A “significant difference” is defined as a statistical disparity too large to be accounted for by the natural variation in average annual income. A difference may or may not be meaningful, whether or not it is significant.

To examine the employment patterns which accounted for the wage differences, the industrial code reported quarterly for each individual was examined. The reported industry codes were aggregated to the one-digit level, which provided an adequately detailed picture of employment.

Findings

Exhibit 1 shows the income differences between the group who never moved, the group who moved at least once, and the small group who moved every year. The group of individuals who never moved is further divided into those who lived in rural and urban areas. The Moved Each Year group is a subset of the Moved At Least Once group. The difference in average yearly income between the Never Moved group and the Moved At Least Once group is significant, meaning that a difference of this magnitude is unlikely to have occurred by chance. The stationary group earned almost \$6,000 in average yearly income more than the group who moved at least once, and more than double what the group who moved yearly received. The average yearly income difference of \$6,000 between the urban and rural stationary groups is also significant.

Exhibit 2 shows a similar set of income differences between those who moved once and those who remained in one area, broken out into rural and urban residents. Moved in Exhibit 2 refers to those who moved from one rural area to another, or from one urban area to another.

For rural residents, there was little difference between the group who moved once and the group who never moved. The large average annual income for the rural group who moved in the 2001-2002 period was caused by chance. The natural variance in the average for such a small group adequately explains the apparently large income figure for that group in that year.

For urban residents, there is a small, but significant,

difference between those who lived in a single urban area during the entire period and those who moved between urban areas during one period. These moves may have been prompted by loss of a job, by a better opportunity in one of the other urban areas, or by strictly personal reasons. Whatever may have motivated any individual move, the aggregate effect shows that those who moved between urban areas typically had a lower income during the study period than those who remained in one place.

This urban moving effect may either be causing the moves, or may be caused by the moves themselves. We cannot establish which causes which from the data. The absence of a similar rural moving effect stems, at least in part, from the more seasonal nature of employment in the rural areas.

One factor which may account for the urban moving effect is age. Viewing the subjects by age groups, 25 and under, 26 to 50, and over 50, shows that the older groups have higher wage income. More than 11 percent of those who moved were under age 25, compared to 9 percent under 25 for the stationary group. Less than 20 percent of those who moved were over 50 (the highest-wage group), compared to 31 percent of the stationary group.

The age profiles for the stationary urban and rural groups were essentially identical. The age profiles for the movers are also essentially the same, regardless of from where or to where they moved. Only the stationary and moving groups showed

Movers & Non-movers Urban & Rural, by income, 2000–2003

	Rural		Urban	
	Number	Income	Number	Income
Never Moved, 00-03 Avg.	64,621	\$31,959	90,597	\$37,992
Moved, 00-01	429	\$30,852	1376	\$35,150
Moved, 01-02	328	\$33,513	536	\$33,751
Moved, 02-03	332	\$31,856	1116	\$34,505

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

differences. The mean age for the non-movers was 44, and the mean age for the movers was 40. These differences were not statistically significant, but are sufficient to account for the “urban moving effect”.

Exhibit 3 shows a comparison of stationary urban and rural residents to each other, and to those who moved once during the study period from an urban to a rural area, or vice versa. The incomes of those who moved between the rural and urban areas are not significantly different from those

who remained in the rural areas, while those who lived in the urban areas have average annual incomes which are significantly higher than the other three groups.

These differences largely reflect the predominantly seasonal employment patterns in rural Alaska. Alaskans who move to or from more rural areas are more likely to be employed in seasonal industries.

The map in Exhibit 4 shows the number of study subjects who moved once into the boroughs and census areas shown from other areas in the state. Exhibit 6 shows the out-movement from the areas.

Exhibit 5 shows differing employment patterns between the stationary urban and rural portions of the study population, and between movers. Industries not shown in Exhibit 5 reflected nearly identical percentages for all four groups. As with Exhibit 3, movers here refer to people who moved once during the study period.

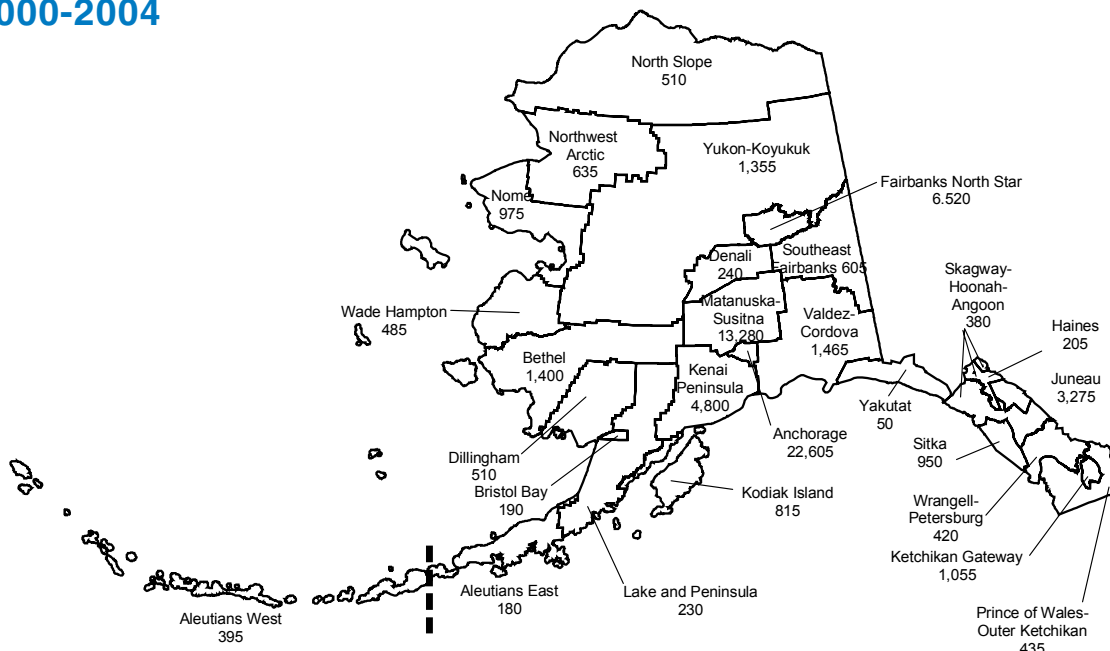
Rural non-movers were much more likely to work in Fish Processing than urban non-movers. Stationary rural residents were less likely to work in Transportation & Communications, Retail & Wholesale Trade, and Services, but more likely to work in Health, Education, & Social Services and

3 Average Annual Income By moving status, 2000–2003

		Number	Income
Never Moved	Urban Residents	90,597	\$37,992
	Rural Residents	64,621	\$31,959
Moved Once	Urban to Rural	1,738	\$31,784
	Rural to Urban	3,321	\$31,164

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

4 Alaska Internal In-migration 2000-2004



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Public Administration than stationary urbanites.

Movers were slightly more likely to work in the mining and construction industries than non-movers, particularly among those who moved from an urban area to a rural area. This reflects the nature of the construction industry, which requires a relatively mobile workforce. The employment pattern for movers generally tended toward the pattern for the area to which they moved, though their incomes did not rise to match those of the stationary urbanites during the study period.

Conclusion

The income patterns show rural residents tending to have lower average annual incomes than urban residents, a pattern that persists for several years after a person moves from a rural to an urban area. As discussed above, the difference stems from different employment patterns for rural and urban dwellers, with rural residents having more seasonal employment patterns.

The income patterns also show that individuals who move between urban areas have lower incomes, on average, than those who don't, and those who move each year often have lower incomes than those who moved only once. This may be caused, at least in part, by the fact that movers tend to be somewhat younger than non-movers. The fact that those who moved to and from the rural areas had average annual incomes indistinguishable from those who remained in the rural areas suggests that moving has less opportunity cost for rural dwellers than for urban dwellers.

Moving Status by Industry Sector 5

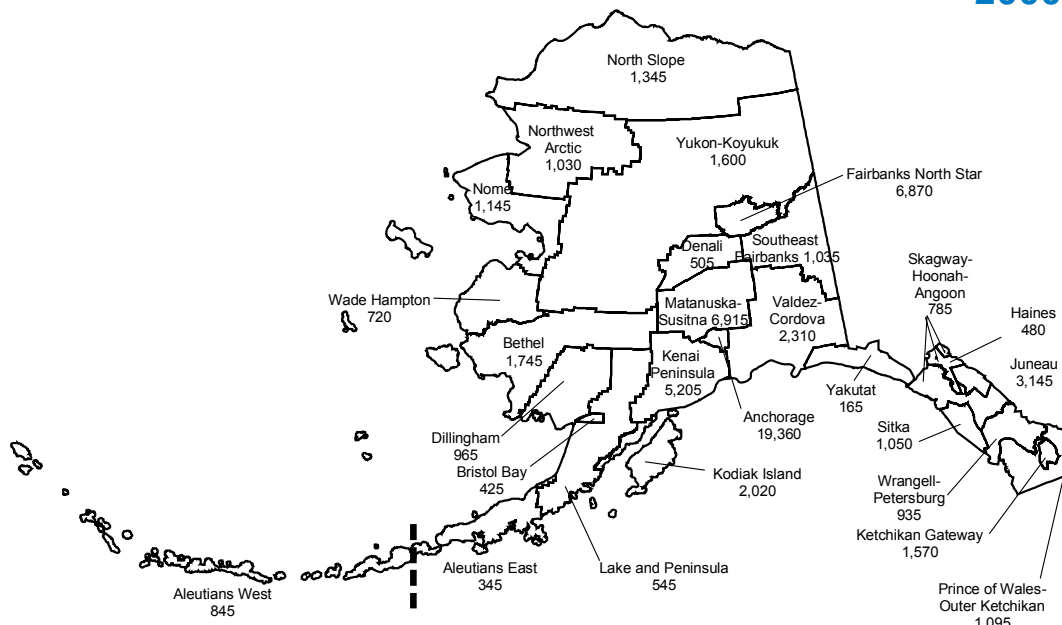
Urban & Rural, percent, 2000–2003

	NEVER MOVED		MOVED	
	Percent Urban	Percent Rural	Percent Urban to Rural	Percent Rural to Urban
Mining & Construction	11	11	12	13
Fish Processing, etc.	1	7	3	3
Transportation & Communications	12	9	10	12
Retail & Wholesale Trade	21	15	17	20
Services	9	5	8	9
Health, Education & Social Services	28	30	30	27
Public Administration	12	19	16	12

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

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2000-2004



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section