

Migration as economic adjustment: The experience of rural Alaska

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Economists view migration as a type of human capital investment.

- People move from place to place to make themselves better off.
- Lewis also saw it as a mechanism for economic adjustment. It is welfare improving when it draws labor from regions of low productivity to regions where labor productivity is higher.
- Internal migration is one factor in the historic process of regional income convergence in the US.

Migration also has consequences for the places affected.

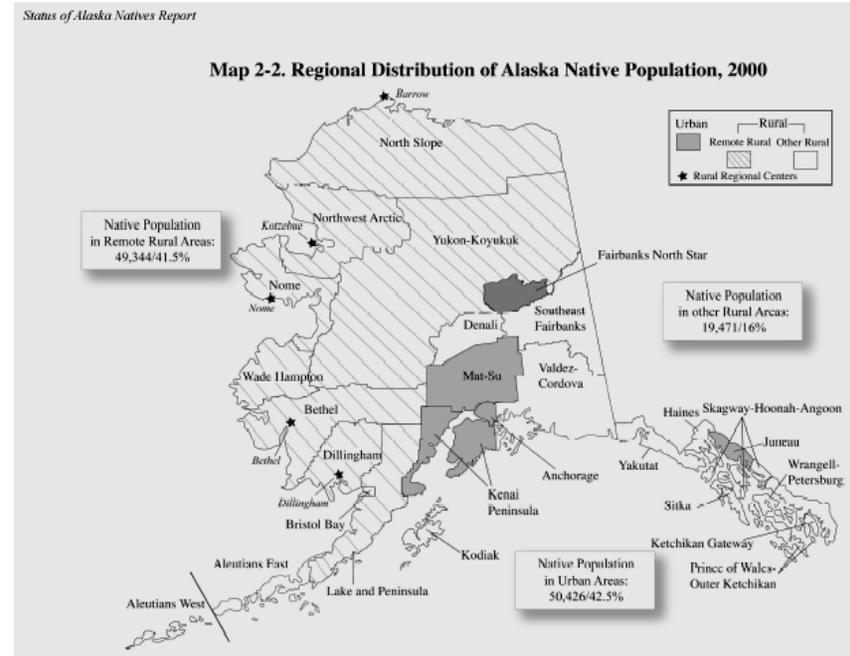
- Migration effects local labor supply, the demand for goods and services, and the provision and support of local public services.
- Policies in Alaska are affected by and affect the decisions to migrate.

The pattern of migration among the indigenous population in Alaska

- The internal migration and movement of Alaska Native population has a long history.
- Movement faces what seems to be a type of 'Todaro Paradox' with migration unable to clear the high unemployment rural labor markets.

The economy of rural Alaska

- The rural economy is based on the use of local, natural resources.
- Industrial production is in enclaves.
- Limited population, low density, small places with limited ground transportation
- Primarily Native place
- Varied prospects: Coastal, North Slope, CDQ region, Village Alaska



The economy of rural Alaska

- Traditional measures say the rural economy is in bad shape. Low incomes, high poverty rates, high unemployment, and high costs of living.
- The rural economy is a mixed economy of three parts: subsistence, market, and transfer economies.

The patterns of migration of the Alaska Native population

- During the 1990s the fastest growth of Alaska Native population was in urban areas. This was a long run trend. Approximately 43% of the Alaska Native population lived in urban areas in 2000.
- During the last half of the 1990s the state experienced out migration. Out migration from most rural regions was greater indicating economic adjustment.

Migration and population churning

- The following table describes the churning or in and out migration found in the rural population.
- Urban regions contain the state's largest population centers, Cities contain communities with 3500 to 10,000 people, Centers are rural regional centers of between 1000 and 3500 people, and Villages are the state's smallest communities.
- The condition of the economy was based on relative median income, unemployment and poverty.

Table 1. Population Churning 1995-2000

	In-migrants	Out-migrants	In/Out	Population in 1995
Good economy, urban	101,822	119,238	.85	408,046
Poor economy, urban	9,688	10,548	.92	46,905
Good economy, city	10,841	13,953	.77	45,096
Poor economy, city	5,294	8,615	.61	29,642
Good economy, center	2,342	3,367	.70	13,839
Poor economy, center	4,445	7,471	.59	29,018
Good economy, village	1,405	1,262	1.11	4,103
Poor economy, village	3,046	4,927	.62	21,025

Migration and population churning

- The table shows there is considerable replacement of population moving out of each region.
- The replacement rate (In migrants/ out migrants) is never lower than 60 percent.
- The replacement rate is slightly lower for smaller, poorer areas.
- This replacement in the smaller poorer economies describes Alaska's Todaro Paradox.

Migration in the North

- The literature on migration by Alaska Natives is limited. We expanded our review to include studies from the Canadian North.
- Alaska Natives have a long history of movement to rural regional centers and Alaska's urban areas. In contrast migration does not seem as important for the native population in the Canadian North.
- Differences are likely to reflect differences in the costs and benefits of moving in the two countries.

What we found in the Literature Review

- Conclusion A: People move to improve their employment opportunities.
- Conclusion B: Demographic characteristics affect the propensity to move, and migration has had an important effect on the demographic composition of the northern villages.
- Conclusion C: Place amenities, such as public and environmental goods, influence the pattern of migration. Subsistence productivity is tied to knowledge of particular places, which increase the cost of moving.

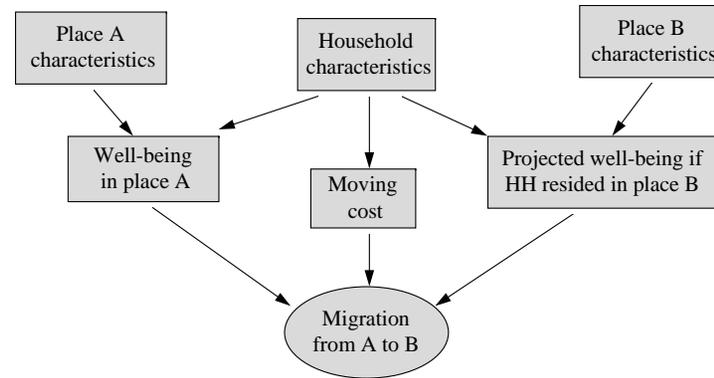
What we found in the Literature Review

- Conclusion D: Public policy also affects individual decisions to migrate. Public spending provides real income, creates employment opportunities, and affects amenities.
- The review suggested that for the most part the migration of Natives in the Alaska and Canadian North is consistent with a fairly conventional story: they move to improve their economic welfare. Subsistence provides real income and affects the pattern of migration.

Migration patterns of Alaska Natives

- Results from Huskey, Berman, and Hill (2004) “Leaving home, returning home: Migration as a labor market choice for Alaska Natives”
- We used the 1990 US Census Public Use Microdata to model Alaska Native migration between rural and urban areas.
- We model an individual’s migration decision as part of their decisions about their allocation of time between, market work, subsistence, and leisure.
- The decision to move reflects a comparison of welfare differences and the cost of moving between places. Welfare differences reflect the characteristics of each place and the individuals opportunities and costs of participating in subsistence, market work and leisure.

Figure 1. Migration as an Indicator of Relative Well-Being



Place Characteristics	Household Characteristics
<ul style="list-style-type: none"> • Subsistence opportunities • Local wage work opportunities, by level of education • Opportunities for temporary/seasonal work in nearby places • Sharing networks, opportunities for risk mitigation • Opportunities for education (traditional and modern) • Cost of living • Quality of life 	<ul style="list-style-type: none"> • Demographic characteristics: age and sex of adults, number of children, elders • Educational attainment and skills of household adults • Preferences for wage work, subsistence participation • Preferences for subsistence, market consumption

Note: these place and household characteristics are assumed to be fixed when people make decisions to move, but may change over time.

What did we find out about migration?

- We estimated two equations to describe the labor market decision making: expected wage and annual hours worked. These allowed us to estimate expected earnings in different places for each potential migrant.
- We estimated a migration equation as a function of expected earnings, human capital, and demographic characteristics that influence migration costs.

What did we find out about migration?

- Relative earnings are a significant determinant of moving out of rural Alaska.
- Out migrants are more likely to be younger and single.
- Out migrants have lower levels of human capital described by expected wages.
- Migration from urban to rural regions differs by gender. The women and men who move from urban to rural Alaska are those who can earn relatively higher wages in rural regions. The movement of women is dependent on employment opportunities in rural regions but this is not important for men.
- This may be the source of rural Alaska's 'Todaro Paradox'. The pattern may be a result of the importance of subsistence opportunities or the ability of men with more human capital to jump to the front of the queue for limited seasonal work.
- This response to employment opportunities may also help to explain the gender imbalance found in rural Alaska.

What we plan to do

- We are left with three questions.
 - How do subsistence opportunities influence the migration decision?
 - How do place amenity differences affect migration decisions?
 - How do different policies affect migration decisions?
- Census data does not provide the data to answer these questions.

What we plan to do

- We hope to expand our current research by looking at migration among Arctic Inupiat people. Expanding our data with:
 - More specific census data which will allow us to say something about the effects of place amenities.
 - Survey results from specific areas which will allow us to say something about the effects of subsistence .
 - Survey and census results from Canada which will allow us to say something about the role of policy differences.