Migration in Alaska

How migration has shaped us and how we compare to other states

By **ERIC SANDBERG**

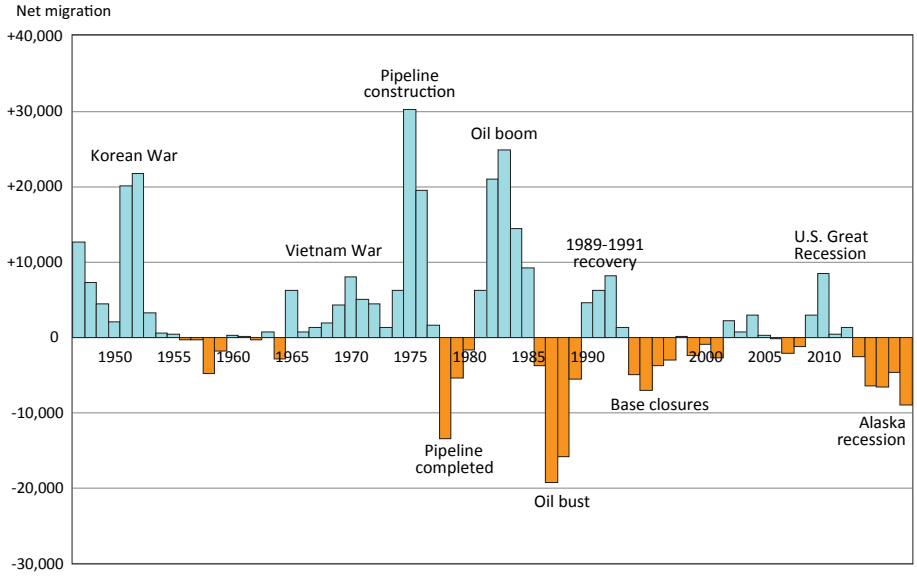
Alaska has the highest population turnover of any state, with large numbers of people moving both in and out each year regardless of economic conditions. Although the percentage of residents born in Alaska has risen over time — 41 percent today versus 32 percent in 1980 — Alaska's population remains highly migratory compared to the rest of the U.S.

Two measures of migration

Migration sounds like a mass of people moving in one direction, but it's more of a two-way street with traffic flowing in both lanes. One lane might have more traffic, but cars are always moving both directions.

1 Alaska's Historical Net Migration

1947 to 2017



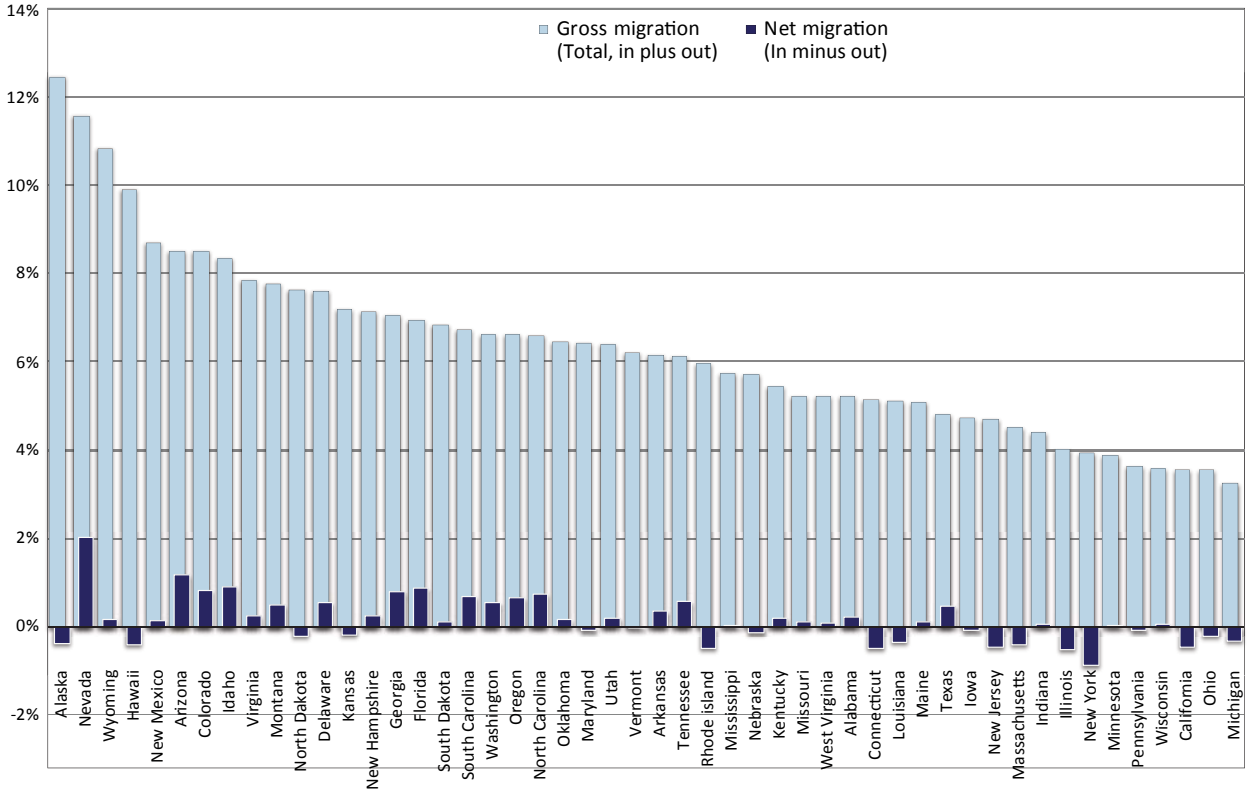
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Gross migration is the sum of a place's in-migration and out-migration. In other words, it's the total number of moves associated with that place in a year, which shows how much of the population turned over due to migration. So if five people left a town in a year and two moved in, that town's gross migration would be seven. The measure is generally consistent for Alaska, at 80,000 to 100,000 total moves each year — typically 40,000 to 50,000 moving in each direction.

Net migration, or in-migration minus out-migration, is the overall number of people a population gained or lost through migration. Positive net migration means more people are moving to a location than leaving it,

2 Average Annual Gross and Net Migration Rates by State

1990 to 2016



Source: Internal Revenue Service Tax Statistics

and negative net migration is the opposite.

Net migration is one of the two ways a place's population count can change. The other is natural increase, or births minus deaths. (For more on natural increase and an overview of Alaska's 2017 population estimates, see page 14.)

While gross migration is fairly consistent, net migration can swing wildly between positive and negative depending on economic conditions in Alaska and outside — although in recent decades the swings have been more moderate than during earlier periods in Alaska history.

For the past five years, Alaska's net migration has been negative. This represents the longest streak of Alaska losing more migrants than it gains since World War II, when yearly numbers first became available. Since 2012, nearly 29,000 more people have left Alaska than arrived. That's a smaller loss than during the oil bust years of the late 1980s, but the sustained net loss is a sure indicator of tough economic times. (See Exhibit 1.)

Migration shaped Alaska history

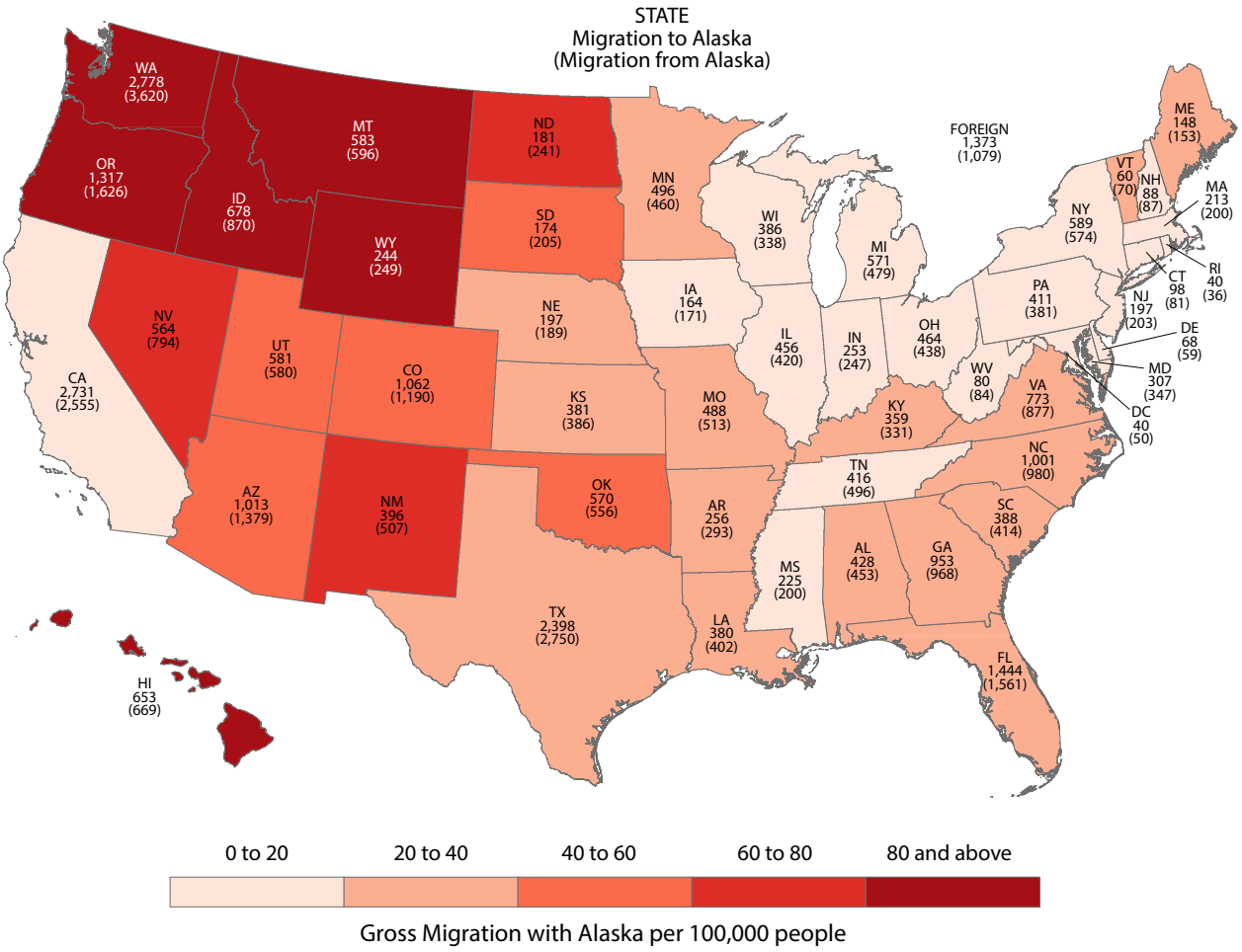
Large migrations have been a major part of Alaska's history, starting with the peopling of the Americas by movement across the Bering Land Bridge from Asia during the last Ice Age. In modern times, warfare and economic booms and busts have spurred the largest flows of movers.

Two particularly large migrations in the first half of the 20th century shaped modern Alaska. The first followed gold strikes on the Klondike and the Seward Peninsula around the turn of the century. For the first time, large numbers of outsiders moved into the territory and Alaska's economic potential came into view. The second was World War II. The influx of military personnel produced a boom in construction of housing, roads, and airfields while realigning Alaska's population geography to make Anchorage and Fairbanks the largest cities. Both events about doubled the state's population over 10 years.

After WWII, it seemed possible that Alaska would return to its pre-war population with troop demobi-

3 Alaska Exchanges Most Movers with Close or Populous States

Yearly gross migration with Alaska by state, 2000 to 2016



Source: Internal Revenue Service Tax Statistics

lization, but the onset of the Cold War and a permanent military population ensured that didn't happen. Between 1945 and 1970, most migration inflows came from military buildups. The two largest were due to the Korean and Vietnam Wars. Military buildup for the Korean War netted more than 40,000 people between 1950 and 1952. Given Alaska's population at the time, this has been the largest post-WWII net increase by percentage. The late-1960s increase from the Vietnam War was smaller.

The arrival of the oil economy in the 1970s and 1980s brought in swaths of newcomers and large swings in net migration. As construction started on the Trans-Alaska Pipeline, Alaska recorded its highest one-year net migration increase of more than 30,000 between 1974 and 1975. The net inflow continued until the pipeline's completion in 1977, when net migration turned negative for the rest of the decade.

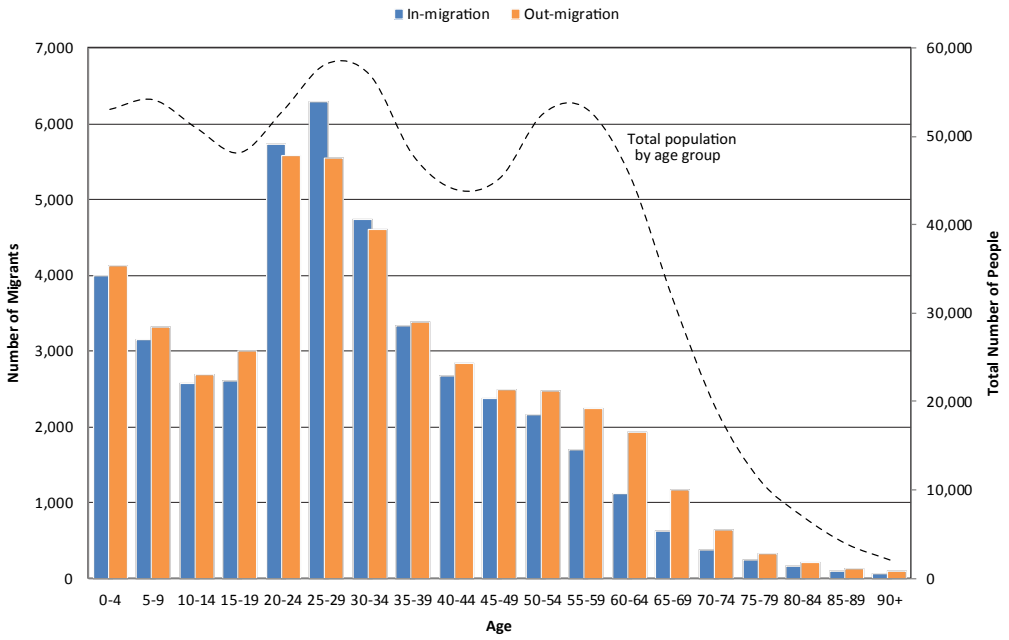
High oil prices, a housing boom, and a recession in the rest of the country spurred Alaska's highest sustained net migration inflow in the early 1980s. Between 1980 and 1985, Alaska netted 75,000 people through migration alone. Then, the subsequent oil bust in the late '80s brought on the state's steepest migration decline: a net outflow of about 44,000 people from 1985 to 1989.

These swings softened between 1990 and 2012, when net migration typically produced less population change than natural increase. Net flow was negative in seven out of eight years starting with base closures in the mid-1990s and lasting until 2001, but natural increase kept Alaska's population growing.

After the quiet 2000s, at least in terms of net migration, the Great Recession in the Lower 48 brought an influx of newcomers to Alaska, where the economy

4 Young to Middle-Age Adults Move the Most

ALASKA'S TOTAL YEARLY MIGRATION BY AGE, 2010 TO 2015



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

largely weathered the national storm. But since 2012, Alaska's net migration has been consistently negative, breaking the past quarter-century's pattern. The losses picked up steam as the state's economy worsened while conditions improved elsewhere in the country.

That steady net outflow first slowed and then ended the state's long streak of total population growth. Through the 1990s and 2000s, Alaska's population grew at a rate above 1 percent, which fell to half a percent during the 2010s. The net loss of 8,900 people in 2017, the largest single-year outflow since 1988, caused Alaska's total population to decline for the first time in decades.

Highest turnover among states through migration

Expressing migration as rates — percent of the population turned over in a year for gross migration and percent change from net migration — allows comparisons between places of varying size.

Exhibit 2 shows the average annual gross migration and net migration rates for all 50 states from 1990 to 2016. Alaska's gross migration rate was the highest, with just over 12 percent of the population turning over through migration each year. That was more than twice the average national rate of 5 percent.

Nevada, whose housing boomed for much of that period, ranked second at about 11 percent. Either Alaska or Nevada has ranked first for gross migration every year since 1990. Through the 1990s and early 2000s, the two states often traded places for the top slot. Nevada fell several spots below Alaska after the 2008 housing collapse, but remains in second for the entire period.

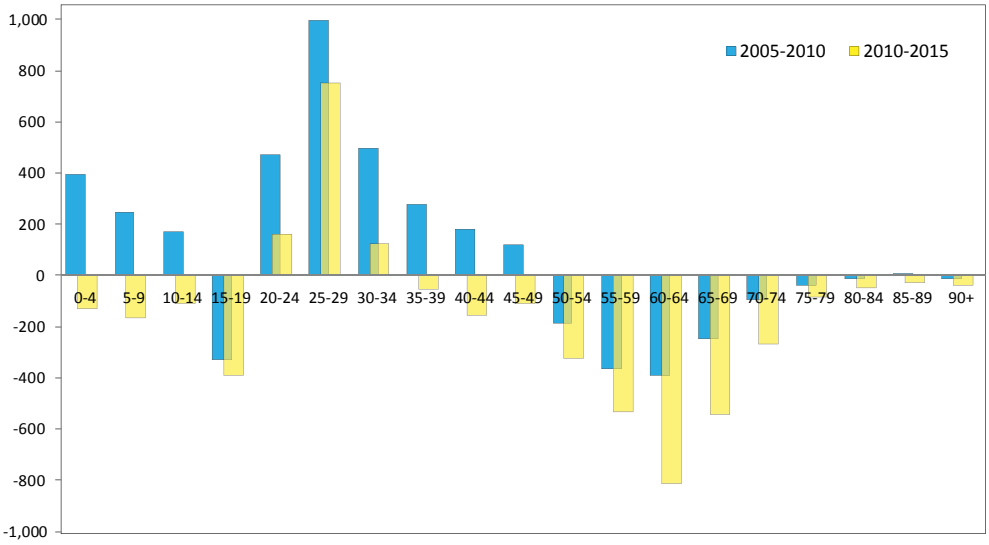
While Alaska is still the top state for population turnover through migration, the gap has steadily narrowed. In the early 1990s, Alaska's gross migration rate was over 16 percent a year, a 10 percentage point gap over the national average of 6 percent. The national rate has stayed about the same, dropping just one percentage point in 2016, while Alaska's fell to 11 percent the same year.

Average annual net migration rates across all states tend to be between -1 percent and 1 percent. Just two states, Nevada and Arizona, have averaged above 1 percent since 1990.

States with high turnover tend to also gain population through migration while low turnover states usually see losses, but Alaska and Hawaii have high gross migration without high net migration. Of the 10 states with the highest average annual gross migration rates since 1990, Alaska and Hawaii are the only states with negative net migration rates.

5 Net Migration Has Dropped Across All Ages

ALASKA YEARLY NET MIGRATION BY AGE, 2005 TO 2010 VERSUS 2010 TO 2015



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

Washington top source, destination

Proximity and large populations largely explain where people leaving Alaska go, and vice versa. Exhibit 3 shows Alaska's average yearly migration exchanges with the rest of the country and abroad from 2000 through 2016. Average yearly inflow to Alaska is under each state's initials, and outflow from Alaska to that state is in parentheses. Color coding shows each state's yearly gross migration exchanges with Alaska per 100,000 people.

In addition to proximity, Washington and Alaska share historical, cultural, and transportation links. Washington is the largest source of Alaska's incoming migrants by a small margin, and it's by far the most common destination for people leaving Alaska. About one in nine people who leave Alaska move to Washington.

After Washington are some of the most populous states. California is close behind Washington as a source of in-migrants, followed by Texas and Florida. For people leaving Alaska, Texas is the second largest destination, followed by California.

Average yearly gross migration each state has with Alaska, adjusted for population, shows a strong geographic component. States in the Northwest, along with Hawaii, have the largest adjusted migrant flows with Alaska. Montana's gross migration rate with Alaska is the highest (155 people per 100,000), followed by Idaho (131), Hawaii (125), and Washington (122). Other western states also rank higher than average in gross migration with Alaska. The exception is California, which has a gross migration rate much lower than surrounding states despite ranking high in total number of migrants to and from Alaska. This is because California has such a large population that even big numbers of movers each year are low in percent terms.

The states with the lowest migration with Alaska, both in terms of numbers and gross migration rate, are primarily in the Northeast. Less populous states in the region and the District of Columbia send few people to Alaska and few Alaskans move there. New Jersey has the lowest rate at 5.6 people exchanged per 100,000, followed by Connecticut (6.3) and New York (7.8).

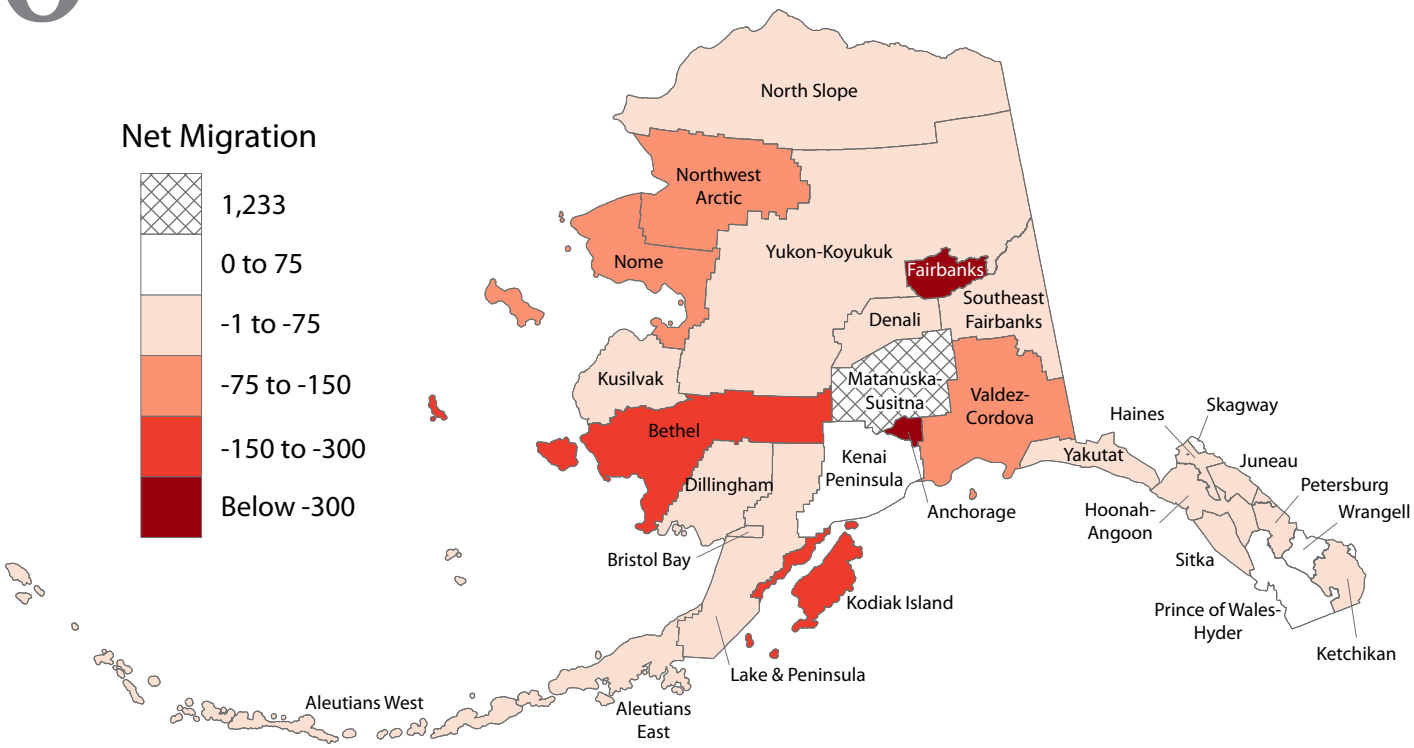
Younger adults, men tend to move more often

Exhibit 4 shows Alaska's average yearly in-migration and out-migration by five-year age groups for 2010 through 2015. For reference, the total number of Alaskans by age is the dotted line, with corresponding numbers on the right axis.

Young people move far more often than older people. This pattern is not unique to Alaska but it's more pronounced because the state's population is young. Migration peaks among people in their 20s and falls off quick-

6 Yearly Net Migration Mostly Negative Except Mat-Su

ALASKA, 2010 TO 2017



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

ly after that. Over half of total migrants are under 30.

Migration's large age differences show in the comparison between Alaska's two largest generations, the millennials (roughly ages 15 to 34 in 2015) and baby boomers (about 50 to 69 in 2015). Millennials make up about 30 percent of Alaska's population but account for over 40 percent of movers, on average. Boomers are a quarter of the state's population and just 15 percent of movers.

Men move slightly more than women nationwide, but the gap is larger in Alaska. The state's male-to-female ratio is about 107 to 100, and for movers in either direction the ratio is about 123 to 100. The age pattern for both sexes is roughly the same, though, with peaks in the 20s followed by a decline. Women do not become the majority of movers until after age 75, which is also when they become the majority in their age group.

Young move in, older people leave

While total net migration is a volatile statistic, net migration patterns by age in Alaska are consistent.

Exhibit 5 shows average annual net migration by age for two consecutive five-year periods. These particular times reflect different conditions, as statewide net migration was positive from 2005 to 2010 and negative from 2010 to 2015.

Migration among children is driven by adults in the prime parenting ages. The 2000s brought a net inflow of children into Alaska, but that switched to a net outflow after 2010 as more adults left the state.

Out-migration of older teens is a constant for Alaska, as the number of youth leaving for college, jobs, or the military is always higher than the number moving in. For single ages, net outflows of 18-and-19-year-olds are the highest.

Alaska tends to gain the most migrants between ages 20 and 40, with a peak in the late 20s. (See Exhibit 5.) The age when net migration turned negative varies by time period, though. In the positive net migration era of the late 2000s, adult migration didn't turn negative until the early 50s. Since 2010, with higher out-migration, net migration has turned negative in the late 30s.

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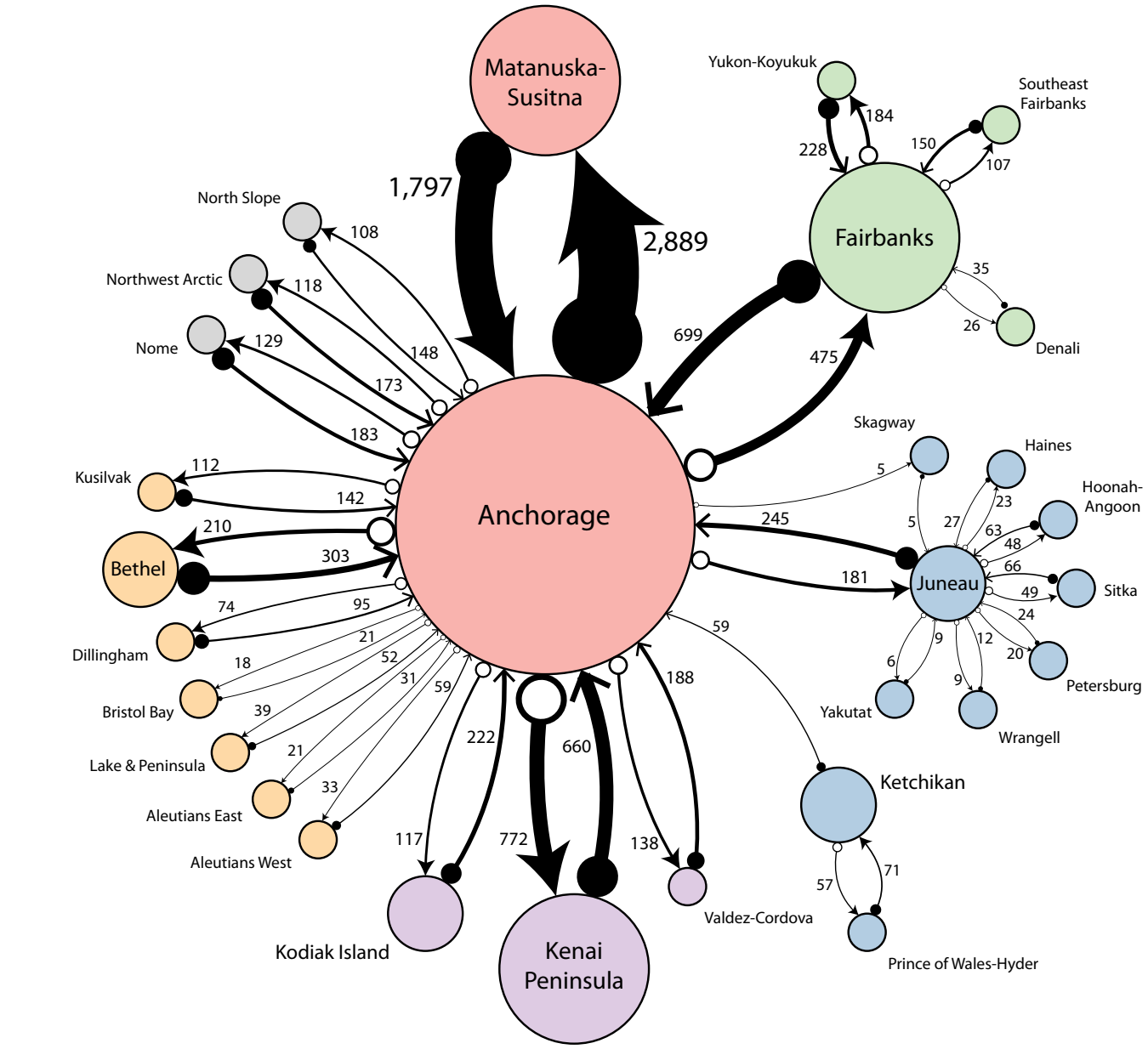
7 Most In-State Moves Involve Anchorage

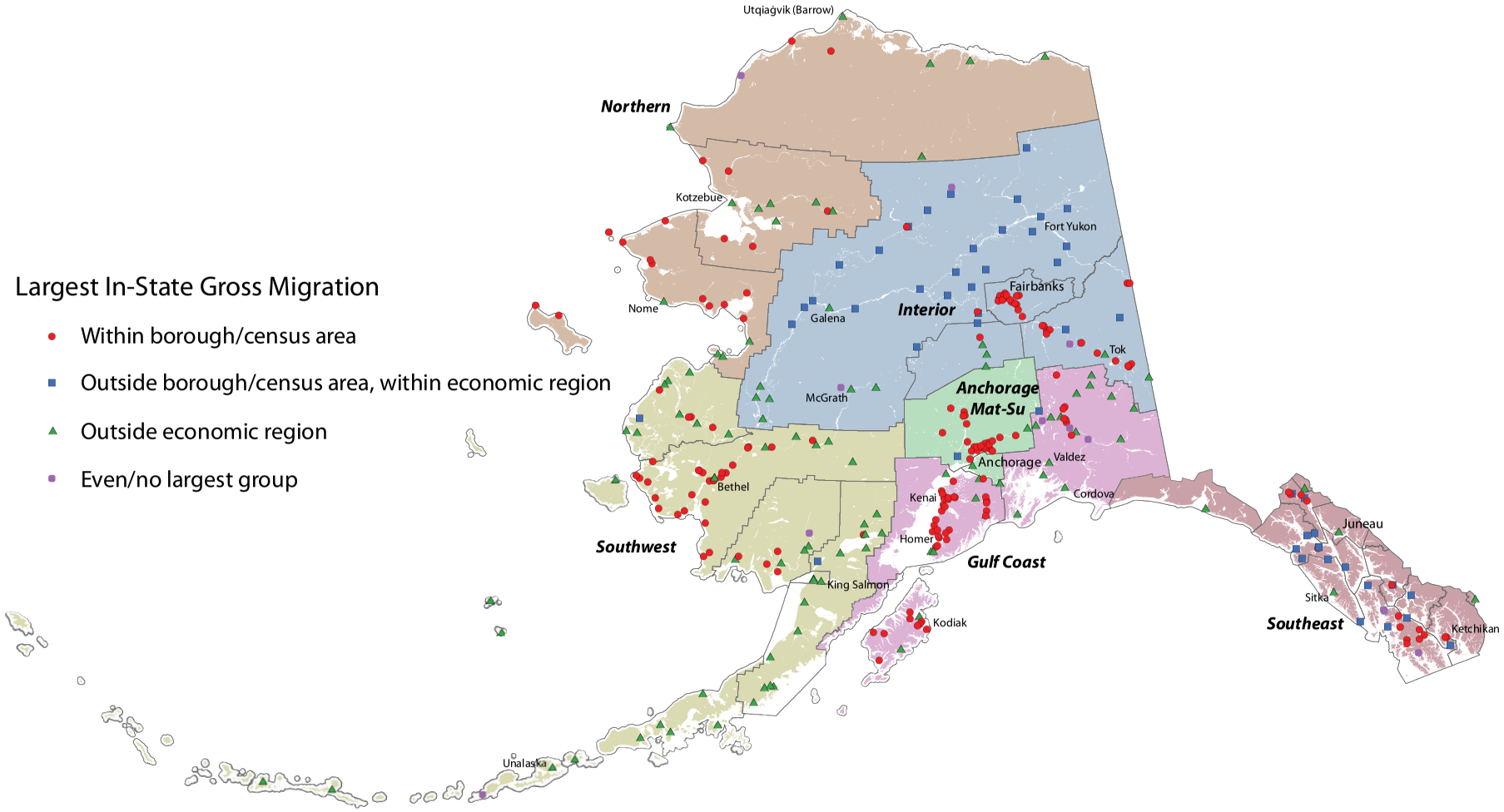
Alaska, largest inflows and outflows by borough or census area, 2010 to 2017



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

8 In-State Movements for Cities and Villages

YEARLY MIGRATIONS BY PLACE, 2010 TO 2017



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

Every age group above 50 has more out-migration from Alaska, with both periods showing out-migration peaks in the early 60s. From 2010 to 2015, an average of 800 more people between 60 and 64 left the state than moved in, more than twice the average from 2005 to 2010 and a reflection of the downward shift across all age groups. The negative shift for people under 30 was bigger in both periods than for those over 50, however.

Mat-Su has big net gains while most other areas are negative

Most boroughs and census areas have sustained net migration losses in recent years, losing people to other places in the state as well as outside. Exhibit 6 shows average annual net migration between 2010 and 2017, which was positive for just five of the 29 boroughs and census areas. Three in Southeast averaged a migration gain of less than 10 people per year. The Kenai Peninsula's gain was around 50 per year.

The Matanuska-Susitna Borough stands out for its large net inflows, averaging more than 1,200 people per year, even in a decade when most of the state's net migration has been negative. (For more on Mat-Su's population patterns, see page 16.)

Anchorage's and Fairbanks' net losses have been sharpest, averaging -2,200 and -1,200 a year, respectively.

Of the 24 areas with net migration losses since 2010, half still grew overall through natural increase. Seven of these are in Western and Northern Alaska, where birth rates are high (North Slope, Northwest Arctic, Nome, Kusilvak, Bethel, Dillingham, and Lake and Peninsula), while most of the others have larger populations (Anchorage, Fairbanks, Juneau, Ketchikan, and Denali).

Anchorage is involved in most in-state moves

Alaskans often move within the state as well as leave it. Exhibit 7 shows average yearly in-state migration patterns for 2010 to 2017. The lines represent either the largest source of in-migrants or the largest destination for out-migrants for each borough and census area. For out-migration, filled circles indicate the largest outflow while open circles mean that outflow isn't the area's largest. For in-migration, a large black arrowhead denotes the area's largest inflow and a simpler arrow marks a smaller inflow. The lines in Exhibit 7 represent around 70 percent of all in-state migration. (For complete numbers, see Exhibit 9.)

Tracking requires several sources

There is no complete system for tracking migration within Alaska or the United States, so this article uses a variety of data sources as migration indicators, each with different strengths and weaknesses.

Permanent Fund Dividend applications: We compared the physical address applicants used one year to the year before, which provided a broad look at in-state migration trends as well as age and sex data. One drawback is that someone who moves to Alaska isn't eligible to apply until living here a full calendar year, and another is this source requires adjustments for births and deaths.

Internal Revenue Service migration data: IRS migration data come from address changes reported on federal income tax returns. The IRS creates counts by borough or census area and for the state by tabulating exemptions (filers and their dependents) on the return and checking for a change in address from the previous year. This provides data on movement between states and county equivalents, but it covers only those who are included in returns.

American Community Survey: The U.S. Census Bureau conducts an ongoing survey of American households that gives more extensive demographic information on movers than other sources. However, the survey sample is small and has large margins of error, and for most parts of Alaska, data are only available in five-year averages.

Most in-state migration that crosses borough and census area boundaries involves Anchorage. The state's largest city, which has around 40 percent of Alaska's population, is either the source or destination for 64 percent of cross-borough moves.

Gross migration with Anchorage is the largest for every area in the Gulf Coast, Northern, and Southwest regions. But despite Anchorage's net gain from all areas in these regions except Kenai Peninsula, its in-state net migration is usually negative because of its massive outflow to Mat-Su.

The situation differs in the Interior and Southeast, as Fairbanks and Juneau serve as regional migration hubs for most of their smaller boroughs and census areas but share their own largest migration movements with Anchorage. The exception is Prince of Wales-Hyder, at the southern end of the panhandle, which interacts most with Ketchikan.

Continued on page 22

9 Average Annual In-State Migration by Borough or Census Area

ALASKA, 2010 TO 2017

FROM → Source Borough/Census Area

TO ↓ Destination Borough/Census Area

Destination Borough/Census Area	Aleutians East	Aleutians West	Anchorage	Bethel	Bristol Bay	Denali	Dillingham	Fairbanks North Star	Haines	Hoonah-Angoon	Juneau	Kenai Peninsula	Ketchikan Gateway	Kodiak Island	Kusilvak	Lake and Peninsula	Matanuska-Susitna	Nome	North Slope	Northwest Arctic	Petersburg	Prince of Wales-Hyder	Sitka	Skagway	SE Fairbanks	Valdez-Cordova	Wrangell	Yakutat	Yukon-Koyukuk
Aleutians East	—	1	21	0	1	0	0	1	0	0	1	2	1	2	0	2	6	2	0	0	0	1	0	0	1	2	0	0	1
Aleutians West	1	—	33	1	1	0	0	2	0	1	4	3	1	2	1	0	5	1	1	0	0	0	0	0	0	2	0	0	0
Anchorage	31	59	—	303	21	15	95	699	12	11	245	660	59	222	142	52	1,797	183	148	173	11	23	53	3	54	188	6	9	64
Bethel	0	0	210	—	0	0	22	26	1	0	4	23	2	6	89	1	42	9	2	3	0	0	1	0	2	3	0	1	4
Bristol Bay	1	1	18	1	—	0	2	2	0	0	0	2	0	1	0	8	5	1	0	1	0	1	0	0	0	1	0	0	0
Denali	0	0	17	0	0	—	0	26	0	1	2	4	1	1	0	0	12	2	0	1	0	1	0	0	2	0	0	0	5
Dillingham	0	1	74	16	3	0	—	5	0	0	2	9	0	2	5	12	14	3	2	3	1	1	1	0	1	2	0	0	2
Fairbanks North Star	3	6	475	40	1	35	10	—	7	4	51	101	12	24	16	1	182	32	59	32	4	7	13	1	150	46	1	3	228
Haines	0	0	11	1	0	0	0	4	—	7	23	2	2	1	0	0	7	0	1	0	1	2	2	2	1	1	1	1	0
Hoonah-Angoon	1	0	11	1	0	1	0	7	4	—	48	2	3	1	1	0	4	1	0	2	1	2	7	1	0	1	0	0	0
Juneau	1	4	181	8	1	0	3	59	27	63	—	24	53	14	1	0	45	5	5	2	24	35	66	5	3	9	12	9	1
Kenai Peninsula	6	10	722	43	7	8	13	120	4	2	29	—	14	48	15	14	254	23	11	13	2	9	12	1	12	42	3	1	15
Ketchikan Gateway	1	3	40	2	0	0	0	12	3	3	47	12	—	4	0	0	14	2	2	1	5	71	12	2	2	5	10	1	1
Kodiak Island	2	6	117	6	1	1	4	11	0	0	8	27	6	—	4	2	26	2	1	1	0	2	8	0	1	6	0	1	0
Kusilvak	0	2	112	87	0	0	4	14	0	0	2	8	0	3	—	2	16	14	2	2	0	2	1	0	1	0	0	0	2
Lake and Peninsula	3	0	39	2	6	0	9	2	0	0	0	8	0	5	2	—	8	1	0	0	0	0	0	0	0	1	0	0	1
Matanuska-Susitna	3	20	2,889	68	10	13	23	249	7	4	68	254	24	51	24	11	—	38	28	42	3	6	13	2	52	92	6	3	21
Nome	1	1	129	12	1	0	3	20	0	0	3	18	0	1	16	1	24	—	5	19	0	1	3	0	1	1	0	1	3
North Slope	0	0	108	4	0	0	4	39	0	1	2	6	1	1	3	1	12	4	—	14	0	1	2	0	1	3	0	0	4
Northwest Arctic	0	1	118	7	0	0	2	22	0	1	3	8	0	1	4	0	26	16	10	—	0	0	2	0	1	2	0	0	3
Petersburg	1	0	9	1	0	0	0	4	3	1	20	3	6	0	0	0	4	1	0	0	—	6	4	0	0	2	3	0	0
Prince of Wales-Hyder	0	1	27	2	0	0	3	6	1	4	34	7	57	2	2	0	9	1	1	3	6	—	14	0	0	2	7	0	1
Sitka	1	1	38	5	0	1	1	12	4	7	49	9	12	8	2	0	11	3	1	2	5	18	—	0	1	3	3	3	1
Skagway	0	0	5	0	0	0	0	2	2	0	4	1	1	0	0	0	2	1	1	0	0	0	0	—	1	0	0	0	0
Southeast Fairbanks	0	0	44	4	0	1	0	107	1	1	9	14	2	1	1	0	36	1	1	2	1	0	1	0	—	9	1	0	6
Valdez-Cordova	3	2	138	3	1	1	1	41	0	1	7	28	5	10	3	1	57	3	2	4	1	4	4	1	13	—	2	2	7
Wrangell	0	0	7	0	1	0	0	2	1	1	9	3	8	1	0	0	6	0	1	1	5	6	6	0	0	2	—	0	0
Yakutat	0	0	5	0	0	0	0	2	0	1	6	1	0	0	0	0	2	1	0	0	0	0	1	0	0	0	0	—	0
Yukon-Koyukuk	1	0	52	6	1	4	0	184	2	1	2	9	1	1	4	1	14	5	5	3	0	2	1	0	4	3	1	0	—

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

MIGRATION

Continued from page 12

Place-level migration reveals regional hubs

Migration data for communities are limited, as they don't show place-to-place movements but rather how many of a place's moves were within the same area, the same region, or the state. (See Exhibit 8 on page 11.)

Most places send and receive the most migrants within the same borough/census area. (This category doesn't include unified city-boroughs such as Anchorage and Juneau.) This applies not just to large boroughs like Mat-Su and Fairbanks, but also to villages in Western Alaska that surround larger hubs such as Bethel, Nome, and Kotzebue.

Fairbanks and Juneau's primacy within their regions, shown in Exhibit 7, is also clear in place-level migration. Fairbanks is center for much of the Interior's migration. Nearly all villages in the Upper Yukon Basin and along the Koyukuk River share their highest gross migration within the region, and presumably with Fairbanks. Juneau serves a similar function for most of Southeast.

Places whose primary in-state migration is outside their regions are spread across the state, and they interact mostly with Anchorage. This category includes most large hub cities in Western and Northern Alaska, such as Bethel and Utqiagvik, as well as larger places on the road system, such as Valdez and Tok.

Many smaller villages' primary in-state migration is outside their region instead of with a nearby hub. This category includes nearly all of the Alaska Peninsula and the Aleutians as well as villages in the Lower Yukon and Arctic.

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