

A look at Alaska's future

What will Alaska's population look like in 2030? Projections by the Alaska Department of Labor and Workforce Development indicate that the state's total population will most likely increase by 25 percent, from 670,053 in 2006,¹ to 838,676 in 2030. The population age 65 and older is projected to experience the largest growth of any age group, with a near tripling in size as Alaska's baby boomers move into their retirement years. Growth is also expected to be substantial for Alaska's Native population, which is projected to increase by nearly 45,000 people by 2030.

Across the state, population growth is projected to vary significantly. Large population gains are

expected for the Anchorage/Mat-Su economic region, with a projected 36 percent growth between 2006 and 2030. A 7 percent population loss is projected for the Southeast region over the same period.

How Alaska reached its current population, and how its population will change in the future, may be understood as the sum of four distinct processes, or "components," of population change: births, deaths, in-migration and out-migration. The Department of Labor used historical data on each of these four components to project Alaska's population into the future.

Historical population change

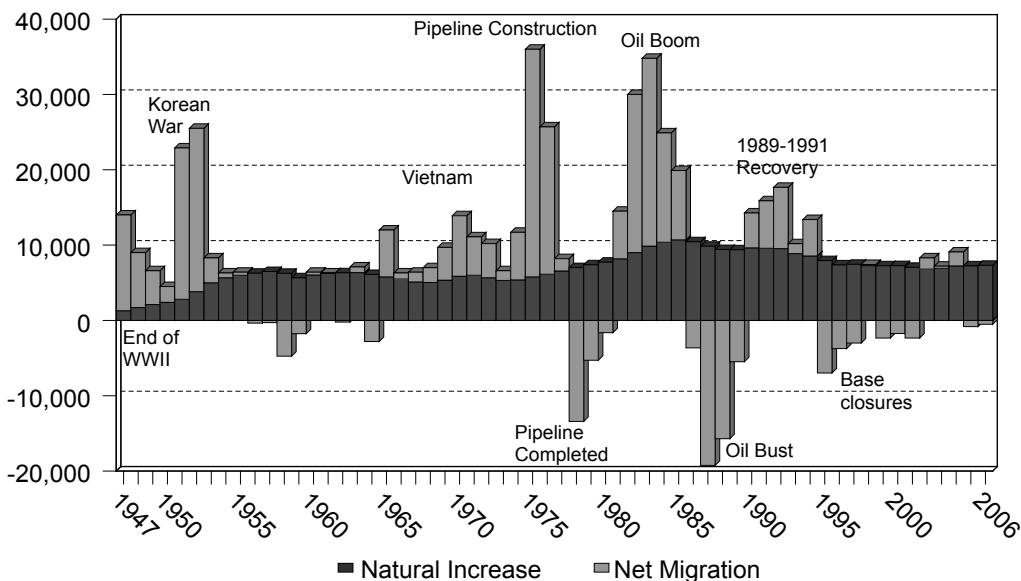
Since statehood in 1959, when Alaska's population stood at roughly 224,000, there has been great variation in the rate of the state's population growth. Both "natural increase" (the difference between births and deaths) and "net migration" (the difference between the number of people who migrate into and out of the state) have played important roles. (See Exhibit 1.) The impact of natural increase has been steady and powerful. Numbers of births and deaths haven't changed much from year to year, yielding a smooth, and to date positive-sided path, in the impact of natural increase on Alaska's population size.

In- and out-migration have been far more uncertain components of population change for Alaska. The rate and num-

¹ All population numbers in this article refer to the average annual resident population often referred to as the July 1 population.

1 Components of Population Change Alaska, 1947 to 2006

Population Change



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

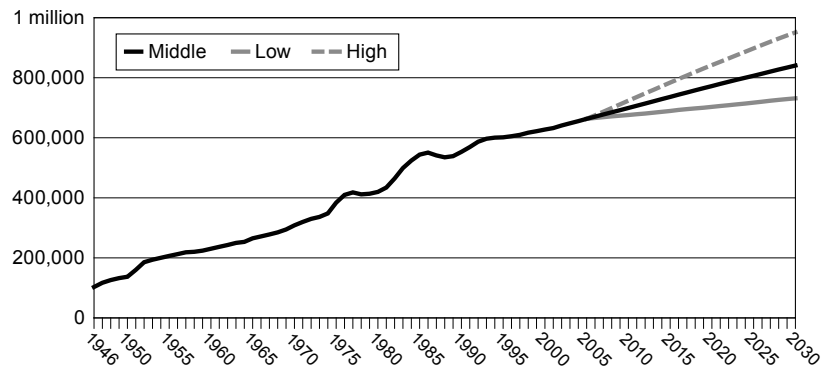
ber of people moving into and out of the state have varied greatly from year to year. In certain years, net out-migration has been strong enough to even reverse the trend of annual growth. As Alaska grows larger, it's expected that both in- and out-migration levels, and the consequent net migration levels, will experience less dramatic annual shifts.

The influence of the trans-Alaska oil pipeline

One historical event, and its impact on Alaska's population, was particularly important in shaping Alaska's current and future population. The discovery of oil in Prudhoe Bay in 1968, and the subsequent construction of the trans-Alaska oil pipeline in the 1970s, had a massive impact on Alaska's population. The impact was seen both in the immediate term and, less directly, in the two decades that followed. Tens of thousands of workers and their dependents poured into the state to build the pipeline, and many left the state when it was completed. In the

Alaska's Population 1946 to 2030¹ **2**

Alaska's Population



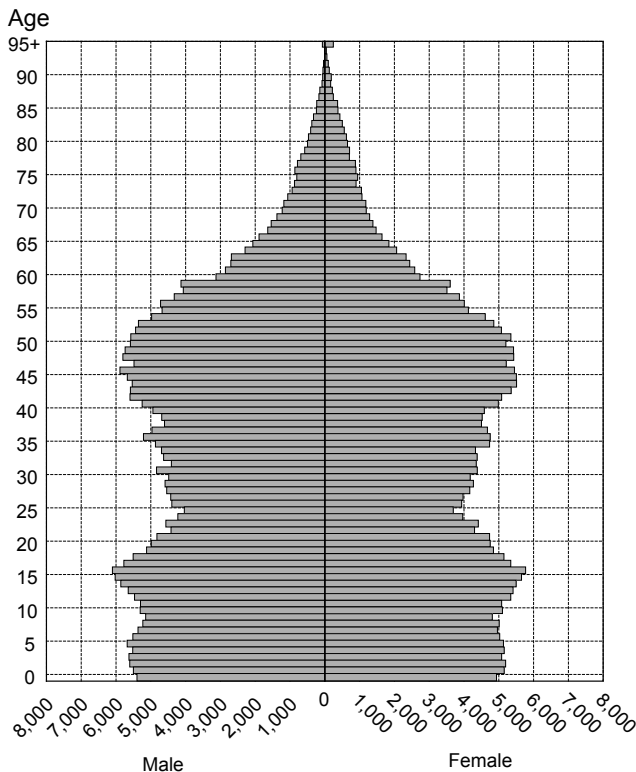
Note for Exhibits 2 and 4: Based on specific conditions, there is a 90 percent chance that the values will fall between the high and low boundaries.

Footnote for Exhibit 2:

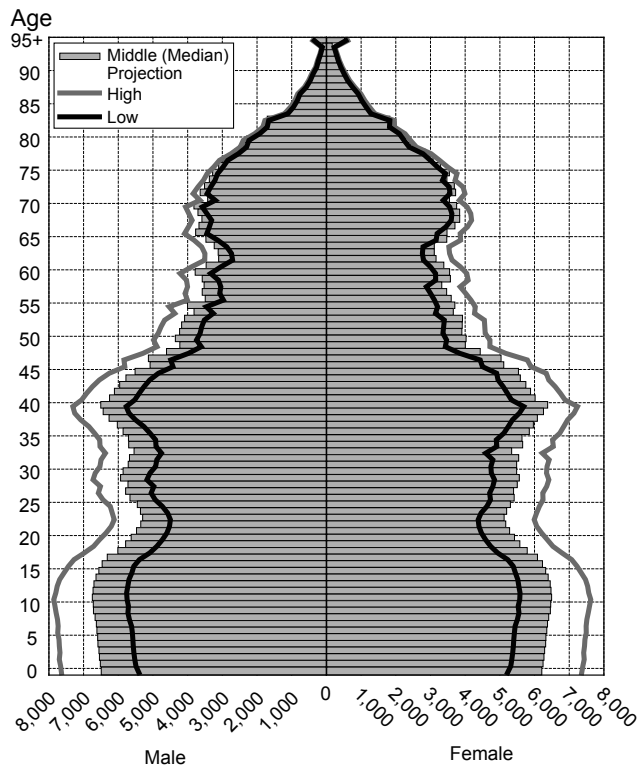
¹ The population for 1946 to 2006 is estimated; the population for 2030 is projected.

Source for Exhibits 2, 3 and 4: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit

3 Population in 2006 By age and sex, Alaska



4 Population in 2030 By age and sex, Alaska



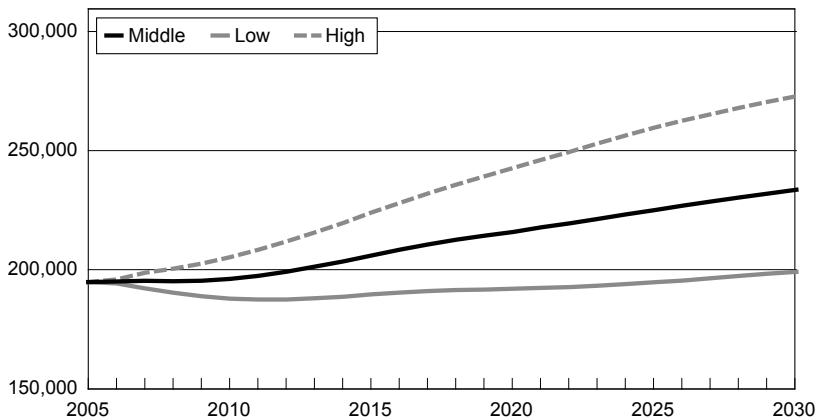
5 Alaska's Population by Age 2006 to 2030

Age	2006	2010	2015	2020	2025	2030
Birth to 4	53,456	55,002	58,595	61,051	62,528	64,425
5 to 9	52,163	55,710	57,609	61,448	63,885	65,535
10 to 14	54,302	53,422	57,724	59,796	63,706	66,203
15 to 19	55,565	53,656	51,528	55,794	57,752	61,530
20 to 24	45,492	51,541	50,093	47,884	51,947	53,698
25 to 29	42,340	46,890	55,069	53,923	51,919	56,124
30 to 34	44,985	45,936	50,719	59,151	58,215	56,400
35 to 39	47,820	47,399	47,874	52,828	61,324	60,484
40 to 44	52,713	47,254	46,753	47,299	52,215	60,614
45 to 49	55,878	51,919	44,426	43,903	44,353	49,094
50 to 54	52,304	52,234	48,293	40,833	40,183	40,493
55 to 59	41,352	46,927	48,275	44,336	36,980	36,251
60 to 64	26,194	35,359	43,061	44,317	40,560	33,434
65 to 69	16,550	21,872	31,865	39,135	40,455	36,954
70 to 74	11,099	13,251	19,091	28,193	35,020	36,363
75 to 79	8,302	8,854	10,924	15,916	23,880	29,953
80 to 84	5,290	6,026	6,655	8,278	12,264	18,645
85 to 89	2,706	3,435	4,033	4,475	5,635	8,414
90+	1,542	1,886	2,412	2,905	3,292	4,062
Total	670,053	698,573	734,999	771,465	806,113	838,676

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

6 Birth to Age 17 Alaska's population, 2005¹ to 2030

Population, Birth to Age 17



Note: Based on specific conditions, there is a 90 percent chance that the values will fall between the high and low boundaries.

¹ The year 2005 is shown for comparison purposes.

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

years that followed, Alaska experienced a huge in-flow of migrants with new oil revenues and increased oil prices, and also a large out-flow of migrants when oil prices dramatically fell in 1985.

The conditions of these projections don't include any likely events on the scale of the oil pipeline, as it's considered unlikely – even with a natural gas pipeline – that Alaska will experience such a powerful occurrence in the next 23 years. At the same time, it should be recognized that events of great magnitude do happen, and often without much warning. The impact of the trans-Alaska oil pipeline helps to demonstrate that what is judged in these projections as unlikely should not be considered impossible.

Where the numbers come from

Rather than forecasting economic conditions, the projections presented here are based on the current population, and historical trends in each of the components of population change. Specifically, the population was aged forward in time, with projected births and in-migrants added, and deaths and out-migrants subtracted.

Because there's uncertainty in what the future level of each component of change will be, recent historical variation for each of the components was used to calculate high and low projection boundaries. Based on specific conditions, there is a 90 percent chance that the actual values will fall within the boundaries. This "uncertainty estimation" is based on variations within the projection model, which cannot account for all of the uncertainty in predicting the future. That is to say, there is no crystal ball involved.²

Statewide projections

Though the total statewide population is projected to increase through 2030 (see Exhibit 2), with the expected increase in deaths relative to births it's likely that the rate of growth will decline to some degree over the projection period. Still, putting migration aside, the most likely rates of births and deaths would yield unending growth. By 2010, the most likely scenario has a population of 698,573, with 771,465 people in 2020 and 838,676 by 2030. With time, uncertainty regarding Alaska's overall population size increases greatly.

² Technical details for the projections are provided on the Department of Labor's Research and Analysis Web site, almis.labor.state.ak.us.

Breaking down the population projections by age and sex (see Exhibits 3, 4 and 5), two general qualities are apparent: (1) as the “baby boom” generation ages, Alaska’s older-aged population will almost certainly grow greatly over the next 23 years, and (2) greatest uncertainty lies with regard to the population that’s yet to be born. The median age of Alaska’s population is projected to increase at a steady pace from 33.5 to 34.6 between 2006 and 2030. The ratio of males per 100 females is expected to decline at a steady pace from 105.2 in 2006 to 102.4 in 2030.

Projections for age groups

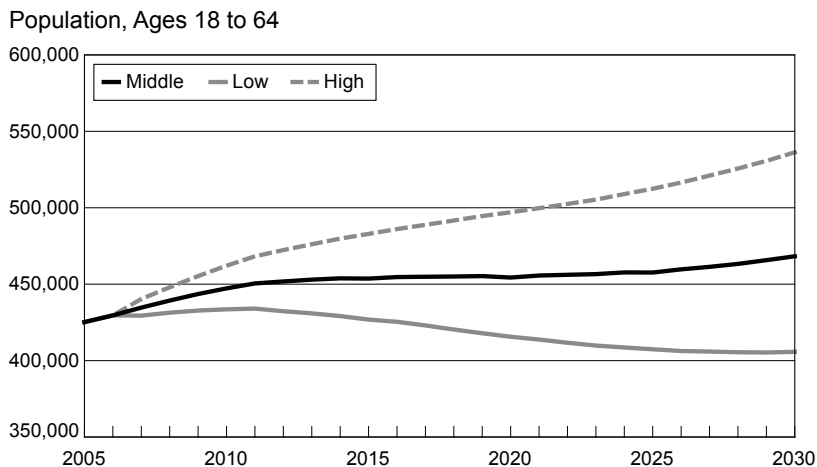
Alaska’s population under 4 years old is projected to increase by 21 percent, from 53,456 to 64,425 people between 2006 and 2030. (See Exhibits 5 and 6.) There is, however, relatively high uncertainty regarding this figure. High uncertainty for younger age groups is caused by the many possible future levels of both fertility and migration.

The population ages 5 to 17 represents school-age children. The most likely scenario for this group projects 20 percent growth, from 141,291 to 169,994 people between 2006 and 2030. With the “echo boom” cohort (the children of the baby boomers, as a group) currently aging beyond childhood, the short-term projection for this group includes no growth; but as time goes on, it’s expected that the total size of the school-age population will increase again.

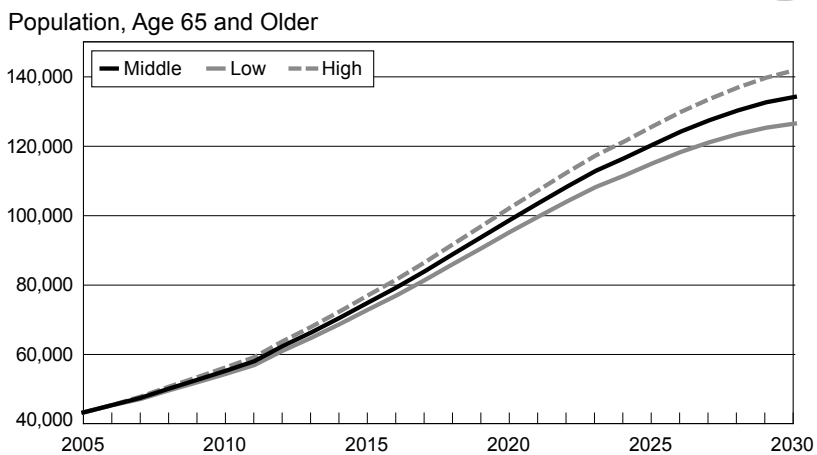
Alaska’s population ages 18 to 64 roughly represents the state’s working-age population. Alaska’s working-age population is currently 429,817 people, and is expected to grow by 9 percent over the projection period to 469,916 in 2030. (See Exhibit 7.) As the baby boomers move into retirement years, the echo boomers will be moving into the working ages, yielding almost no change in the working-age population for much of the period. It’s expected that growth in this age group will pick up again in the later years of the projection period.

Alaska’s population age 65 and older is largely made up of retirees. As mentioned earlier, the

Ages 18 to 64 Alaska’s population, 2005¹ to 2030



Age 65 and Older Alaska’s population, 2005¹ to 2030



Note for Exhibits 7 and 8: Based on specific conditions, there is a 90 percent chance that the values will fall between the high and low boundaries.

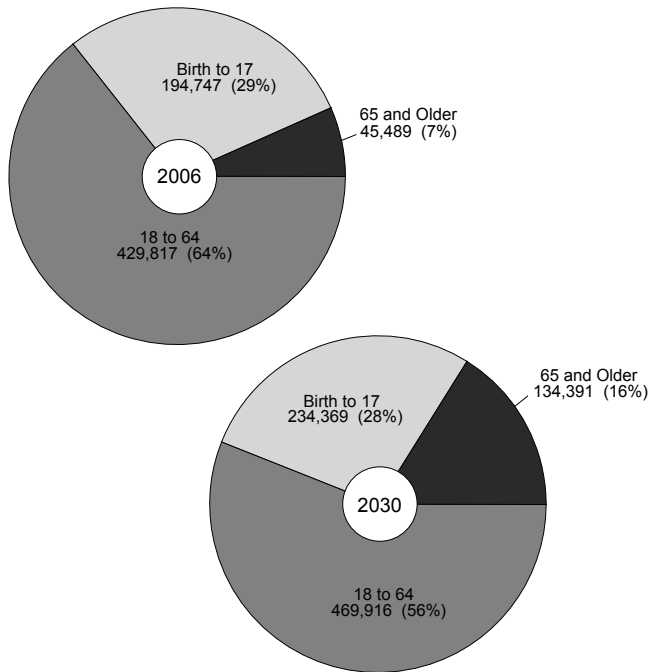
Footnote for Exhibits 7 and 8:
¹ The year 2005 is shown for comparison purposes.

Source for Exhibits 7 and 8: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit

group’s near tripling by 2030 is attributable to Alaska’s large cohort of baby boomers reaching age 65 and beyond. (See Exhibits 8 and 9.) Alaska had 45,489 people age 65 and older in 2006, representing 7 percent of the state’s population. That number is projected to climb 195 percent to 134,311 by 2030, when it would represent 16 percent of the population.

The massive change in the size of Alaska’s population age 65 and older will no doubt

9 Population by Age, 2006 and 2030 Alaska, selected age groups



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

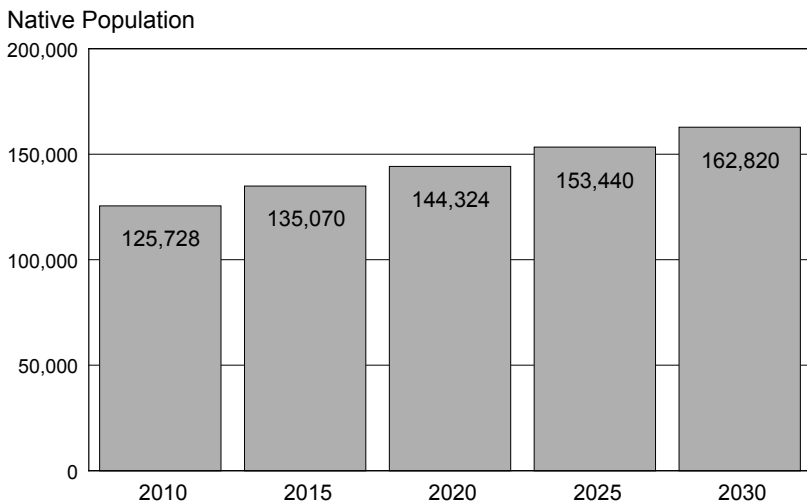
crease from 12 percent in 2006 to 20 percent in 2030.³

Increasing dependency ratios

Dependency ratios show how large a burden of support is placed on the working age population to care for the young and old, traditionally non-working populations. In 2006, every 100 Alaskans of working age supported 45.3 people under age 18, and 10.6 people over age 65, for a total dependency ratio of 55.9. Each of these figures is expected to rise over the next 23 years. (See Exhibits 8 and 9.)

With the aging of Alaska's "echo boom," the youth dependency ratio is projected to first decrease to 43.9 in 2010, then rise to 47.6 in 2020, and 49.9 in 2030. The aged dependency ratio is projected to increase to 12.4 by 2010, then 21.7 by 2020, and 28.6 by 2030. Though there is uncertainty in the specific figures for the aged dependency ratio, there is strong certainty that the old-age dependency ratio will increase dramatically over the next 23 years.

10 Alaska's Native Population Projected, 2010 to 2030



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

Alaska Native projections

Alaska Natives are projected to experience stable growth through the projection period, from 118,884 in 2006 to 162,820 in 2030, for an increase of nearly 37 percent. (See Exhibits 10 and 11.) Further, Natives are projected to grow as a share of the state's population, from 17.7 percent of the total state population in 2006, to 19.4 percent in 2030. As population change for Natives is relatively stable, uncertainty estimates weren't made for this group.

Though both annual births and annual deaths are projected to increase strongly, the numbers of births are consistently projected to be much higher than the numbers of deaths. While the projected increase in the Native population is primarily due to high birth rates, aging and increases in Native life expectancy are expected to play important roles as well. Migration, on the

play a major role in shaping the state's future. The rest of the United States is facing the same phenomenon. The U.S. Census Bureau projects that, for the nation as a whole, the proportion of the population age 65 and older will in-

³ According to the Census Bureau's *Annual Estimates of the Population by Five-Year Age Groups and Sex for the United States: April 1, 2000 to July 1, 2006* (2007) and *U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin* (2004)

other hand, has historically played a very small role in population change for Natives, with very small annual losses through out-migration.

The Native population age 65 and older is projected to follow the same broad trends as Alaska's population as a whole and the overall U.S. population. Specifically, the Native population is projected to grow from 7,212 in 2006 to 19,004 in 2030 – an increase of 164 percent. The proportion of Natives age 65 and older out of the total Native population is expected to increase from 6 percent in 2006 to nearly 12 percent in 2030.

The Native share of the total population under age 20 is expected to increase over the projection period, from 22.5 in 2006 to 23.5 in 2030. The median age for the population is projected to rise from 25.2 to 28.7 between 2006 and 2030.

Projections for regions, boroughs and census areas

Population change is projected to vary greatly across the state, following paths similar to those experienced in recent years. (See Exhibits 12 and 13.) Although aging plays an important role at the region, borough and census area level, much of the projected population change for each area is based on rates of migration.

It should be noted that with the added effects of intrastate migration, Alaska's regions, boroughs and census areas are susceptible to much greater volatility than the state as a whole. Because of that, there is great uncertainty for the future population levels of each of Alaska's regions, boroughs and census areas. Though the continuation of broad population trends yields certain growth for each region, it's quite possible that such trends will change dramatically in the future.

Uncertainty estimates weren't made at the region, borough or census area level, in part because such uncertainty is so great that those estimates would have little meaning.

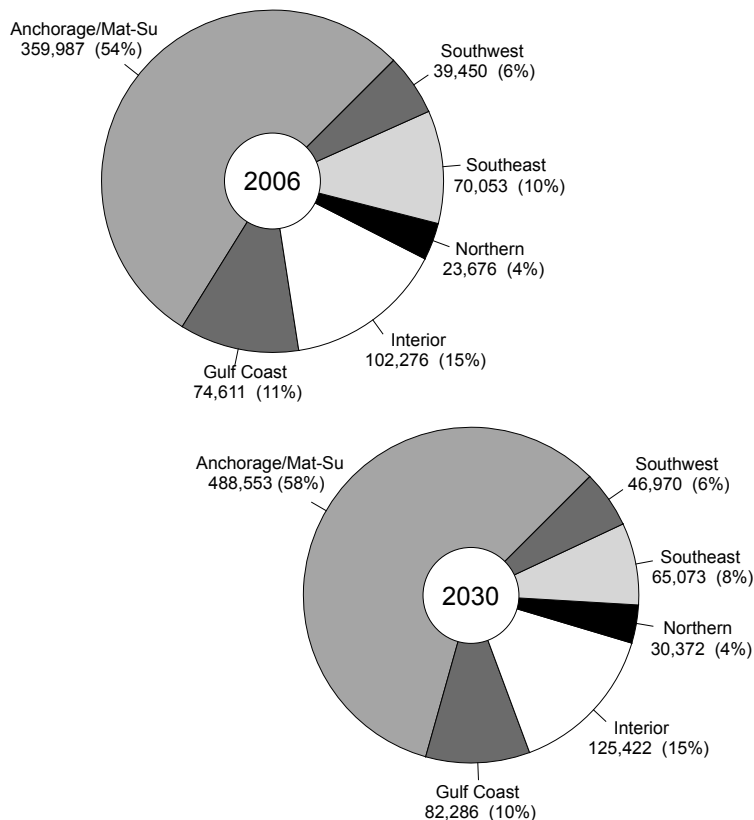
No change in the population rank-ordering of the regions is expected to occur over the period.

Alaska's Native Population 2010 to 2030 **11**

Age	2006	2010	2015	2020	2025	2030
Birth to 4	12,999	13,864	14,952	15,320	15,760	16,648
5 to 9	11,364	12,423	13,513	14,585	14,937	15,360
10 to 14	11,684	11,042	12,303	13,388	14,452	14,798
15 to 19	12,486	11,631	10,575	11,808	12,862	13,897
20 to 24	10,540	11,776	11,148	10,087	11,290	12,316
25 to 29	7,550	9,941	11,664	11,059	10,021	11,224
30 to 34	6,799	7,074	9,713	11,422	10,830	9,806
35 to 39	7,220	6,759	7,039	9,654	11,354	10,788
40 to 44	8,478	7,312	6,594	6,879	9,452	11,133
45 to 49	7,747	8,165	7,118	6,431	6,719	9,248
50 to 54	6,445	7,232	7,779	6,771	6,104	6,386
55 to 59	4,953	6,013	6,999	7,551	6,600	5,976
60 to 64	3,407	4,292	5,626	6,579	7,120	6,236
65 to 69	2,501	3,016	3,889	5,128	6,028	6,554
70 to 74	1,913	2,038	2,618	3,403	4,512	5,339
75 to 79	1,411	1,527	1,634	2,122	2,779	3,715
80 to 84	778	951	1,084	1,167	1,534	2,033
85 to 89	357	441	560	645	698	930
90+	252	231	262	325	388	433
Total	118,884	125,728	135,070	144,324	153,440	162,820

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

Alaska's 2006 and 2030 Population By economic region **12**



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

13 By Region, Borough and Census Area Alaska's Population, 2006 to 2030

	2006	2010	2015	2020	2025	2030	Percentage Change 2006 to 2030	Average Annual Growth Rate 2006 to 2030
State of Alaska	670,053	698,573	734,999	771,465	806,113	838,676	25.17%	0.93%
Anchorage/Mat-Su Region	359,987	377,651	404,745	433,588	462,005	488,553	35.71%	1.26%
Municipality of Anchorage	282,813	293,323	306,902	322,087	337,706	350,871	24.06%	0.90%
Matanuska-Susitna Borough	77,174	84,328	97,843	111,501	124,299	137,682	78.40%	2.35%
Gulf Coast Region	74,611	77,107	79,279	80,920	81,951	82,286	10.29%	0.41%
Kenai Peninsula Borough	51,350	53,607	55,951	57,883	59,339	60,268	17.37%	0.67%
Kodiak Island Borough	13,506	13,477	13,298	13,058	12,740	12,255	-9.26%	-0.40%
Valdez-Cordova Census Area	9,755	10,023	10,030	9,979	9,872	9,763	0.08%	0.00%
Interior Region	102,276	107,416	112,525	117,026	121,291	125,422	22.63%	0.85%
Denali Borough	1,795	1,786	1,739	1,676	1,601	1,536	-14.43%	-0.65%
Fairbanks North Star Borough	87,849	92,868	97,706	101,973	106,106	110,131	25.36%	0.94%
Southeast Fairbanks Census Area	6,772	6,863	7,314	7,782	8,222	8,644	27.64%	1.01%
Yukon-Koyukuk Census Area	5,860	5,899	5,766	5,595	5,362	5,111	-12.78%	-0.57%
Northern Region	23,676	24,904	26,299	27,607	28,854	30,372	28.28%	1.03%
Nome Census Area	9,535	9,902	10,412	10,908	11,405	12,024	26.10%	0.96%
North Slope Borough	6,807	7,291	7,722	8,095	8,433	8,867	30.26%	1.10%
Northwest Arctic Borough	7,334	7,711	8,165	8,604	9,016	9,481	29.27%	1.06%
Southeast Region	70,053	70,315	69,593	68,335	66,661	65,073	-7.11%	-0.31%
Haines Borough	2,241	2,095	1,978	1,854	1,712	1,571	-29.90%	-1.46%
Juneau Borough	30,650	31,691	32,078	32,252	32,227	32,260	5.25%	0.21%
Ketchikan Gateway Borough	13,174	12,836	12,507	12,088	11,587	11,095	-15.78%	-0.71%
Prince of Wales-Outer Ketchikan Census Area	5,477	5,261	4,996	4,658	4,274	3,894	-28.90%	-1.41%
Sitka Borough	8,833	8,964	8,948	8,864	8,740	8,658	-1.98%	-0.08%
Skagway-Hoonah-Angoon Census Area	3,020	2,862	2,657	2,415	2,180	1,945	-35.60%	-1.80%
Wrangell-Petersburg Census Area	6,024	5,960	5,785	5,580	5,340	5,076	-15.74%	-0.71%
Yakutat Borough	634	646	644	624	601	574	-9.46%	-0.41%
Southwest Region	39,450	41,180	42,558	43,989	45,351	46,970	19.06%	0.73%
Aleutians East Borough	2,643	2,675	2,688	2,676	2,645	2,632	-0.42%	-0.02%
Aleutians West Census Area	4,810	5,169	5,068	4,944	4,795	4,665	-3.01%	-0.13%
Bethel Census Area	17,031	17,774	18,590	19,457	20,333	21,354	25.38%	0.94%
Bristol Bay Borough	1,060	1,169	1,153	1,152	1,133	1,120	5.66%	0.23%
Dillingham Census Area	4,796	4,897	5,044	5,181	5,293	5,408	12.76%	0.50%
Lake and Peninsula Borough	1,557	1,586	1,560	1,510	1,443	1,364	-12.40%	-0.55%
Wade Hampton Census Area	7,553	7,910	8,455	9,069	9,709	10,427	38.05%	1.33%

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

The boroughs and census areas with the highest projected average annual growth rates over the period include the Matanuska-Susitna Borough (2.35 percent), Wade Hampton Census Area (1.33 percent) and North Slope Borough (1.10 percent). The boroughs and census areas with the greatest average annual population losses over the projection period include the Skagway-Hoonah-Angoon Census Area (-1.80 percent) and Haines Borough (-1.46 percent).

The Anchorage/Mat-Su region is expected to increase by more than 128,000 people – 36 percent, with a 1.26 percent average annual growth rate – from 359,987 in 2006 to 488,553 in

2030. Following Alaska's trend of rural to urban migration, Anchorage is projected to continue its strong growth. The Mat-Su Borough, with its abundant land and increasing service resources, has experienced especially strong growth throughout Alaska's history as a state, and is projected to continue such growth.

The Gulf Coast region experienced a strong boom in population during the 1980s, but in recent years the level of growth has become much more moderate. The projections yield an increase of roughly 7,700 people between 2006 and 2030 – a 10 percent increase – but as the strong population increases of the 1980s dem-

onstrate, the recent trends that were used could change significantly.

With population growth in the Fairbanks North Star Borough and the Southeast Fairbanks Census Area, Alaska's Interior region has grown steadily over recent years. The projections add more than 23,000 people between 2006 and 2030, a 26 percent increase. Changes in the large military population of the Fairbanks North Star Borough, which are especially hard to predict, may strongly impact the future population level of the Interior region.

Though somewhat strong net losses by migration for the Northern and Southwest regions are projected, the high birth rates found in these areas are projected to allow continued growth. The Northern region is projected to add about 6,700 residents (a 28 percent increase), and the Southwest region is projected to add just over 7,500 residents (a 19 percent increase).

The Southeast region has experienced steady population losses over recent years, and there's currently a great deal of uncertainty regarding its future population. With particularly low birth rates and a median age of 39.7 – the highest in the state – there would likely have to be a strong increase in net migration for the region to grow.

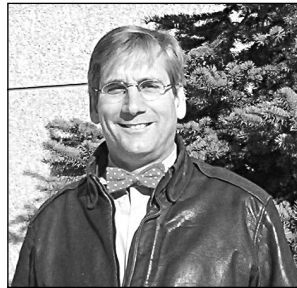
The Southeast region's projected loss of 5,000 people (a 7 percent decrease) between 2006 and 2030 depends largely on future economic and social developments. It's quite possible that the Southeast trends will change and these numbers may vary greatly.

A complete description of the methods and results for these population projections are available on the Research and Analysis Web site at almis.labor.state.ak.us. Click on "Population & Census" on the left, then "Estimates & Projections."

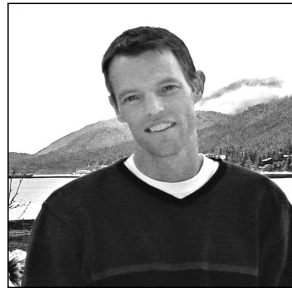
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