

## Projections for Alaska population 2005–2029

**R**esources, historical events, and human desire have combined to shape the population of Alaska. Historic demographic trends do create a reality that guides future events. However, there is no crystal ball that allows us to foretell the future. While the recent past is our best guide to the future, things never turn out quite as predicted. The large “baby boom” population that has dominated demographics for the last 30 years is a force that will continue to influence Alaska’s future.

Population estimates and population projections are often confused. Estimates use the most recent indicators of population change and characteristics, such as Permanent Fund Dividend applications, federal IRS tax filings, birth and death statistics, and surveys to create a picture of the current population. Population projections use the historical trends along with a series of assumptions of the likelihood of change to create a set of models of what the population will look like in the future. The size and shape of the population in this future model in turn influence planning for many social and economic services, and markets associated with the human life cycle. Fewer children means less need to build schools and a larger number of elderly means a growing need for assisted living and health care services.

The key to making good projections involves having good trend data for the main variables affecting population growth or decline. Some variables, like mortality trends, are very stable and

change slowly. By contrast, fertility is more variable and migration even more so. Although fertility is moderately stable, it is influenced by economic and social trends and policy. It has not been uncommon for trends in fertility to change substantially in a period as short as five to 10 years.

Of all variables affecting population growth, the most unstable is migration. Migration trends can change direction quickly in a place like Alaska, depending on the prosperity of the state’s economy in relation to that of states that provide or receive most of Alaska’s in- and out- migrants. In addition, economics, social policy, and unique historical events in the U.S. or around the world can drastically influence the state’s resource based economy.

Migration, and to a lesser extent, fertility, are related to jobs. However, while the main reasons that people migrate are to take jobs, attend school or to follow family members, the nature and timing of the links between economics and migration are very murky. Timing is not always immediate or consistent. Many people have stayed in places like West Virginia, the Minnesota Iron Range, rural Mississippi, or inner city slums long after the jobs have disappeared. Some people who came to Alaska searching for short-term work have left quickly after the work was gone. Others have taken any job or lived off the land in order to remain. Many people come to Alaska for reasons not associated with work, and hope they can find or create work once here.

There is always a chance that something completely unpredictable or a force outside of the variables being considered will dramatically change the future. Clearly the farther into the future one goes, the less reliable projections become. Twenty-five-year projections are not really expected to be good for 25 years, any more than today's five-day weather forecast is expected to remain static for the five days. Events must be constantly monitored for the influences that are beyond our ability to track and predict.

## Projections of population and the economy

Demographers and economists have been in the projections business for a long time. Demographers tend to be interested in the factors that cause population change. As a by-product of their projections, they sometimes generate projections of the labor force or households. Economists tend to be interested in how the elements of the overall economy will cause employment to grow or decline based on consumption, production, and labor supply and demand. As a by-product, economists in turn sometimes generate projections of population. Attempts to build joint economic/demographic models, however, have met with only limited success. None has been so successful as to become the standard for projections in both fields. The projections of population presented here rely primarily on a demographic approach. However, these projections are compared with forecast job growth to see if the migration assumptions are reasonable.

The projections in this article are cohort component projections using gross migration flows. A cohort is a group of people who generally share a common event such as being born in the same year. The cohort of 1946, for example, was the leading edge of the baby boom. A component projection means that factors such as death, birth, and migration are independently modeled as are their interactions to produce the final projection.

Gross migration refers to a separate consideration of trends and patterns of in-migration and out-

migration. The trends observed here are developed from several sources of indicator data: applications for the Alaska Permanent Fund Dividend, change in residence address from federal income tax returns, birth and death statistics, and employment statistics.

Projections are usually prepared for low, middle, and high growth scenarios. Because of limited space, this article focuses on the middle (most likely) series projections. The high and low series assume significantly higher or lower migration and fertility from the observed historic average. In any given year, there is only a 1 in 10 chance that migration would fall above or below the high and low projections. Similarly, there is only a 1 in 20 chance that the future total fertility would fall outside the high or low series.

## Assumptions regarding change

### Mortality

The average life expectancy for Alaskans in 1960 was 2.2 years shorter than life expectancy nationwide. By 2001, however, the gap between

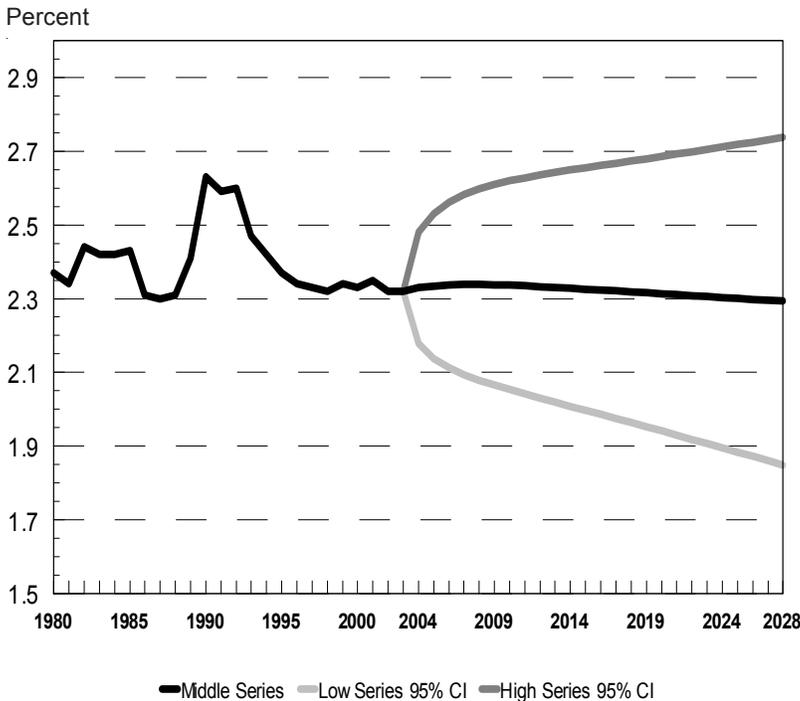
## Life Expectancy at Birth Alaska and U.S., 1960 – 2001



Alaska	Total	Male	Female
1960	67.5	n/a	n/a
1970	69.3	66.1	74.0
1980	72.1	68.8	76.5
1990	74.8	71.6	78.7
2000	77.2	74.9	79.7
<b>United States</b>			
1960	69.7	66.6	73.1
1970	70.9	67.1	74.8
1980	73.7	70.0	77.5
1990	75.4	71.8	78.8
2001	77.2	74.4	79.8

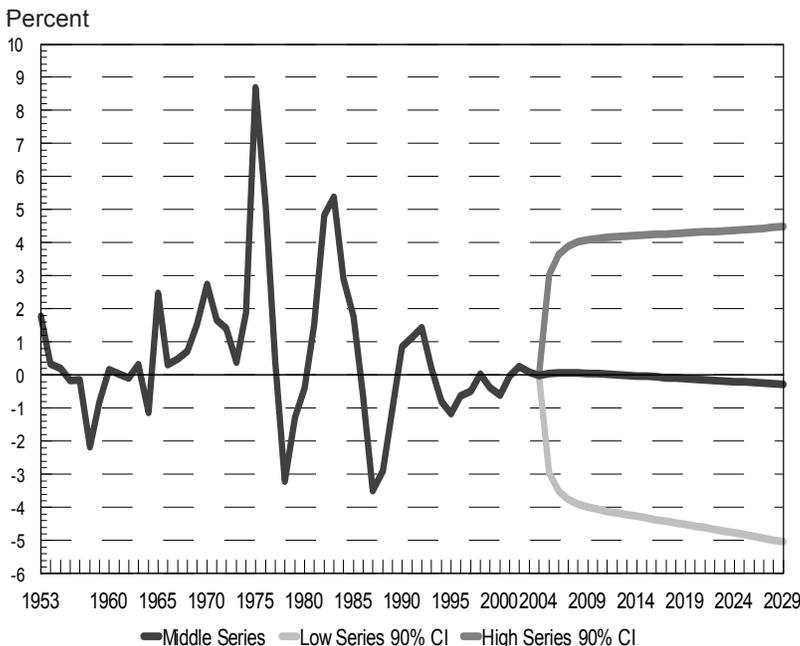
Sources: National Center for Health Statistics and Alaska Department of Labor and Workforce Development, Research and Analysis Section

## 2 Total Fertility Rates Alaska 1980 – 2028



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

## 3 Net Migration 1953 – 2029 As a percentage of population



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

Alaska and U.S. had closed to a common life expectancy of 77.2 years. (See Exhibit 1.) Changes in life expectancy, barring a catastrophic fatal disease, generally have a limited impact on projections, accounting for only about two percent of the overall projection. For the purposes of these projections, the current life expectancy at each age for men and women is assumed to remain the same for the period of the projection. This assumption will have a slightly conservative or downward bias on the number of older Alaskans. One may expect that the number of seniors may be slightly higher than reported in these projections.

### Fertility

Fertility is trended through the use of age-specific fertility rates. (See Exhibit 2.) These sum to the Total Fertility Rates, which can be interpreted as completed family size if women were to continue having children throughout their childbearing years at the current age-specific patterns. Alaska's fertility is not assumed to converge toward the national average; nor do we assume Alaska's fertility will follow national fertility trends into the future. The trend in fertility since 1980 was used to compute mid-series fertility. The observed fluctuation in fertility was used to compute the high and low series, which corresponds to the 95 percent Confidence Interval (CI). This means that in any given year there is only a 1 in 20 chance that the Total Fertility Rate would be higher or lower than the high and low series. Fertility has historically had substantial impact on Alaska's population growth. Only at the end of these projections do children born during the projection period begin to have a feedback effect upon the projected children's children.

### Migration

While events such as the construction of the Trans-Alaska Pipeline have caused the influx or exodus of large numbers of people, Alaska's booms and busts have been relatively short lived, usually lasting from one to four years. The net rate of growth or decline in population attributable to

# Annual Components of Population Change **4**

## Alaska 1945–2004

July 1 to June 30	End of Period Population	Population Change	Avg Ann Rate of Change	Components of Change					
				Births	Birth Rate	Deaths	Death Rate	Natural Increase	Net Migrants
1951-52	185,500								
1952-53	193,800	8,300	4.38	6,270	33.8	1,280	6.9	4,990	3,310
1953-54	200,100	6,300	3.20	6,910	35.7	1,240	6.4	5,670	630
1954-55	206,500	6,400	3.15	7,190	35.9	1,200	6.0	5,990	410
1955-56	212,400	5,900	2.82	7,480	36.2	1,220	5.9	6,260	-360
1956-57	218,600	6,200	2.88	7,730	36.4	1,240	5.8	6,490	-290
1957-58	220,100	1,500	0.68	7,450	34.1	1,200	5.5	6,250	-4,750
1958-59	224,000	3,900	1.76	6,830	31.0	1,170	5.3	5,660	-1,760
1959-60	230,400	6,400	2.82	7,290	32.5	1,250	5.6	6,040	360
1960-61	236,700	6,300	2.70	7,560	32.8	1,300	5.6	6,260	40
1961-62	242,800	6,100	2.54	7,610	32.2	1,290	5.4	6,320	-220
1962-63	249,900	7,100	2.88	7,670	31.6	1,320	5.4	6,350	750
1963-64	253,200	3,300	1.31	7,480	29.9	1,380	5.5	6,100	-2,800
1964-65	265,200	12,000	4.63	7,170	28.3	1,390	5.5	5,780	6,220
1965-66	271,500	6,300	2.35	6,810	25.7	1,320	5.0	5,490	810
1966-67	277,900	6,400	2.33	6,410	23.6	1,300	4.8	5,110	1,290
1967-68	284,900	7,000	2.49	6,350	22.8	1,317	4.7	5,033	1,967
1968-69	294,600	9,700	3.35	6,670	23.4	1,330	4.7	5,340	4,360
1969-70	308,500	13,900	4.61	7,230	24.5	1,370	4.7	5,860	8,040
1970-71	319,600	11,100	3.53	7,437	24.1	1,444	4.7	5,993	5,107
1971-72	329,800	10,200	3.14	7,129	22.3	1,462	4.6	5,667	4,533
1972-73	336,400	6,600	1.98	6,781	20.6	1,468	4.5	5,313	1,287
1973-74	348,100	11,700	3.42	6,847	20.4	1,467	4.4	5,380	6,320
1974-75	384,100	36,000	9.83	7,275	20.9	1,497	4.3	5,778	30,222
1975-76	409,800	25,700	6.47	7,694	20.0	1,570	4.1	6,124	19,576
1976-77	418,000	8,200	1.98	8,175	19.9	1,612	3.9	6,563	1,637
1977-78	411,600	-6,400	-1.54	8,668	20.7	1,654	4.0	7,014	-13,414
1978-79	413,700	2,100	0.51	9,043	22.0	1,654	4.0	7,389	-5,289
1979-80	419,800	6,100	1.46	9,400	22.7	1,671	4.0	7,729	-1,629
1980-81	434,300	14,500	3.40	9,912	23.6	1,738	4.1	8,174	6,326
1981-82	464,300	30,000	6.68	10,783	24.8	1,775	4.1	9,008	20,992
1982-83	499,100	34,800	7.22	11,728	25.3	1,862	4.0	9,866	24,934
1983-84	524,000	24,900	4.87	12,319	24.7	1,945	3.9	10,374	14,526
1984-85	543,900	19,900	3.73	12,727	24.3	2,033	3.9	10,694	9,206
1985-86	550,700	6,800	1.24	12,556	23.1	2,110	3.9	10,446	-3,646
1986-87	541,300	-9,400	-1.72	11,941	21.7	2,096	3.8	9,845	-19,245
1987-88	535,000	-6,300	-1.17	11,483	21.2	2,073	3.8	9,410	-15,710
1988-89	538,900	3,900	0.73	11,468	21.4	2,088	3.9	9,380	-5,480
1989-90	553,171	14,271	2.61	11,776	21.9	2,142	4.0	9,634	4,637
1990-91	569,054	15,883	2.83	11,798	21.3	2,225	4.0	9,573	6,310
1991-92	586,722	17,668	3.06	11,744	20.6	2,214	3.9	9,530	8,138
1992-93	596,906	10,184	1.72	11,347	19.3	2,477	4.2	8,870	1,314
1993-94	600,622	3,716	0.62	10,978	18.4	2,422	4.1	8,556	-4,840
1994-95	601,581	959	0.16	10,439	17.4	2,500	4.2	7,939	-6,980
1995-96	605,212	3,631	0.60	10,079	16.8	2,707	4.5	7,372	-3,741
1996-97	609,655	4,443	0.73	10,018	16.6	2,574	4.3	7,444	-3,001
1997-98	617,082	7,427	1.21	9,924	16.3	2,642	4.3	7,282	145
1998-99	622,000	4,918	0.79	9,864	16.0	2,609	4.2	7,255	-2,337
1999-00	625,504	3,504	0.56	10,102	16.2	2,829	4.5	7,273	-3,769
2000-01	632,389	6,885	1.09	9,980	16.0	2,934	4.7	7,046	-161
2001-02	640,841	8,452	1.33	9,889	15.6	3,072	4.9	6,817	1,635
2002-03	648,243	7,402	1.15	10,017	15.6	3,098	4.8	6,919	483
2003-04	* 655,435	7,192	1.10	10,271	15.8	3,030	4.7	7,241	-49

\* Provisional

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

migration has rarely exceeded plus or minus 4.0 percent of Alaska's population. (See Exhibit 3.) Excluding a few extreme years when growth was more or less than four percent, the average of all annual change due to migration since 1953 has been almost zero. The 90 percent Confidence Interval of plus or minus 4.0 percent, however, is fairly wide. This indicates that year-to-year migration tends to be quite volatile. Note also that as Alaska's population grows larger, the proportion of migrants inevitably grows smaller relative to the

base population. The result is a gradual decline in the influence of migration on annual population change as overall population increases. While not presented here, the impact of sudden surges or declines due to migration are best addressed in the alternative High and Low projections series. The most important observation concerning a "boom and bust" cycle is that unless projections are made from the top of a boom cycle or the bottom of a bust cycle, the net effect of these movements is almost nil for overall historical population growth trends.

## 5 Population Growth Projections Alaska 2005–2029

July 1 to June 30 Year	End of Period Population			Population Change			Average Annual Rate of Change		
	Low	Middle	High	Low	Middle	High	Low	Middle	High
2003-04	655,435	655,435	655,435						
2004-05	642,398	662,604	682,970	-13,037	7,169	27,535	-2.01	1.09	4.11
2005-06	644,874	669,977	697,107	2,476	7,373	14,137	0.38	1.11	2.05
2006-07	649,543	677,362	706,782	4,669	7,385	9,675	0.72	1.10	1.38
2007-08	654,856	684,714	716,229	5,313	7,352	9,447	0.81	1.08	1.33
2008-09	660,363	692,001	725,564	5,507	7,287	9,335	0.84	1.06	1.29
2009-10	665,872	699,207	734,832	5,509	7,206	9,268	0.83	1.04	1.27
2010-11	671,330	706,344	744,077	5,458	7,137	9,245	0.82	1.02	1.25
2011-12	676,684	713,393	753,297	5,354	7,049	9,220	0.79	0.99	1.23
2012-13	681,904	720,333	762,468	5,220	6,940	9,171	0.77	0.97	1.21
2013-14	686,931	727,003	771,546	5,027	6,670	9,078	0.73	0.92	1.18
2014-15	691,659	733,637	780,420	4,728	6,634	8,874	0.69	0.91	1.14
2015-16	696,236	740,077	789,279	4,577	6,440	8,859	0.66	0.87	1.13
2016-17	700,639	746,345	798,006	4,403	6,268	8,727	0.63	0.84	1.10
2017-18	704,766	752,373	806,561	4,127	6,028	8,555	0.59	0.80	1.07
2018-19	708,623	758,170	814,935	3,857	5,797	8,374	0.55	0.77	1.03
2019-20	712,204	763,730	823,132	3,581	5,560	8,197	0.50	0.73	1.00
2020-21	715,489	769,032	831,134	3,285	5,302	8,002	0.46	0.69	0.97
2021-22	718,481	774,085	838,956	2,992	5,053	7,822	0.42	0.65	0.94
2022-23	721,189	778,908	846,612	2,708	4,823	7,656	0.38	0.62	0.91
2023-24	723,578	783,452	854,059	2,389	4,544	7,447	0.33	0.58	0.88
2024-25	725,667	787,744	861,321	2,089	4,292	7,262	0.29	0.55	0.85
2025-26	727,388	791,732	868,383	1,721	3,988	7,062	0.24	0.50	0.82
2026-27	728,737	795,415	875,262	1,349	3,683	6,879	0.19	0.46	0.79
2027-28	729,733	798,813	881,999	996	3,398	6,737	0.14	0.43	0.77
2028-29	730,231	801,904	888,604	498	3,091	6,605	0.07	0.39	0.75

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

“Base” in- and out-migration is 40,000 annually, which corresponds to historic average gross migration levels. In-migration increases from the base in the high series and out-migration increases in the low series. High and low net migration figures shown in Exhibit 6 will not add up as components of total population, but show the range associated with the 90 percent confidence interval. Each year shown is a single-year extraction from a series. This allows one-year fluctuations to be shown, without compounding their effect over the years.

## Influences of policy

This middle series projection is intended to reflect the sum of the recent “good” and “bad” economic history of Alaska. No assumptions are made about the effects of future policy changes, the future volume of oil or gas pumped or its price, environmental policy concerning the Arctic National Wildlife Refuge, logging in the Tongass National Forest, the federal management of wildlife and fisheries, or cutbacks or expansion in the military. While the impact of these events in terms of jobs can be quantified, quantifying their

## Components of Change

### Alaska 2005–2029

July 1 to June 30	Births			Deaths			Natural Increase			Net Migration		
	Year	Low	Middle	High	Low	Middle	High	Low	Middle	High	Low*	Middle
2004-05	9,479	10,054	10,791	3,137	3,137	3,137	6,342	6,917	7,654	-19,377	252	19,882
2005-06	9,430	10,176	11,162	3,221	3,221	3,223	6,209	6,955	7,939	-23,362	418	25,828
2006-07	9,456	10,308	11,462	3,314	3,315	3,317	6,142	6,993	8,145	-25,253	392	26,940
2007-08	9,507	10,434	11,719	3,413	3,414	3,415	6,094	7,020	8,304	-26,426	332	27,691
2008-09	9,566	10,560	11,950	3,518	3,520	3,522	6,048	7,040	8,428	-27,304	247	28,266
2009-10	9,634	10,682	12,166	3,622	3,625	3,627	6,012	7,057	8,539	-28,049	149	28,750
2010-11	9,714	10,820	12,389	3,725	3,726	3,729	5,989	7,094	8,660	-28,729	43	29,184
2011-12	9,798	10,959	12,608	3,836	3,837	3,840	5,962	7,122	8,768	-29,379	-73	29,591
2012-13	9,849	11,059	12,782	3,924	3,925	3,928	5,925	7,134	8,854	-30,013	-194	29,983
2013-14	9,881	11,132	12,925	4,029	4,030	4,033	5,852	7,102	8,892	-30,640	-432	30,366
2014-15	9,909	11,209	13,068	4,136	4,137	4,140	5,773	7,072	8,928	-31,259	-438	30,738
2015-16	9,903	11,243	13,165	4,238	4,240	4,243	5,665	7,003	8,922	-31,881	-563	31,109
2016-17	9,918	11,308	13,291	4,348	4,352	4,355	5,570	6,956	8,936	-32,490	-688	31,464
2017-18	9,896	11,325	13,364	4,466	4,470	4,473	5,430	6,855	8,891	-33,101	-827	31,818
2018-19	9,869	11,336	13,433	4,574	4,578	4,581	5,295	6,758	8,852	-33,711	-961	32,167
2019-20	9,845	11,357	13,514	4,698	4,701	4,706	5,147	6,656	8,808	-34,321	-1,096	32,513
2020-21	9,793	11,348	13,571	4,810	4,814	4,819	4,983	6,534	8,752	-34,928	-1,232	32,854
2021-22	9,767	11,375	13,670	4,944	4,951	4,956	4,823	6,424	8,714	-35,532	-1,371	33,189
2022-23	9,738	11,396	13,769	5,057	5,063	5,072	4,681	6,333	8,697	-36,134	-1,510	33,519
2023-24	9,681	11,387	13,834	5,184	5,192	5,202	4,497	6,195	8,632	-36,732	-1,651	33,844
2024-25	9,643	11,400	13,924	5,310	5,319	5,329	4,333	6,081	8,595	-37,325	-1,789	34,162
2025-26	9,537	11,368	14,000	5,438	5,450	5,461	4,099	5,918	8,539	-37,914	-1,930	34,474
2026-27	9,437	11,344	14,105	5,575	5,589	5,601	3,862	5,755	8,644	-38,497	-2,072	34,779
2027-28	9,344	11,333	14,240	5,699	5,714	5,729	3,645	5,619	8,511	-39,074	-2,221	35,077
2028-29	9,246	11,311	14,358	5,842	5,857	5,873	3,404	5,454	8,485	-39,751	-2,363	35,462

\* High and low migration will not sum as components of population.

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

population impacts is often much more difficult. Further, different kinds of events have different impacts. The closing of military bases has both direct and indirect immediate effects. Military movements of personnel are relatively sudden events, directly removing people from communities and indirectly eliminating births that would normally have occurred in a community. This makes for a sharper change in population than would be produced by civilian migration. The Confidence Intervals for migration assume a one-in-ten chance in any given year of a boom or bust that would produce growth or decline of 4-5 percent of the population in one year. Since these events historically are short-lived it is not assumed that they multiply over several years.

### Population size and growth

Beginning with a 2004 population of 655,435, the middle series population forecast for year 2005 is 662,604. (See Exhibit 5.) Under the foregoing assumptions, the population in the succeeding years is projected to be 692,001 in

2009; 727,003 in 2014; 758,170 in 2019; 783,452 in 2024; and 801,904 in 2029. The implied annual growth rate ranges from about 1.11 - 0.39 percent, most of which is from natural increase rather than migration. Through the projections period to 2029, births would increase from 10,054 to 11,311 annually, and deaths would increase from 3,137 to almost 5,857 annually. The historical and projected populations and the components of change are shown in Exhibits 4, 5, and 6. In addition, the numbers for the high and low projections are shown.

### Age distribution

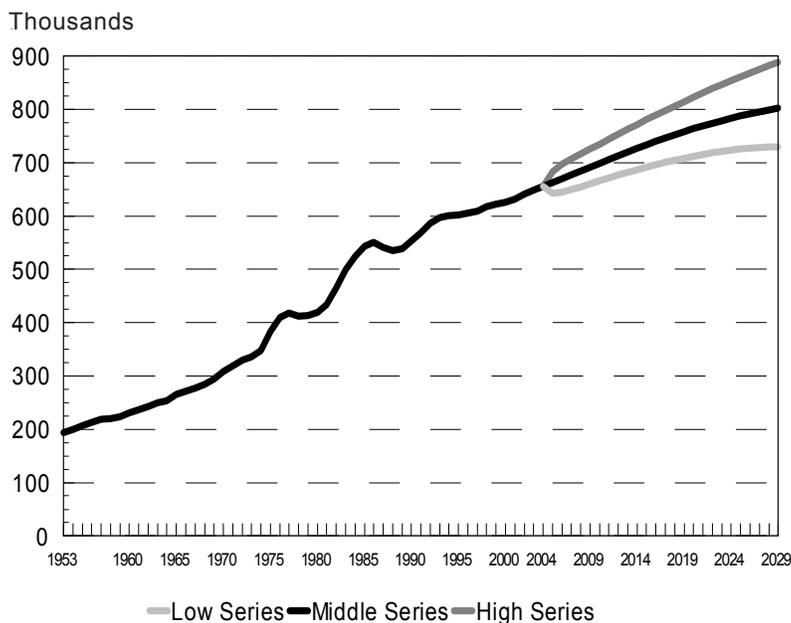
Alaska's median age increases from 33.4 to 35.8 during the projection period. The aging of the baby boom generation is a dominant factor throughout the period. (See Exhibit 8.) As the generations who came to Alaska before the Trans-Alaska Pipeline era dwindle and the number of older women increases, the sex ratio of Alaska will approach that of the nation as a whole. The sex ratio can be expected to drop from 106 males per 100 females in 2004 to 100 by 2029.

The burden of dependency for individuals and the state is also expected to increase sharply during the projection period. In 2004, each 100 Alaskans of working age are supporting 46 children and 10 elders. By 2029, each 100 Alaskans of working age will be supporting about 50 children and 31 elders. So while the total burden of dependency for each 100 Alaskans in 2004 is about 56 persons, by 2029 that burden will reach 81 persons. There is no decline in child dependency, but a tripling of aged dependency. With nationwide pressure on medical costs, Social Security, Medicare, and Medicaid, demographics would indicate strong pressures on the resources of working age and older populations alike.

### Specific ages

In these projections, the greatest degree of uncertainty attaches to age groups that may be affected by both births and migration. Everyone who will be over 25 in 2029 has already been

## 7 Alaska Population 1953-2029



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

born and is thus influenced only by assumptions of migration or death.

## Population Projections by Age

Middle series, 2005–2029



### School age populations

Four age groups approximate the school age population. Ages 5-11 kindergarten and elementary school, ages 12-13 junior high, ages 14-17 high school, and ages 18-22 college and post-secondary education.

The historical uncertainty of fertility trends, compounded by migration, makes the future number of school-age children the most uncertain to project. (See Exhibit 14.) In 2000, there were about 76,000 children ages 5-11. Since 2000, this number has declined and in the mid level projection should bottom out in 2004 at 72,500. This age group should rise to 2000 levels again by 2009. The number should stabilize at 86,000 for the following decade.

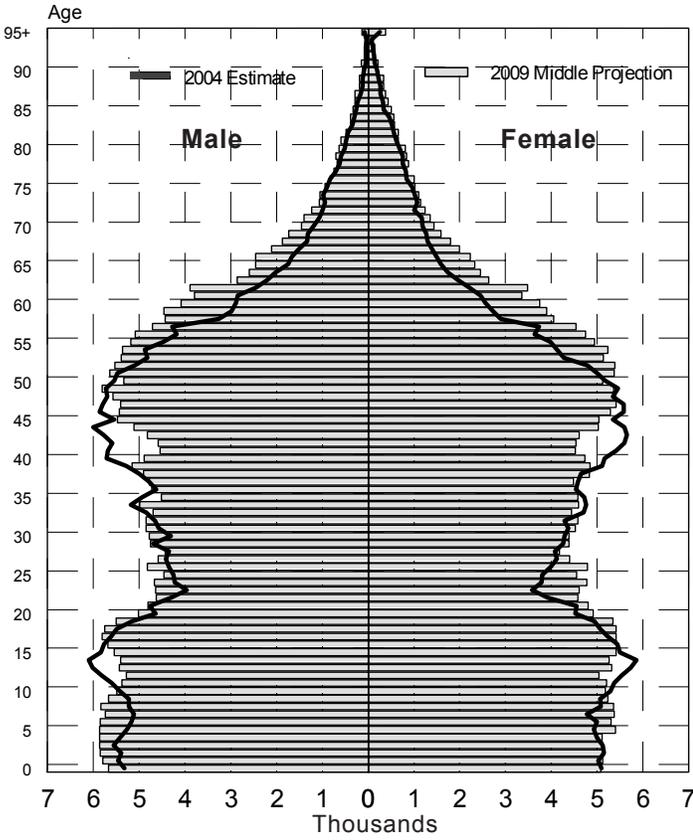
Children ages 12-13 numbered about 22,100 in 2000 and peaked at 23,600 in 2003. (See Exhibit 15.) This age group is expected to decline until 2009 when it should bottom out at about 21,000, according to the mid level projection. It should return to 2003 levels by about 2019.

*(continued on page 13)*

	Age	2005	2009	2014	2019	2024	2029
	0-4	53,101	54,661	57,660	59,296	59,597	59,343
	5-9	51,456	55,642	57,583	60,335	61,700	61,720
	10	10,394	10,663	11,700	11,957	12,418	12,508
	11	10,794	10,592	11,540	11,904	12,408	12,552
	12	11,076	10,328	11,513	11,888	12,412	12,630
	13	11,426	10,748	11,601	11,826	12,339	12,617
	14	11,760	10,659	11,228	11,722	12,214	12,590
	15	11,940	10,968	10,877	11,873	12,081	12,490
	16	11,320	11,119	10,719	11,626	11,941	12,393
	17	11,036	11,231	10,183	11,324	11,649	12,121
	18	10,461	11,170	10,152	10,958	11,133	11,588
	19	10,041	10,849	9,530	10,046	10,482	10,910
	20-24	43,685	47,463	48,559	44,362	48,321	49,366
	25-29	42,478	45,375	50,325	51,103	46,569	50,154
	30-34	45,610	46,715	49,579	54,248	54,728	49,919
	35-39	47,846	47,398	47,959	50,576	54,950	55,144
	40-44	54,712	47,386	46,433	46,782	49,132	53,216
	45-49	55,913	54,209	45,414	44,320	44,482	46,609
	50-54	50,799	53,529	51,712	42,954	41,760	41,805
	55-59	38,865	46,056	50,104	48,289	39,675	38,453
	60-64	24,680	32,893	42,219	46,023	44,309	36,005
	65-69	15,379	20,586	29,458	38,104	41,621	40,107
	70-74	10,814	12,489	17,917	26,032	33,815	36,998
	75-79	8,026	8,472	10,123	14,918	22,077	28,753
	80-84	5,105	5,747	6,322	7,762	11,749	17,750
	85-89	2,519	3,286	3,936	4,366	5,525	8,544
	90-94	1,016	1,253	1,933	2,333	2,597	3,449
	95+	352	514	724	1,243	1,768	2,170
	16+	490,657	517,740	543,301	567,369	588,283	605,454
	18+	468,301	495,390	522,399	544,419	564,693	580,940
	65+	43,211	52,347	70,413	94,758	119,152	137,771
	Total	662,604	692,001	727,003	758,170	783,452	801,904
	Median Age	33.4	33.7	34.0	34.5	35.2	35.8
	Males per 100 Females	105.5	104.5	103.3	102.0	100.8	99.5
	Youth Dependency (<18/18-64)	45.7	44.4	45.3	47.5	49.1	49.9
	Aged Dependency (65+/18-64)	10.2	11.8	15.6	21.1	26.7	31.1

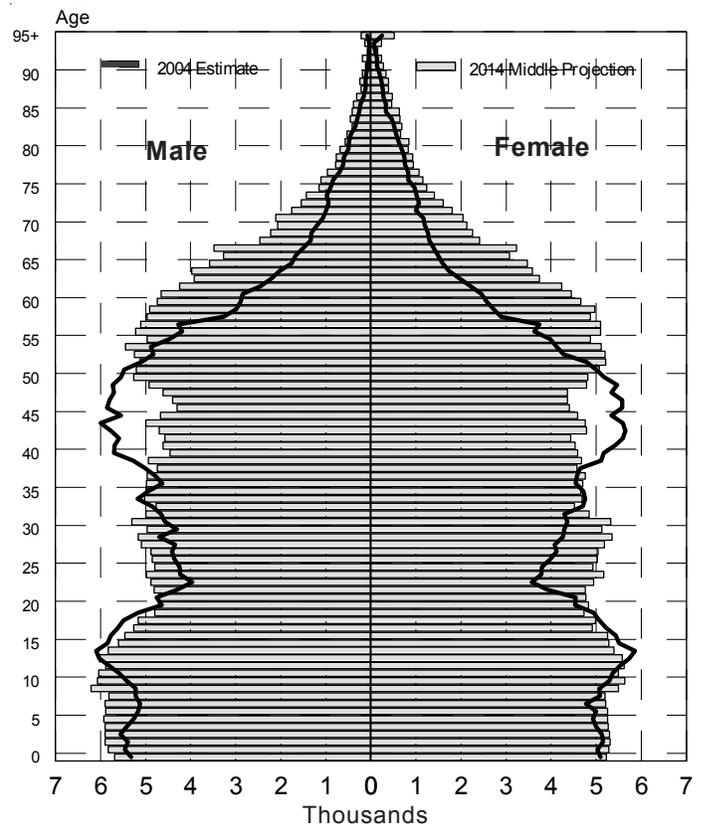
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

# 9 Population by Age & Sex Alaska – 2004 and 2009



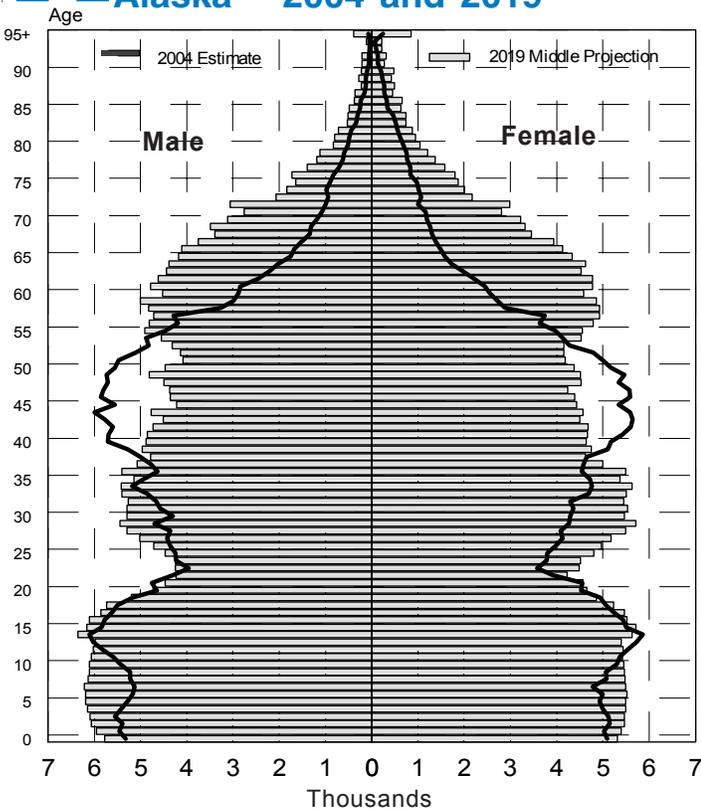
Source: Alaska Dept. of Labor & Workforce Development, Research & Analysis Section

# 10 Population by Age & Sex Alaska – 2004 and 2014



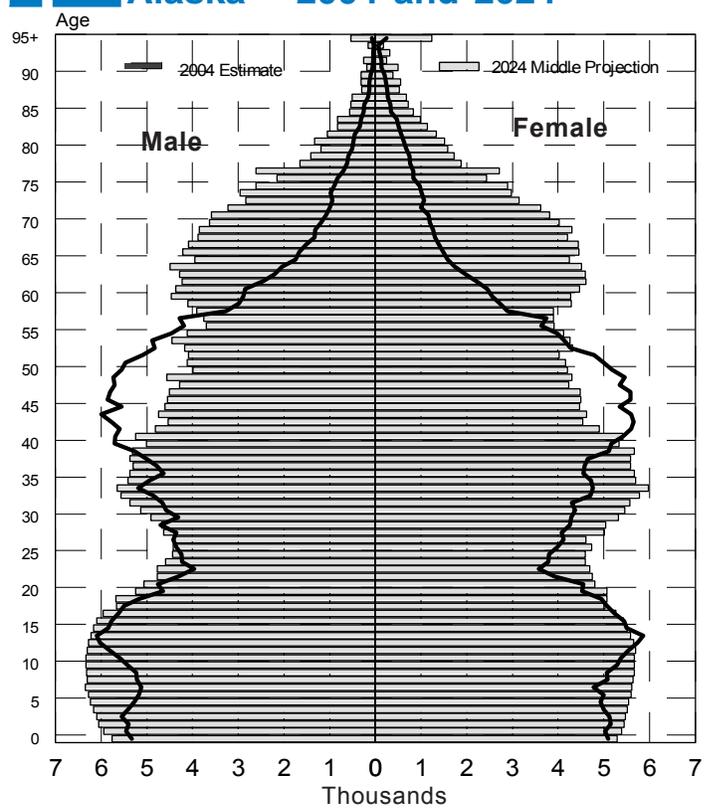
Source: Alaska Dept. of Labor & Workforce Development, Research & Analysis Section

# 11 Population by Age & Sex Alaska – 2004 and 2019



Source: Alaska Dept. of Labor & Workforce Development, Research & Analysis Section

# 12 Population by Age & Sex Alaska – 2004 and 2024

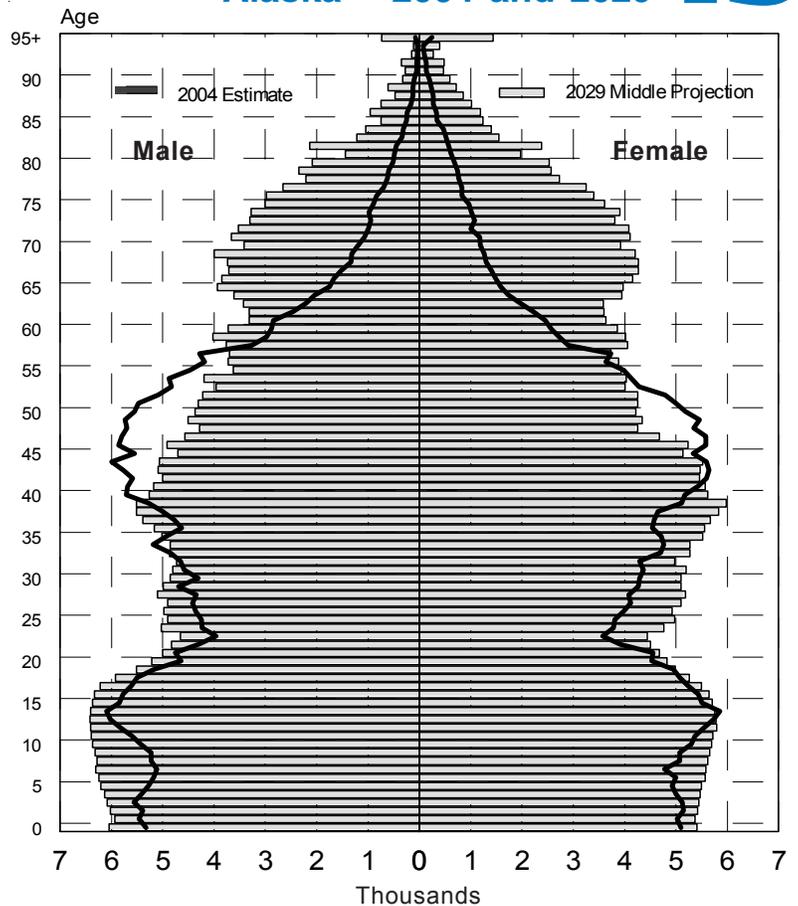


Source: Alaska Dept. of Labor & Workforce Development, Research & Analysis Section

## Population by Age & Sex **13** Alaska – 2004 and 2029

Young adults of high school age numbered some 43,400 in 2000 and this number has continued to rise. (See Exhibit 16.) The high school ages should peak at about 46,300 in 2006 and then steadily decline to 42,300 by 2012. It is not expected that this age group will exceed the 2006 high again until about 2018. Committing to new secondary school construction except in areas with strong in-migration such as Mat-Su or Anchorage will probably be too late for the demand that suggested their need.

The primary college and post-secondary age population in 2000 was about 41,600. (See Exhibit 17.) It currently experiences strong growth. In 2004, the estimated number is 47,400, and that number is expected to continue to rise until about 2010 when the mid series projection reaches 51,200. The numbers are then expected to decline from their current levels until 2016 before picking up again to the 53,000 plus level by 2029. This means that the strongest need for growth in post-secondary institutions and personnel should be in the next five years.



Source: Alaska Dept. of Labor and Workforce Development, Research & Analysis Section

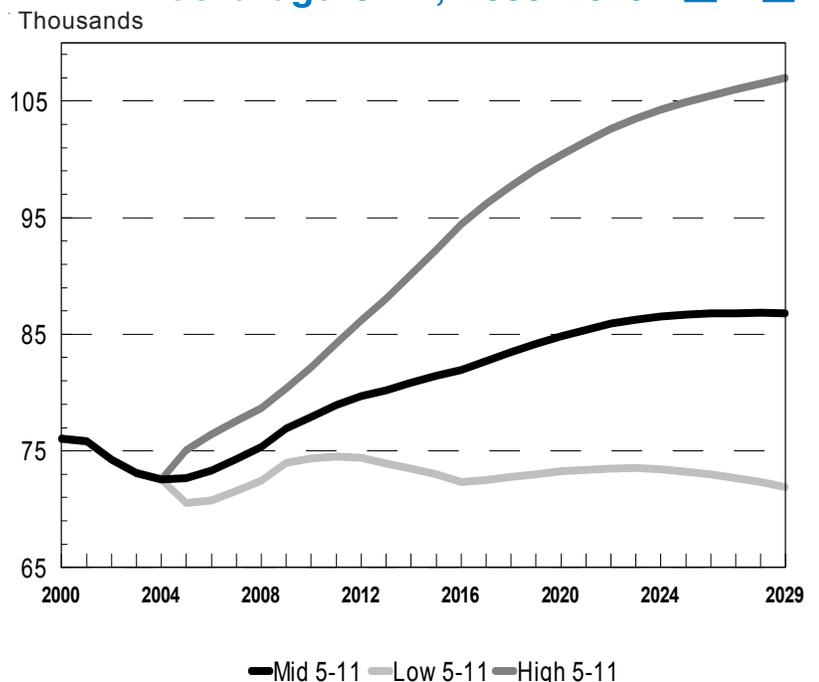
### Voting age populations

The voting age population 18 and over is expected to grow steadily throughout the projection period. (See Exhibit 19.) In 2000, this number was 435,500. It is expected to rise steadily to 501,600 in 2010, 548,800 in 2020, and 580,900 by 2029.

### Population, labor force and employment

The projected population 16 years and over represents our potential future labor supply, with 16-64 the prime working ages. (See Exhibit 18.) The working age population, of course, is always larger than the employed civilian labor force because some may not be working or seeking work. Those in the military are not included. Neither are the unemployed. So of the 467,726 persons over 16 years in 2000, only 319,890, or about 70 percent, were in the civilian nonfarm labor force. Persons 16-64 numbered about 420,800 in 2000. The key working ages in fact begin to level out at 471,000 as early as 2011.

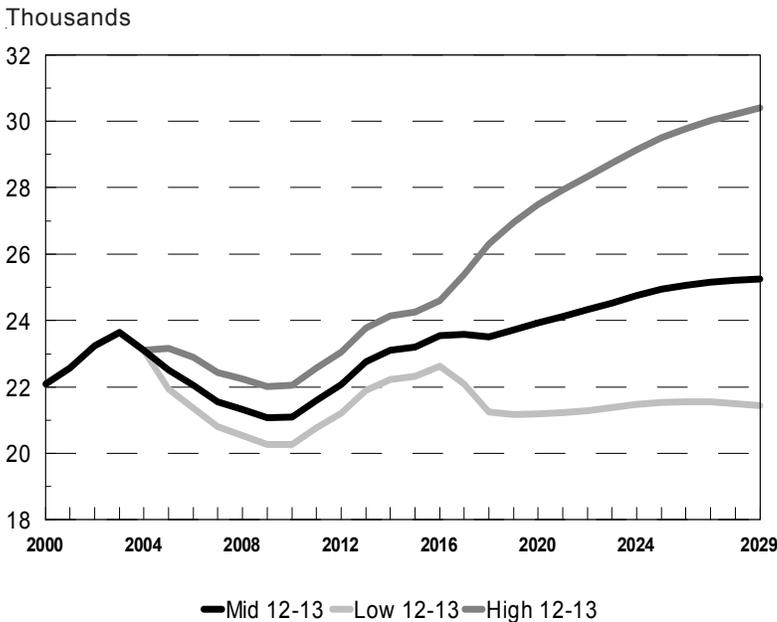
## Population Projections **14** Alaska age 5-11, 2000-2029



Source: Alaska Dept. of Labor and Workforce Development, Research & Analysis Section

# 15 Population Projections

## Alaska age 12–13, 2000–2029



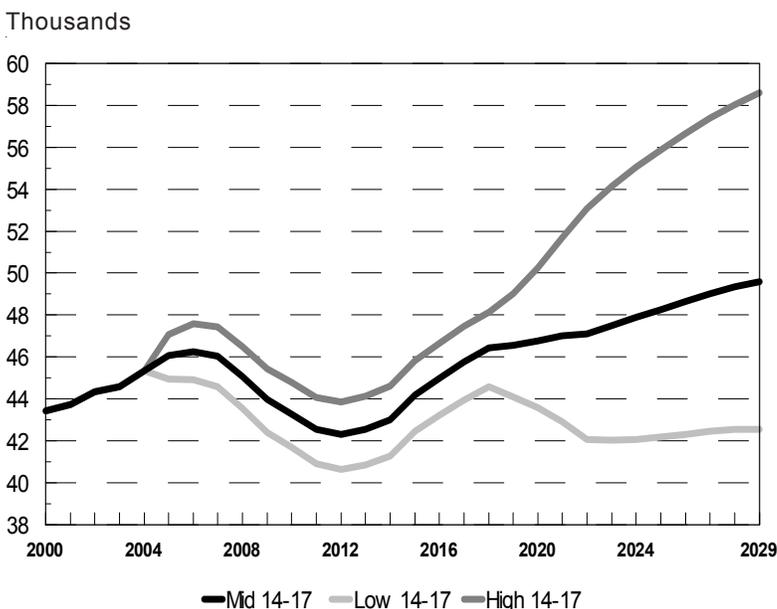
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

That number is expected to rise slowly to 473,600 by 2017, after which it is expected to decline to about 467,700 at the end of the projections period. Opportunities for younger workers may become tighter between 2005 and 2010. The period 2010-2015 should provide advancement opportunities for younger Alaskans as boomers in senior positions begin to retire in large numbers.

Total wage and salary employment may be substantially different from the labor force because a person may work part time, hold down several jobs, or work in Alaska without being a resident of the state. The September 2004 *Alaska Economic Trends* employment forecast estimated there to be 292,200 jobs in 2002. In 2002, the Alaska nonfarm wage and salary labor force was estimated at an average annual 323,703, and the population of working age was estimated to be 470,596. The number of jobs, therefore, is equivalent to only 62 percent of the working age population. The same employment forecast suggests that by 2012 wage and salary employment should increase to 335,500.

# 16 Population Projections

## Alaska age 14–17, 2000–2029



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

These projections suggest that by 2012 the working age population should be 534,000. The number of jobs would equal about 62.8 percent of the working age population. Since the forecast of the economy and future jobs is an indicator of the demand for labor, only minor changes in labor force participation or job holding should be sufficient to keep the current relationship of jobs to population in line. This also suggests that there should not be strong pressures towards overall job shortage or labor surplus in the state between now and 2012 under the assumptions of these projections. Significant increases or declines in the number of jobs from those forecast could cause migration to spike temporarily towards the high or low series. It should be remembered that Alaska has the second highest proportion of military and dependent population after Hawaii and that rapid changes in these populations may rapidly change the overall population dynamics independent of the jobs forecast.

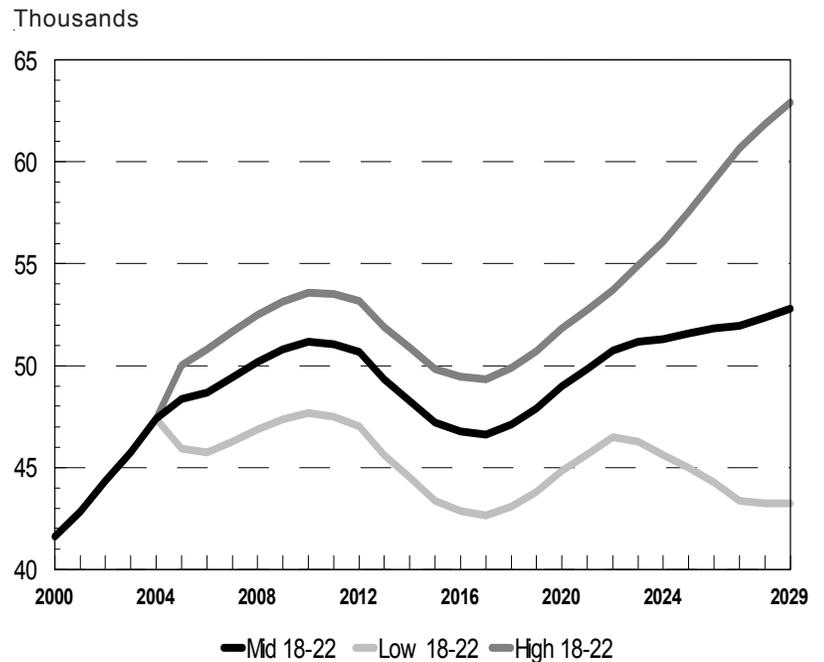
## Older Alaskans

The most noticeable and most certain population growth during the next 25 years will be that of Alaska's elders. (See Exhibit 20.) In 2000 the number of Alaskans over 65 was about 36,000. It has increased to 41,600 currently. It is expected to increase to 52,300 in 2009; 70,400 by 2014; 94,800 by 2019; 119,200 by 2024; and 137,800 by 2029. This group is currently increasing at about four percent annually. The rate of growth for this group is expected to increase to five to six percent annually between 2008 through 2020. In 2012, it is forecast to increase by 7.4 percent with the retirement of the leading edge of the baby boom. Facilities, as well as medical, professional, and social services to serve this population, will need to expand at a corresponding rate. Given the lag time necessary to train occupations such as nurses, already in short supply, and to expand home care and assisted living, major effort to meet what is already becoming a crisis in the state cannot begin too soon. The impact of the rapidly increasing numbers of older residents may be greater than elsewhere, because Alaska, with its historically younger population and relatively small number of elders, has fewer existing resources to serve the elderly.

The major task of creating projections for the state's 27 boroughs and census areas and examining the internal migration among them will be undertaken in the coming months.

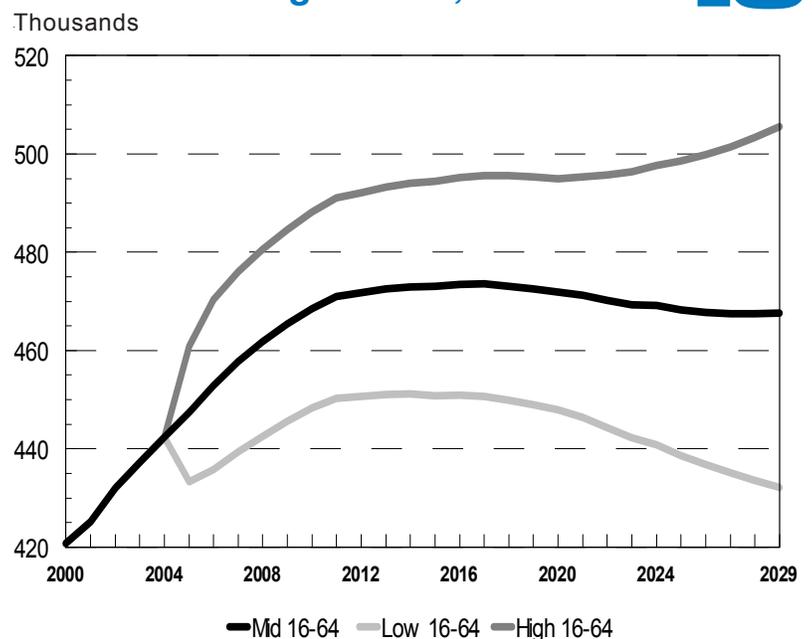
More extensive exhibits can be found on the web site <http://almis.labor.state.ak.us/>

## Population Projections 17 Alaska age 18–22, 2000–2029



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

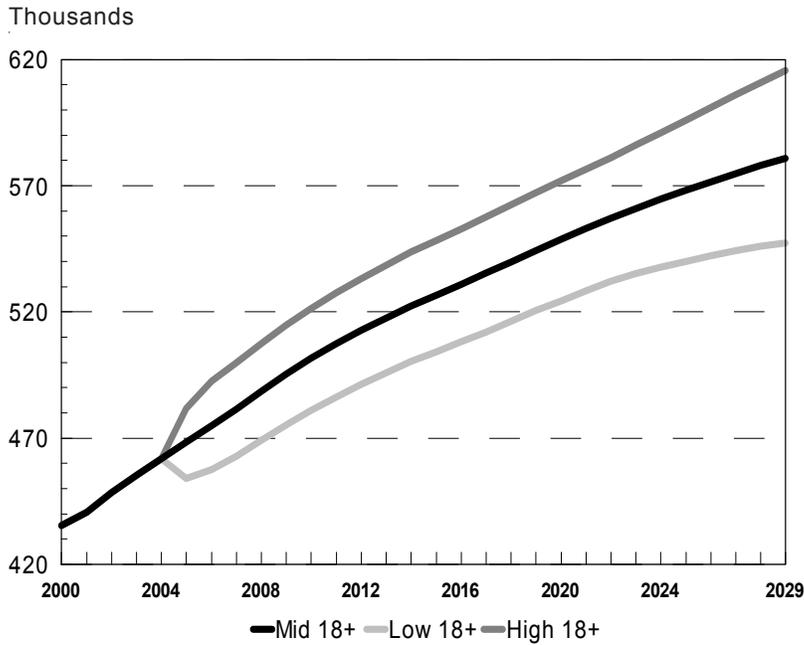
## Population Projections 18 Alaska age 16–64, 2000–2029



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

# 19 Population Projections

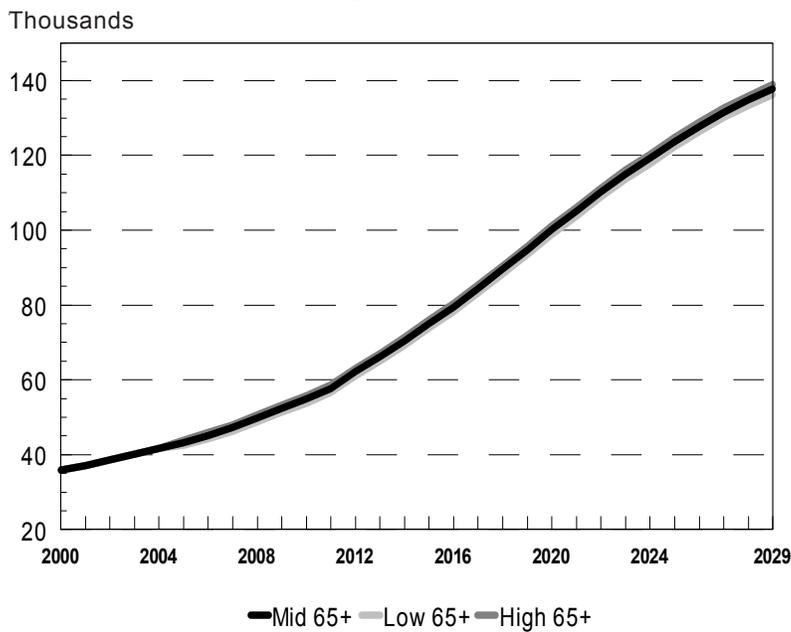
## Alaska age 18+, 2000–2029



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

# 20 Population Projections

## Alaska age 65+, 2000–2029



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