
Appendix H

Alaska Population Projections 2007 - 2030

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Preface

This report offers a description of Alaska's projected future population, based on historical data regarding Alaska's population size, and rates of fertility, mortality and migration. These projections serve as a reference work that provides planners and policy makers with outcomes of a series of demographic events.

It is important to note that Alaska is susceptible to many unpredictable events, and that no demographer or economist has a crystal ball to foresee the future. Though conditional estimates of uncertainty based on past data are provided for the state level projections, it is clearly not possible to predict what will happen.

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Comments or suggestions regarding the content or format of this publication are welcome. Many of the most requested statistics in this document may also be found on the Research and Analysis website at: <http://almis.labor.state.ak.us/>. Requests for demographic projections information may be addressed to Eddie Hunsinger, Research and Analysis Section, Alaska Department of Labor, P.O. Box 115501, Juneau, Alaska, 99811-5501. Telephone: (907) 465-5970; Fax: (907) 465-4506; email: eddie.hunsinger@alaska.gov.

Introduction

Alaska Population Projections

This report presents population projections for the State of Alaska, by age and sex, for the years 2007 through 2030. Additionally, 2010-2030 projections of Alaska's borough, census area, and Native populations, by age and sex, are presented.

Population projections are distinct from population estimates in that population estimates use current and historical data to make statements about the present and past, while projections use expected or extrapolated data to make statements about the future. There is much uncertainty in population projections, as it is not possible to predict future events, but projections based on reasoned assumptions are an important tool for planners and policy makers.

To create this set of population projections, a "cohort component" technique was used. Under this approach, the population of each sex is separated into age groups and aged forward in time, with projected births and in-migrants added, and projected deaths and out-migrants subtracted. The projection began with Alaska's 2005 population estimates and ended with the 2030 population projections. Technical details are provided in Appendix A at the end of the text.

Projections presented here are for the resident population of Alaska. The "July 1" projection dates represent an annual average population for each year, rather than the population on July 1. Seasonal populations may be higher than the annual average permanent resident population.

Statewide Projections

Alaska's statewide population is projected to most likely increase over the projection period, from 670,053 in 2006 to 838,676 people in 2030. As Alaska's population ages in the coming years, annual growth is expected to slow. Alaska's population aged 65+ is expected to grow at the highest rate over the projection period, followed by the population aged 0-17, and then the population aged 18-64. There is a great deal of uncertainty regarding what the actual levels of growth over the period will be, and statistical confidence intervals were estimated to express that uncertainty.

For the statewide projections, the population was divided into, and stepped forward in, single year increments. The process was repeated 2,000 times with random combinations of potential fertility and migration paths, and a fixed mortality path. This process provided a probability distribution for Alaska's future population, by sex and single years of age.

Alaska Native Projections

Alaska's Native population is expected to continue to grow over the projection period, from 118,884 people in 2006 to 162,820 in 2030. Similarly to the state as a whole, as the population ages, growth among Native Alaskans is expected to slow over time.

To create the Native and non-Native projections, the Native population was divided into, and stepped forward in five-year increments. This yielded population projections by sex and five-year age groups. Single paths, based on recent time series data and knowledge of the specified populations, were applied for each component of change.

Projections for Smaller Areas

Alaska's individual regions, boroughs and census areas are projected to grow at very different rates. The highest population growth is expected to occur in the Anchorage/Mat-Su Region, and the greatest (and only) population loss is expected to occur in the Southeast Region.

To create the borough and census area projections, the population of each area was stepped forward in five-year increments, using the cohort component method. This provided population projections by five-year age groups and sex. As with the Alaska Native projections, single paths, based on recent time series data and knowledge of the specified populations, were applied for each component.

Each of the borough and census area populations was projected independently, and the sum of these at each projection step matched closely to the median, or middle, statewide projections of that step. Any discrepancies between the median statewide projections and the sum of these smaller area projections were eliminated with a statistical fitting technique (described in Appendix A).

Outline

The report begins with a description of the components of population change for the statewide projections, then the results of the projections are described. Next, the components of population change that were applied to the Native Alaskan projections, and the results of the population projections for Native and non-Native Alaskans, are presented. Finally, the components of population change that were used in the borough and census area projections, and the results of the projections at the borough and census area level, are described.

Section 1

Alaska State Population Projections

Introduction

As of July 1, 2006, the State of Alaska was estimated to have a total population of 670,053. How Alaska reached a population of this level, and how this level will change in the future, is equal to the sum of four distinct processes, or "components" of change: fertility, mortality, in-migration and out-migration. Historical data regarding the level, trend and variability of each component of change was employed in these projections.

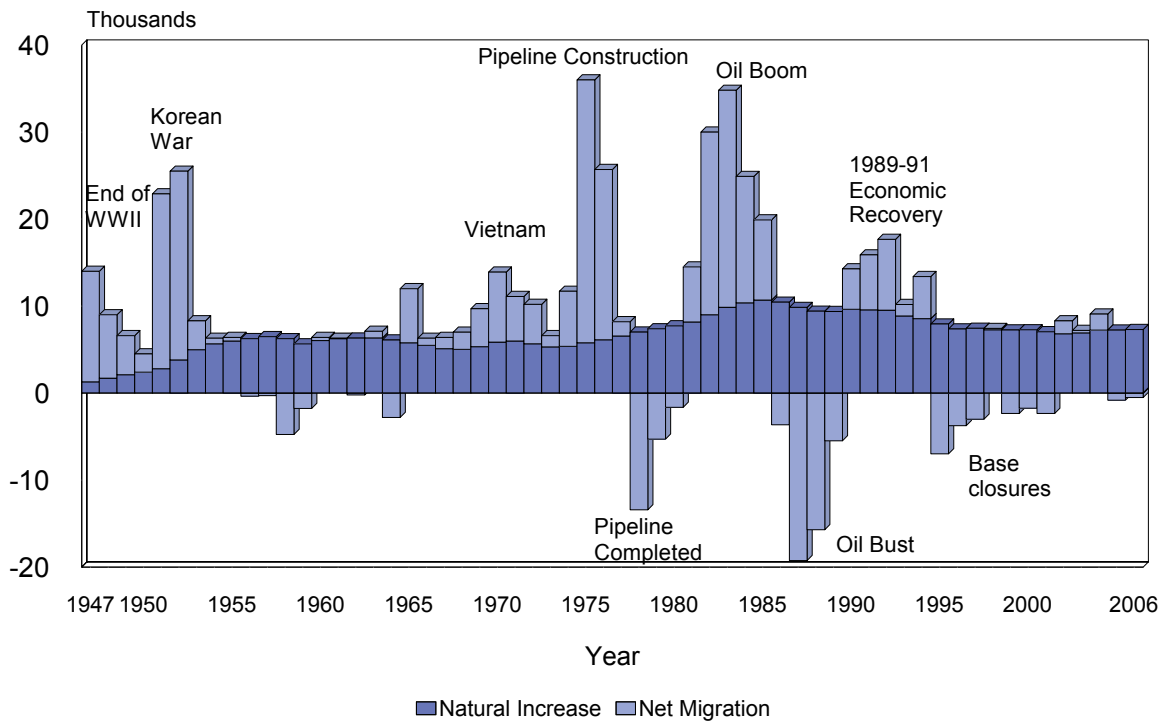
This section begins with a brief description of Alaska's recent population background. Alaska's mortality, fertility and migration levels, and their impact on the projections for Alaska's population, are then described. Finally, the results and interpretation of the statewide projections are presented.

Background

Since statehood in 1959, when Alaska's population level stood at roughly 224,000, there has been great variation in the rate of the state's growth. As shown in Figure 1.1, both "natural increase" (the difference between births and deaths) and "net migration" (the difference between in-migration and out-migration) have played important roles. The impact of natural increase has been steady and powerful. Numbers of births and deaths have not 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 rates and numbers of persons 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.

Figure 1.1
Annual Components Of Population Change For Alaska, 1947 - 2006



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

Table 3.26
Wrangell-Petersburg Census Area Population by Age and Sex, and Components of Change,
2006 - 2030

| July 1, 2006 Estimate | | | | July 1, 2010 Projected | | | |
|-------------------------------|--------------|--------------|--------------|-------------------------------|--------------|--------------|--------------|
| Age | Total | Male | Female | Age | Total | Male | Female |
| 0-4 | 327 | 168 | 159 | 0-4 | 334 | 171 | 163 |
| 5-9 | 375 | 214 | 161 | 5-9 | 376 | 201 | 175 |
| 10-14 | 435 | 222 | 213 | 10-14 | 407 | 225 | 182 |
| 15-19 | 517 | 263 | 254 | 15-19 | 414 | 219 | 195 |
| 20-24 | 290 | 158 | 132 | 20-24 | 485 | 254 | 231 |
| 25-29 | 225 | 122 | 103 | 25-29 | 290 | 156 | 134 |
| 30-34 | 294 | 147 | 147 | 30-34 | 294 | 151 | 143 |
| 35-39 | 356 | 184 | 172 | 35-39 | 325 | 171 | 154 |
| 40-44 | 437 | 207 | 230 | 40-44 | 364 | 181 | 183 |
| 45-49 | 573 | 291 | 282 | 45-49 | 433 | 209 | 224 |
| 50-54 | 611 | 318 | 293 | 50-54 | 549 | 278 | 271 |
| 55-59 | 492 | 269 | 223 | 55-59 | 489 | 264 | 225 |
| 60-64 | 358 | 193 | 165 | 60-64 | 403 | 212 | 191 |
| 65-69 | 247 | 137 | 110 | 65-69 | 307 | 167 | 140 |
| 70-74 | 148 | 89 | 59 | 70-74 | 186 | 104 | 82 |
| 75-79 | 138 | 74 | 64 | 75-79 | 109 | 59 | 50 |
| 80-84 | 103 | 48 | 55 | 80-84 | 96 | 50 | 46 |
| 85-89 | 57 | 19 | 38 | 85-89 | 60 | 26 | 34 |
| 90+ | 41 | 15 | 26 | 90+ | 39 | 13 | 26 |
| Total | 6,024 | 3,138 | 2,886 | Total | 5,960 | 3,111 | 2,849 |
| Median Age | 42.2 | 42.2 | 42.2 | Median Age | 40.8 | 40.2 | 41.3 |
| July 1, 2015 Projected | | | | July 1, 2020 Projected | | | |
| Age | Total | Male | Female | Age | Total | Male | Female |
| 0-4 | 374 | 191 | 183 | 0-4 | 371 | 189 | 182 |
| 5-9 | 329 | 168 | 161 | 5-9 | 367 | 187 | 180 |
| 10-14 | 376 | 201 | 175 | 10-14 | 325 | 166 | 159 |
| 15-19 | 329 | 185 | 144 | 15-19 | 297 | 162 | 135 |
| 20-24 | 361 | 190 | 171 | 20-24 | 279 | 158 | 121 |
| 25-29 | 496 | 259 | 237 | 25-29 | 371 | 194 | 177 |
| 30-34 | 294 | 159 | 135 | 30-34 | 504 | 261 | 243 |
| 35-39 | 297 | 152 | 145 | 35-39 | 294 | 158 | 136 |
| 40-44 | 308 | 163 | 145 | 40-44 | 278 | 143 | 135 |
| 45-49 | 334 | 166 | 168 | 45-49 | 278 | 147 | 131 |
| 50-54 | 396 | 191 | 205 | 50-54 | 299 | 149 | 150 |
| 55-59 | 501 | 253 | 248 | 55-59 | 355 | 171 | 184 |
| 60-64 | 442 | 238 | 204 | 60-64 | 451 | 226 | 225 |
| 65-69 | 361 | 189 | 172 | 65-69 | 396 | 212 | 184 |
| 70-74 | 262 | 140 | 122 | 70-74 | 310 | 160 | 150 |
| 75-79 | 150 | 81 | 69 | 75-79 | 213 | 111 | 102 |
| 80-84 | 79 | 41 | 38 | 80-84 | 109 | 58 | 51 |
| 85-89 | 57 | 29 | 28 | 85-89 | 47 | 23 | 24 |
| 90+ | 39 | 15 | 24 | 90+ | 36 | 16 | 20 |
| Total | 5,785 | 3,011 | 2,774 | Total | 5,580 | 2,891 | 2,689 |
| Median Age | 40.6 | 40.0 | 41.2 | Median Age | 39.7 | 39.1 | 40.4 |

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

Table 3.26, cont.
Wrangell-Petersburg Census Area Population by Age and Sex, and Components of Change, 2006 - 2030

| July 1, 2025 Projected | | | | July 1, 2030 Projected | | | |
|------------------------|-------|-------|--------|------------------------|-------|-------|--------|
| Age | Total | Male | Female | Age | Total | Male | Female |
| 0-4 | 324 | 165 | 159 | 0-4 | 266 | 135 | 131 |
| 5-9 | 365 | 186 | 179 | 5-9 | 320 | 163 | 157 |
| 10-14 | 364 | 185 | 179 | 10-14 | 366 | 186 | 180 |
| 15-19 | 242 | 124 | 118 | 15-19 | 290 | 149 | 141 |
| 20-24 | 251 | 137 | 114 | 20-24 | 203 | 104 | 99 |
| 25-29 | 288 | 161 | 127 | 25-29 | 262 | 142 | 120 |
| 30-34 | 376 | 196 | 180 | 30-34 | 295 | 164 | 131 |
| 35-39 | 505 | 261 | 244 | 35-39 | 380 | 198 | 182 |
| 40-44 | 275 | 148 | 127 | 40-44 | 487 | 252 | 235 |
| 45-49 | 250 | 129 | 121 | 45-49 | 250 | 135 | 115 |
| 50-54 | 249 | 132 | 117 | 50-54 | 223 | 115 | 108 |
| 55-59 | 264 | 131 | 133 | 55-59 | 218 | 115 | 103 |
| 60-64 | 317 | 151 | 166 | 60-64 | 234 | 115 | 119 |
| 65-69 | 407 | 203 | 204 | 65-69 | 288 | 136 | 152 |
| 70-74 | 345 | 181 | 164 | 70-74 | 360 | 176 | 184 |
| 75-79 | 258 | 129 | 129 | 75-79 | 292 | 149 | 143 |
| 80-84 | 160 | 81 | 79 | 80-84 | 198 | 95 | 103 |
| 85-89 | 69 | 35 | 34 | 85-89 | 103 | 50 | 53 |
| 90+ | 31 | 14 | 17 | 90+ | 41 | 20 | 21 |
| Total | 5,340 | 2,749 | 2,591 | Total | 5,076 | 2,599 | 2,477 |
| Median Age | 39.6 | 39.2 | 39.9 | Median Age | 41.6 | 41.2 | 42.1 |

Population and Components of Population Change, 2006-2030

| | 2006-2010 | 2010-2015 | 2015-2020 | 2020-2025 | 2025-2030 |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|
| Population at Start of Period | 6,024 | 5,960 | 5,785 | 5,580 | 5,340 |
| Population at End of Period | 5,960 | 5,785 | 5,580 | 5,340 | 5,076 |
| Average Annual Births | 58 | 72 | 79 | 72 | 61 |
| Average Annual Deaths | 59 | 56 | 57 | 59 | 62 |
| Average Annual Net Migrants | -16 | -51 | -62 | -61 | -52 |
| Average Annual Change | -16 | -35 | -41 | -48 | -53 |
| Average Annual Percent Change | -0.27% | -0.60% | -0.72% | -0.88% | -1.01% |

* Average annual numbers are rounded to whole numbers.

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