

School and College Age Populations: 1980-2065

The Kem C. Gardner Policy Institute recently released long-term demographic and economic projections for the state of Utah and its counties. These state level projections include population counts by single-year of age, as well as age groups. This fact sheet focuses on the school age (5-17) and the college age (18-24) populations.

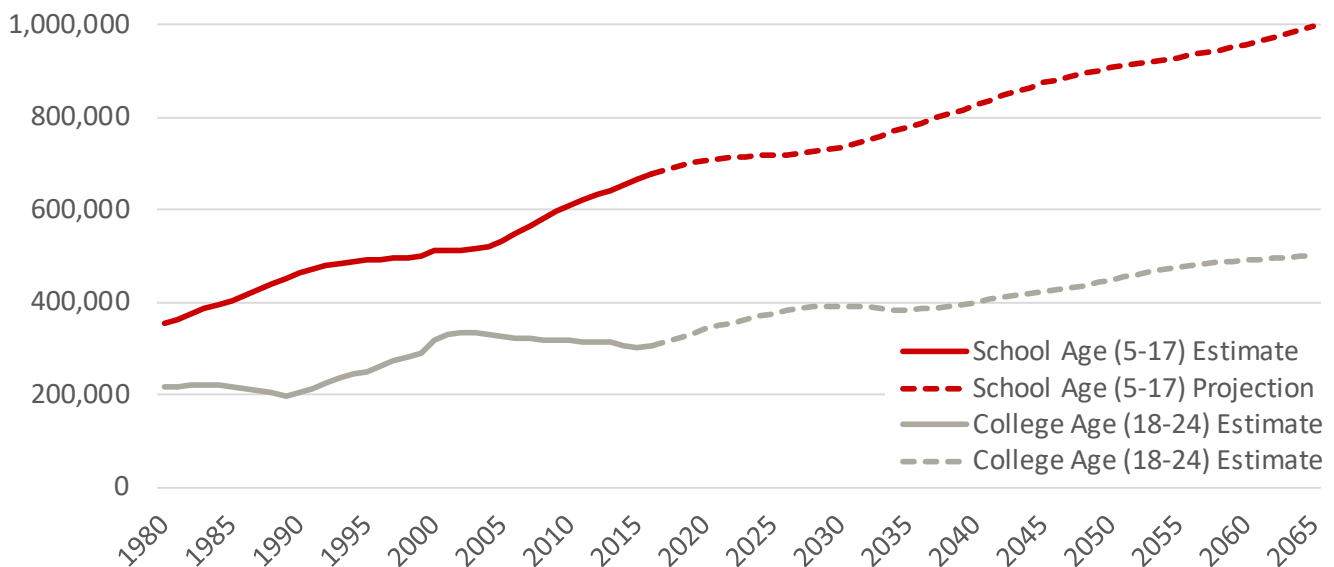
Projections

By 2065 the school age population in Utah is projected to increase by 329,743 or 49 percent to reach nearly one million, while the college age group is projected to increase by 196,705 or 65 percent to reach half a million. This equates to an average annual rate of change of 0.8 percent for the school age population and one percent

for the college age population. Data for 2015 to 2065 can be found in Table 1.

The school age population is projected to increase throughout the projection period, except for a few years during the mid-2020s. School age population growth increments are projected to remain below 10,000 almost every year after 2018 (with exceptions in 2031 and 2034). Likewise, the college age population is expected to increase except for a period of decrease in the early 2030s. While these age groups continue to grow over time, they are projected to decrease as a share of the overall population as the median age continues to rise.

Figure 1
Utah School Age (5-17) and College Age (18-24) Population Estimates and Projections 1980-2015



Sources: Sources: 1980-1989: Governor's Office of Planning and Budget, Population estimates by sex and single year of age: 1980-1989; 1990 to 2009: Governor's Office of Management and Budget, 2012 Baseline Projections; 2010 to 2065: Kem C. Gardner Policy Institute 2015-2065 State and County Projections

Historical Births

In the past, Utah's births have peaked at different times than national births. The post-World War II baby boom was not as significant in Utah as it was nationally. In the 1980s, Utah births hit a high while nationally births slowly climbed. However, in 2007 and 2008, both Utah and the nation saw peaks in overall births, then drops in the following years. Figure 2 shows this overall comparison in births for Utah and the nation.

In Utah, the peak in the early 1980s was due to changes in the population, including an increase in migration, an acceleration in fertility rate, and an increase in the population of women of child-bearing age.

Like the peak in the early 1980s, an increase in migration in the late 1990s impacted the high number of births in 2008. Additionally, females born in Utah during the early 1980s had reached peak childbearing age, further contributing to the 2008 peak.

Figure 3 highlights the numeric and percent growth in both school age and college age populations. Waves that occur in the projected school age and college age populations are results of fluctuations in the number of births.

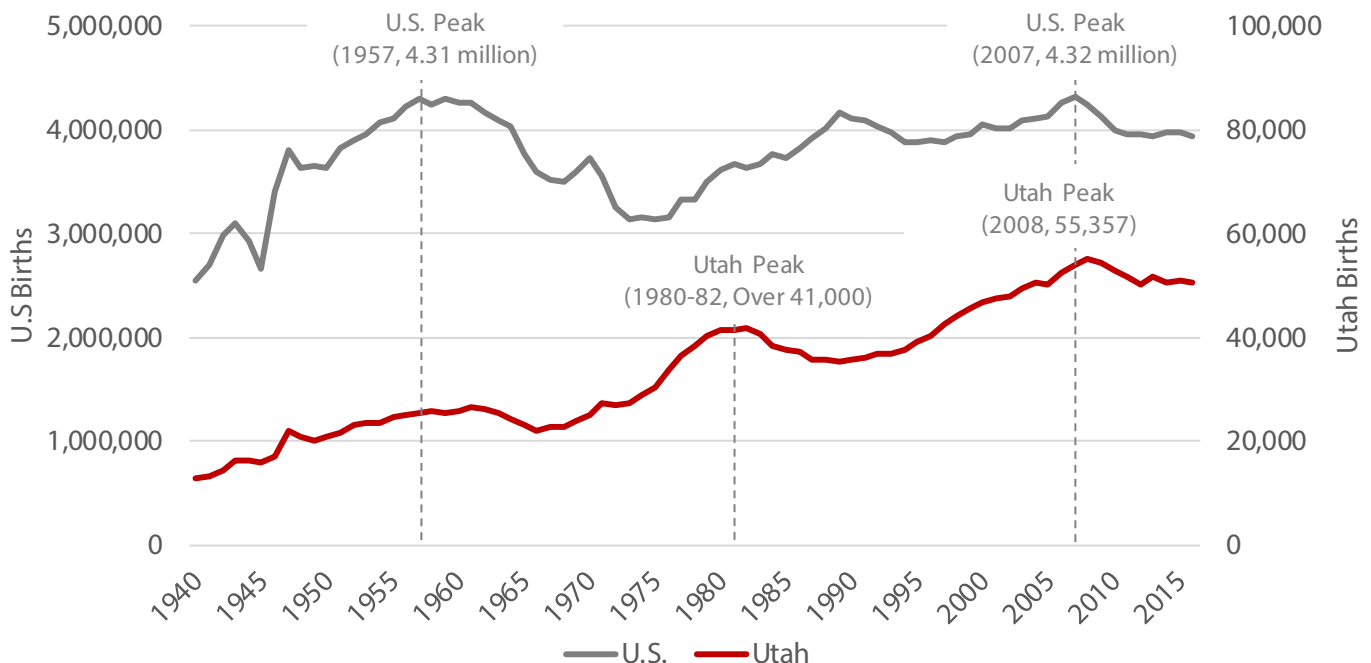
Cumulative Births

We can better understand these seemingly random fluctuations in the younger population if we look back at the birth patterns that coincide with these age groups. A birth analysis links the number of annual births that happened in the past to the current age structure (see Figure 4). For example, if we want to analyze the 5 through 17-year-old population in 2015, we sum all the births that occurred between five and 17 years before 2015 (1998 through 2010), and compare the results. This exercise is useful for understanding birth patterns and their effects on the current population, but also for inferring how many children in our state are migrants or how many born here moved away.

The school age population stagnation around the mid-2020s corresponds to a sharp decrease in births 5-17 years ago. The college age population experiences the same decrease in growth around the early 2030s, which corresponds to the same decrease in births that began around the 2008 recession period.

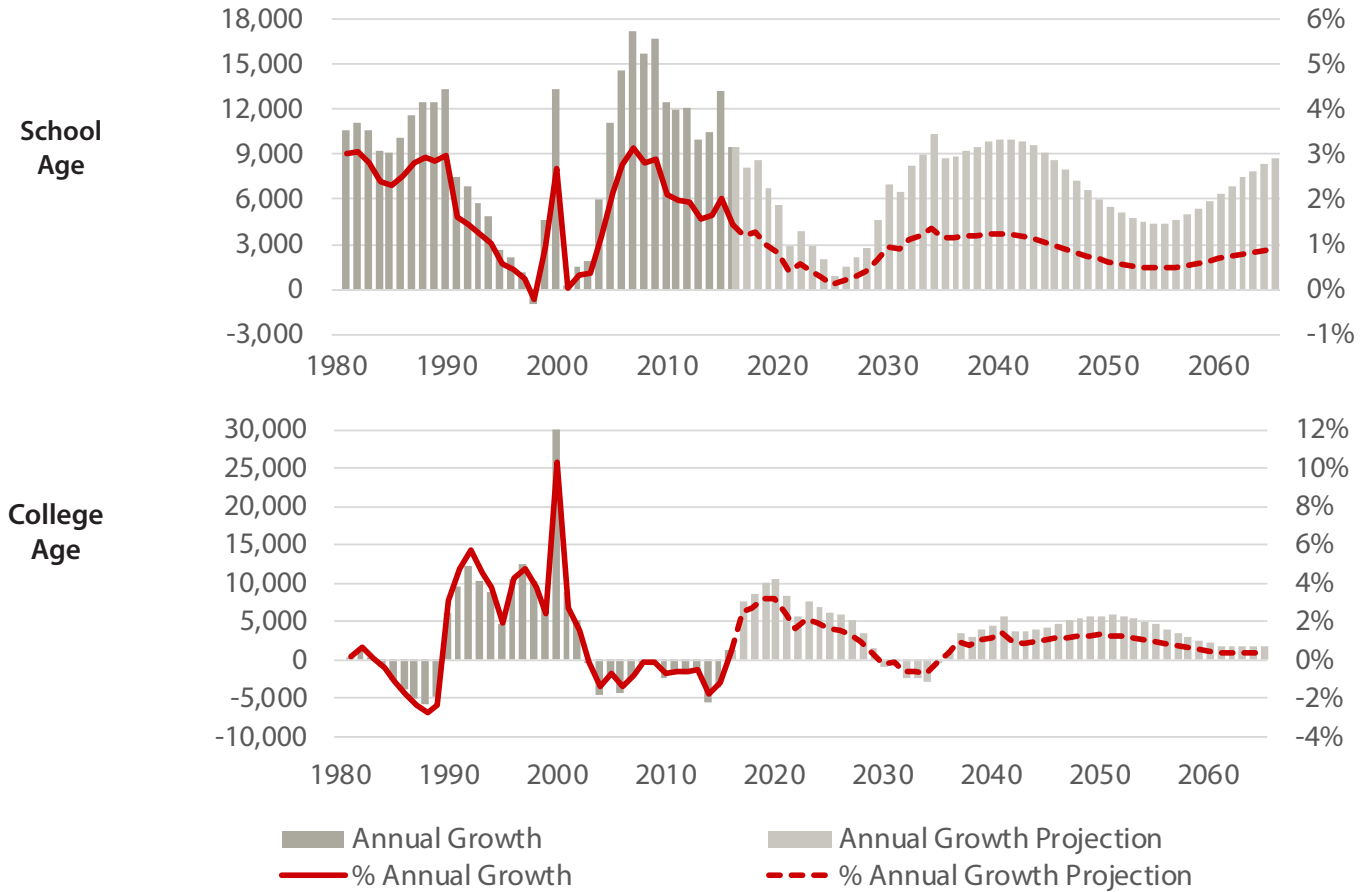
The analysis of these patterns serves as a reminder that it takes time to see the effect of demographic forces, and they can have impacts on other trends such as higher education enrollment and labor force availability.

Figure 2
Historical Births, Utah and the United States
1940-2015



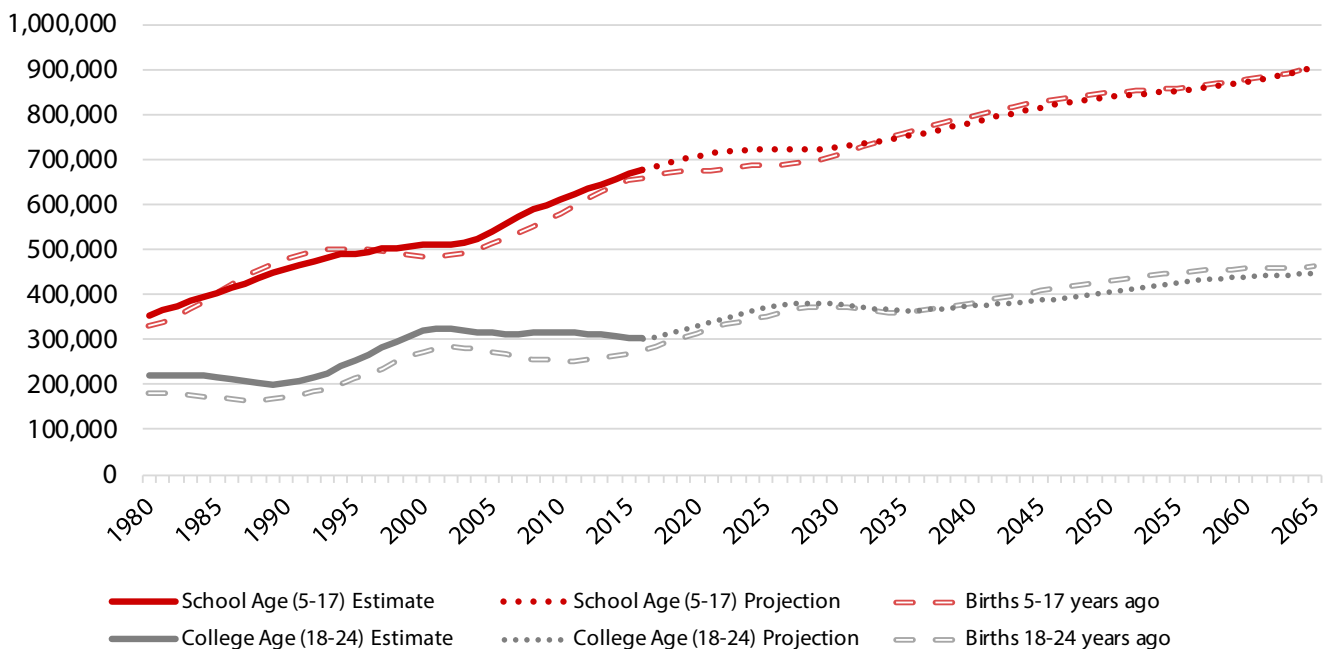
Sources: Sources: U.S. Census Bureau, 1980-1989; Governor's Office of Planning and Budget, Population estimates by sex and single year of age: 1980-1989; 1990 to 2009: Governor's Office of Management and Budget, 2012 Baseline Projections; 2010 to 2065: Kem C. Gardner Policy Institute 2015-2065 State and County Projections

Figure 3
Utah School Age and College Age Population Estimates and Projections: Annual Growth and Percent Change 1980-2065



Sources: 1980-1989: Governor’s Office of Planning and Budget, Population estimates by sex and single year of age: 1980-1989; 1990 to 2009: Governor’s Office of Management and Budget, 2012 Baseline Projections; 2010 to 2065: Kem C. Gardner Policy Institute 2015-2065 State and County Projections

Figure 4
Utah Cumulative Births 1980-2065



Sources: 1980-1989: Governor’s Office of Planning and Budget, Population estimates by sex and single year of age: 1980-1989; 1990 to 2009: Governor’s Office of Management and Budget, 2012 Baseline Projections; 2010 to 2065: Kem C. Gardner Policy Institute

Note: Here, cumulative births on the y-axis are the sum of annualized births occurring during the specified number of years prior to the year on the x-axis.

Table 1
Utah School Age and College Age Population Estimates and Projections,
2015-2065

Year	Total Population	School Age Population (5-17)				College Age Population (18-24)			
		Total	Absolute Growth	Growth Rate	Share of Total Pop.	Total	Absolute Growth	Growth Rate	Share of Total Pop.
2015	2,997,404	666,974			22.3%	302,933			10.1%
2016	3,054,806	676,459	9,486	1.4%	22.1%	304,346	1,413	0.5%	10.0%
2017	3,123,607	684,631	8,172	1.2%	21.9%	312,065	7,719	2.5%	10.0%
2018	3,193,415	693,269	8,638	1.3%	21.7%	320,686	8,621	2.8%	10.0%
2019	3,260,765	699,962	6,693	1.0%	21.5%	330,807	10,120	3.2%	10.1%
2020	3,325,425	705,631	5,669	0.8%	21.2%	341,250	10,443	3.2%	10.3%
2021	3,389,467	708,542	2,911	0.4%	20.9%	349,634	8,385	2.5%	10.3%
2022	3,449,985	712,480	3,938	0.6%	20.7%	355,232	5,597	1.6%	10.3%
2023	3,507,364	715,336	2,856	0.4%	20.4%	362,959	7,727	2.2%	10.3%
2024	3,562,226	717,354	2,019	0.3%	20.1%	369,992	7,033	1.9%	10.4%
2025	3,615,036	718,210	856	0.1%	19.9%	376,073	6,081	1.6%	10.4%
2026	3,669,342	719,678	1,468	0.2%	19.6%	381,989	5,915	1.6%	10.4%
2027	3,723,441	721,751	2,073	0.3%	19.4%	387,149	5,161	1.4%	10.4%
2028	3,778,152	724,517	2,766	0.4%	19.2%	390,771	3,622	0.9%	10.3%
2029	3,833,308	729,200	4,683	0.6%	19.0%	392,265	1,494	0.4%	10.2%
2030	3,889,310	736,180	6,980	1.0%	18.9%	391,485	(780)	-0.2%	10.1%
2031	3,946,122	742,719	6,540	0.9%	18.8%	391,179	(305)	-0.1%	9.9%
2032	4,004,069	750,959	8,239	1.1%	18.8%	388,837	(2,343)	-0.6%	9.7%
2033	4,062,343	759,942	8,983	1.2%	18.7%	386,412	(2,424)	-0.6%	9.5%
2034	4,120,490	770,334	10,392	1.4%	18.7%	383,662	(2,750)	-0.7%	9.3%
2035	4,178,317	779,026	8,692	1.1%	18.6%	383,372	(290)	-0.1%	9.2%
2036	4,235,865	787,890	8,864	1.1%	18.6%	384,763	1,390	0.4%	9.1%
2037	4,293,208	797,104	9,214	1.2%	18.6%	388,385	3,622	0.9%	9.0%
2038	4,350,268	806,637	9,533	1.2%	18.5%	391,375	2,990	0.8%	9.0%
2039	4,407,155	816,444	9,807	1.2%	18.5%	395,472	4,097	1.0%	9.0%
2040	4,463,950	826,429	9,984	1.2%	18.5%	400,042	4,570	1.2%	9.0%
2041	4,520,678	836,467	10,039	1.2%	18.5%	405,781	5,739	1.4%	9.0%
2042	4,577,247	846,377	9,910	1.2%	18.5%	409,653	3,872	1.0%	8.9%
2043	4,633,568	855,987	9,610	1.1%	18.5%	413,370	3,717	0.9%	8.9%
2044	4,689,532	865,150	9,163	1.1%	18.4%	417,360	3,990	1.0%	8.9%
2045	4,745,057	873,751	8,601	1.0%	18.4%	421,713	4,352	1.0%	8.9%
2046	4,800,120	881,707	7,956	0.9%	18.4%	426,448	4,735	1.1%	8.9%
2047	4,854,748	888,990	7,283	0.8%	18.3%	431,545	5,097	1.2%	8.9%
2048	4,909,089	895,633	6,643	0.7%	18.2%	436,971	5,426	1.3%	8.9%
2049	4,963,211	901,673	6,040	0.7%	18.2%	442,636	5,665	1.3%	8.9%
2050	5,017,232	907,179	5,506	0.6%	18.1%	448,440	5,804	1.3%	8.9%
2051	5,071,236	912,247	5,068	0.6%	18.0%	454,262	5,822	1.3%	9.0%
2052	5,125,126	916,968	4,722	0.5%	17.9%	459,962	5,700	1.3%	9.0%
2053	5,178,833	921,447	4,479	0.5%	17.8%	465,409	5,447	1.2%	9.0%
2054	5,232,327	925,810	4,363	0.5%	17.7%	470,486	5,077	1.1%	9.0%
2055	5,285,767	930,229	4,419	0.5%	17.6%	475,100	4,615	1.0%	9.0%
2056	5,339,307	934,856	4,627	0.5%	17.5%	479,208	4,107	0.9%	9.0%
2057	5,393,004	939,808	4,952	0.5%	17.4%	482,782	3,574	0.7%	9.0%
2058	5,446,925	945,186	5,378	0.6%	17.4%	485,837	3,056	0.6%	8.9%
2059	5,501,088	951,062	5,876	0.6%	17.3%	488,424	2,586	0.5%	8.9%
2060	5,555,423	957,453	6,392	0.7%	17.2%	490,621	2,197	0.4%	8.8%
2061	5,609,943	964,370	6,917	0.7%	17.2%	492,540	1,919	0.4%	8.8%
2062	5,664,555	971,800	7,430	0.8%	17.2%	494,298	1,758	0.4%	8.7%
2063	5,719,145	979,706	7,906	0.8%	17.1%	496,005	1,707	0.3%	8.7%
2064	5,773,599	988,034	8,328	0.9%	17.1%	497,757	1,752	0.4%	8.6%
2065	5,827,810	996,717	8,683	0.9%	17.1%	499,638	1,882	0.4%	8.6%

Source: 2015-2065 State and County Projections