The Baby Boom Cohort in the United States: 2012 to 2060

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INTRODUCTION

The cohort born during the post-World War II baby boom in the United States, referred to as the baby boomers, has been driving change in the age structure of the U.S. population since their birth. This cohort is projected to continue to influence characteristics of the nation in the years to come. The baby boomers began turning 65 in 2011 and are now driving growth at the older ages of the population. By 2029, when all of the baby boomers will be 65 years and over, more than 20 percent of the total U.S. population will be over the age of 65. Although the number of baby boomers will decline through mortality, this shift toward an increasingly older population is expected to endure. By 2056, the population 65 years and over is projected to become larger than the population under 18 years.

This report examines changes in the U.S. population over the coming decades, with a focus on the baby boom cohort and its future role in shaping the demographic composition of the United States. The size and structure of this population will have implications for researchers, policy makers, health care professionals, and others seeking to anticipate the influence that this generation may have on the American landscape as they move into retirement and old age.

2012 NATIONAL PROJECTIONS

This report is based on the 2012 National Projections. The 2012 National Projections are of the resident population, by age, sex, race, and Hispanic origin, and include demographic components of change (births, deaths, and net international migration). The projections are based on the 2010 Census and official estimates through 2011 and were produced using a cohortcomponent method. In this method, the components of population change are projected separately for each birth cohort (persons born in a given year) based on past trends. For each year, 2012 to 2060, the population is advanced 1 year of age using the projected age-specific survival rates and levels of net international migration for that year.¹ A new birth cohort is added to the population by applying the projected fertility rates to the female population. These births, adjusted for infant mortality and net international migration, form the new population under 1 year of age.

The 2012 National Projections include a main series and three alternative series.² These four projection series provide results for differing assumptions of net international migration. All other methodology and assumptions, including fertility and mortality, are the same as those used in the Middle series. The three alternative series are useful for analyzing potential outcomes of different levels of net international migration.

According to the Middle series projection, between 2012 and 2060, the U.S. population is projected to grow from 314 million in 2012 to 420 million in 2060, an increase of 34 percent. The nation will also become more racially and ethnically diverse, with the aggregate minority population projected to become the majority in 2043.³ The population is also expected to become

³ In this report, the term minority population refers to everyone other than the non-Hispanic White alone population. The Census Bureau recognizes that there are many dimensions of ethnicity not captured in this distinction.



¹ This report is based on projections for the years 2013 to 2060. The Census Bureau's official population estimates are used for 2012. (U.S. Census Bureau, 2012b). When both population estimates and projections are available, as is the case for 2012, estimates are the preferred data. The population estimates are available at <www.census.gov/popest>.

² The main series, referred to as the Middle series, was released in December 2012. The three alternative series, released in May 2013, were based on assumptions of low, high, and constant levels of net international migration (U.S. Census Bureau, 2012a).

much older. By 2030, more than 20 percent of U.S. residents are projected to be aged 65 and over, compared with 13 percent in 2010 and 9.8 percent in 1970.

The 2012 National Projections, including summary tables, downloadable files, methodology and assumptions, and the press release for the main series and three alternative series can be found at <www.census.gov/population /projections/data/national/2012 .html>.

WHO ARE THE BABY BOOMERS?

The term "baby boomer" refers to individuals born in the United States between mid-1946 and mid-1964 (Hogan, Perez, and Bell, 2008). Distinctions between the baby boom cohort and birth cohorts from preceding and subsequent years become apparent when fertility measures are framed within a historical context. The baby boom in the United States was marked by a substantial rise in birth rates post-World War II. Two features of the baby boom differentiate this increase from those previously experienced: the size of the birth cohort and the length of time for which these higher levels of fertility were sustained.

As shown in Figure 1, birth rates in the United States declined steadily in the decades leading up to World War II. A notable deviation in this trend was a short-term increase in fertility after World War I. In 1909, there were 30 births per 1,000 population but by 1933, these rates had fallen to 18.4. For the next 7 years, as the United States experienced the Great Depression, fertility rates hovered between 18 and 19. As a response to economic improvements and U.S. participation in World War II, fertility rates began to fluctuate in the early

1940s, increasing to just under 23 in 1943 and then falling to just over 20 in 1945. In the first year of the baby boom, 1946, rates increased to 24 births per 1,000 population, and in 1947 they peaked at 26.5. As previously noted, the increase in fertility following a major war was not without precedent. In 1920, following World War I, birth rates also increased. However, in that instance rates declined back to their preboom levels within 2 years. During the post-World War II baby boom, the United States experienced 18 years of elevated fertility rates, with rates remaining above the preboom levels until 1964.

Although the fertility rates observed during the baby boom were not the highest ever seen in the United States, the number of births during those years was unprecedented. The National Center for Health Statistics (NCHS) recorded 2.9 million births in 1945, which increased by almost 20 percent to 3.4 million births in 1946 (NCHS 2005). Births continued to increase through the rest of the 1940s and into the 1950s, reaching a peak of 4.3 million in 1957. By 1965, the baby boom had ended, and births fell below the 4 million mark-a level not exceeded again until 1989, when baby boomers were having children of their own. In the 35 years prior to the baby boom, the number of annual births had crossed the 3 million mark twice, in 1921 and 1943. Since the baby boom, annual birth cohorts have consistently remained above 3 million.

SIZE AND GROWTH OF THE BABY BOOM COHORT

Yearly variations in the size of the baby boom cohort are shown in Figure 2 for the years 1945 through 2060. For each year 1946 through 1964, the number of people in the

baby boom ages increased sharply, reflecting births and, to a lesser extent, migration by those born outside of the United States during the years encompassed by the baby boom. In 1946, there were approximately 2.4 million baby boomers. By 1964, the last year of the baby boom, that figure had reached just shy of 72.5 million. The size of the population born during the baby boom years continued to increase between 1965 and 1999, peaking at 78.8 million in 1999. Increases to this population occurring after 1964 are explained by immigration into the United States of individuals born between 1946 and 1964. The baby boom population has been decreasing since 1999, and the decline is projected to continue through 2060 as the baby boom population enters the older ages and succumbs to the forces of mortality. When the first baby boomers turned 65 in 2011, there were just under 77 million people in this population. By 2030, when the baby boomers will be between 66 and 84 years old, that number is projected to drop to 60 million and decrease further by 2060 to only 2.4 million.⁴ The baby boomers who remain in 2060 will be 96 years and older.

Population estimates and projections produced by the Census Bureau do not distinguish between foreign-born and native-born residents, meaning that the estimated population in any given year includes both those born in the United States between 1946 and 1964 and those born elsewhere during this period. Figure 3 uses decennial census data from 1950 to 2010 to classify the population

⁴ The 2012 National Projections are of the resident population by single year of age 0 to 99 with ages over 100 combined into an open-ended 100+ age group. Although this aggregated age group contains ages that do not precisely align with the birth years of the baby boom, it is included in the projections of the population in the baby boom ages for the years 2046 and beyond.









born between 1946 and 1964 by nativity status. Distinct differences are observed in the pattern of change for the two groups. The native-born population in this age range peaked in the 1970 Census, reflecting the end of the baby boom period in 1964. The population declined thereafter as the baby boomers exited the population through death and international migration. In contrast, the foreignborn population in the same age categories as the baby boomers increased through 2010, accounting for the growth through 1999 for the total population in the baby boom ages that is shown in Figure 2.

The annual growth rate of the baby boom cohort is presented in Figure 4. By far, the largest percentage increase in the baby boom population (148 percent) occurred between 1946 and 1947, the first year of the baby boom. Positive growth continued through 1964, although at a declining rate. From 1964 through 1988, the growth rate remained relatively stable at between ±0.5 percent each year. Growth during this period was driven by international migration. Increases in immigration led to a slight increase in the growth rate in the early 1990s, but by 1999 the baby boom population was experiencing consistently negative growth. That negative growth is projected to continue at an increasing rate as the baby boom population reaches old age and mortality rates take their toll. Between 2011 and 2012, the growth rate was -0.6percent. Between 2030 and 2031, it is projected to fall to -2.7 percent and decline further between 2059 and 2060 to -21.9 percent.

Figure 5 shows the size of the baby boom cohort relative to the overall population for the years 1946 to 2060. The top graph shows the

percentage of the total population in the baby boom ages. By 1964, the baby boomers accounted for just over 37 percent of the total population. Over time, the size of the baby boom cohort relative to the total population has been slowly decreasing as the effects of mortality gradually diminish the size of this population and the population at the younger ages grows. This graph is also provided by sex to show the distinct patterns that emerge for males and females in this cohort over time. The percentage of the total male population that is from the baby boom cohort is higher than the percentage of baby boomers in the female population between 1945 and 2004. In 2005 and beyond, this pattern is reversed and the percentage of females that are baby boomers is greater than the percentage of males. Males generally have higher mortality rates than females at every age. These higher







mortality rates translate into sex differences in the older population, where women outnumber men.

CHANGING AGE STRUCTURE AND DEPENDENCY

Figure 6 demonstrates the impact that the baby boom cohort has had, and will continue to have, on the age structure of the population. A comparison of the population pyramid from 1945, 1 year prior to the onset of the baby boom, and 1965, 1 year after the baby boom ended,

begins to reveal the unprecedented effect that this birth cohort had on the age composition of the U.S. population. In the period from 1946 to 1964, consistently large birth cohorts contributed to a dramatic increase in the youth population. During the baby boom, the average number of annual births was just under 4 million. In comparison, there was an average of 2.6 million births per year in the 19-year period prior to the start of the baby boom. The expansion of the youth population is clearly visible in the bulge that forms at the base of the population pyramid for 1965.

The large size of the baby boom cohort relative to those cohorts that preceded and those that followed becomes increasingly apparent in the 1990 population pyramid. By this time, all of the baby boom cohort had entered into adulthood, and the bulge associated with the baby boomers is now visible in the ages 26 to 44. During the years immediately following the baby boom, 1965 through 1974, the average number of annual births dropped to 3.5 million, still nearly 1 million births per year higher than the period before the boom. This decrease is visible in the narrowing of the pyramid in the ages 16 through 25. However, only a decade after the last of the baby boom cohort was born, the oldest of the baby boomers began having children of their own and a steady rise in birth cohorts ensued.

By 2012, the bulge in the pyramid associated with the baby boom cohort is visible in the ages 48 to 66, but the size of this cohort is not as striking as it once was. This is due in part to baby boomers exiting the population through death, but also because of the growth in the relative size of other cohorts. The increase in birth cohorts observed in the base of the 1990 pyramid continued throughout the next decade as a growing number of baby boomers had children of their own. Births occurring between 1976 and 2001 are considered part of the echo boom generation, and the bulge associated with this generation can be seen in the ages 12 through 37 in 2012. During the height of the echo boom, birth cohorts were as large, and in some cases larger than, the cohorts born during the baby boom. One notable difference is that the large number of births observed in the echo boom years and beyond was not the result of individuals having many children as was the case during the baby boom, but rather was the product of many individuals having smaller numbers of children. For instance, in both 1957 and 2007, there were 4.3 million registered births. However, the total fertility rate as reported by NCHS, was 3,724 births per 1,000 women in 1957, compared with 2,123 in 2007 (Hamilton, Martin, and Ventura 2009; NCHS 1970).

Projections of the population for 2030 and 2060 show obvious declines in the size of the baby boom cohort as they experience higher mortality rates associated with old age. In 1965, there were 72.5 million people in the baby boom ages. Immigration to the United States increased that number to 76.4 million in 2012. By 2030, when these individuals will be 66 to 84 years old, that number is projected to drop to 59.8 million. Only 2.4 million baby boomers are projected to survive to 2060. Survival rates are predicted to be higher for females than for males. Of the 37.1 million males in these ages in 2012, 27.4 million are expected to survive to 2030 and only 700 thousand are projected to survive to 2060. For females, these numbers are 39.3 million in 2012, 32.4 million in 2030, and

1.7 million in 2060. The skew in the sex distribution of baby boomers can be seen in the population pyramids for 2030 and 2060, with larger bars for females on the right side of these figures than for males shown on the left.

Projected shifts in the age structure of the U.S. population associated with the aging of the baby boom cohort are summarized in Figure 7 for three age groups: 64 years and under, 65 to 84 years, and 85 years and older. In 2010, before any of the baby boomers turned 65, 11 percent of the total population in the United States was between the ages of 65 and 84. As the baby boomers begin to turn 65, the share of the population in this age group is projected to increase, reaching 18 percent by 2030, and then declining slightly to 16 percent by 2050, when all of the baby boomers transition from this age group into the oldest age group. Similarly, the percentage of the population aged 85 and older is projected to increase between 2030 and 2050, when the baby boomers enter into this age group. In 2030, 2.5 percent of the total population is projected to be 85 and older and, in 2050, the share of the total population in this age group is projected to be just under 5 percent.

Dependency ratios, which measure the number of potential dependents-those in the youngest and oldest segments of the population—relative to the size of the working-age population, provide another way to see the effect of the baby boom cohort on the age structure of the U.S. population. Three categories of dependency ratioyouth, old age, and total dependency-are presented in Figure 8 for the period 1945 to 2060. During this time period, shifts in these ratios are closely associated with the aging of the baby boom cohort.



Note: Data for 1945 to 2012 are population estimates. Values for 2030 and 2060 are population projections. Estimates for 1945 and 1965 were available by single year of age for ages 0 to 84 with those aged 85 and over aggregated into one category. The distribution of the population 85 years and over from the 1950 Census was used to expand the estimates for 1945 into single year of age through 100+. Distributions from the 1950 and 1960 Censuses were used to expand the estimates for 1965 to single year of age through 100+. Source: U.S. Census Bureau, 1945 to 2012 Population Estimates and 2012 National Projections.



Beginning in 1945, the youth dependency ratio steadily increased until it reached a peak level in 1964 of almost 67 children aged 0 to 17 for every 100 adults aged 18 to 64. This peak corresponds with the year that the last baby boomers were born, which is also the year that the baby boom cohort began to enter the working ages.

As the baby boomers transitioned into the working ages, the youth dependency ratio declined. This decline continued through the late-1980s, at which point the birth of the echo boomers contributed to a small increase in youth dependency. A peak of 42.6 occurred in 1995, which was much smaller than that observed during the height of the baby boom. Even though the birth cohorts from the echo boom were nearly as large as those of the original baby boom, the larger working-age population at this time (composed of baby boomers) meant that there were more working-age adults to support the dependent youth population. Between 1996 and 2011, the youth dependency

ratio declined to just under 37, where it is projected to remain relatively stable through 2060.

Trends in the old-age dependency ratio are also driven in large part by the aging of the baby boom cohort. Between 1945 and 2010, the oldage dependency ratio increased gradually from 12 older-age adults for every 100 working-age adults in 1945 to almost 21 older-age adults for every 100 in the working ages in 2010. This increase reflects increased longevity for the older population. Much larger increases are projected for the old-age dependency ratio in the coming years as the baby boomers begin to enter the older ages. By 2030, when all of the baby boomers will be 65 or older, the old-age dependency ratio is projected to reach almost 35, an increase of 14 older residents for every 100 working-age adults. In 2035, the difference between oldage dependency and youth dependency will be less than 2. Old-age dependency is projected to surpass youth dependency in 2056 and is

projected to remain just below 40 through 2060.

As further evidence of the longterm influence that the baby boom cohort has had on the age structure of the U.S. population, one need only compare the shape of the total dependency ratio with the shapes of the youth and old age dependency ratios. In any given year where the baby boomers are considered a dependent population, either under the age of 18 or over the age of 65, the total dependency ratio parallels the line that contains the baby boom population. For instance, the large increase in the vouth ratio associated with the birth of the baby boomers also appears in the line for the total dependency ratio, as does the subsequent decline that occurs as the baby boom cohort transitions into the working ages. Similarly, the increase in the old-age dependency ratio that occurs as the baby boom population transitions out of the working-age population and into the older ages also appears in the total dependency ratio.



RACE AND HISPANIC ORIGIN

The race and ethnic composition of the baby boom population reflects the composition of the U.S. population during the mid-twentieth century-the years when these cohorts were born. Between 1940 and 1960, just under 90 percent of the total U.S. population was White (Gibson and Jung, 2002). Since then, the nation's population has become increasingly diverse through increases in immigration and minority births, resulting in differences between the racial and ethnic composition of the baby boom population and the total population of the United States.

Table 1 provides the numeric and percentage distribution of both the baby boom cohort and the total population by race and Hispanic origin.⁵ In 2012, an overwhelming majority, 72 percent, of people in the baby boom ages were non-Hispanic White alone, compared with 63 percent of the total population. Although little change is projected for the percentage distribution of the baby boom population, the racial and ethnic composition of the two populations is expected to diverge in the years to come, as the younger population becomes increasingly diverse. The percentage of the total population that is non-Hispanic White alone is projected to decrease between 2012 and 2060, dropping to 55 percent by 2030 and 43 percent by 2060.

Similarly, increasing diversity in the total population is projected to produce greater differences between the two populations in the percentage Hispanic and, to a lesser degree, the percentage of the other race groups over time. For the baby boomers, the percentage Hispanic is projected to remain relatively stable, between 10.5 percent in 2012 and 12.4 in 2060. The percentage Hispanic in the total population is

⁵ Since 2000, race and Hispanic origin have been collected according to the Office of Management and Budget (OMB) 1997 guidelines. For further information, see Revisions to the Standards for the Classification of Federal Data on Race and *Ethnicity* at <www.whitehouse.gov/omb /fedreg_1997standards>. Race and Hispanic origin are treated as two separate and distinct concepts in the federal statistical system. People in each race group may be either Hispanic or non-Hispanic, and people of Hispanic origin may be of any race. This report contains projections data for each of five OMB racial categories: White, Black, American Indian and Alaska Native, Asian, and Native Hawaiian and Other Pacific Islander. All sections of the report refer to each of the races alone and use the Two or More Races category to represent the population reporting more than one race.

Table 1.

Projections and Distribution of the Population in the Baby Boom Ages and Total Population by Race and Hispanic Origin for the United States: 2012, 2030, and 2060

(Numbers in thousands)

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Race and Hispanic origin'	Number	Percent	Number	Percent	Number	Percent	
Baby boom ages	76,395	100.00	59,807	100.00	2,445	100.00	
White alone	62,240	81.47	48,993	81.92	1,965	80.38	
Black alone	8,916	11.67	6,528	10.91	283	11.59	
American Indian and Alaska Native alone	736	0.96	553	0.93	25	1.01	
Asian alone	3,510	4.59	2,938	4.91	126	5.16	
Native Hawaiian and Other Pacific Islander alone	122	0.16	100	0.17	5	0.19	
Two or More Races	871	1.14	695	1.16	41	1.66	
Non-Hispanic White alone	54,984	71.97	42,995	71.89	1,697	69.43	
Hispanic	8,045	10.53	6,652	11.12	304	12.42	
Total population	313,914	100.00	358,471	100.00	420,268	100.00	
White alone	244,496	77.89	267,604	74.65	289,587	68.91	
Black alone	41,205	13.13	49,246	13.74	61,822	14.71	
American Indian and Alaska Native alone	3,857	1.23	4,889	1.36	6,308	1.50	
Asian alone	16,146	5.14	22,833	6.37	34,448	8.20	
Native Hawaiian and Other Pacific Islander alone	707	0.23	969	0.27	1,367	0.33	
Two or More Races	7,503	2.39	12,929	3.61	26,737	6.36	
Non-Hispanic White alone	197,706	62.98	198,817	55.46	178,951	42.58	
Hispanic	53,028	16.89	78,655	21.94	128,780	30.64	

¹ Hispanic origin is considered an ethnicity, not a race. Hispanics may be of any race. Responses of "Some Other Race" from the 2010 Census are modified. For more information, see <www.census.gov/popest/data/historical/files/MRSF-01-US1.pdf>.

Note: Data for 2012 are population estimates. Values for 2030 and 2060 are population projections. Source: U.S. Census Bureau, 2012 Population Estimates and 2012 National Projections.

projected to increase from 17 percent in 2012 to 31 percent in 2060. Likewise, the percentage of the baby boomers that are Two or More Races is projected to remain stable, at just over 1 percent, while in the total population, the percentage that is Two or More Races increases from 2.4 percent in 2012 to 6.4 percent in 2060.

An alternate approach to understanding how the racial and ethnic composition of the baby boomers will compare with that of the overall population in the coming years is presented in Table 2. Here, the population within each race and Hispanic-origin group is distributed by birth cohort (baby boom versus all other birth cohorts) to determine the percentage of the population in each race/origin group that was born between 1946 and 1964. Of the entire White alone population in 2012, just over one-quarter were baby boomers, and that number was slightly higher at 27.8 percent for the non-Hispanic White alone population. For the Black alone and Asian alone populations, the percentage was lower. Just under 22 percent of the population in each of these groups was part of the baby boom cohort. In 2012, baby boomers composed the smallest percentage of the Hispanic and Two or More Races populations, with baby boomers accounting for 15 percent of the Hispanic population and 12 percent of the multiple race population.

As the baby boomers grow older and their population becomes smaller, they are projected to account for a smaller percentage of the population within each of these race and Hispanic-origin groups. In 2030, the percentage of baby boomers within each race and origin group is projected to range from a high of 21.6 in the non-Hispanic White alone population to a low of 5.4 in the Two or More Races population. The amount of change in the percentage of baby boomers projected to occur between 2012 and 2030 varies by race and origin group, with some groups experiencing a more rapid decline than others. The differential decline observed between groups is due, in part, to racial differences in patterns of mortality, with some groups such as Black alone having lower life expectancies at birth than the other racial groups.

Changes occurring between 2012 and 2030 are also the product of projected shifts in the race and ethnic composition of the U.S. population. The largest decrease in the percentage of baby

Table 2. Percentage in Baby Boom Cohort by Race and Hispanic Origin for the United States: 2012, 2030, and 2060

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Race and Hispanic origin ¹	2012	2030	2060
Total population	24.34	16.68	0.58
White alone	25.46	18.31	0.68
Black alone	21.64	13.26	0.46
American Indian and Alaska Native alone	19.07	11.32	0.39
Asian alone	21.74	12.87	0.37
Native Hawaiian and Other Pacific Islander alone	17.19	10.30	0.35
Two or More Races	11.61	5.38	0.15
Non-Hispanic White alone	27.81	21.63	0.95
Hispanic	15.17	8.46	0.24

¹ Hispanic origin is considered an ethnicity, not a race. Hispanics may be of any race. Responses of "Some Other Race" from the 2010 Census are modified. For more information, see <www.census.gov /popest/data/historical/files/MRSF-01-US1.pdf>.

Note: Data for 2012 are population estimates. Values for 2030 and 2060 are population projections. Source: U.S. Census Bureau, 2012 Population Estimates and 2012 National Projections.

boomers between 2012 and 2030 occurs in the Asian alone population. In 2012, nearly 22 percent of the Asian alone population was born between 1946 and 1964, but by 2030, that percentage is projected to decrease to just less than 13. During the same period, the number of U.S. residents who are categorized as Asian alone is projected to increase by more than 40 percent, from 16.1 million in 2012 to 22.8 million in 2030. In this instance, the decrease in the percentage of baby boomers within this group is driven both by a decrease in baby boomers and by an overall increase in the size of the Asian population.

By 2060, less than 1 percent of any racial and ethnic origin group will consist of baby boomers. The small percentage of baby boomers in every race and ethnic origin group reflects the small number of baby boomers who are projected to survive to 2060.

CONCLUSION

The baby boom cohort will experience a substantial decline in the coming decades. The population in the baby boom ages has been decreasing in size since 2012, and that pace of decline is expected to accelerate as the baby boomers grow older. When the first baby boomers turned 65 in 2011, there were just under 77 million baby boomers in the population. By 2030, when the baby boomers will be between 66 and 84 years old, that number is projected to drop to 60 million and decrease further by 2060 to only 2.4 million.

Despite this decline in the number of baby boomers, this cohort will continue to play an important role in shaping two important aspects of the demographic landscape of the nation: its racial and ethnic composition and its age structure. An overwhelming majority of baby boomers are non-Hispanic White alone and, as this cohort reaches the oldest ages, their projected declines due to mortality will contribute to projected decreases in the percentage of the population in the non-Hispanic White alone category. This pattern, coupled with increases in immigration and births to minority populations, is projected to produce an increasingly diverse population in the years to come.

Aging of the baby boomers is also projected to shift the age structure of the total U.S. population. By 2030, when all of the baby boom cohort will be 65 or older, 1 in 5 Americans is projected to be 65 or older. A larger population in the oldest ages relative to the workingage population will increase old-age dependency and is likely to present challenges to the government, families, and businesses as they attempt to meet the needs of the growing older population.

DATA SOURCE AND METHODOLOGY

This report uses estimates of the total U.S. population for July 1 for the years 1945 to 2012 and projections of the total U.S. population as of July 1 for the years 2013 to 2060.

Data for the population in the years 1945 to 2012 are based on the U.S. Census Bureau's national population estimates. This report uses historical estimates of the resident population of the United States plus armed forces overseas for the years 1945 to 1979 (U.S. Census Bureau, 2004b). Historical estimates prior to 1950 do not include Alaska and Hawaii. Estimates for the 1980s and beyond are of the resident population of the 50 states and the District of Columbia, excluding the Armed Forces overseas. Values for the 1980s are derived from the Quarterly Estimates of the United States (U.S. Census Bureau, 2000), while values for the 1990s and 2000s are intercensal estimates (U.S. Census Bureau, 2004a; U.S. Census Bureau, 2011). Intercensal estimates are produced each decade by adjusting the existing time series of postcensal estimates for a decade to smooth the transition from one decennial census count to the next. They differ from the postcensal estimates that are released annually because they rely on a formula that redistributes the difference between the

April 1 postcensal estimate and April 1 census count for the end of the decade across the estimates for that decade. Postcensal estimates are used for the years 2010 to 2012 (U.S. Census Bureau, 2012b).

When both population estimates and projections are available, as is the case for 2012, estimates are the preferred data. For example, the total population estimate for 2012 was 313,914,040 while the population projection for 2012 was 314,004,465. The universe is the resident population of the United States (50 states and the District of Columbia).

The projections are based on the 2010 Census and were produced using a cohort-component method, which uses the components of population change (births, deaths, and net international migration) to project forward. The assumptions for the components of change are based on analysis of historical trends for these components. Historical mortality trends were calculated using the National Center for Health Statistics' data on deaths and the U.S. Census Bureau's population estimates for 1989 to 2009. Fertility trends were calculated using the National Center for Health Statistics' births data and the Census Bureau estimates of the female population. The time series included data from 1989 to 2009. Trends in net international migration were primarily based on decennial census and American Community Survey estimates on foreign-born immigration for the period from 1980 to 2010.

The methodology used to produce the projections used in this report is available at <www.census.gov /population/projections/files /methodology/methodstatement12 .pdf>. All derived values were computed using unrounded data. In the text, figures, and tables, most whole numbers were rounded to the nearest thousand or million, and most decimal numbers were rounded to the nearest tenth or whole number.

DATA ACCURACY

These projections are based on the 2010 Census and may, therefore, contain nonsampling error due to potential enumeration errors such as differential undercoverage or overcoverage by demographic characteristics. Technical documentation for the 2010 Census is available at <www.census.gov /prod/cen2010/doc/sf1.pdf>. Nonsampling error also exists as the assumptions for the components of change were based on historical trends. Future changes in policy or other factors that might influence levels of the population components and their directions cannot be predicted. Thus, if actual trends or levels in fertility, mortality, or international migration differ radically from the assumed trends and levels, the population projections will be less accurate.

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USER COMMENTS

The Census Bureau welcomes the comments and advice of users of our data and reports. Please send comments and suggestions to:

Chief, Population Division U.S. Census Bureau Washington, DC 20233-8800

Table A-1. Population by Age for the United States: 2012 to 2060

(Numbers in thousands)

Age	2012	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Total population	313,914	321,363	333,896	346,407	358,471	369,662	380,016	389,934	399,803	409,873	420,268
Under 5 years	19,999	21,051	21,808	22,115	22,252	22,516	23,004	23,591	24,115	24,479	24,748
5 to 9 years	20,476	20,422	21,307	22,104	22,451	22,611	22,886	23,387	23,983	24,516	24,887
10 to 14 years	20,669	20,508	20,616	21,534	22,365	22,728	22,893	23,175	23,682	24,284	24,821
15 to 19 years	21,361	20,940	20,806	20,972	21,946	22,801	23,174	23,350	23,642	24,158	24,765
20 to 24 years	22,583	22,580	21,651	21,646	21,940	22,979	23,863	24,263	24,463	24,775	25,305
25 to 29 years	21,398	22,352	23,366	22,579	22,712	23,081	24,151	25,065	25,493	25,717	26,048
30 to 34 years	20,911	21,589	22,906	24,019	23,340	23,532	23,924	25,015	25,949	26,395	26,634
35 to 39 years	19,488	20,277	21,869	23,247	24,423	23,788	24,002	24,411	25,513	26,456	26,911
40 to 44 years	21,028	20,109	20,361	21,988	23,403	24,611	24,000	24,234	24,655	25,763	26,710
45 to 49 years	21,689	20,752	20,008	20,293	21,935	23,368	24,595	24,011	24,262	24,692	25,804
50 to 54 years	22,579	22,266	20,467	19,769	20,083	21,731	23,176	24,419	23,866	24,137	24,579
55 to 59 years	20,773	21,771	21,747	20,039	19,393	19,737	21,384	22,839	24,094	23,581	23,874
60 to 64 years	17,814	19,050	21,017	21,052	19,454	18,864	19,242	20,888	22,348	23,610	23,147
65 to 69 years	13,977	16,036	18,052	19,980	20,077	18,611	18,090	18,512	20,144	21,602	22,863
70 to 74 years	10,008	11,459	14,744	16,666	18,516	18,669	17,374	16,941	17,410	19,002	20,437
75 to 79 years	7,490	8,102	10,010	12,955	14,722	16,431	16,640	15,569	15,243	15,754	17,260
80 to 84 years	5,783	5,792	6,470	8,061	10,513	12,025	13,501	13,753	12,963	12,751	13,285
85 to 89 years	3,755	3,870	3,934	4,453	5,616	7,404	8,555	9,693	9,958	9,485	9,391
90 to 94 years	1,655	1,860	2,008	2,079	2,402	3,083	4,138	4,865	5,594	5,819	5,635
95 to 99 years	416	498	645	714	760	903	1,191	1,644	1,985	2,331	2,471
100 years and over	62	78	106	143	168	188	230	310	442	564	690

Notes: Shaded cells represent age groups within the baby boom cohort. Age groups do not precisely align with the birth years of the baby boom. Data for 2012 are population estimates. Values for 2015 through 2060 are population projections.

Source: U.S. Census Bureau, 2012 Population Estimates and 2012 National Projections.

Table A-2.					
Percentage Distributi	on of the Tota	l Population b	y Age for t	he United	States:
2012 to 2060					

Age	2012	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Total population	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Under 5 years	6.37	6.55	6.53	6.38	6.21	6.09	6.05	6.05	6.03	5.97	5.89
5 to 9 years	6.52	6.35	6.38	6.38	6.26	6.12	6.02	6.00	6.00	5.98	5.92
10 to 14 years	6.58	6.38	6.17	6.22	6.24	6.15	6.02	5.94	5.92	5.92	5.91
15 to 19 years	6.80	6.52	6.23	6.05	6.12	6.17	6.10	5.99	5.91	5.89	5.89
20 to 24 years	7.19	7.03	6.48	6.25	6.12	6.22	6.28	6.22	6.12	6.04	6.02
25 to 29 years	6.82	6.96	7.00	6.52	6.34	6.24	6.36	6.43	6.38	6.27	6.20
30 to 34 years	6.66	6.72	6.86	6.93	6.51	6.37	6.30	6.42	6.49	6.44	6.34
35 to 39 years	6.21	6.31	6.55	6.71	6.81	6.44	6.32	6.26	6.38	6.45	6.40
40 to 44 years	6.70	6.26	6.10	6.35	6.53	6.66	6.32	6.21	6.17	6.29	6.36
45 to 49 years	6.91	6.46	5.99	5.86	6.12	6.32	6.47	6.16	6.07	6.02	6.14
50 to 54 years	7.19	6.93	6.13	5.71	5.60	5.88	6.10	6.26	5.97	5.89	5.85
55 to 59 years	6.62	6.77	6.51	5.78	5.41	5.34	5.63	5.86	6.03	5.75	5.68
60 to 64 years	5.67	5.93	6.29	6.08	5.43	5.10	5.06	5.36	5.59	5.76	5.51
65 to 69 years	4.45	4.99	5.41	5.77	5.60	5.03	4.76	4.75	5.04	5.27	5.44
70 to 74 years	3.19	3.57	4.42	4.81	5.17	5.05	4.57	4.34	4.35	4.64	4.86
75 to 79 years	2.39	2.52	3.00	3.74	4.11	4.44	4.38	3.99	3.81	3.84	4.11
80 to 84 years	1.84	1.80	1.94	2.33	2.93	3.25	3.55	3.53	3.24	3.11	3.16
85 to 89 years	1.20	1.20	1.18	1.29	1.57	2.00	2.25	2.49	2.49	2.31	2.23
90 to 94 years	0.53	0.58	0.60	0.60	0.67	0.83	1.09	1.25	1.40	1.42	1.34
95 to 99 years	0.13	0.16	0.19	0.21	0.21	0.24	0.31	0.42	0.50	0.57	0.59
100 years and over	0.02	0.02	0.03	0.04	0.05	0.05	0.06	0.08	0.11	0.14	0.16

Notes: Shaded cells represent age groups within the baby boom cohort. Age groups do not precisely align with the birth years of the baby boom. Data for 2012 are population estimates. Values for 2015 through 2060 are population projections.

Source: U.S. Census Bureau, 2012 Population Estimates and 2012 National Projections.

Table A-3. **Projections of the Population in the Baby Boom Ages by Sex for the United States: 2012 to 2060**

(Numbers in thousands)

N/	Bal	by boom coh	ort	Total U.S. population				
Year	Both sexes	Male	Female	Both sexes	Male	Female		
2012	76.395	37.087	39.308	313.914	154.492	159.422		
2013	75.861	36.759	39.102	316.439	155.811	160.628		
2014	75.318	36,420	38.898	318.892	157.083	161.809		
2015	74,741	36,062	38,680	321,363	158,362	163,001		
2016	74,129	35,683	38,445	323,849	159,646	164,203		
2017	73.478	35,284	38,194	326.348	160.934	165.414		
2018	72,785	34,862	37,923	328,857	162,226	166,632		
2019	72.048	34,417	37,632	331,375	163,519	167,855		
2020	71.263	33,946	37.318	333.896	164.812	169.084		
2021	70.426	33,448	36.979	336.416	166.102	170.314		
2022	69.533	32,920	36.613	338.930	167.387	171.543		
2023	68,580	32,362	36.218	341,436	168.666	172.771		
2024	67,561	31,770	35,791	343,929	169,936	173,994		
2025	66.472	31,144	35.329	346.407	171,196	175.211		
2026	65,309	30,479	34,829	348,867	172,446	176,420		
2027	64,065	29,776	34,289	351,304	173,684	177.620		
2028	62,736	29,031	33,705	353,718	174,909	178,808		
2029	61,318	28,243	33,075	356,107	176,122	179,985		
2030	59 807	27 411	32,396	358 471	177 323	181 148		
2031	58 197	26 532	31 664	360 792	178 501	182 291		
2032	56,486	25,608	30,878	363.070	179,658	183,412		
2033	54 672	24 637	30,035	365,307	180 795	184 512		
2034	52,756	23.622	29,134	367,503	181,913	185,591		
2035	50 740	22 565	28 175	369,662	183 013	186 649		
2036	48 628	21 469	27 158	371 788	184 099	187 688		
2037	46 427	20,340	26,086	373 883	185 173	188 710		
2038	44 145	19 183	24 961	375,950	186 235	189 715		
2039	41 792	18,005	23 787	377 993	187 289	190 705		
2040	39 381	16,812	22 569	380,016	188,335	191 681		
2041	36,925	15,612	21,313	382.021	189,376	192,644		
2042	34,440	14,413	20.027	384.012	190,415	193,597		
2043	31,944	13,224	18,719	385,992	191,451	194,541		
2044	29,453	12,054	17,398	387,965	192,487	195,477		
2045	26,987	10,912	16 075	389 934	193 525	196 409		
2046	24,779	9,855	14,924	391,902	194,566	197,336		
2047	22.347	8,773	13.574	393.869	195.609	198.260		
2048	20.013	7,747	12,266	395,841	196,657	199,183		
2049	17,790	6,782	11,008	397,818	197,710	200,108		
2050	15,686	5,881	9,805	399,803	198,770	201.034		
2051	13,712	5.049	8,663	401,796	199,834	201,963		
2052	11.874	4,286	7,588	403,798	200,903	202,895		
2053	10,180	3,597	6,584	405,811	201,979	203,832		
2054	8.634	2,980	5,654	407,835	203.060	204,775		
2055	7,238	2,435	4,803	409.873	204,147	205,725		
2056	5,993	1.961	4.032	411.923	205.240	206.683		
2057	4,897	1.555	3.342	413,989	206.339	207,650		
2058	3,945	1,213	2,732	416.068	207,443	208,625		
2059	3.131	929	2.201	418.161	208.551	209.610		
2060	2,445	699	1,746	420,268	209,663	210,605		

Note: Data for 2012 are population estimates. Values for 2013 through 2060 are population projections. The 2012 National Projections are of the resident population by single year of age 0 to 99 with ages over 100 combined into an open-ended 100+ age group. Although this aggregated age group contains ages that do not precisely align with the birth years of the baby boom, it is included in the projections of the population in the baby boom ages for the years 2046 and beyond.

Source: U.S. Census Bureau, 2012 Population Estimates and 2012 National Projections.