Changes in the U.S. age structure over the century may be illustrated by population pyramids where each bar represents the percentage of the total population in each age-sex group. The distribution of the population by age and sex in 1900 exhibits the classic pyramid shape, wider at the bottom and narrower at the top (see Figure 2-2). This broad-based shape characterizes a young, relatively high fertility population. In 1900, children under age 5 accounted for 12 percent of the U.S. population.

The general shape of the pyramid remained essentially the same into the 1920s, although declining fertility rates led to smaller proportions of the total population in the youngest age groups. By 1940, the base of the pyramid had taken on a more rectangular look. Younger age groups (under 5 through 29 years) still comprised a relatively large proportion of the population, but each 5-year age group was roughly equal in size at 8 or 9 percent of the population, rather than exhibiting the steadily declining proportions by age of the 1900 pyramid.

By 1950, the onset of the baby boom altered the bottom of the pyramid, as 11 percent of the population was under age 5. Once again, the age-sex pyramid had a large base of very young people. The low fertility of the Depression years is evidenced by the “pinch” in the age structure, as people born during the 1930s were 10 to 19 years old.

The aging of the U.S. population in the second half of the 20th century is shown by the more rectangular shape of the Census 2000 age-sex pyramid. The proportions do not begin to decline with each successive age group until after ages 35 to 39 years. Some variability in the pyramid’s shape occurs in the 20-to-29 age group, where the slight “pinch” in the pyramid results from a relatively low number of births during the 1970s. Also, the baby-boom bulge appears in the 2000 pyramid in the 35-to-54-age range.

Another feature of the 2000 age-sex pyramid is the less “cone-like” shape at the top of the pyramid compared with the 1900 and 1950 pyramids. The larger proportions of the population in older age groups in part result from sustained low fertility levels and from relatively larger declines in mortality at older ages in the latter part of the century.

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This method standardizes (to 100 percent) the total area of each pyramid. In this representation, the shape of the pyramid is more useful than the length of each bar when making pyramid-to-pyramid comparisons.

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Figure 2-2.
Age and Sex Distribution of the Total Population: 1900, 1950, and 2000

Source: U.S. Census Bureau, decennial census of population, 1900, 1950, and 2000.