

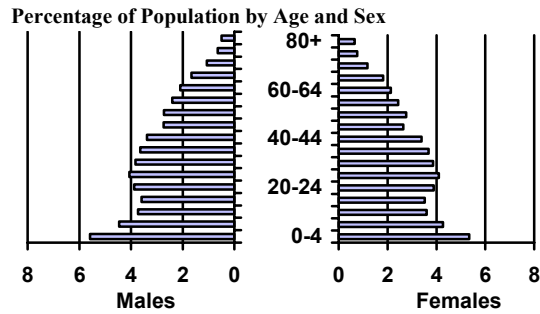
UNITED STATES

The U.S. population has aged considerably over the past 50 years. The figures to the right show the percentage of the U.S. total population by five year age groups separately for males and females. In 1950, the U.S. population structure formed a classic pyramid, where each successively younger age cohort represents a larger portion of the total population. However, the drop in fertility rates during the Depression and WWII created a slight indentation for several younger cohorts.

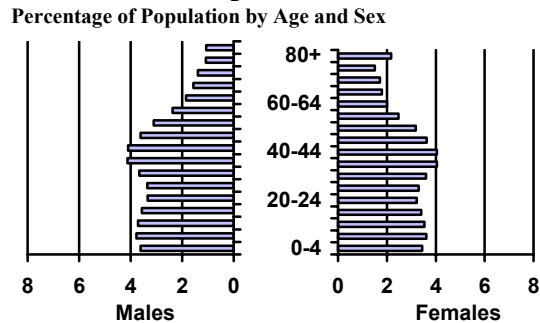
By 2000, the U.S. population structure diverged from the classic pyramid shape and was replaced by a formation more representing a pillar, where the percentage of the population in each age cohort is more evenly distributed. This change is due to a decrease in the country's birth rate from 3.5 in 1950 to 1.9 in 2000, and to a rise in life expectancy of 9 and 8 years for males and females, respectively. The bulge in the middle aged cohorts represents the surge in fertility rates following WWII that produced the baby boom generation.

Looking to the future, the anticipated mix of fertility at the rate of replacement with rising life expectancy will lead to a fulfillment of a pillar formation. By 2030, the U.S. will have an average age of nearly 41 years old compared to today's average age of 36.

United States' Population Structure in 1950



United States' Population Structure in 2000



United States' Population Structure in 2030



Source: UN Population Division, World Population Prospects (The 2000 Revision).

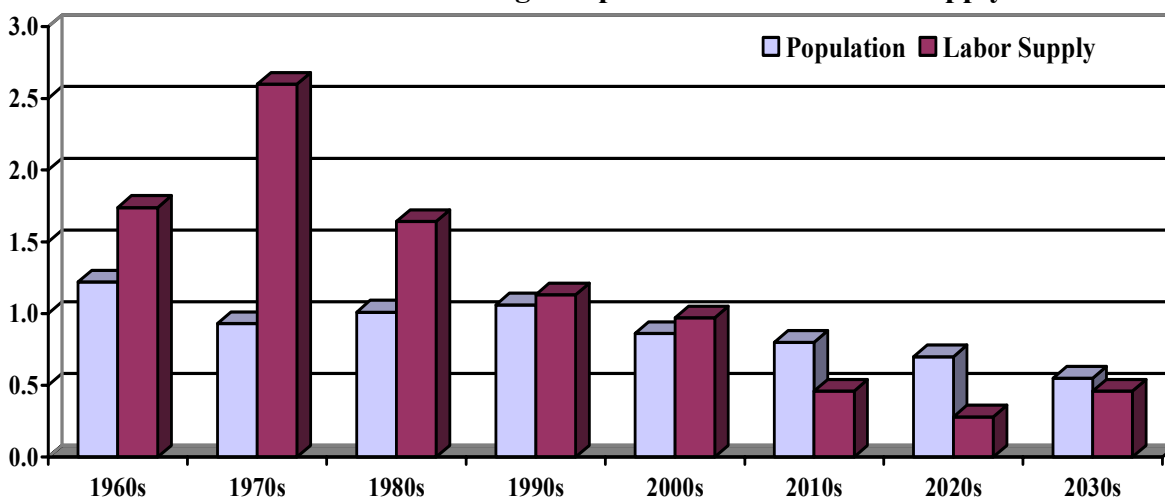
Demographic History

	1950	1960	1970	1980	1990	2000
Life Expectancy at Birth						
Males	66.07	66.78	67.75	70.90	72.20	74.57
Females	71.95	73.48	75.43	77.97	78.92	80.40
Life Expectancy at 65						
Males	-	77.90	78.20	79.36	80.20	80.86
Females	-	81.04	82.18	83.56	83.64	84.92
Fertility Rate	3.45	3.31	2.02	1.82	2.05	1.93
Net Migration Rate	0.69	0.72	1.46	1.63	2.06	2.12

A critical component of a society's ability to expand its production of goods and services is the growth of its labor force. As the U.S. population aged over the past half-century, its labor force changed as well. Soon after the end of World War II, many industrialized societies, including the U.S., experienced a significant spike in birth rates that produced the generation known as the baby boom. Labor supply growth increased dramatically during the 1960s and 1970s as the baby boom generation, including an unprecedented number of its female members, entered the workforce. Decreased fertility rates over the past few decades have caused population growth to slow. This created a temporary boon where a high proportion of the population was economically active – often referred to as a “demographic dividend”. Between the 1970 and 2000, total dependency rates in the US dropped nearly 28 percent, while youth dependency dropped over 37 percent.

The US has enjoyed robust labor supply growth over the past 50 years; however, this trend will not last indefinitely. As the baby boom generation begins to retire, the labor supply will grow more slowly than the population beginning in the coming decade. This is caused by a prolonged period of fertility rates roughly at replacement, increasing life expectancy and a greater portion of the population falling into age groups that have a lower propensity to work. The high immigration rates in the U.S. and relatively high fertility rates compared to other developed societies have kept this reduction from being more severe; however, by 2030 a greater portion of the population will be inactive, shifting the U.S. total dependency up 18 percent and old age dependency up 66 percent from 2000 levels.

Annual Percent Change: Population versus Labor Supply



Source: World Bank, World Development Indicators database

Dependency Ratios

	1970	2000	2030	% change 1970-2000	% change 2000-2030
Youth- (Inactive pop 0-19)/ LF 15+	0.77	0.48	0.44	-37.49	-9.00
Aged- (Inactive pop 55+)/ LF 15+	0.27	0.27	0.45	0.44	66.22
Total- (Inactive pop 0-19 and 55+)/ LF 15+	1.04	0.75	0.89	-27.56	18.30

Source: Sources: International Labor Office, LABORSTA database, current through 2001; UN, Population Division, World Population Prospect (The 2000 Revision); OECD, CDE database on labor statistics, current though 2002

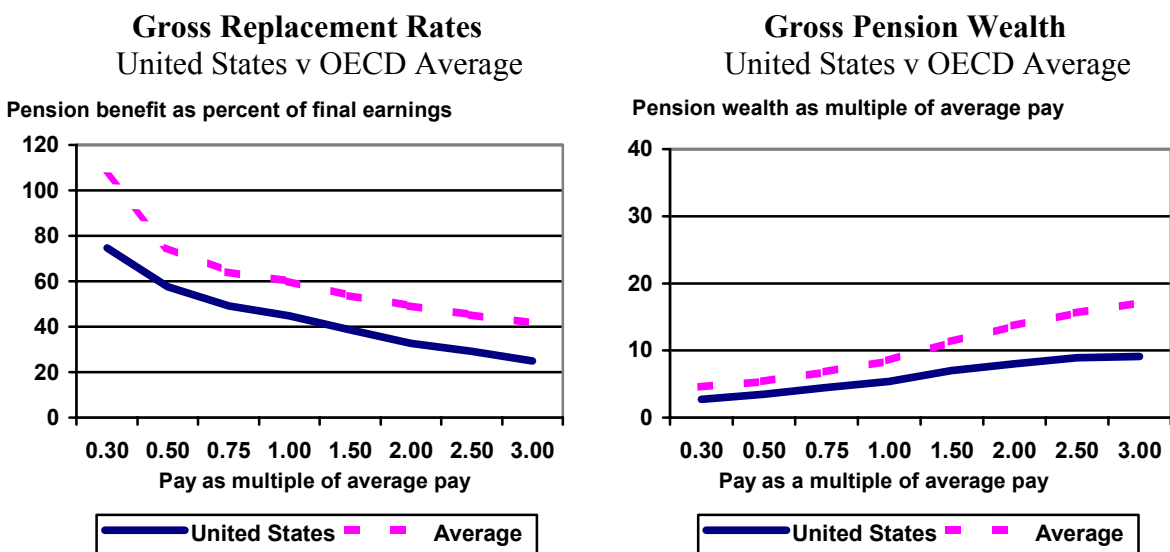
Old Age Pension System

The public pension system in the United States is based on a progressive formula and is supplemented by different types of occupational pension schemes in the case of many retirees. The public pension benefit in the US is based on covered earnings between the ages of 21 and 62, with the lowest five years excluded, with early years' earnings revalued to align with average earnings. The adjusted earnings level used to calculate the benefit is called the average indexed monthly earnings (AIME). There is a maximum for both contributions and benefits of \$84,900 – roughly 250 percent of average earnings – a figure that is increased annually at the rate of economy-wide earnings. The monthly benefit in 2002 is 90 percent of the first \$561 of a pensioner's AIME, plus 32 percent of AIME between \$561 and \$3,381, plus 15 percent of the amount by which the AIME exceeds the latter threshold. As shown in the graphs below, the old age pension system in the U.S. provides lower gross replacement rates and accumulated wealth for all income groups compared to those offered on average across the OECD nations. The maximum monthly benefit for a person retiring in 2002, who always had covered earnings at least as great as the contribution base was \$1,660. Pensions in payment are adjusted to increases in consumer prices. To receive the full benefit, the normal retirement age as of 2002 was 65 and 6 months. This will gradually rise to 67 by 2022. Individuals can receive an actuarially reduced benefit beginning at age 62. To finance the OASDI program employers and employees contribute 6.2 percent of covered pay.

The U.S. also provides a means-tested benefit for the elderly, known as Supplemental Security Income. Single retirees over the age of 65 are eligible for an additional amount of up to \$6,144 and couples up to \$9,228 per year based on total assets and other income. This program has strict asset tests such that total assets must not exceed \$2,000 per individual and \$3,000 per couple. Benefits are reduced at a 100 percent rate against income above these levels. Some states offer additional means-tested supplements on top of the federal Supplemental Security Income.

Additionally, roughly 80 percent of full-time employees participate in voluntary occupational pension schemes, although participation is quite a bit lower for part-time and low wage earners. Final-salary defined benefit plans are one of the most common types of occupational pensions. It takes roughly five years to vest in these plans and benefits are usually payable at age 65. Adjustment of benefits after retirement is rare, only about four percent are indexed to prices. Many employers also offer defined contribution plans such as a 401(k) plan that generally allow employees to voluntarily defer a portion of their earnings on a pre-tax basis.

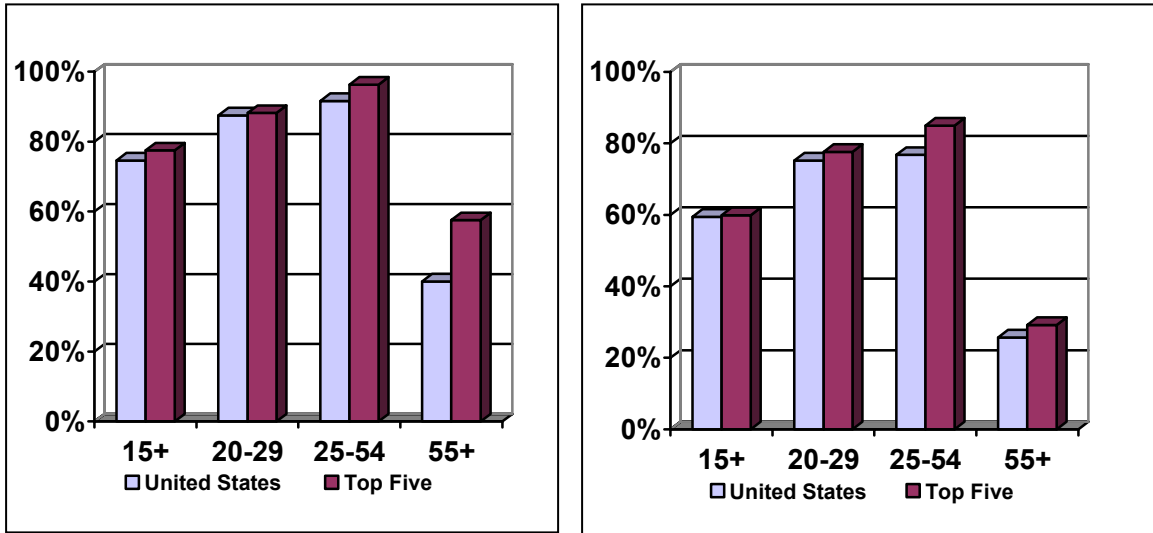
Source: Whitehouse, Edward (2003), Social Security Administration, Social Security Programs Throughout the World (1999) and Watson Wyatt Data Services (2002) "Benefits Report Western Europe, USA & Canada".



Source: Whitehouse, Edward (2003)

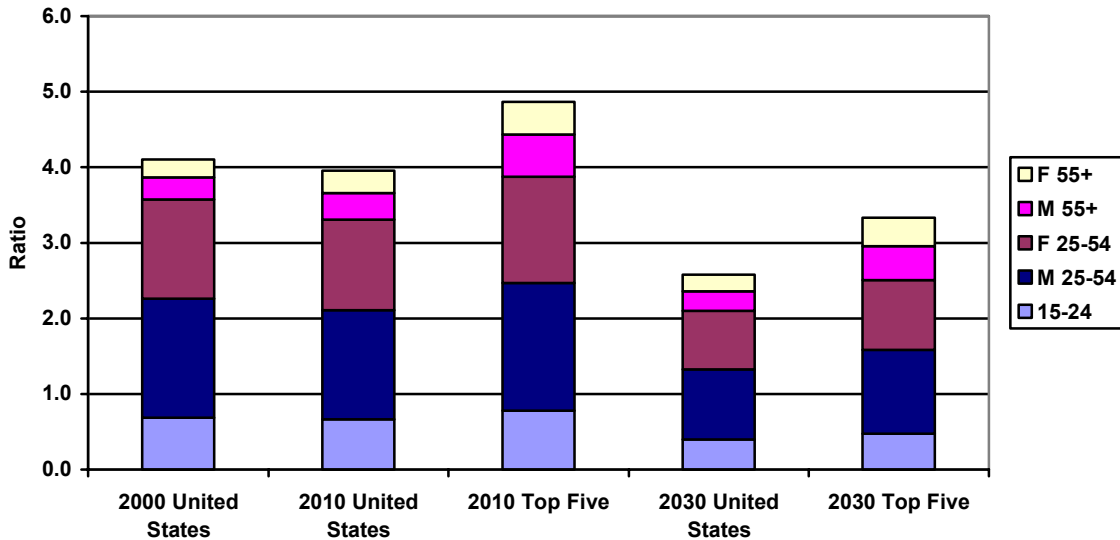
Notes: Pension wealth estimates are a multiple of economy-wide average.

Labor Force Participation Rates: United States v Top Five OECD Country Composite
 Males Females



Source: OECD, Corporate Data Environment database on labor statistics, current though 2002

Ratio of Workers in the United States 15+ to Retirees 60+ in 2000, 2010 and 2030 and Under Alternative Assumptions of Old Age Participation Rates for the Top Five OECD Countries



Source: UN Population Division, World Population Prospects (The 2000 Revision); OECD, Corporate Data Environment database current though 2002

A major source of the burden caused by demographic aging is due to rising dependency rates. As a result, many industrialized nations will need to figure out how to support a growing inactive population with fewer workers. A remedy to this problem is to adopt programs that promote greater workforce participation at all ages. Some countries do a very good job at achieving high workforce participation rates across various age and gender groups. The figures above show how the U.S. labor force participation stacks up next to the average of the Top-five OECD nations. Activity rates in the U.S. fall short of rates in the Top-five countries for every age and gender group. Most noticeably, older individuals participate in the labor force to a lesser extent than those in the Top-five countries. If the US adopts measures to increase labor force participation of older age groups (55+) to rates similar to the Top-five OECD nations, it could significantly reduce its old age dependency rates. As shown in the figure above, if the US maintains its current activity rates between 2000 and 2030, the ratio of workers to retirees is expected to fall from 4.1 to 2.6. However, by adopting policies to entice workers to defer their retirement at rates similar to those achieved by the Top-five OECD nations, the US could reduce its dependency burden by raising its activity rate to 3.3 workers per retiree in 2030.