

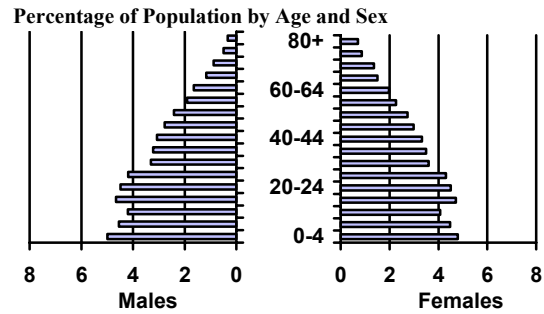
SPAIN

Spain's population has aged rapidly over the past 50 years. The figures at right show the percentage of Spain's total population by five year age groups separately for males and females. In 1950, Spain's population distribution conformed relatively closely to a classic pyramid shape, where each successively younger age cohort represents a larger portion of the total population.

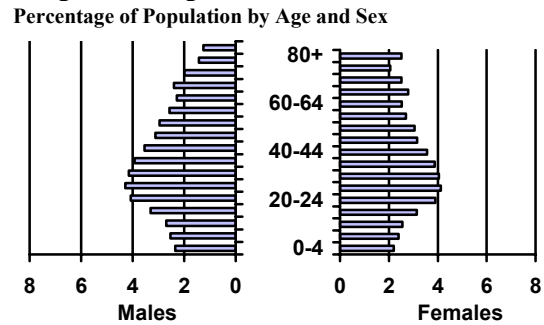
By 2000, Spain's fertility rate fell from roughly 2.6 in 1950 to 1.1, and life expectancy rose 13 and 16 years for males and females, respectively. These factors caused the population structure to shift to a formation more closely representing a pillar shape, where the total population is equally distributed among the age cohorts. The bulge in the middle aged cohorts represents the surge in fertility rates following WWII that produced the baby boom generation.

Anticipated low birth rates and increased life expectancy will result in a dramatically older society in Spain with the country's average age increasing to 48 years old by 2030 from 40 today. By this time, Spain's population structure will form an inverted pyramid, where a greater proportion of the population is concentrated among the older age cohorts.

Spain's Population Structure in 1950



Spain's Population Structure in 2000



Spain's Population Structure in 2030



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

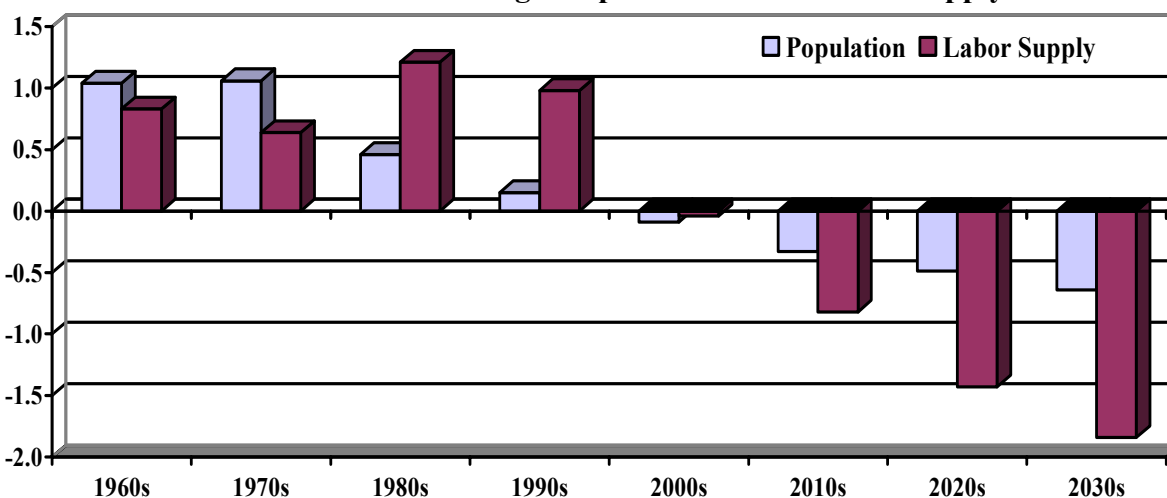
Demographic History

	1950	1960	1970	1980	1990	2000
Life Expectancy at Birth						
Males	61.60	67.90	70.20	72.80	73.83	75.35
Females	66.30	72.70	75.70	78.90	81.04	82.25
Life Expectancy at 65						
Males	-	78.10	78.30	79.80	80.82	81.22
Females	-	80.30	80.90	82.90	84.48	85.31
Fertility Rate	2.57	2.89	2.86	1.89	1.27	1.13
Net Migration Rate	-0.91	-1.28	-0.22	-0.29	0.47	0.38

A critical component of a society's ability to expand its production of goods and services is the growth of its labor force. As Spain's population aged over the past half-century, its labor force has undergone changes as well. Soon after the end of World War II, many industrialized societies, including Spain, experienced a significant spike in birth rates that produced the generation known as the baby boom. As a result, Spain maintained high labor supply growth over the last half of the twentieth century as the baby boomers entered the workforce and was additionally bolstered by unprecedented labor force participation among females. Strong labor supply growth was achieved despite losing a portion of the population to emigration. Overall, the slowdown in population growth combined with higher than average labor supply growth over the past few decades created a temporary boon where a greater percentage of the population was economically active – often referred to as a “demographic dividend”. Between the 1970 and 2000, total dependency rates in Spain fell by about 20 percent while youth dependency fell by about 48 percent.

As the baby boom generation passes into retirement over the next few decades, labor force growth is expected to decline at a pace even faster than the rate of change of the population. The combination of prolonged low fertility, improving life expectancy and a greater proportion of the population in age groups that have lower propensities to work, will have the effect of diminishing labor supply growth in the future. In fact, over the 2020's and 2030's Spain's labor force is anticipated to shrink at an annual rate of 1.5 percent or more. By this time, a greater portion of Spain's population will be inactive, shifting the country's total dependency up 38 percent and old age dependency up 86 percent from 2000 rates.

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+	0.82	0.43	0.35	-47.58	-18.26
Aged- (Inactive pop 55+)/ LF 15+	0.33	0.50	0.93	49.69	85.50
Total- (Inactive pop 0-19 and 55+)/ LF 15+	1.15	0.93	1.28	-19.34	37.65

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

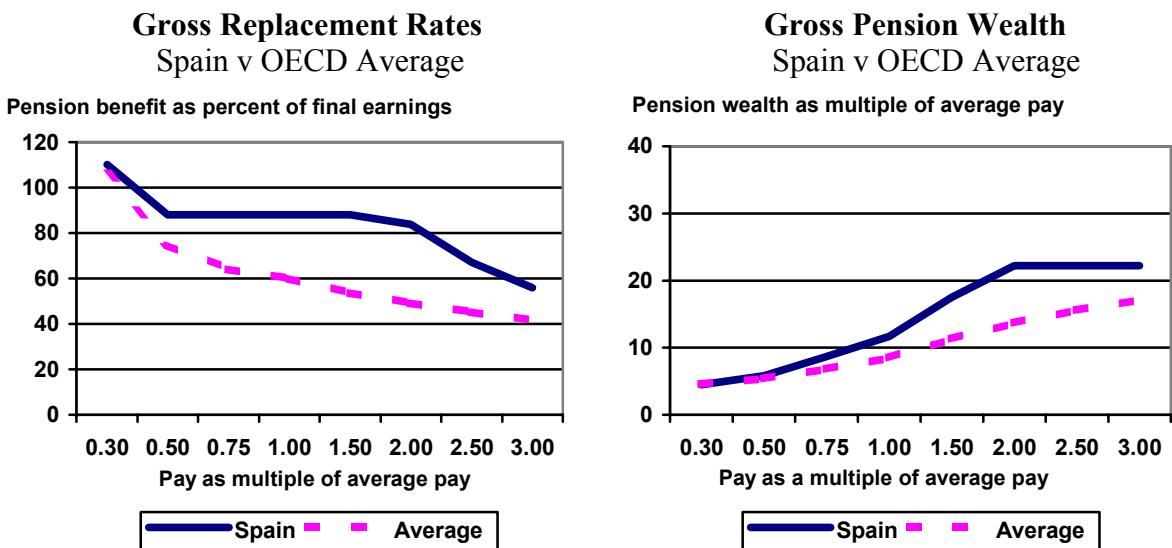
Spain's public pension system is made up of a single earnings-related benefit. The scheme is based on an "earnings base", made up of pay over the last 15 years, not including the most recent two years, with earlier years' earnings uprated with prices. After 15 years' worth of contributions, the benefit received is 50 percent of the earnings base. An additional 3 percent of the earnings base is added per additional one to ten years' contributions. An extra 2 percent of the earnings base is added for any years' contributions over ten, with 35 years and 100 percent of the earnings base as the maximum. This means that the replacement rate relative to final salary is less than 100 percent and is reflected in the figure below with benefits from the public system for most earnings groups at about 90 percent of final earnings. However, beginning January 1, 2002, a provision was added to allow the maximum pension benefit to exceed 100 percent of the earnings base. If a retiree has at least 35 years of service, he or she can receive an additional 2 percent for each year over age 66 that payment of the benefit is deferred. While the normal age of retirement is 65, an early pension can be collected at a lower rate for those involuntarily unemployed.

The figures below indicate that Spain's public pension system offers a relatively rich benefit compared to the other OECD nations. As indicated by the gross replacement rates, Spain's public pension program is less progressive than many other OECD programs, especially for middle income workers. Additionally, workers can accumulate quite significant amounts of pension wealth within the system compared to other OECD nations.

To finance OASDI, employees contribute 4.7 percent of covered earnings, which are based on wage classes that vary according to 11 occupational classes and, employers contribute 23.6 percent of earnings based on the same occupational groups.

Expectations are for old age pension costs as a percentage of GDP to grow quite extensively over the coming decades under the current program. While the average for all OECD nations old age pension costs as a share of GDP are expected to increase by roughly 43 percent between 2000 and 2050, pension costs in Spain are expected to nearly double that pace at over 85 percent over the same period.

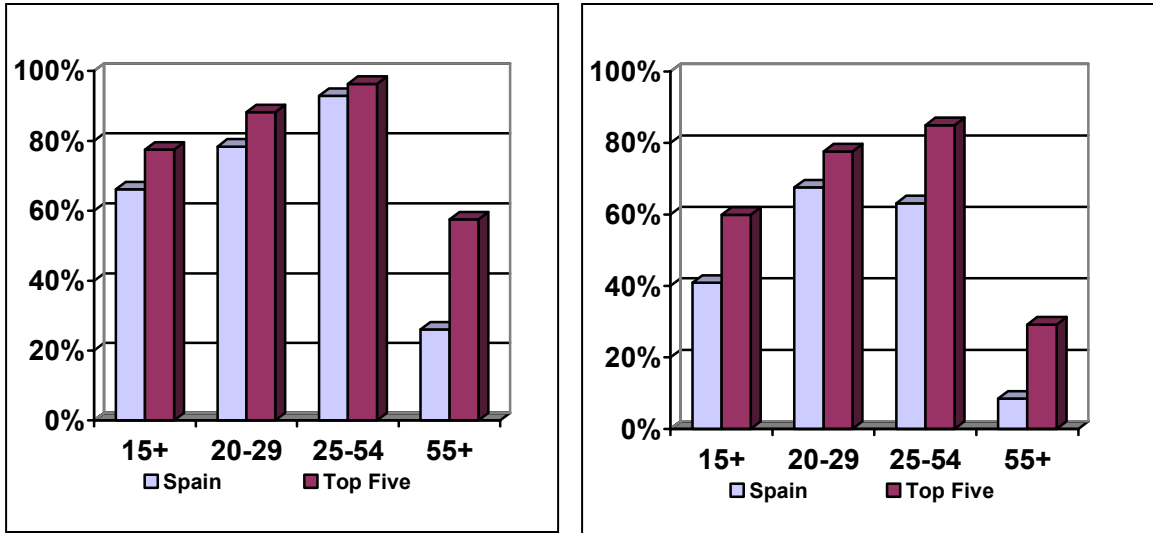
Source: Whitehouse, Edward (2003), Social Security Administration, Programs throughout the World (2002), Watson Wyatt Data Services (2003) "Benefits Report Western Europe, USA & Canada" and Dang et al. (2001).



Source: Whitehouse, Edward (2003)

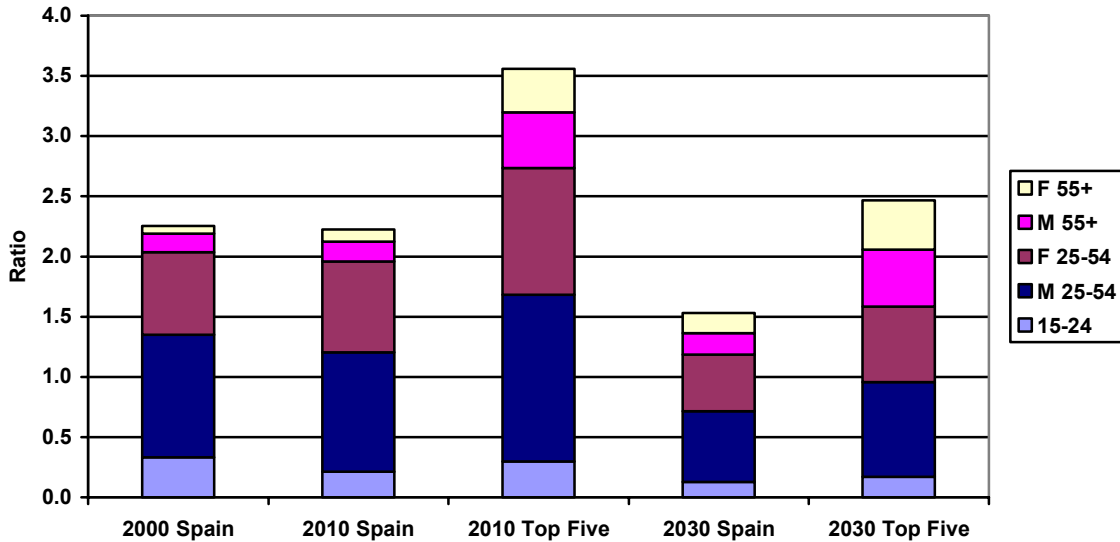
Notes: Pension wealth estimates are a multiple of economy-wide average.

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



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

Ratio of Workers in Spain 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, Spain 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 Spain's labor force participation stacks up next to the average of the Top-five OECD nations. Activity rates in Spain fall short of rates in the Top-five countries for every age and gender group. Most noticeably, females and older individuals participate in the labor force to a much lesser extent than those in the Top-five countries. If Spain adopts measures to increase labor force participation of older age groups (55+) and females 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 Spain maintains its current activity rates between 2000 and 2030, the ratio of workers to retirees is expected to fall from nearly 2.3 to 1.5. However, by adopting policies to entice workers to prolong their retirement at rates similar to those achieved by the Top-five OECD nations, Spain could reduce its dependency burden by raising its activity rate to over 2.5 workers per retiree – which is even higher than today's rate.