

Demographic Variables and Measures

Plan of Action

6/1/04

Topic: Understanding Population
Structure and Change

- (1) Demographic Variables and Measures
- (2) Introduction to Population Pyramids

Yesterday: Demographic Variables & Measures

Tomorrow: Constructing Population Pyramids

Migration

Migration = the movement of people into or out of a specified territory.

Refers to movement across a territorial boundary for the purpose of changing one's usual place of residence.

Immigration = movement into a territory

Emigration = movement out of a territory

Migration

International Migration = Crossing a national border to change residence.

Internal Migration = Movement within a country; in the U.S. this refers to movement across a county line to change residence.

Urbanization is a common consequence of internal migration (rural–urban) in many areas.

Measures of Migration

In-migration Rate = the number of people moving into a specified territory per 1,000 people.

Out-migration Rate = the number of people moving out of a specified territory per 1,000 people.

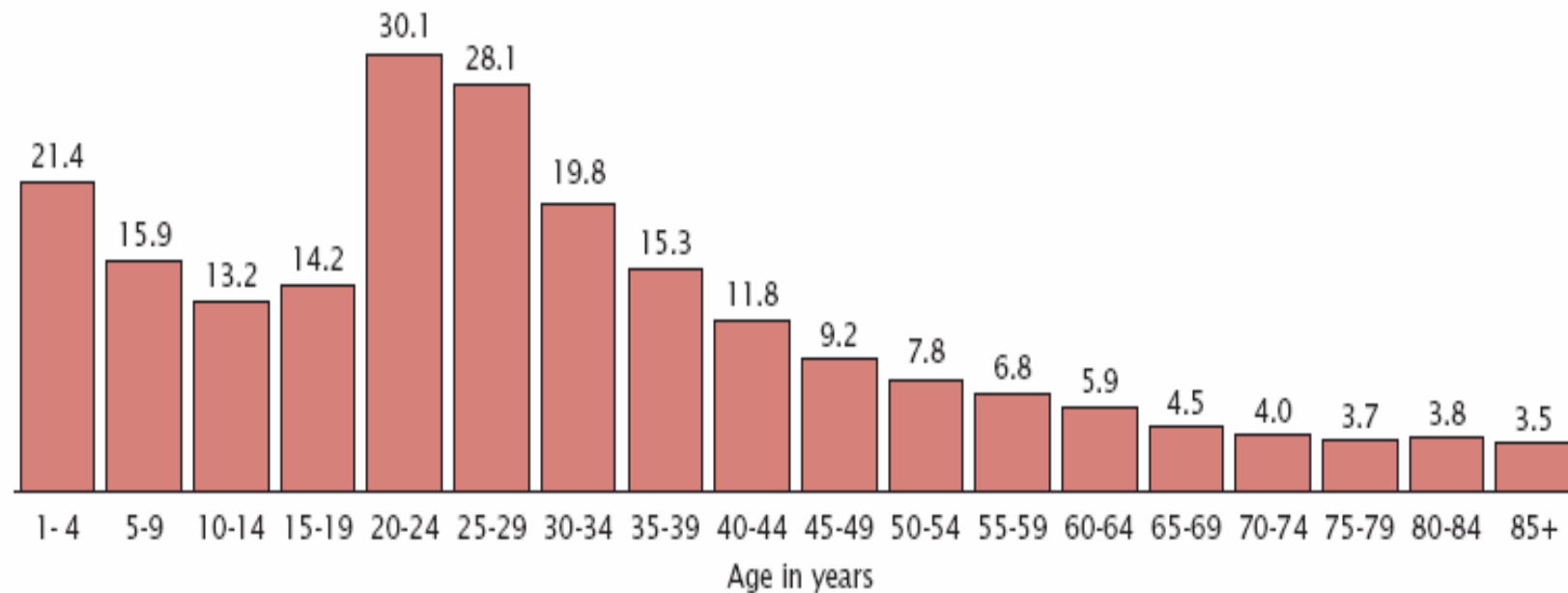
Net Migration = the difference between the number of people moving into a territory and the number moving out of the same territory in a given time frame (usually one year).

Who's Moving?

Figure 2.

Moving Rates by Age: 2002 to 2003

(Percent moved for the population 1 year and older)



Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

Other Variables

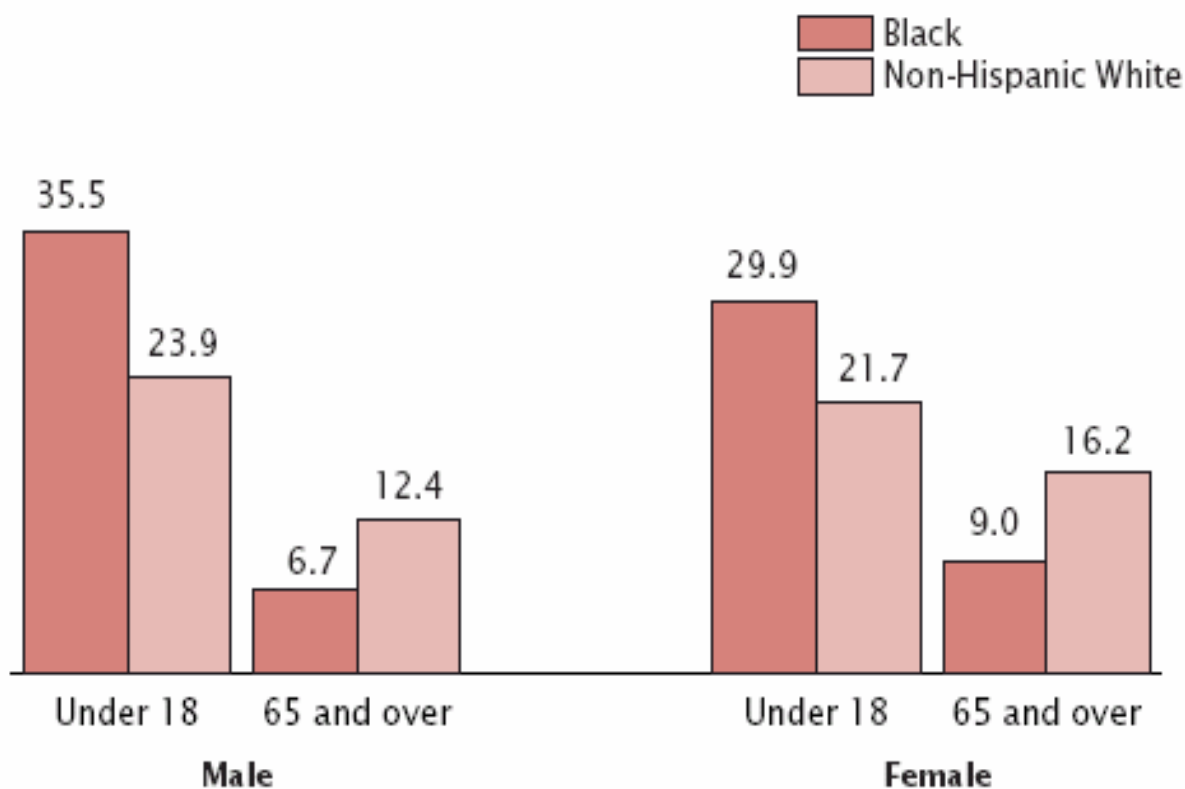
Age, Sex and Race/Ethnicity are other ascribed characteristics that are of interest to demographers.

All three affect fertility, mortality and migration; that is, we can observe patterns in fertility, mortality and migration that are distinct by age, sex and race/ethnicity.

Race & Ethnicity

Figure 3.
Population by Age, Sex, and Race: 2002

(Percent of population)



Source: U.S. Census Bureau, Annual Demographic Supplement to the March 2002 Current Population Survey.

Source: J. McKinnon (2003) *The Black Population in the United States: March 2002*. U.S. Bureau of the Census, Current Population Reports, P20-541.

Age and Sex Ratios

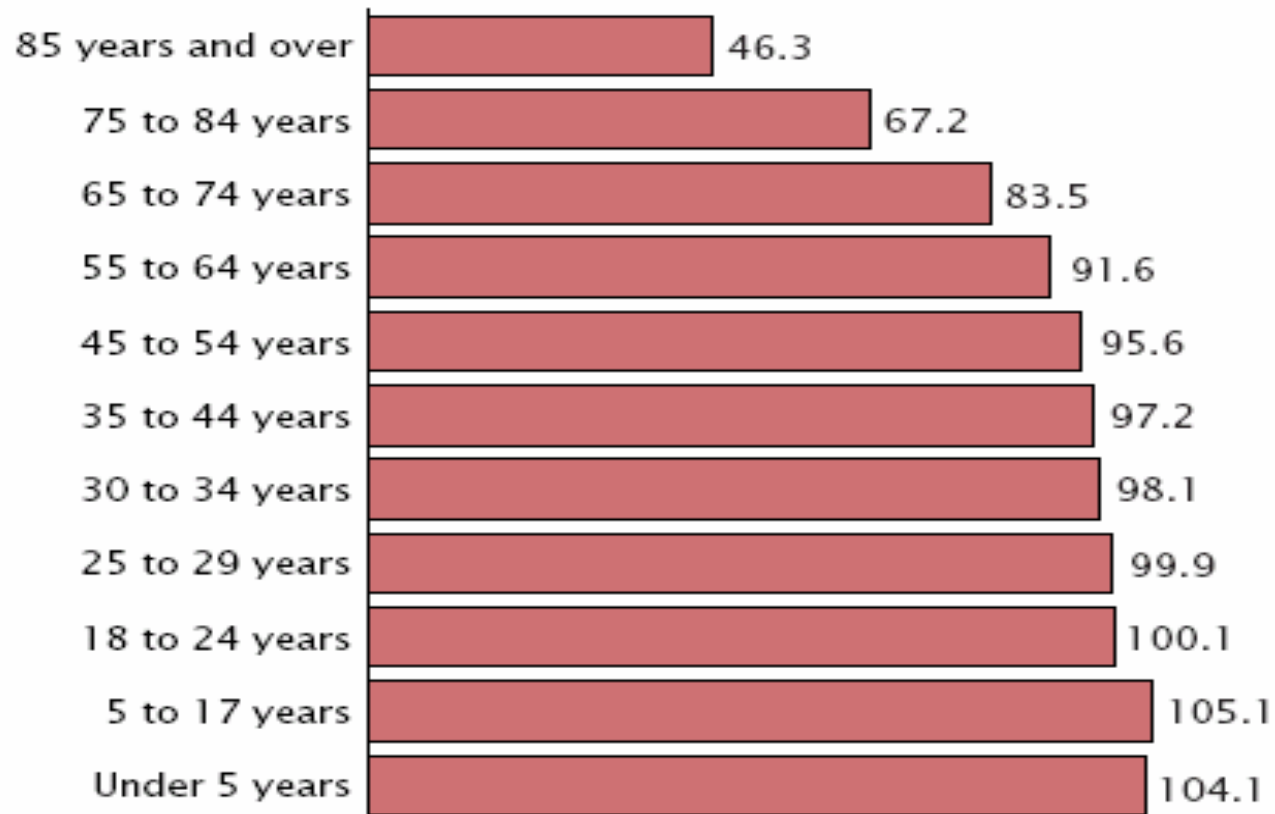
Age and Sex are important variables to a population's structure.

Age ratios (e.g. the proportion of older people to younger people in a population) and sex ratios (the proportion of males to females in a population)

Sex Ratios

Figure 1.
Sex Ratios by Age: 2002

(Males per 100 females)



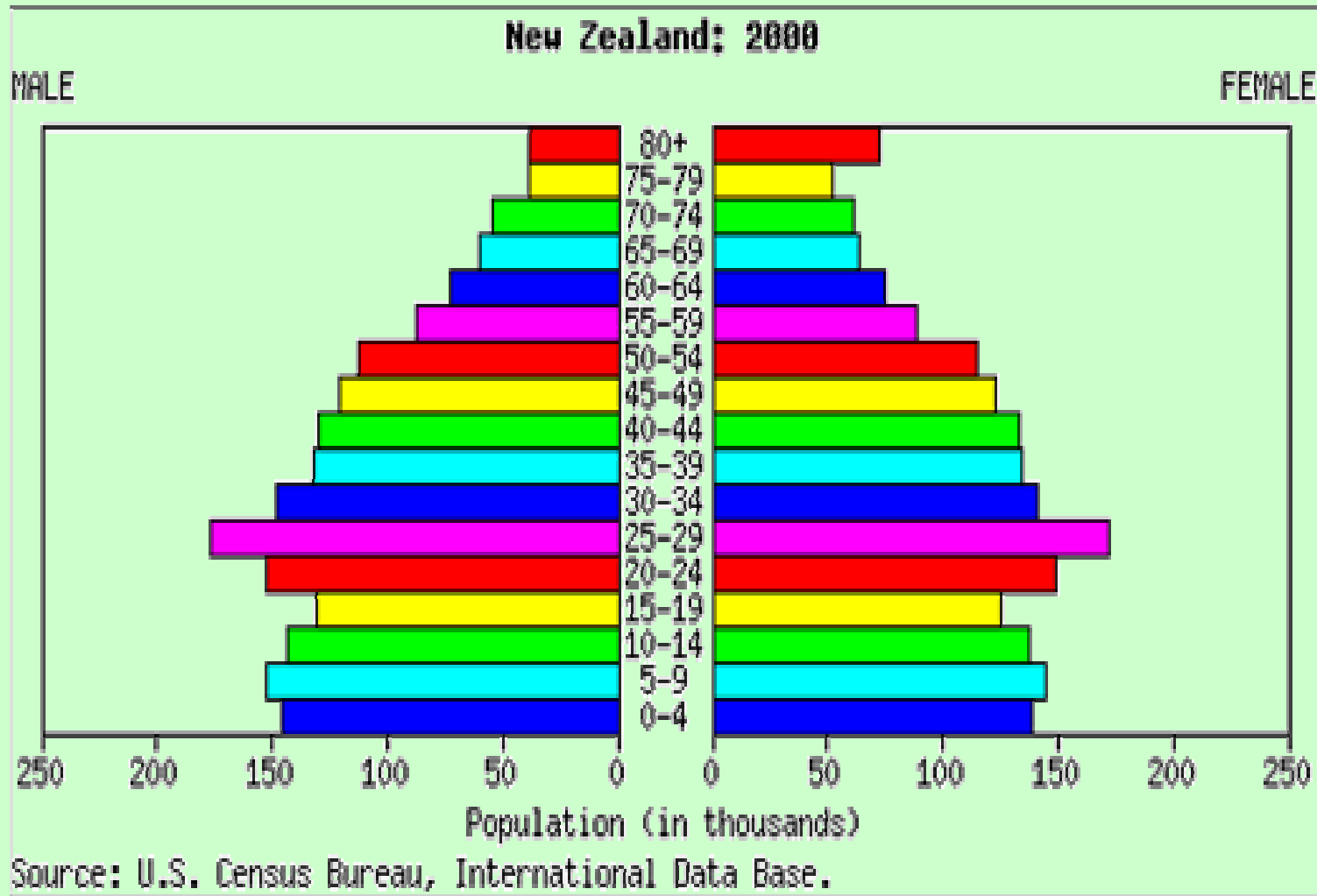
Source: U.S. Census Bureau, Current Population Survey, March 2002.

Source: R. Spraggins (2003) *Women and Men in the United States: March 2002*. U.S. Bureau of the Census, Current Population Reports, P20-544.

Population Pyramids

Population pyramids are a tool we can use to summarize and visualize a population's structure quickly and easily.

Population Pyramids



A population pyramid shows the age and sex structure of a given population at a given time.

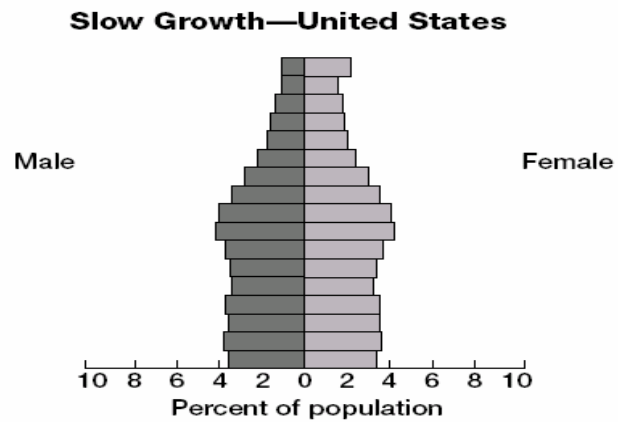
Age Patterns of Population: Nigeria, United States, and Spain, 1995

Year of birth
 Before 1915
 1915-1919
 1920-1924
 1925-1929
 1930-1934
 1935-1939
 1940-1944
 1945-1949
 1950-1954
 1955-1959
 1960-1964
 1965-1969
 1970-1974
 1975-1979
 1980-1984
 1985-1989
 1990-1994



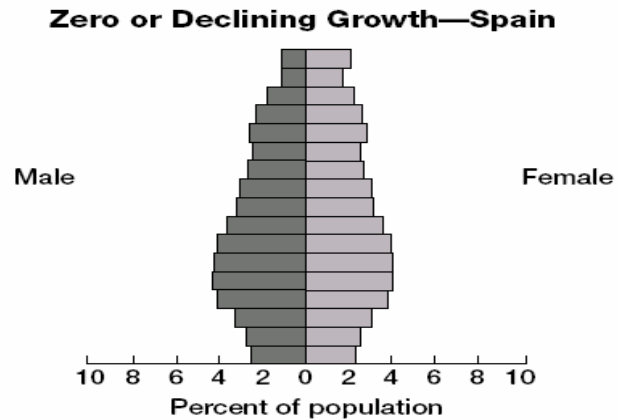
Age
 80+
 75-79
 70-74
 65-69
 60-64
 55-59
 50-54
 45-49
 40-44
 35-39
 30-34
 25-29
 20-24
 15-19
 10-14
 5-9
 0-4

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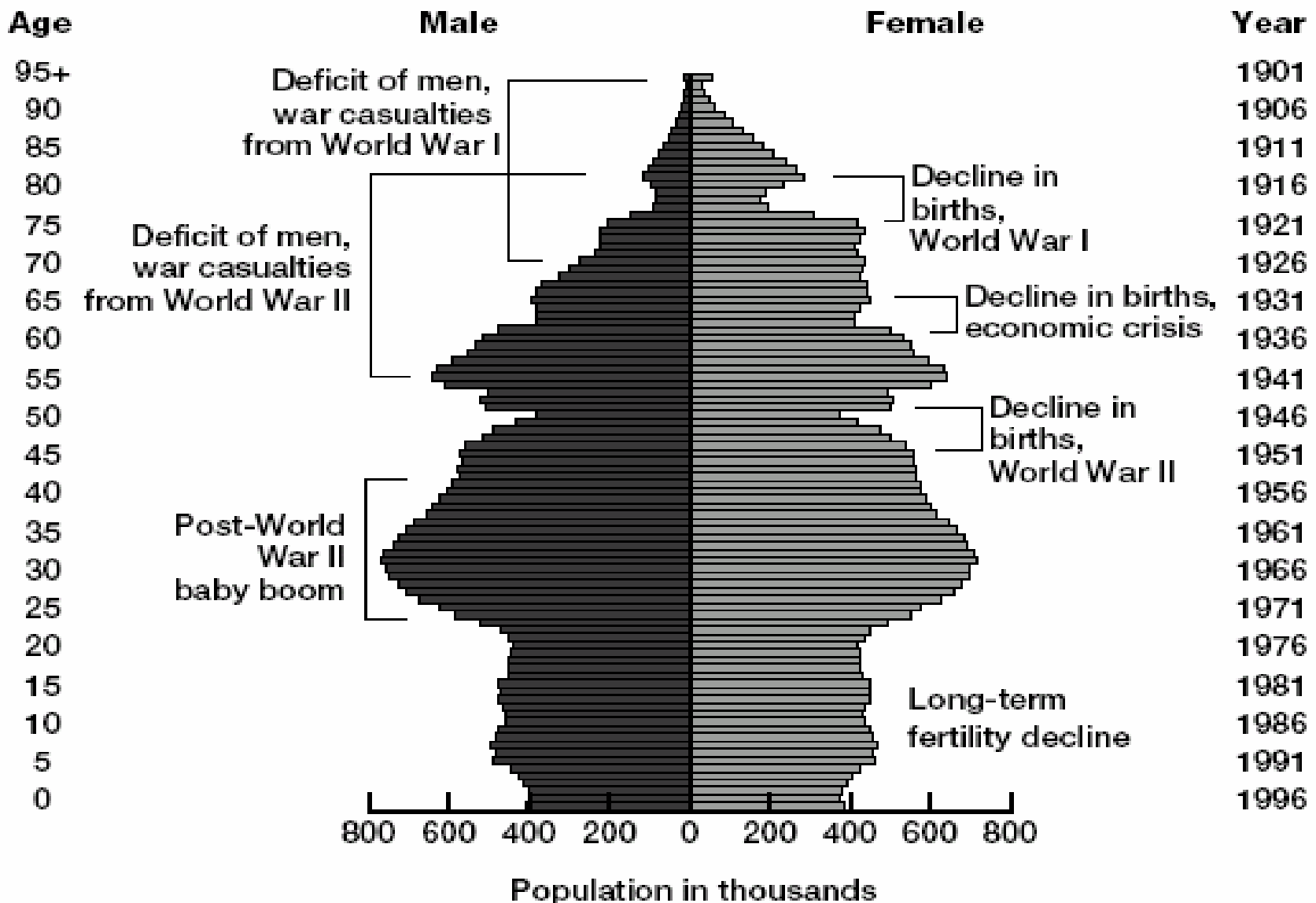


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Sources: U.S. Census Bureau and the United Nations Population Division.

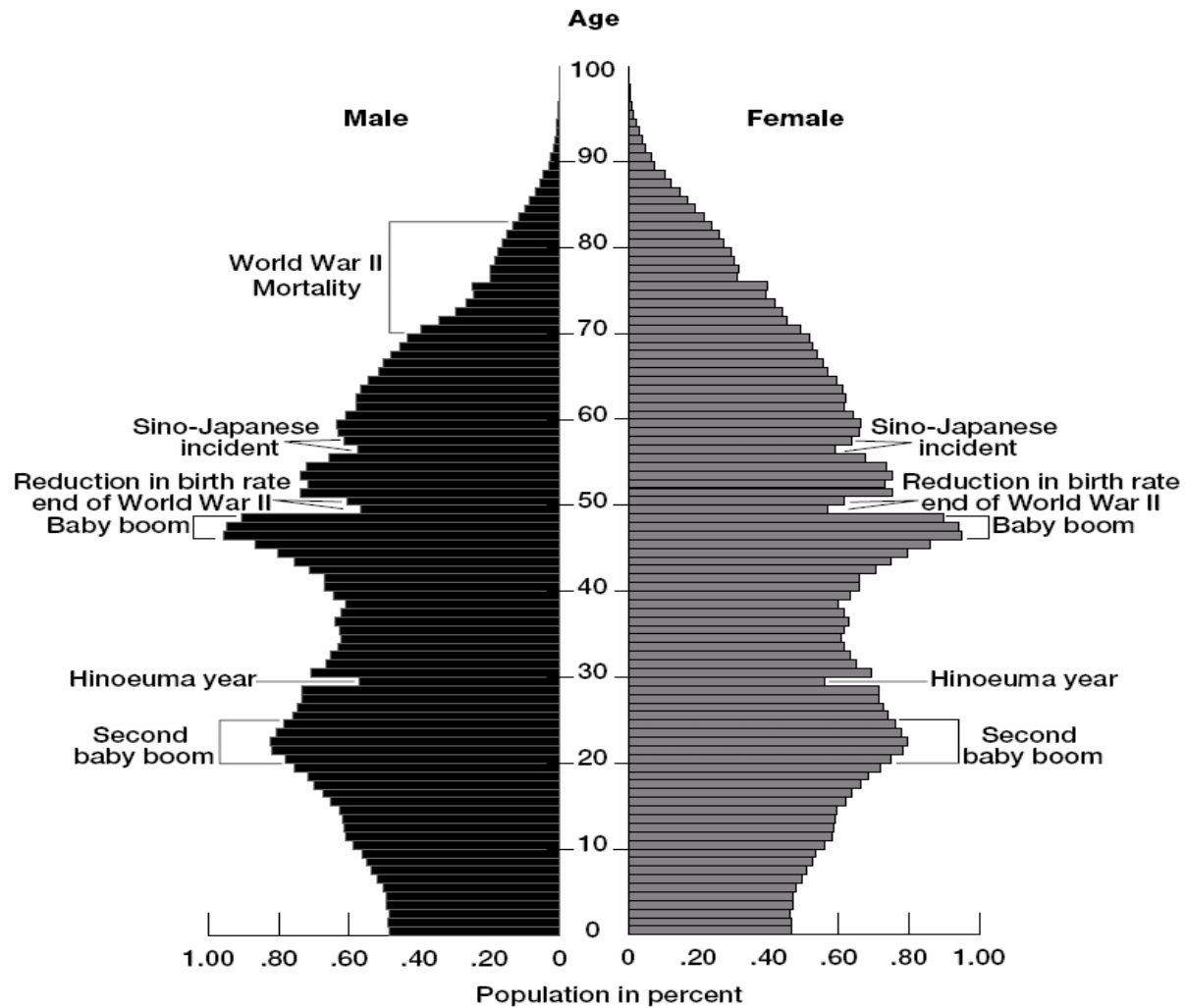
Figure 7

Germany's Population by Age and Sex, 1996



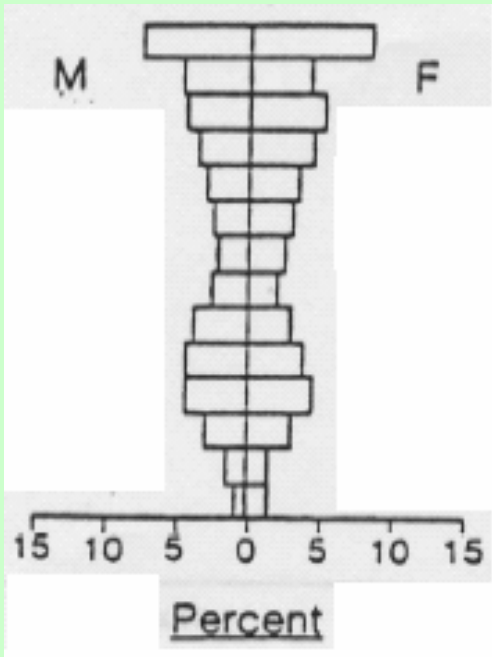
Source: Germany, Federal Statistical Office, unpublished tables.

Population Pyramid of Japan, 1995

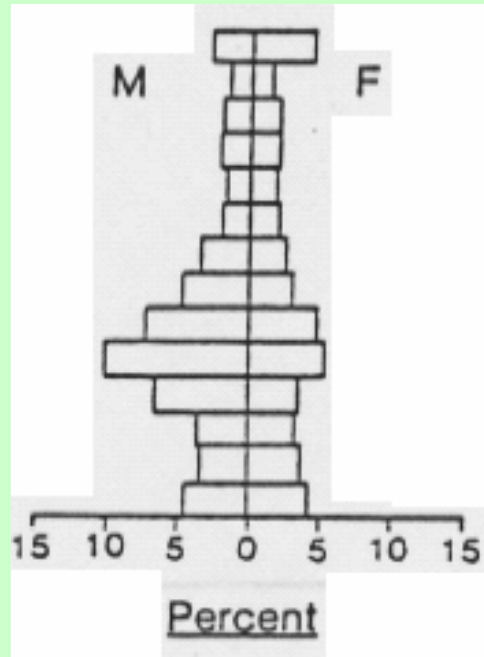


Source: Japan's 1995 Census.

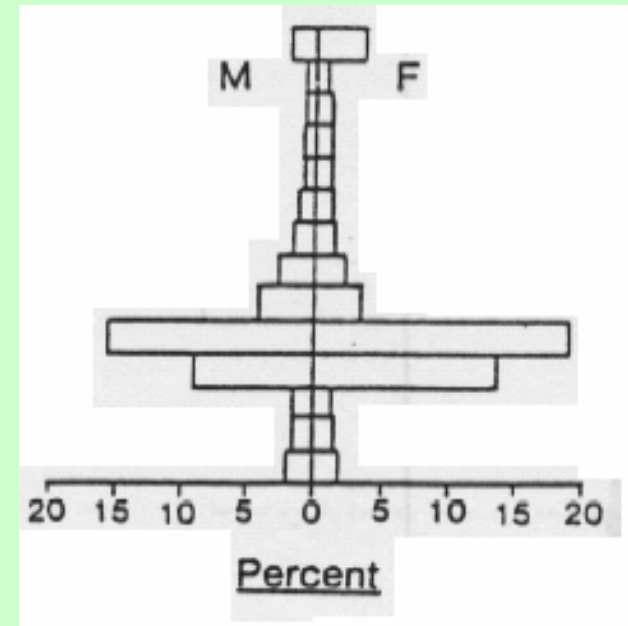
What Do Population Pyramids Tell Us?



Cocoa Beach, FL



Groton, CT



Bowling
Green, OH