

Demographic Projections: Why should anyone listen to us?

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U.S. Census Bureau

This discussion is released to inform interested parties of ongoing research and to encourage discussion of work in progress. The views expressed are those of the author and not necessarily those of the U.S. Census Bureau.

Timeline of US Census Bureau Projections

- First set of projections produced by the Census Bureau released in 1948
- Projections have been produced periodically since then, usually every two to three years

Types of Projections

- Population
- School Enrollment
- Voting-age
- Household and family
- Educational attainment
- School and college-age
- Reapportionment – 1958 and 1959
- Illustrative
- Language

Population Projections

- National
- State
 - Less frequently produced
 - Fewer series with full demographic detail
 - Haven't released full detail since 1997
 - Haven't released any projections since 2004
- Metropolitan areas
 - Produced in 1969

Uses of Population Projections

(Federal and State)

- Labor force planning
- School facilities planning,
- Water utilization planning, and
- Transportation planning.
- State Revenue Forecasts
- Localities' Comprehensive Plans
- Creating Urban Development Areas
- Localities' Long Term Housing Plans
- Statewide Transportation Planning
- Metro Area Transportation Planning
- Solid Waste Plans

Demographers & the Baby Boom

“The birth rate has already passed its ... peak and is now rapidly declining...”

Demographers Predicted the Baby Boom

“The birth rate has already passed its ...peak and is now rapidly declining...

Immediately after the war the birth rate will probably follow the pattern established in the last war. A new ‘mountain’ ...will appear temporarily, followed by a decline..”

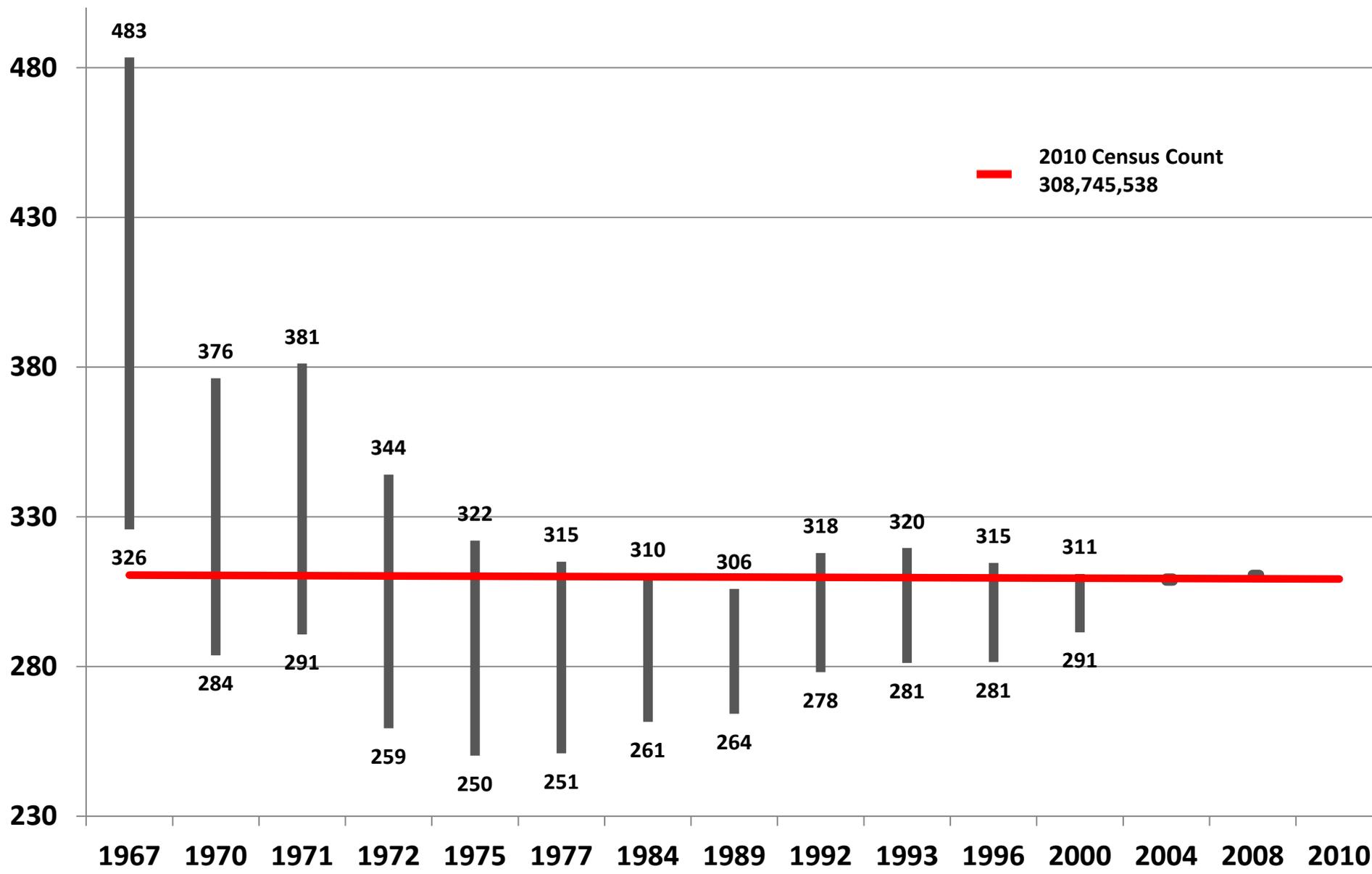
Grabill, 1944

US Demographic Projections “Successes”

- We didn't project the baby boom...
beginning or end
- We didn't project the immigration boom.
- We didn't project the growth of the Asian population
- We didn't project the growth of the Hispanic population... even during the 1990s when it was happening!

Historical Population Projections for the United States: 2010

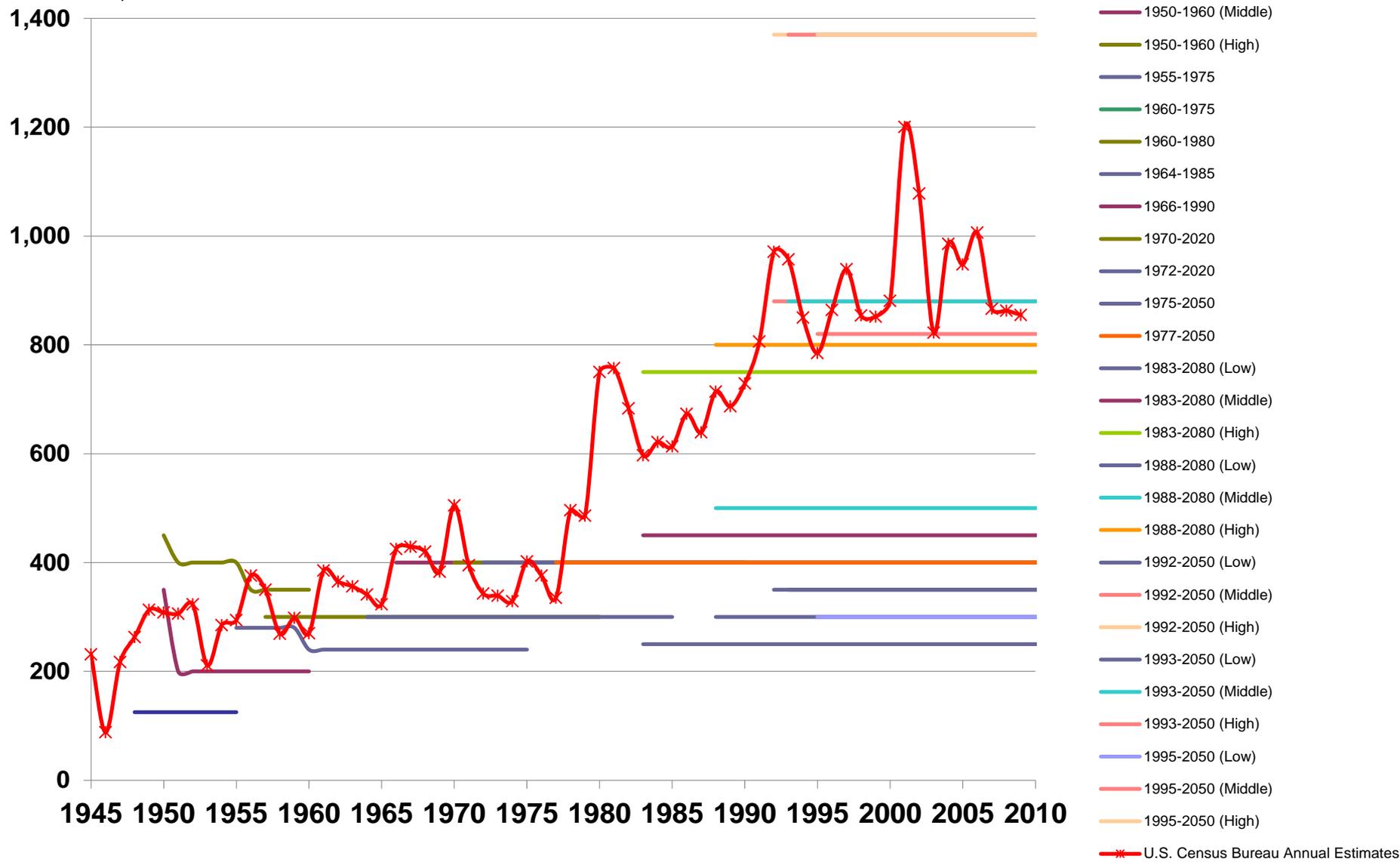
(In millions)



Source: U.S. Census Bureau, Population Division

Comparison of the Projections of Net International Migration from Projection Series Released between 1947 and 1995 to the Estimates of Net International Migration for 1945 to 2009

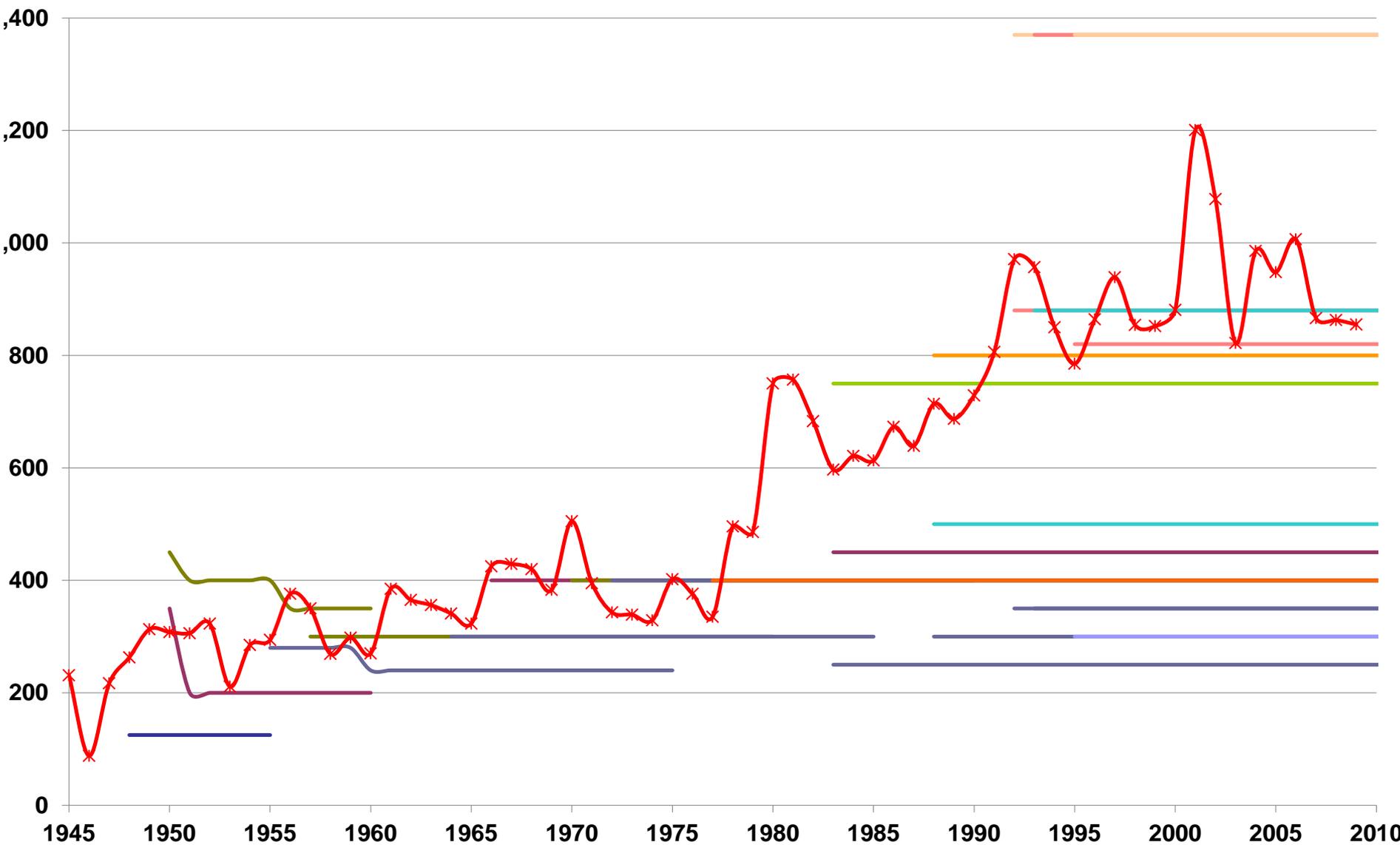
(In thousands)



Source: U.S. Census Bureau, Population Division, 1947-2010

Comparison of the Projections of Net International Migration from Projection Series Released between 1947 and 1995 to the Estimates of Net International Migration for 1945 to 2009

(In thousands)



Source: U.S. Census Bureau, Population Division, 1947-2010

**Why should anyone listen
to us?**

But everyone does!!

The current debate on Federal deficits and entitlements is based on Federal Population Forecasts.

The Fundamental Concept of Demography

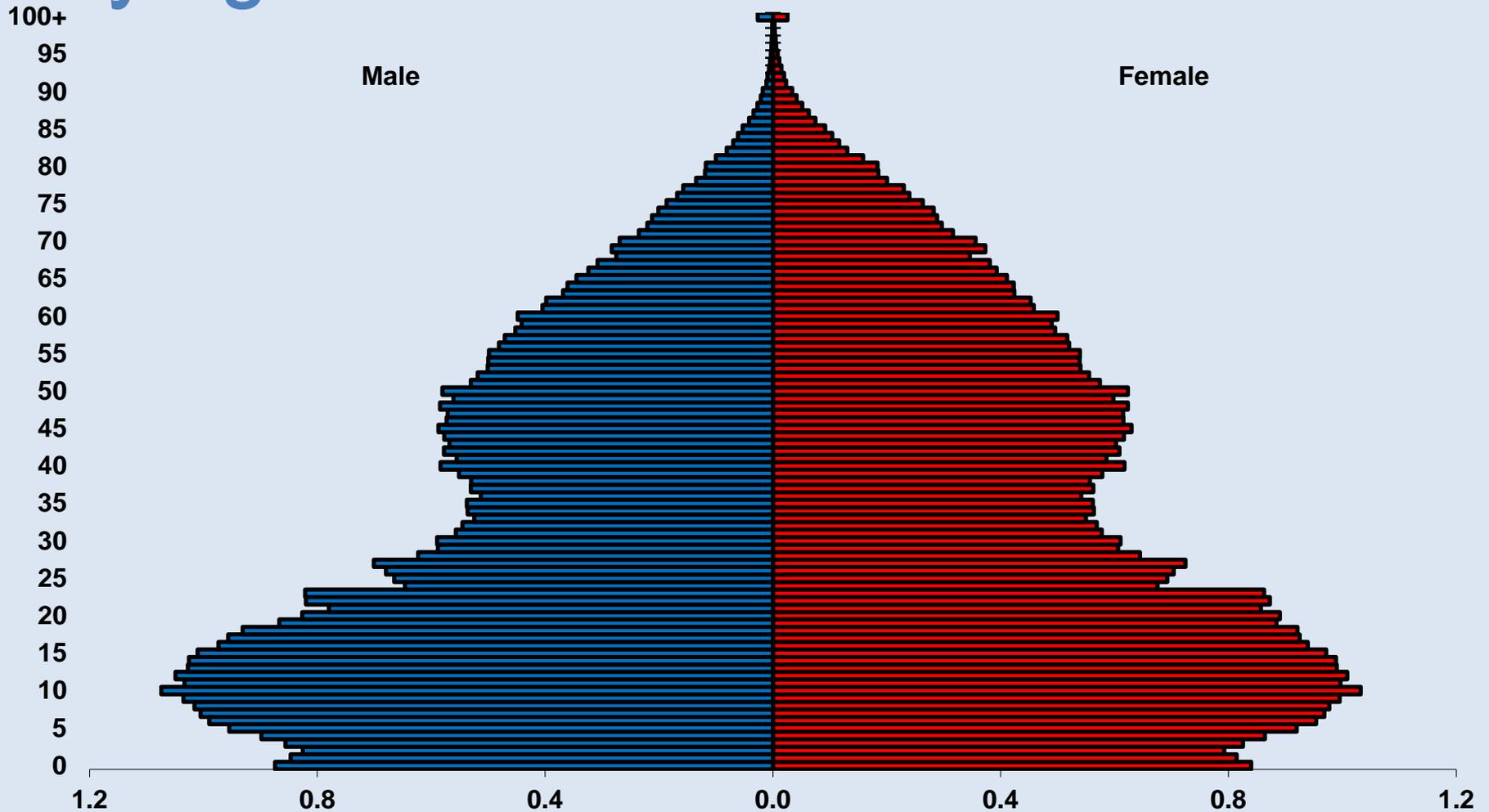
In the median run,
we are all just older.

Cohort Component Projections

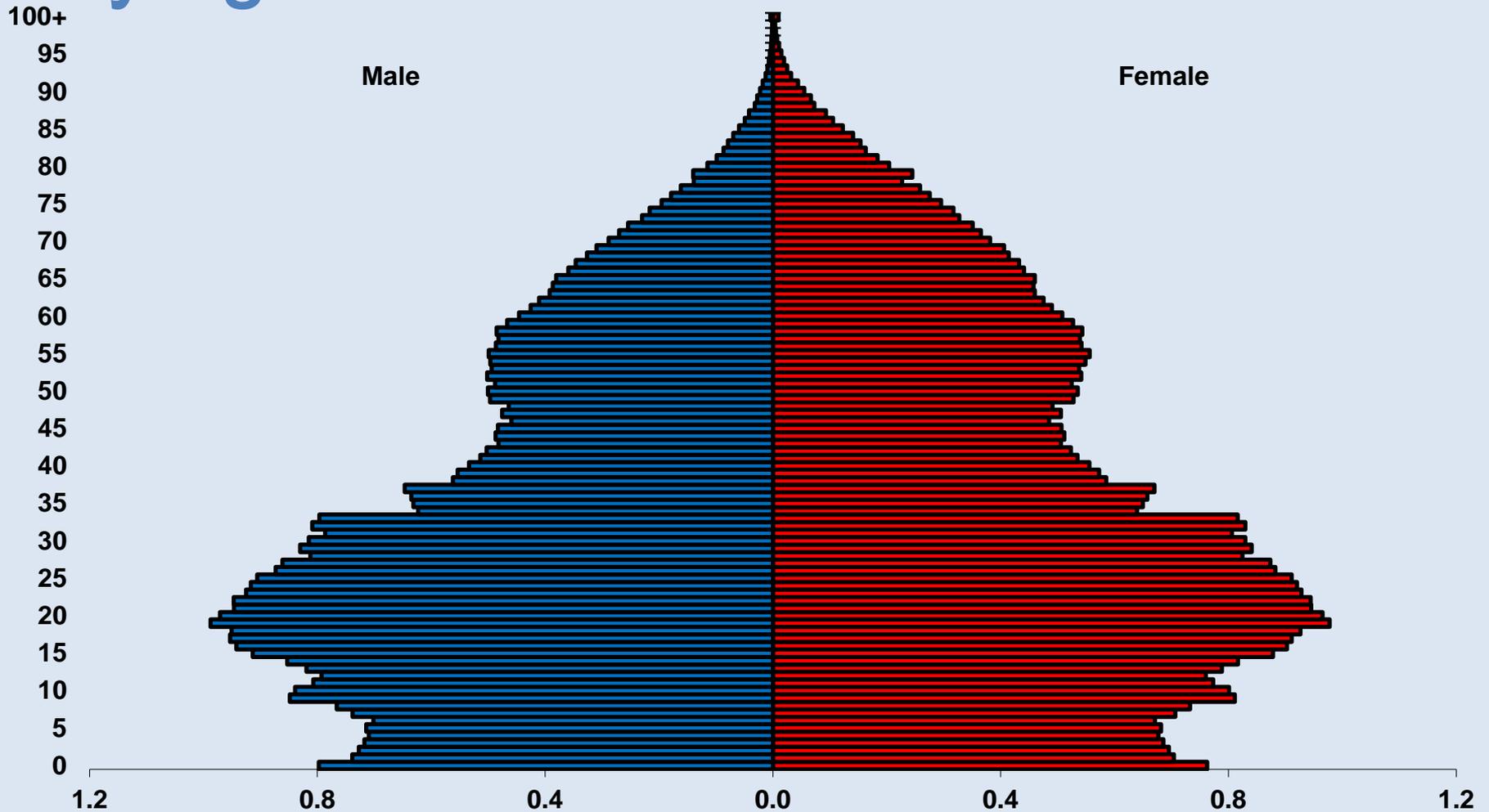
- $Pop(0, t + 1) =$
+ Births – Deaths
+ Immigrants – Emigrants

- $Pop(a + 1, t + 1) =$ Pop(a, t) – Deaths
+ Immigrants – Emigrants

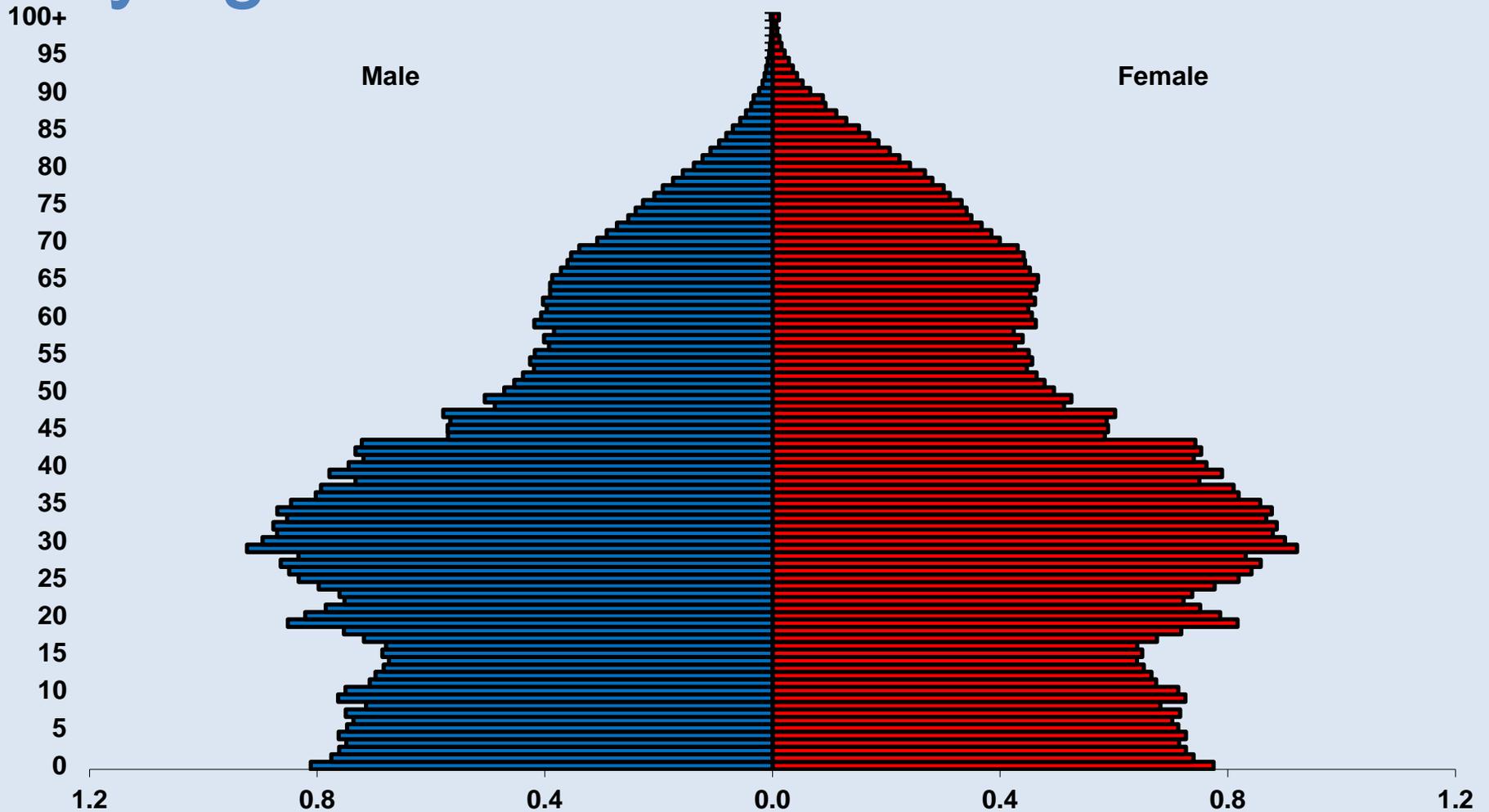
Percent Distribution of the Population by Age and Sex: 1970



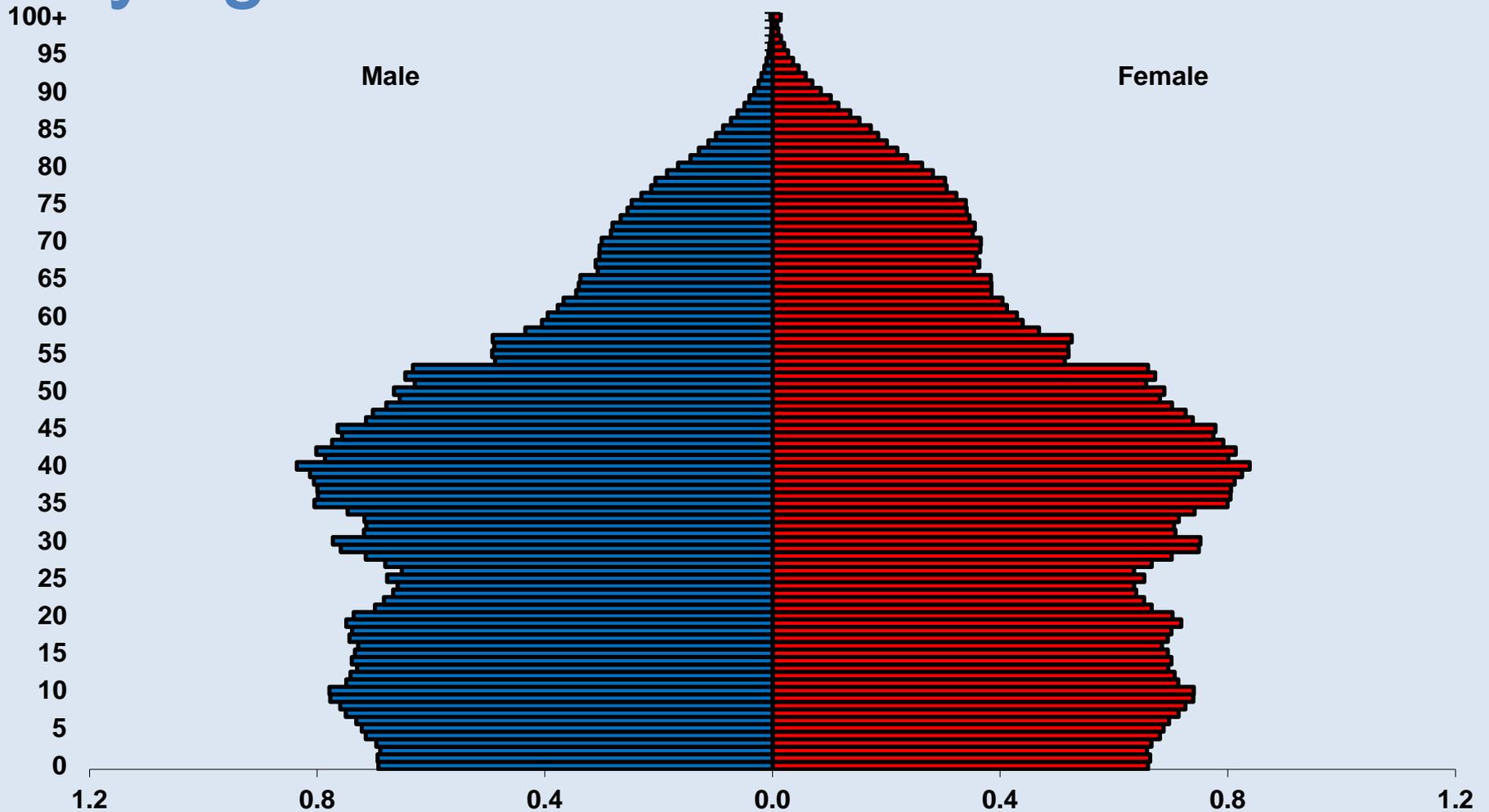
Percent Distribution of the Population by Age and Sex: 1980



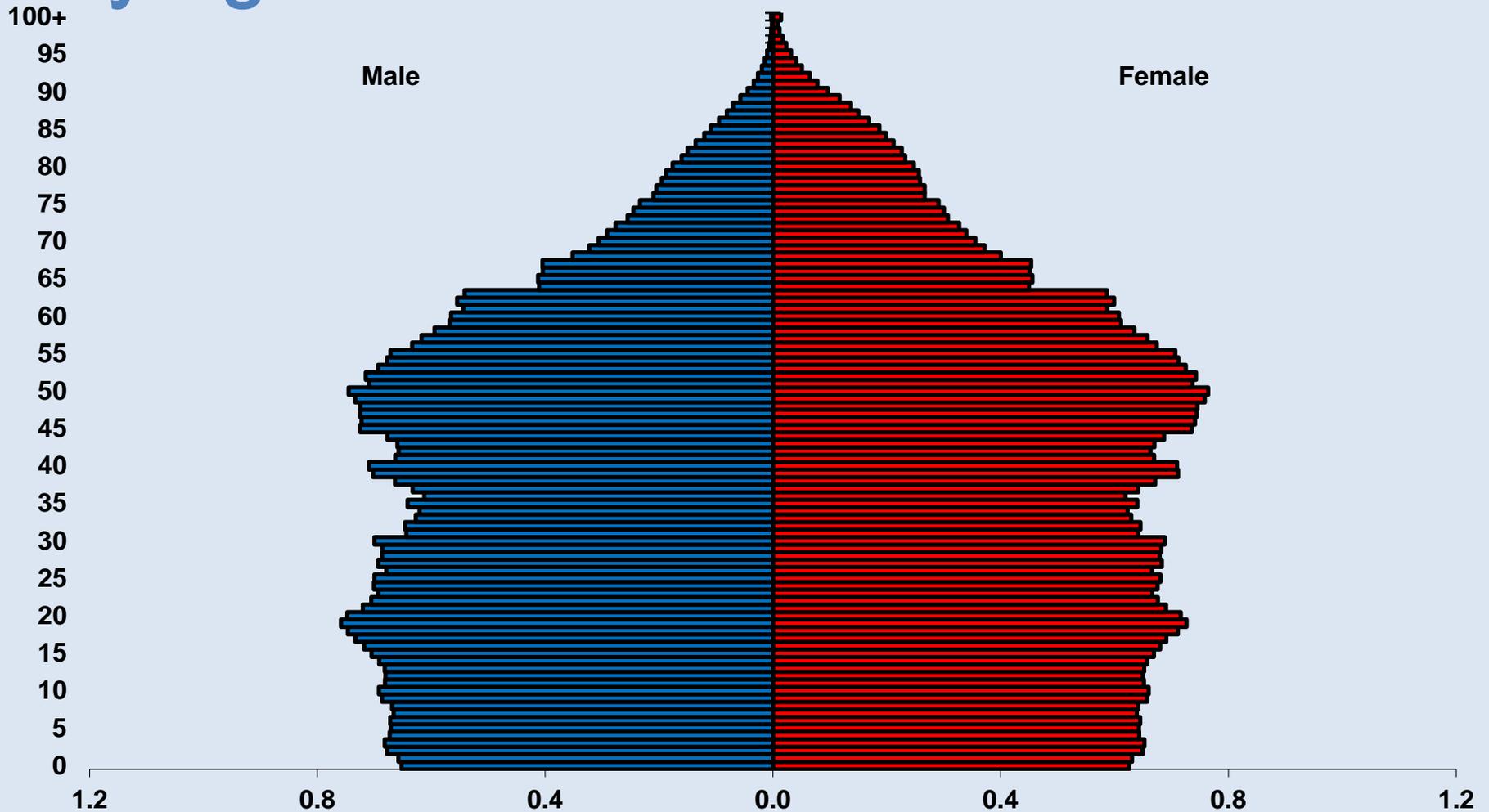
Percent Distribution of the Population by Age and Sex: 1990



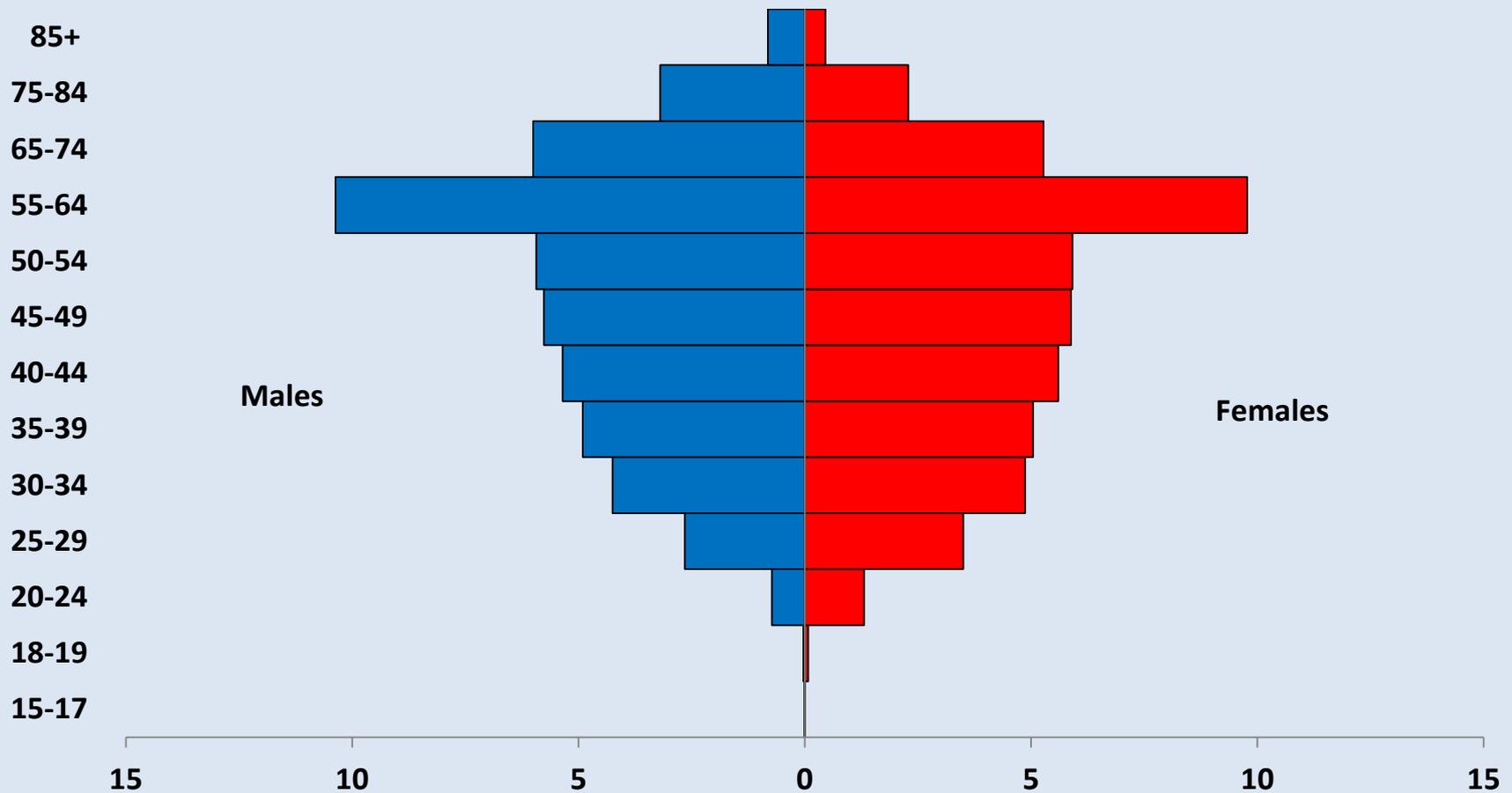
Percent Distribution of the Population by Age and Sex: 2000



Percent Distribution of the Population by Age and Sex: 2010

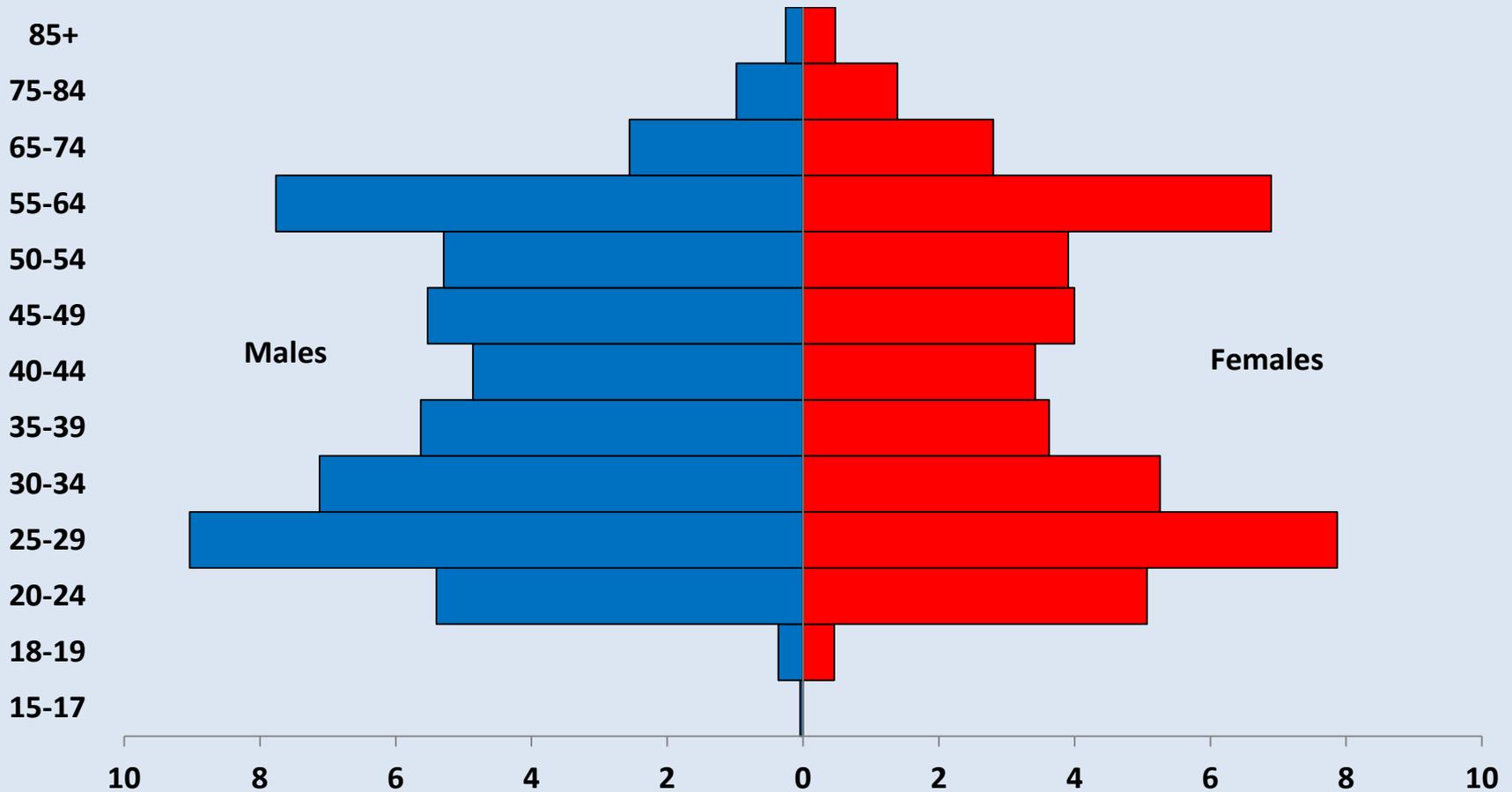


Married Spouse Present 2011



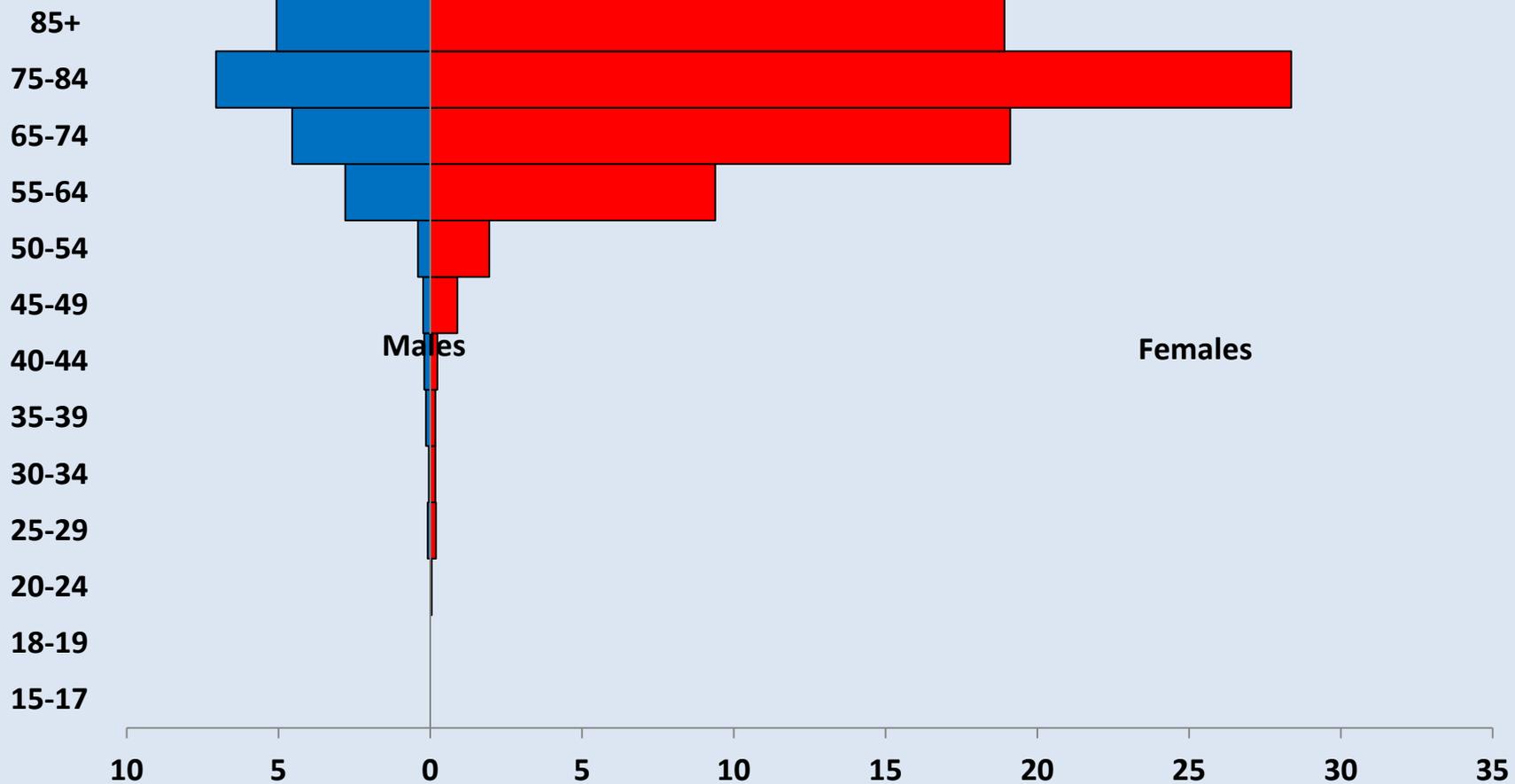
Never Married Living Alone

2011

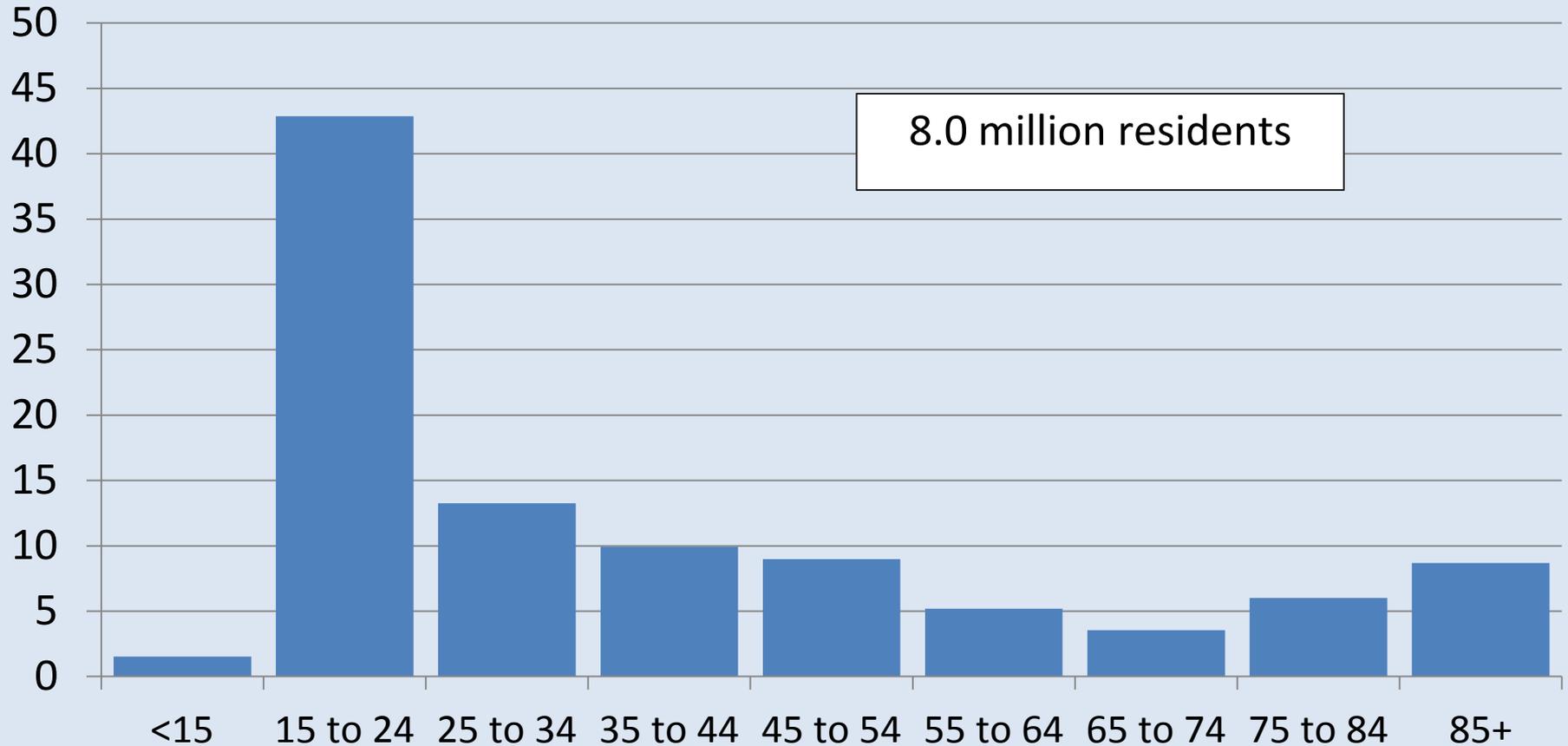


Widowed Living Alone

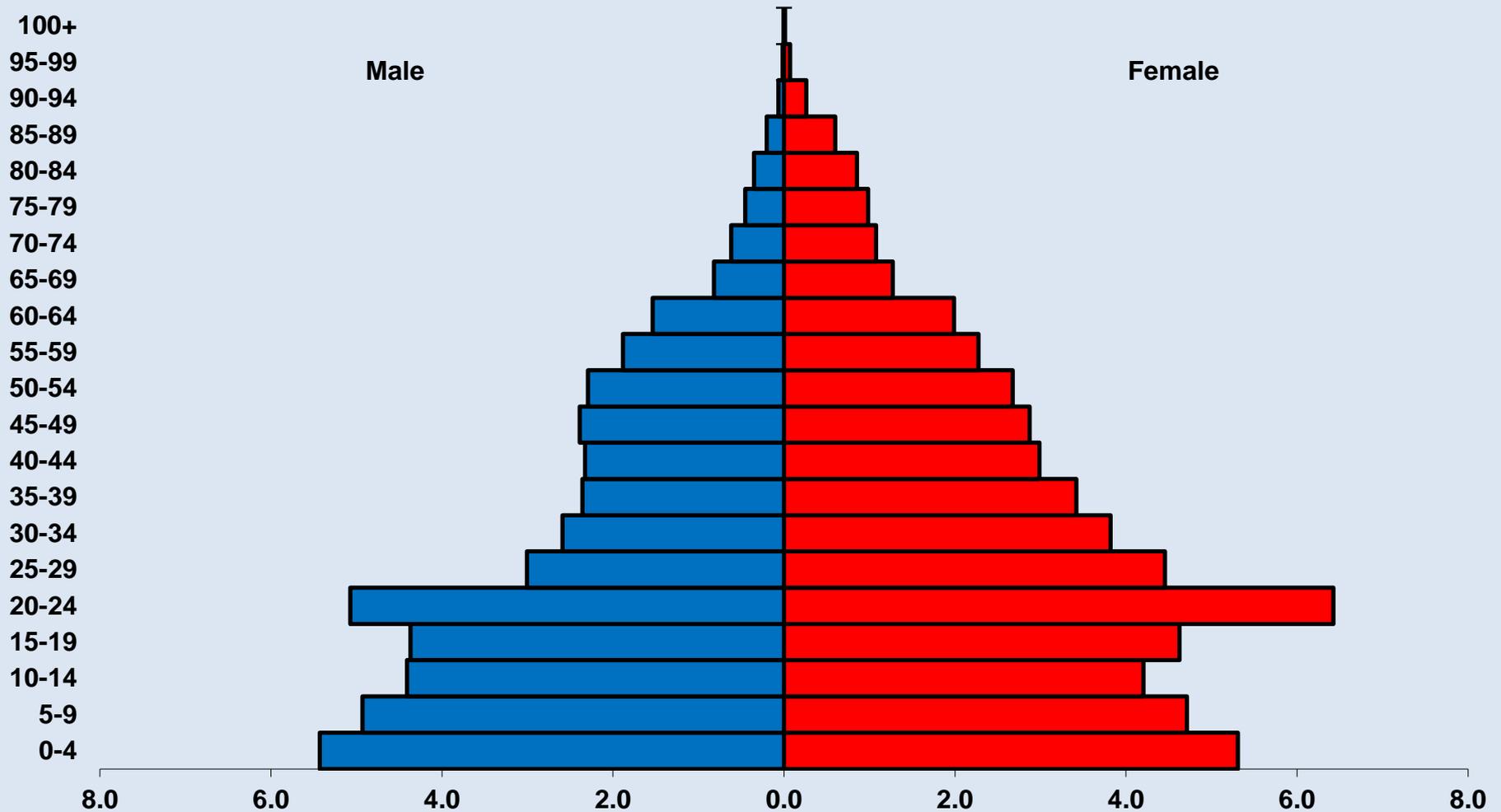
2011



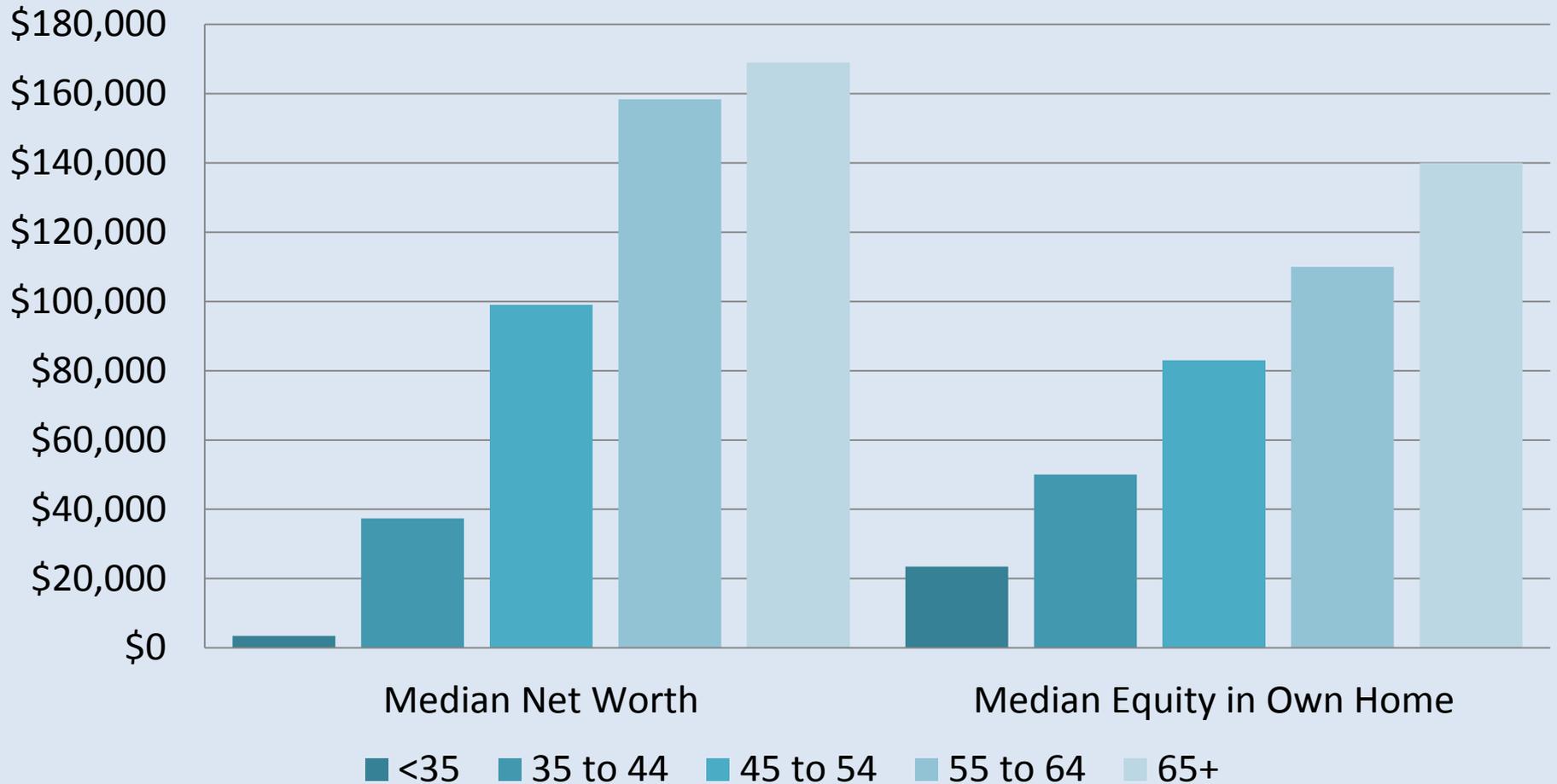
Percent Distribution of Group Quarters Population by Age: 2010



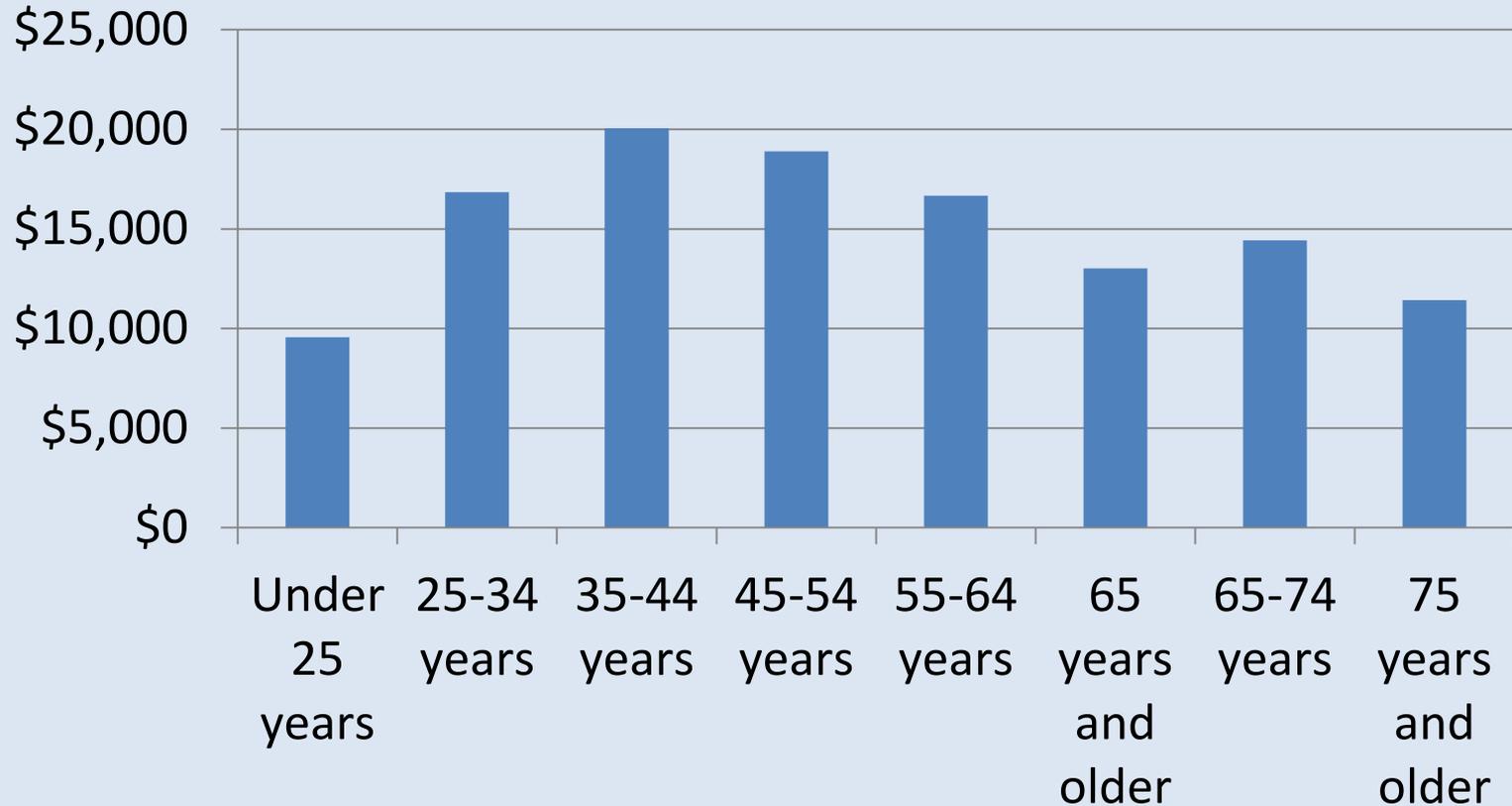
Percent Distribution of People in Poverty by Age and Sex: 2010



Median Net Worth and Median Equity in Home by Age of Householder: 2009

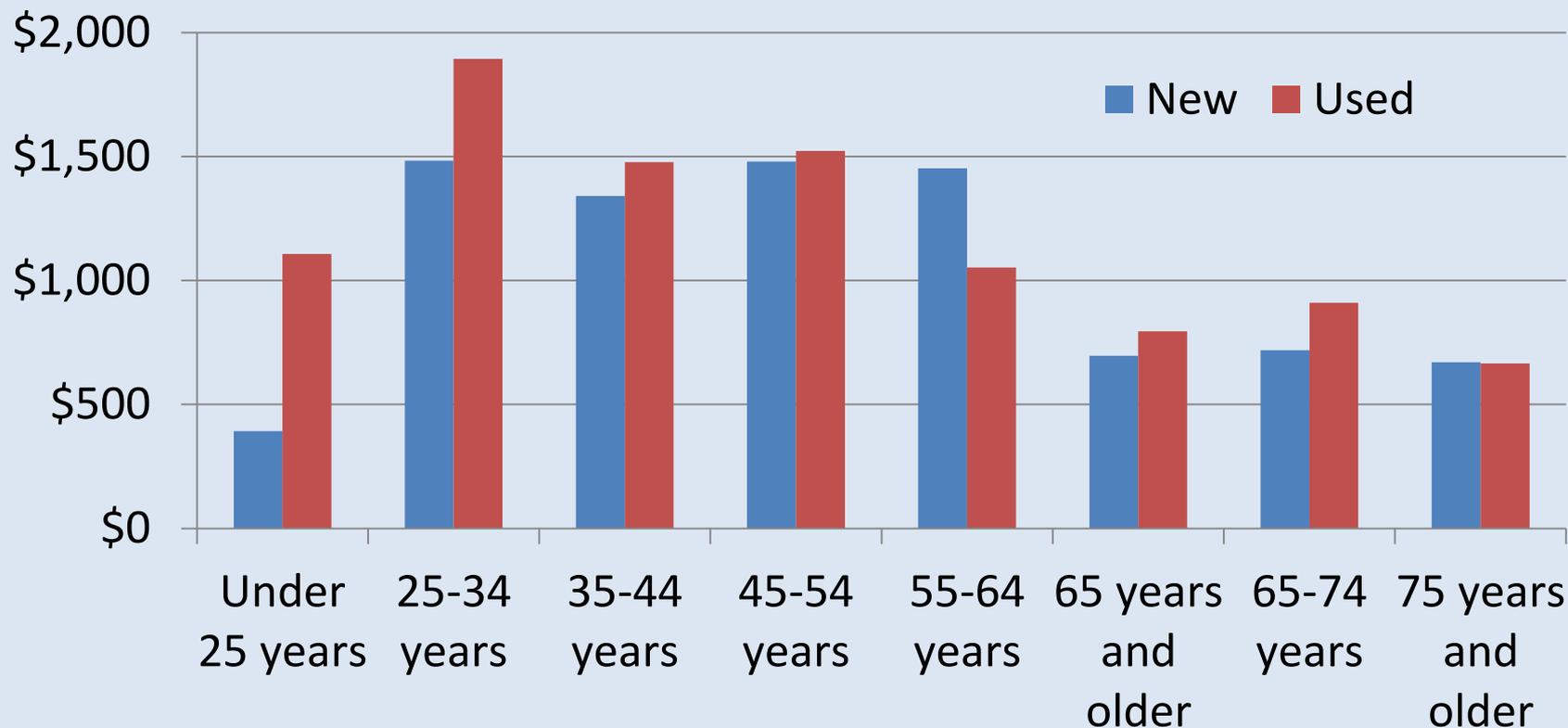


Average Annual Household Expenditures on Housing: 2010



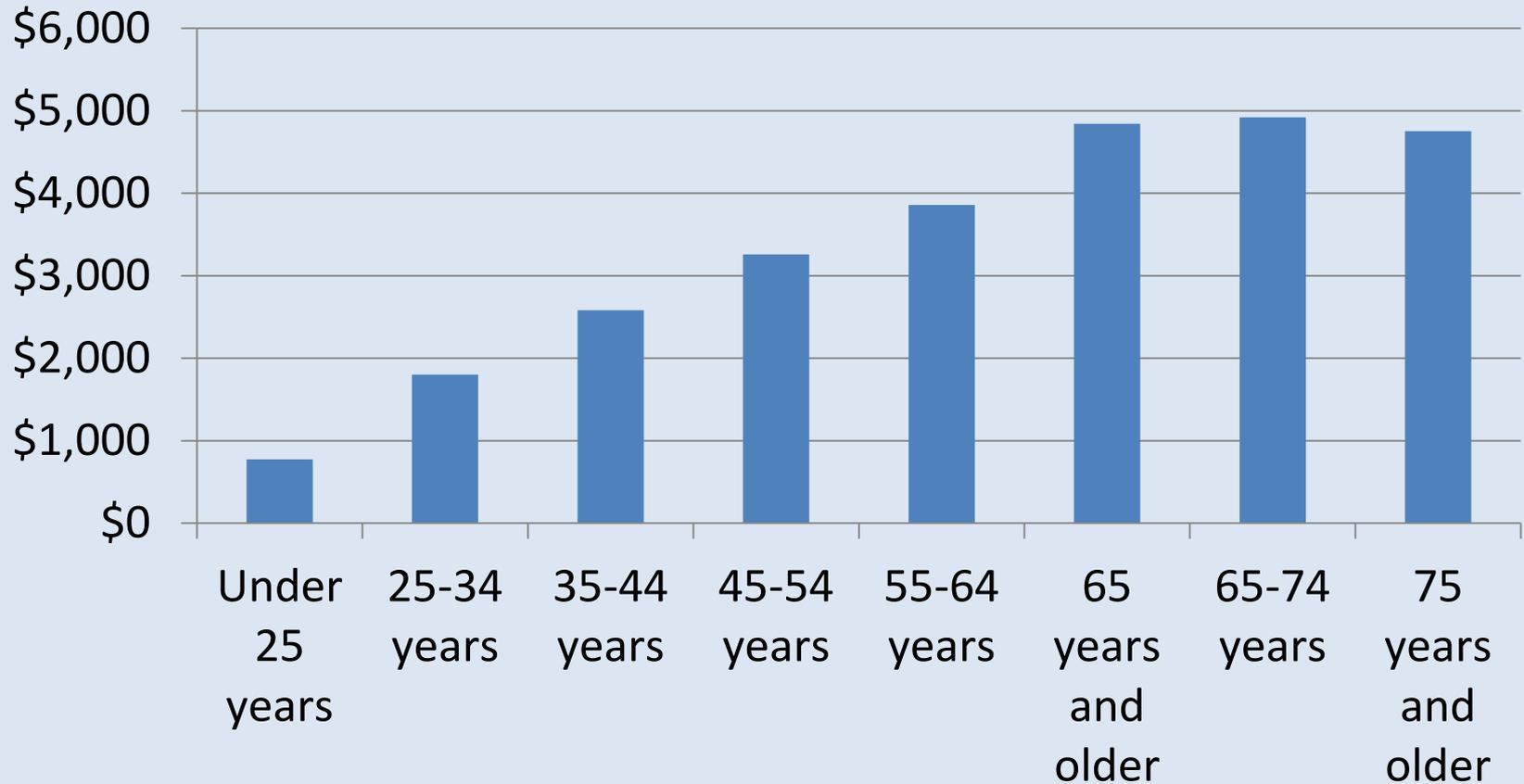
Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, September 2011.

Average Annual Household Expenditures on New and Used Cars: 2010

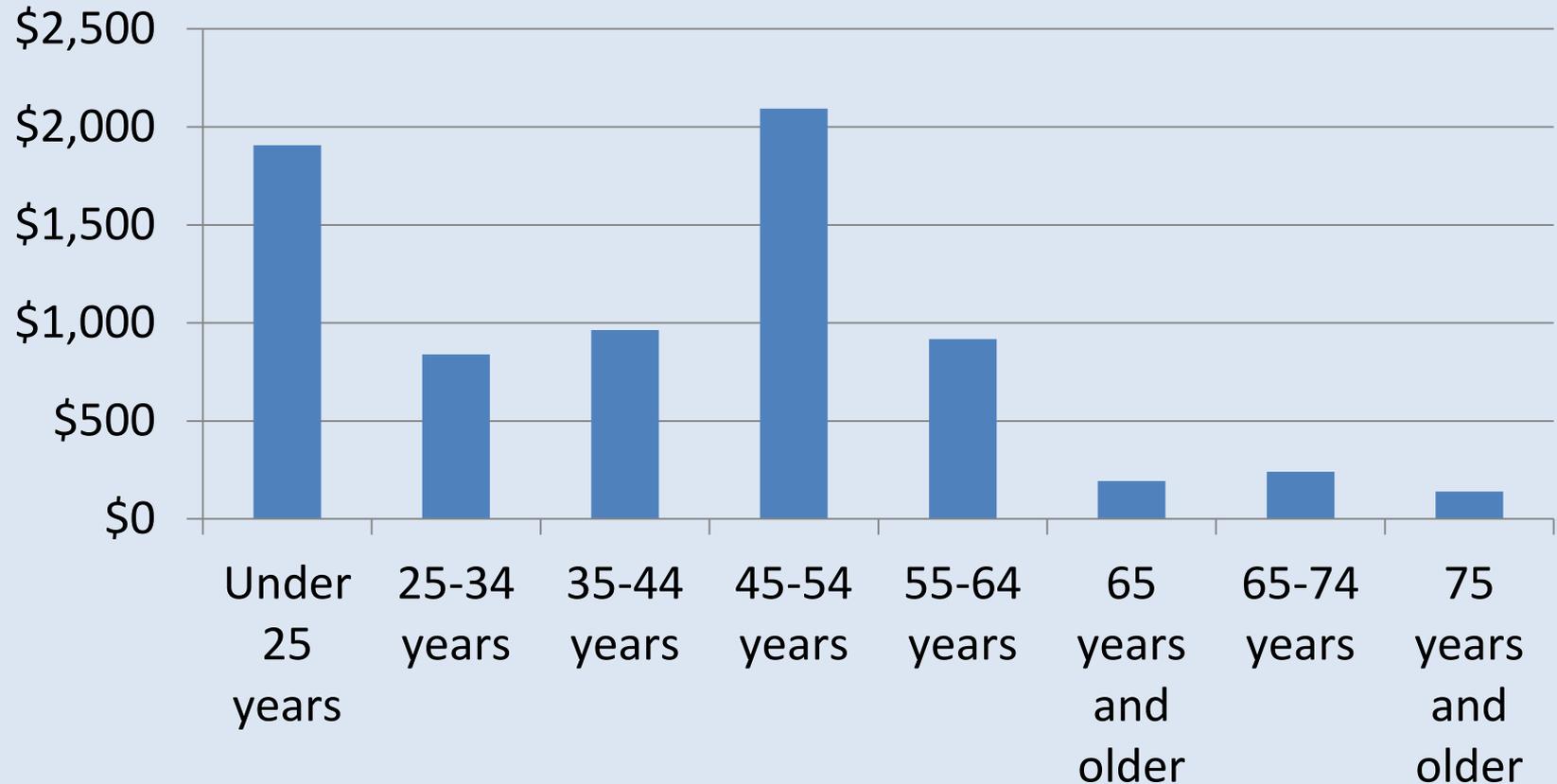


Source: U.S. Bureau of Labor Statistics,
Consumer Expenditure Survey, September 2011.

Average Annual Household Expenditures on Health Care: 2010



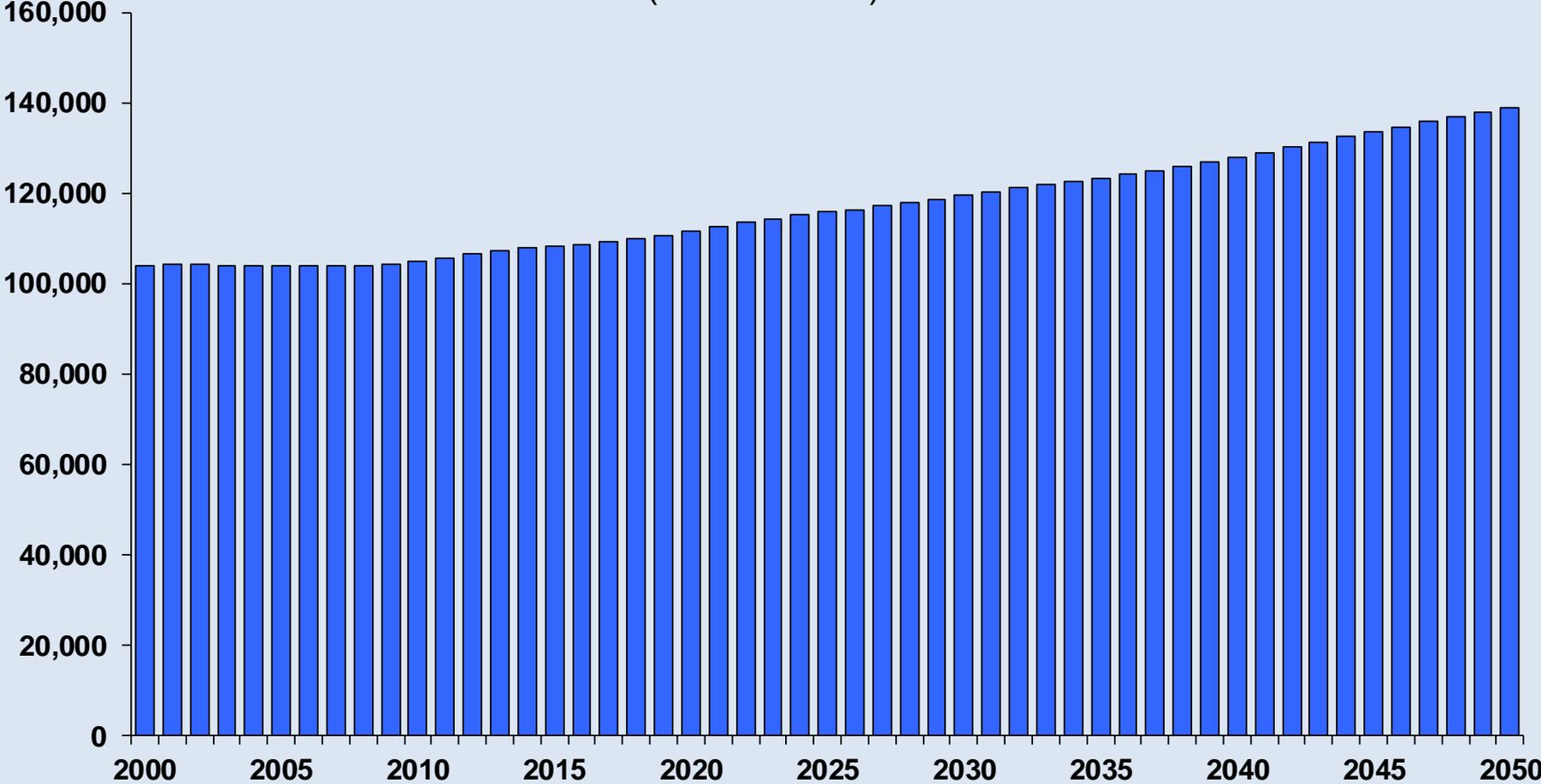
Average Annual Household Expenditures on Education: 2010



Source: U.S. Bureau of Labor Statistics,
Consumer Expenditure Survey, September 2011.

Projected Population Aged 20 to 44 Years: 2000 to 2050

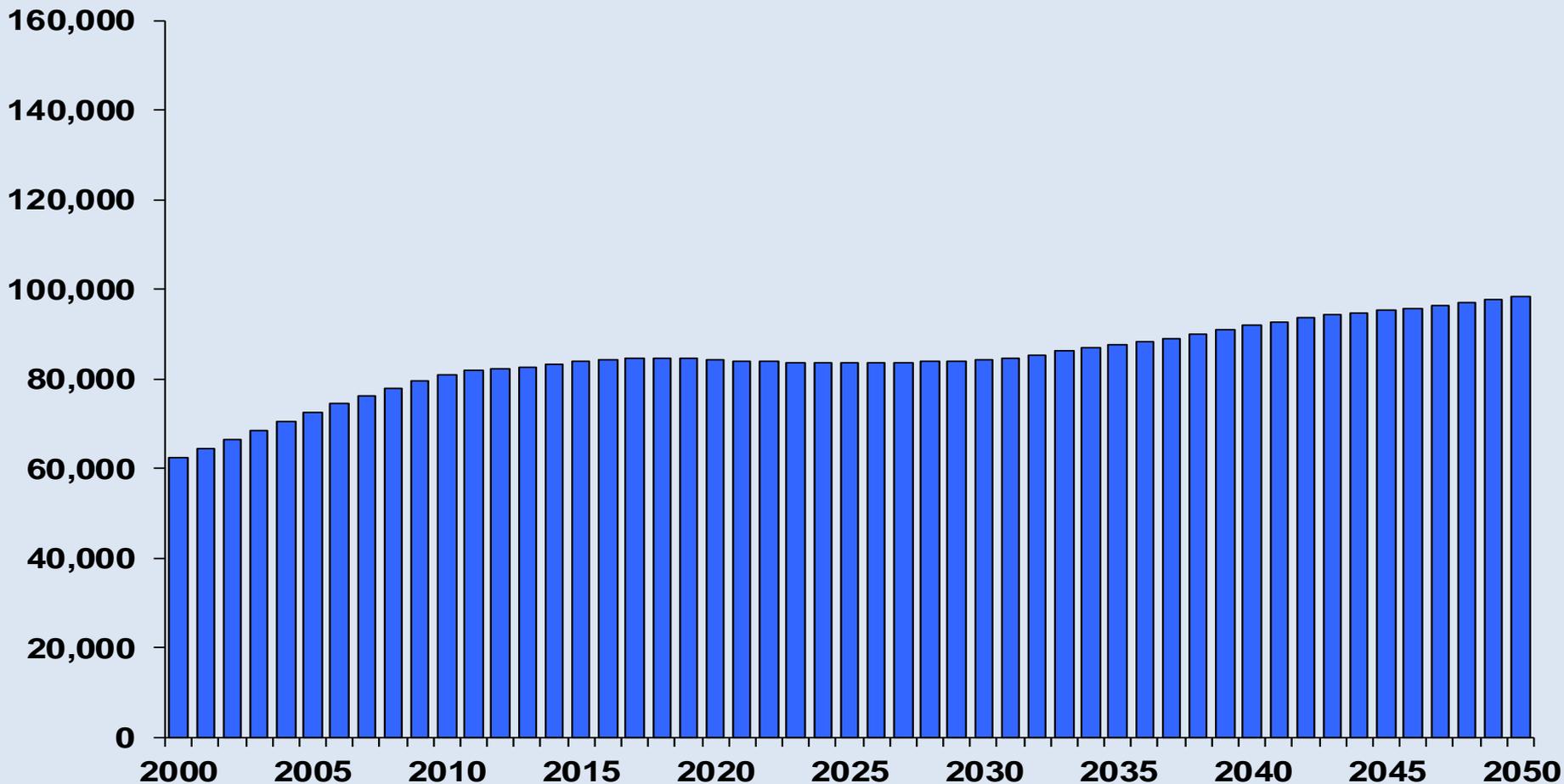
(In thousands)



Source: U.S. Census Bureau,
2008 National Projections

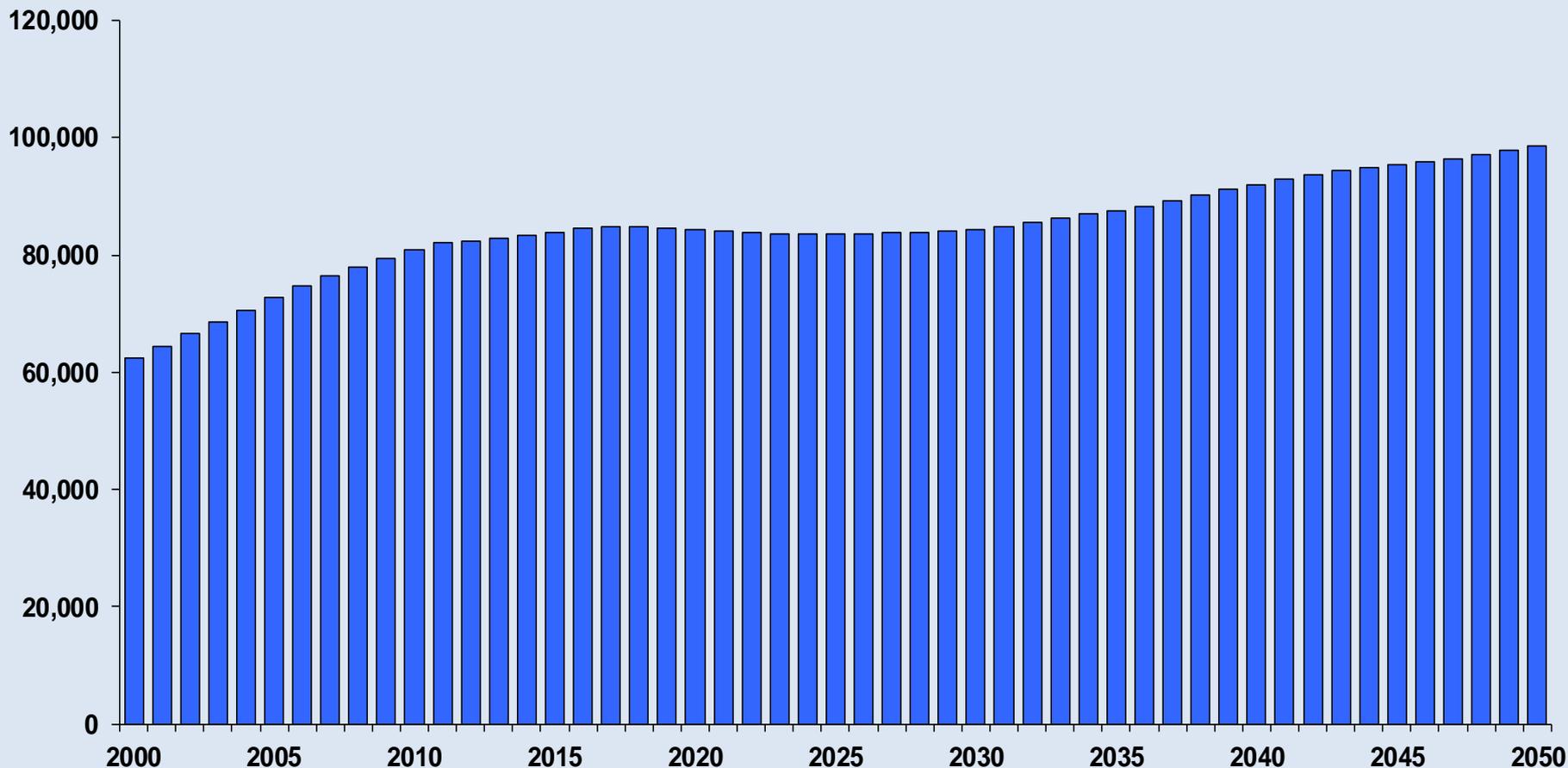
Projected Population Aged 45 to 64 Years: 2000 to 2050

(In thousands)



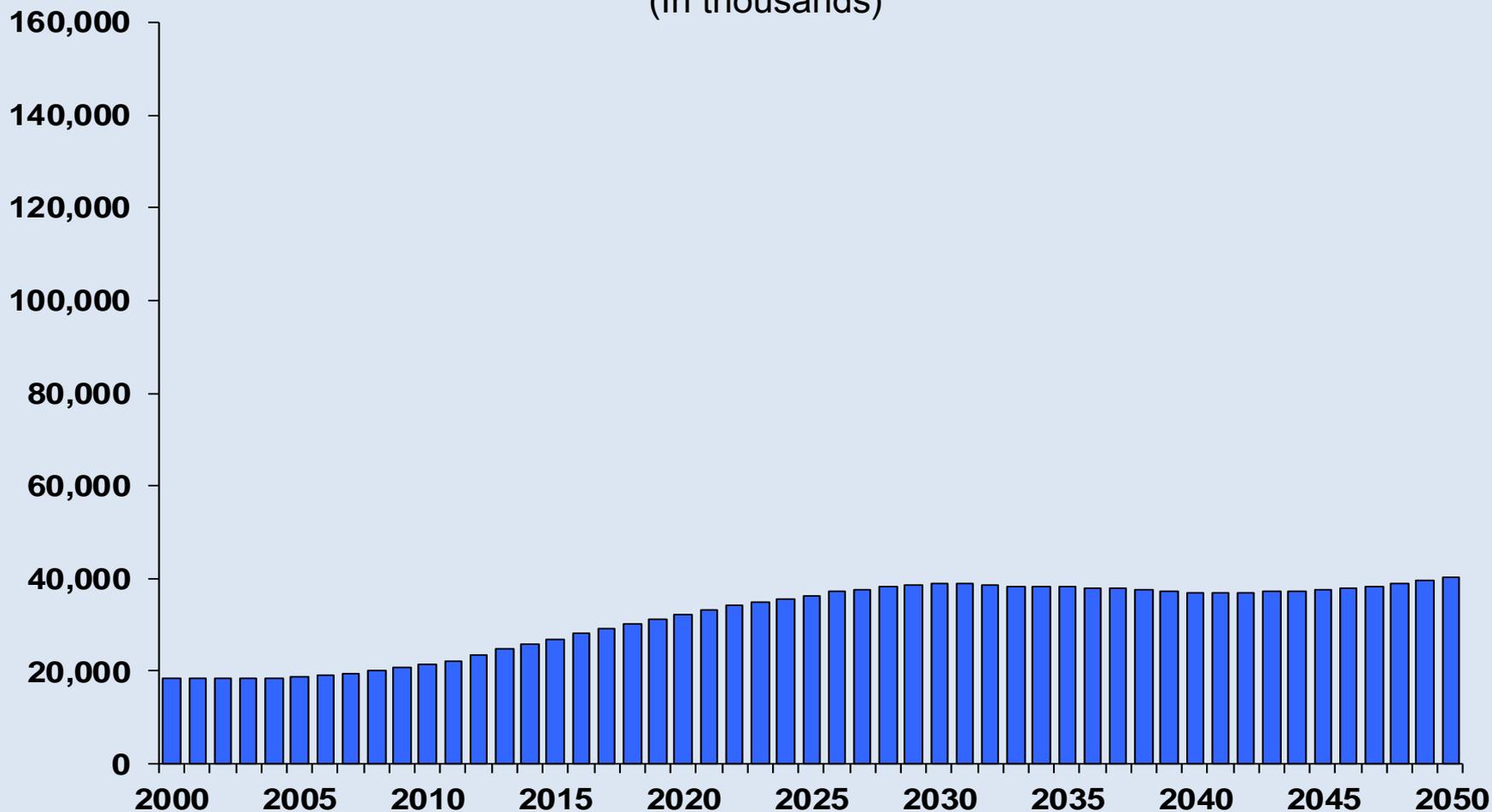
Projected Population Aged 45 to 64 Years: 2000 to 2050

(In thousands)



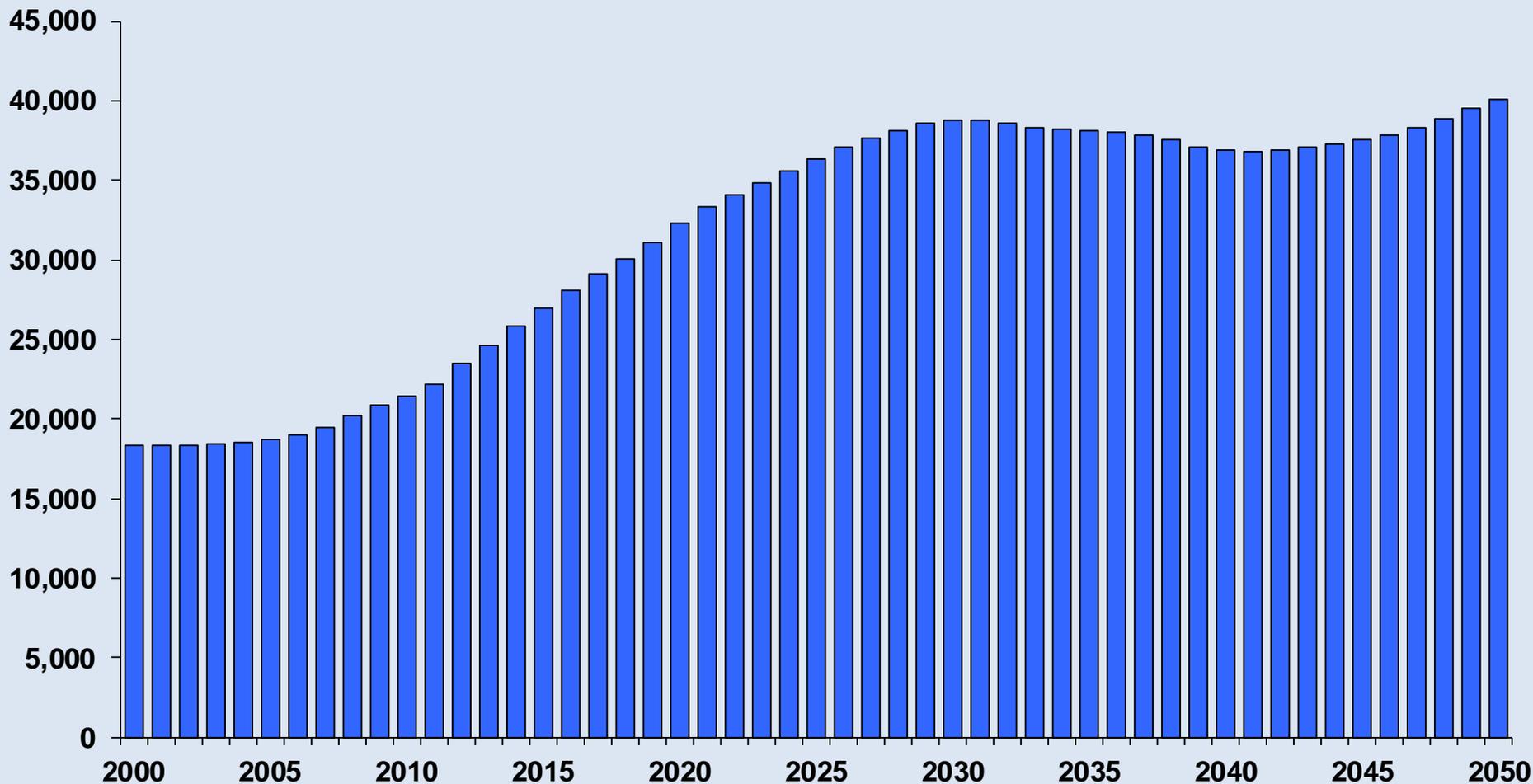
Projected Population Aged 65 to 74: 2000 to 2050

(In thousands)



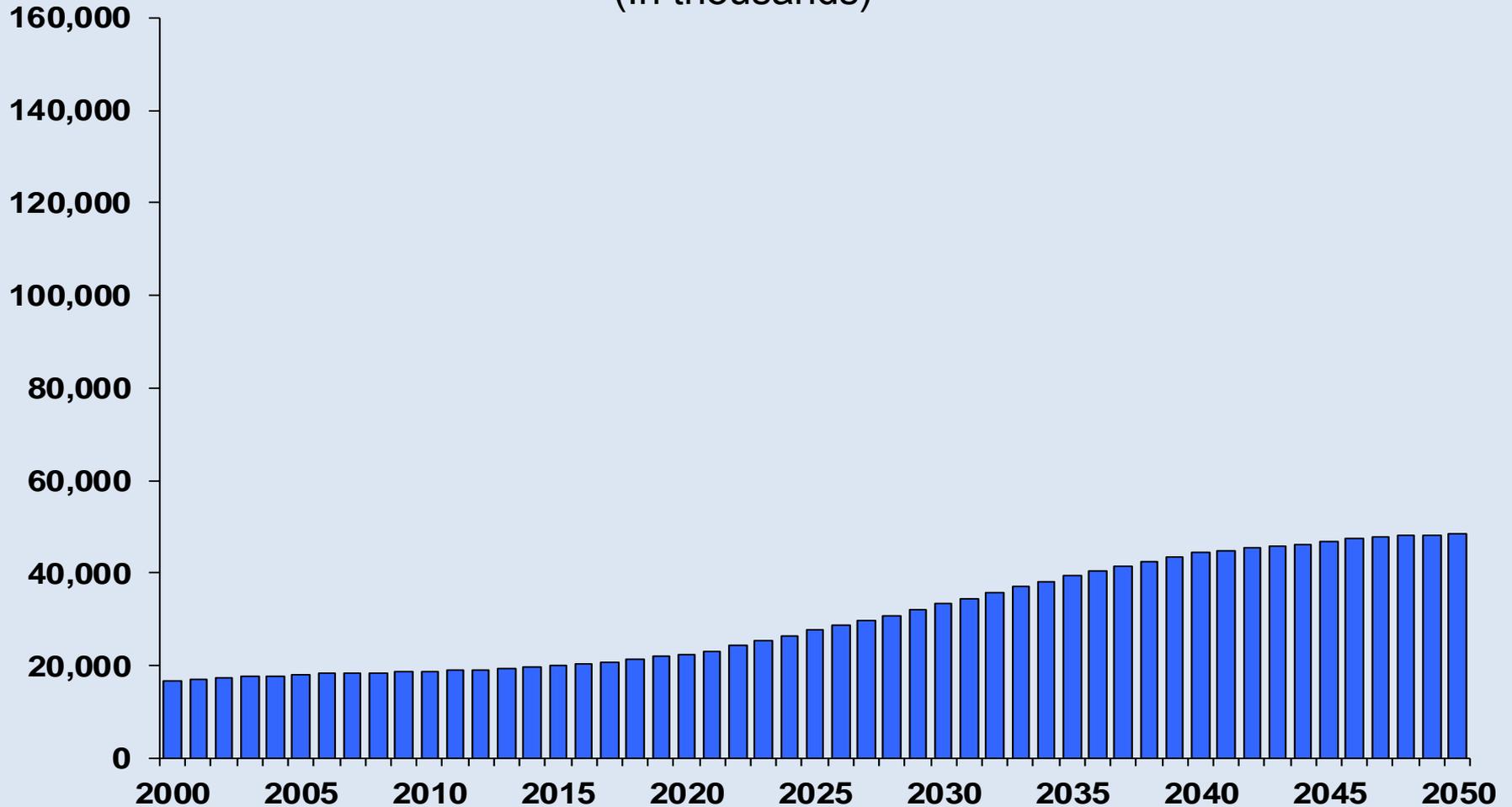
Projected Population Aged 65 to 74 Years: 2000 to 2050

(In Thousands)



Projected Population Aged 75 Years and Over: 2000 to 2050

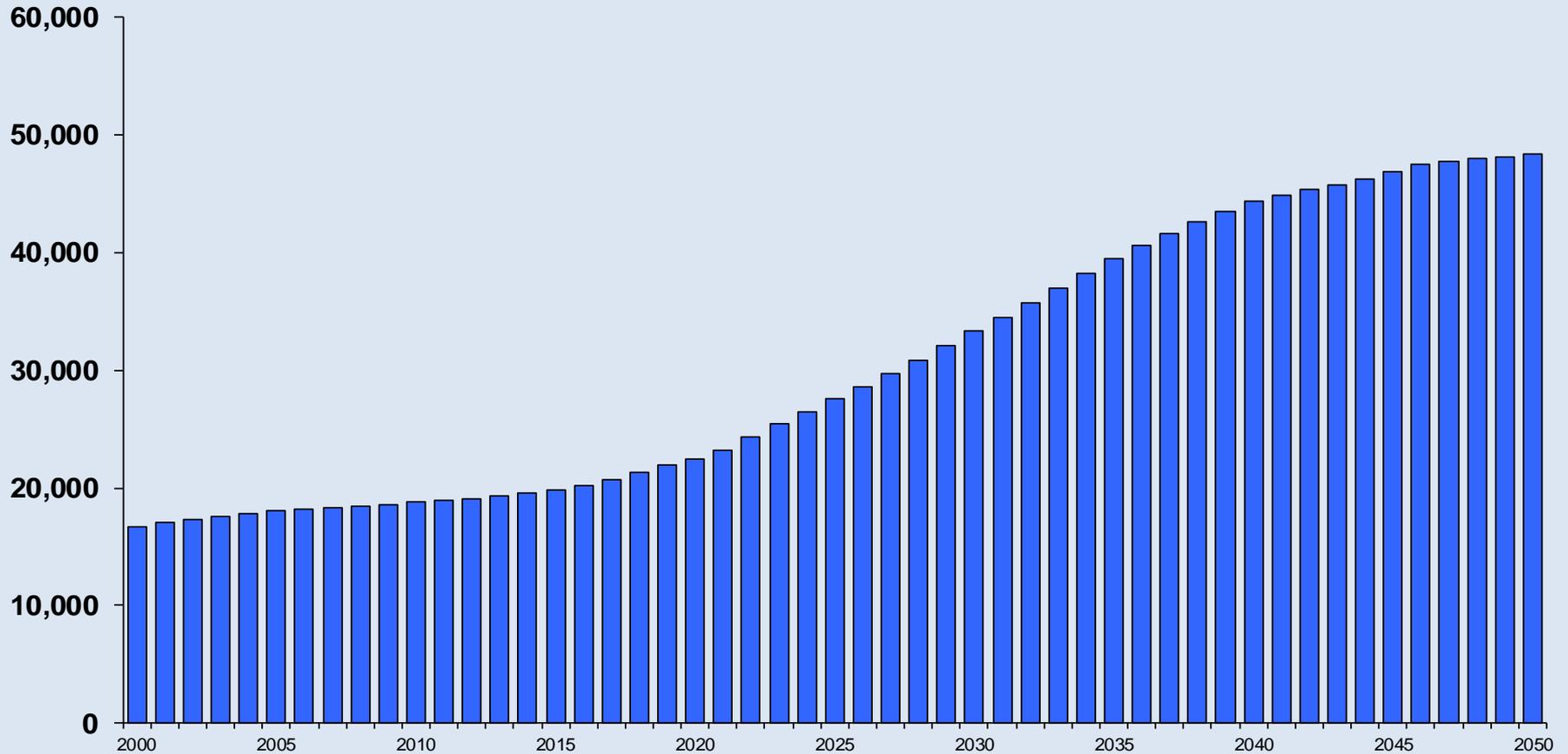
(In thousands)



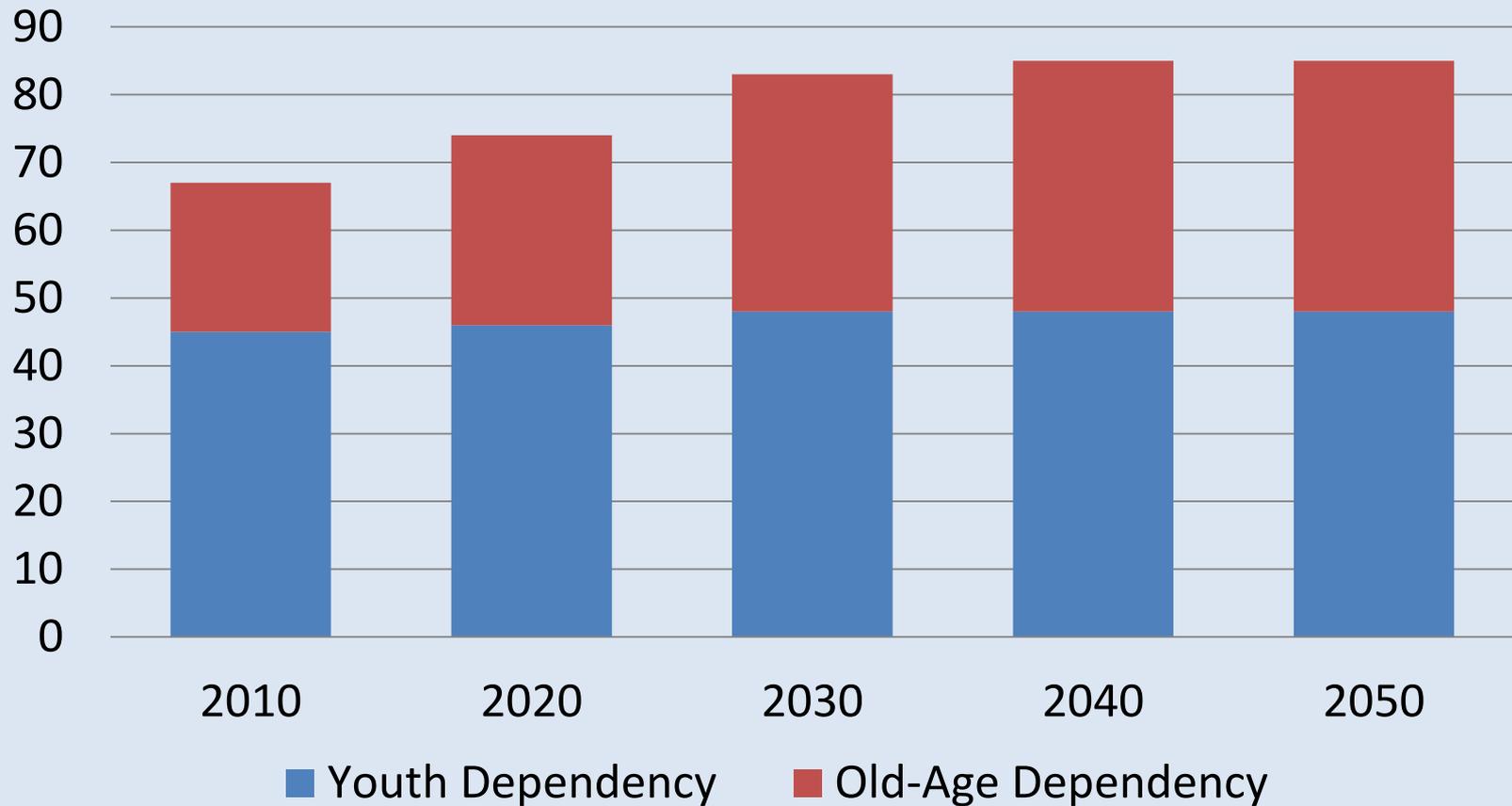
Source: U.S. Census Bureau,
2008 National Projections

Projected Population Aged 75 Years and Over: 2000 to 2050

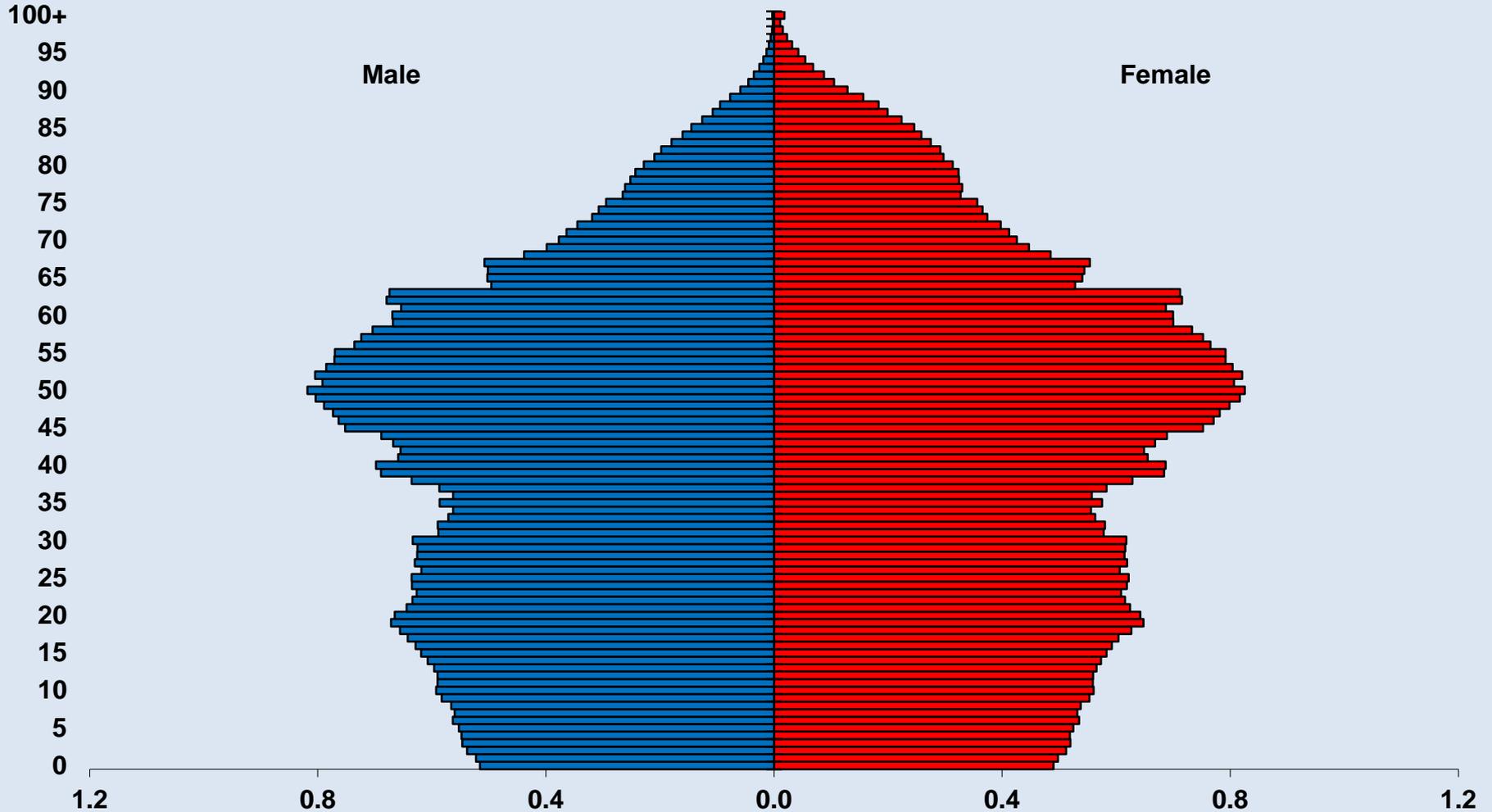
(In thousands)



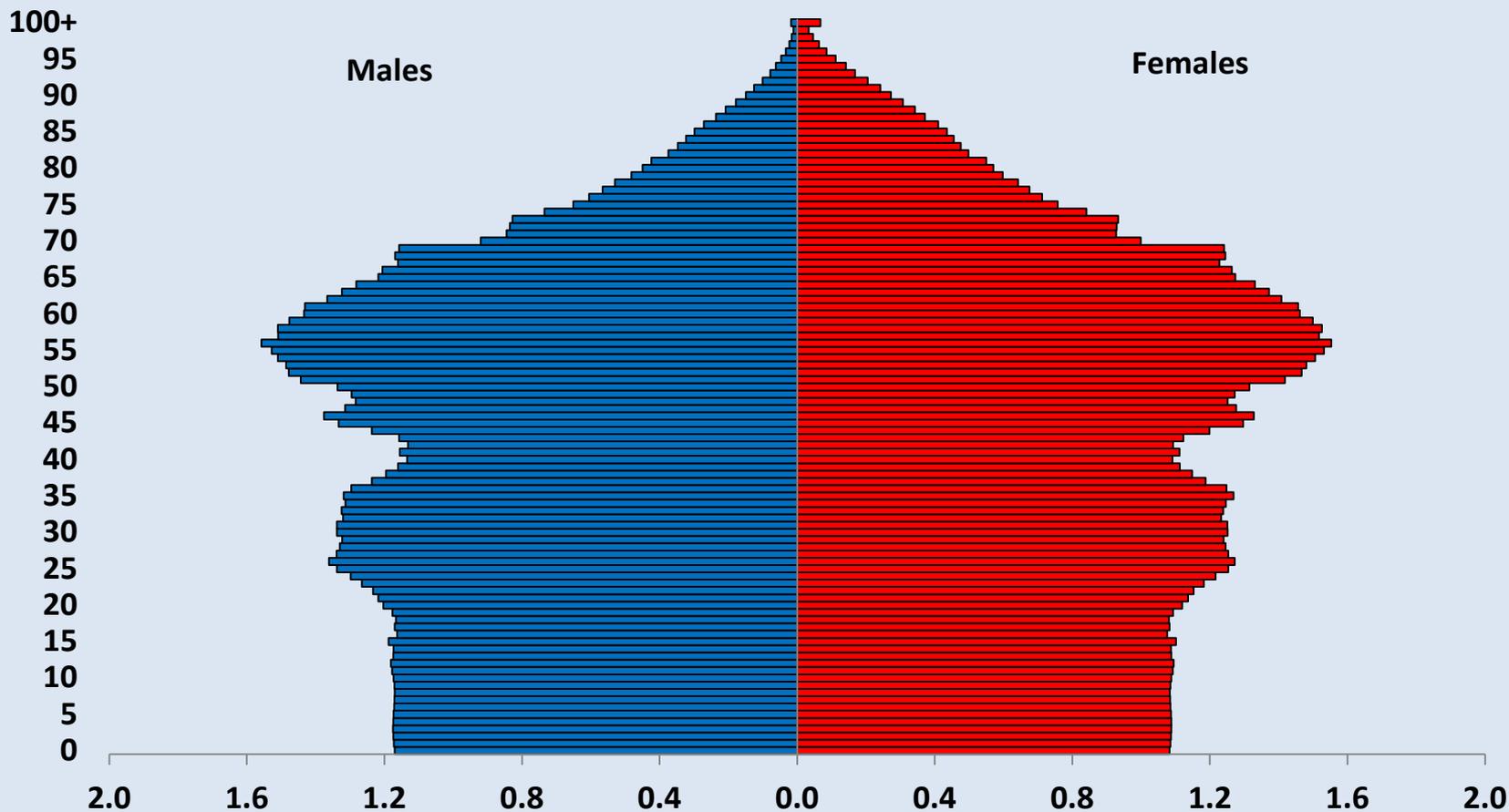
Youth and Old-Age Dependency Ratios: 2010 to 2050



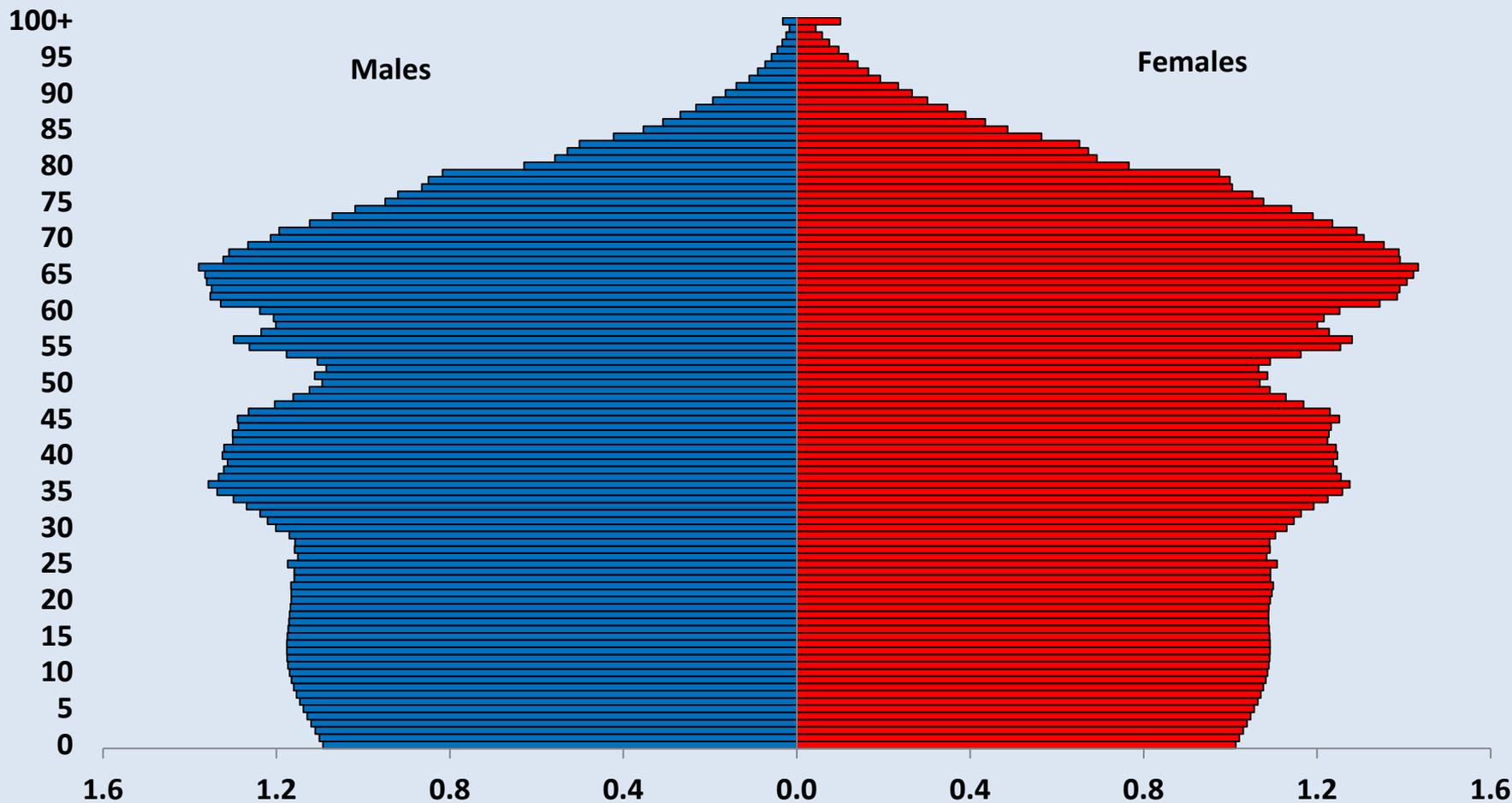
Percent Distribution of the White non-Hispanic Population by Age and Sex: 2010



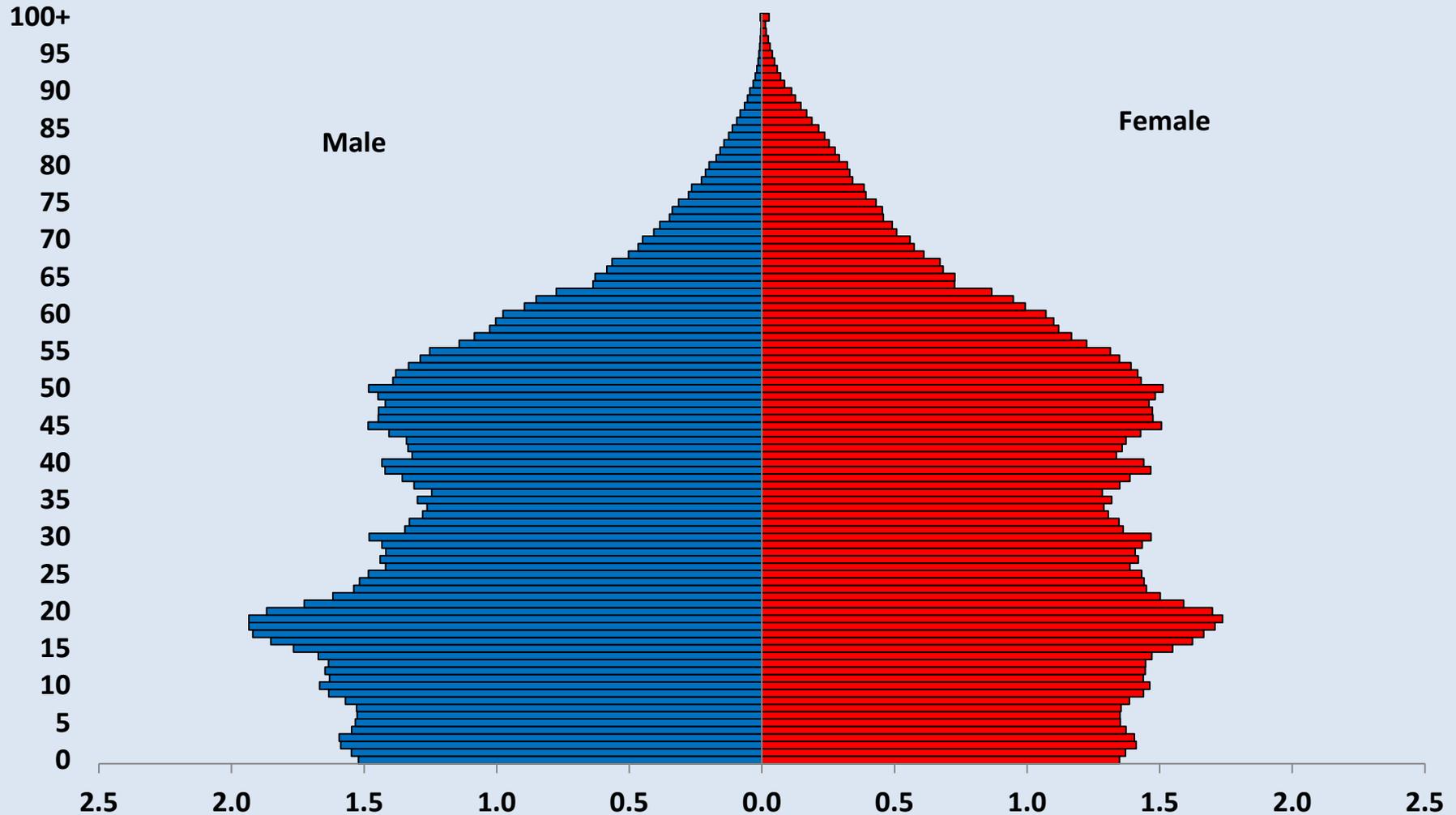
Projected Percent Distribution of the Non-Hispanic White Alone Population by Age and Sex: 2016



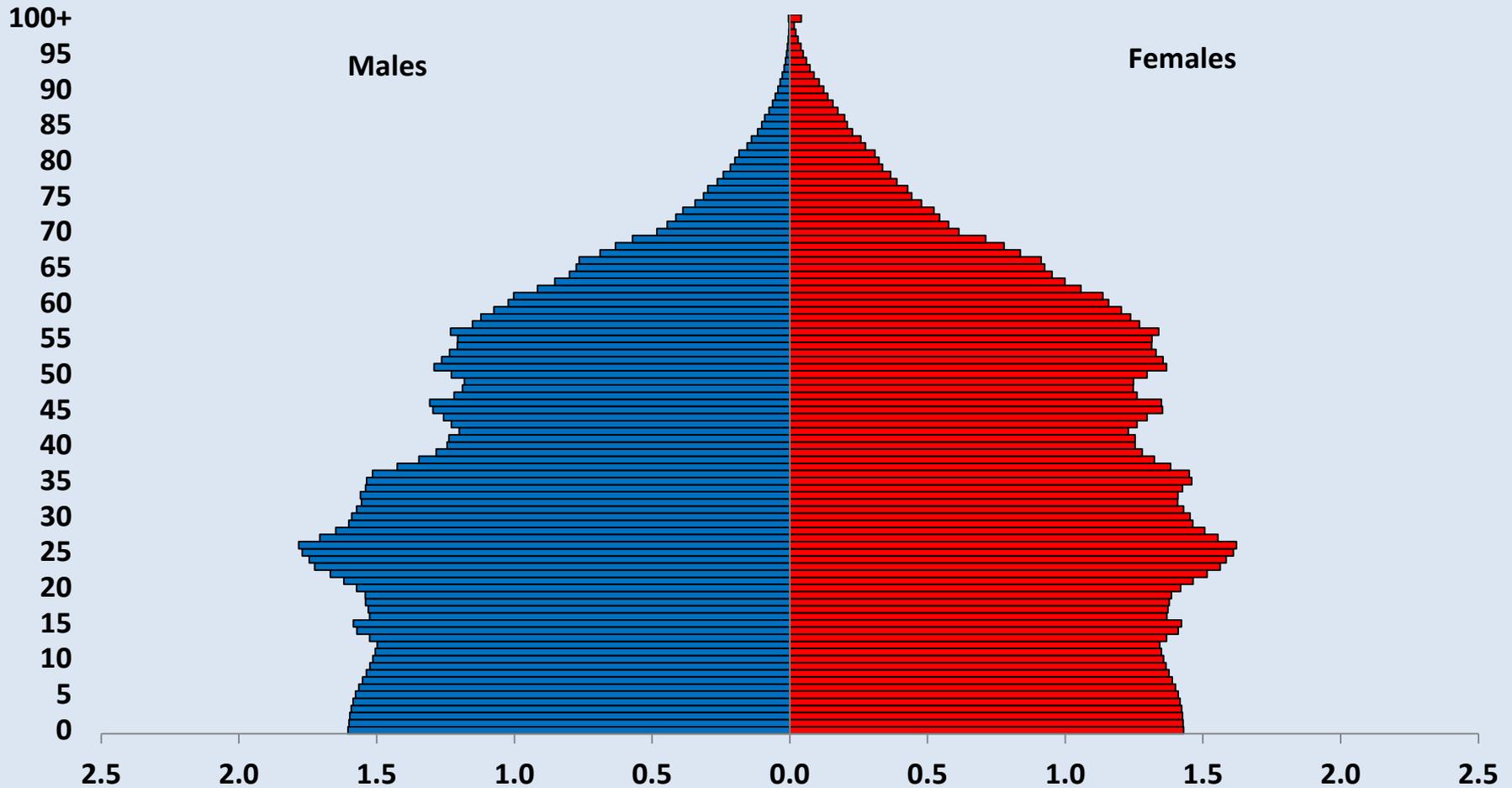
Projected Percent Distribution of the Non-Hispanic White Alone Population by Age and Sex: 2026



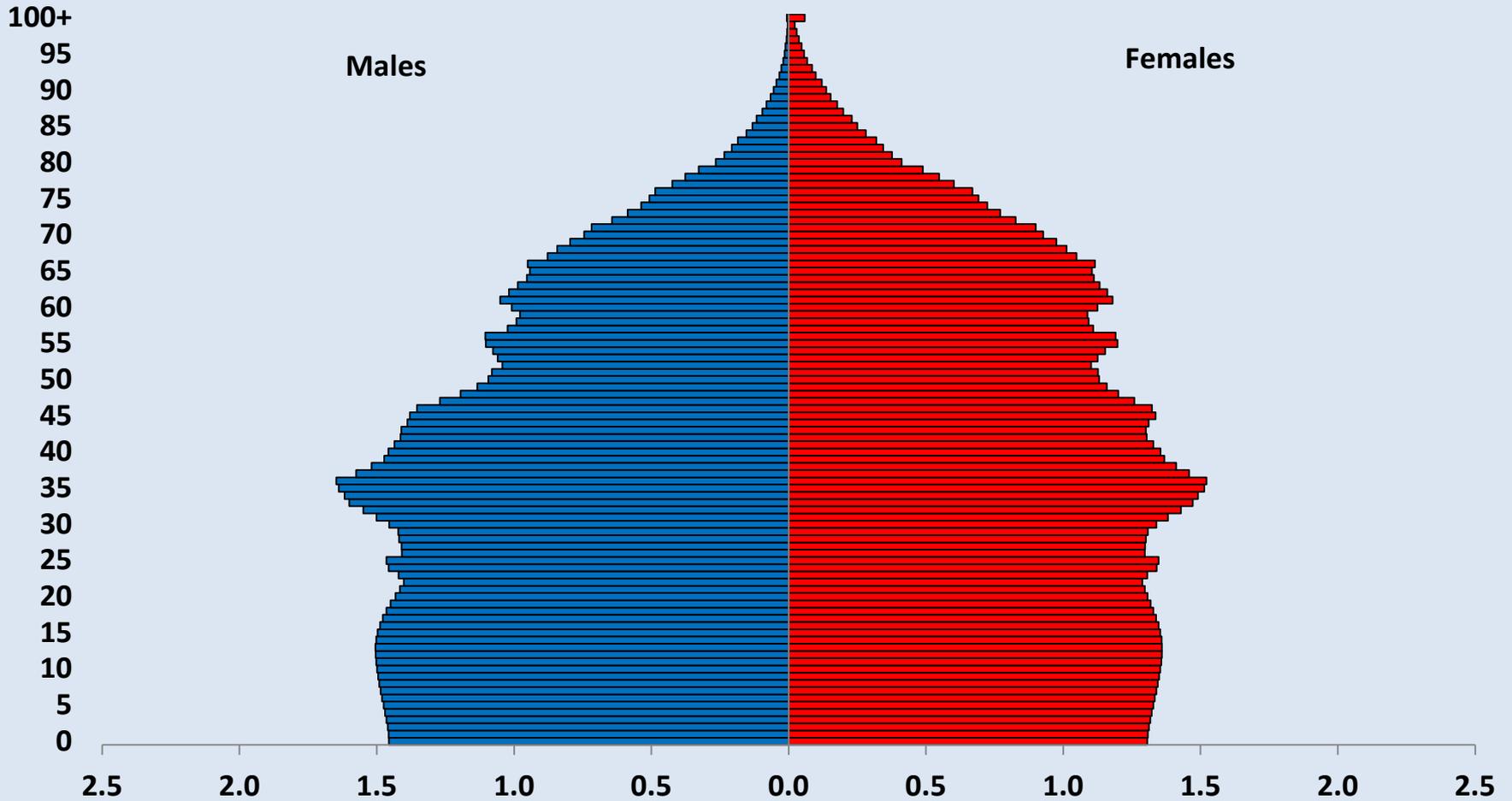
Percent Distribution of the Black Population by Age and Sex: 2010



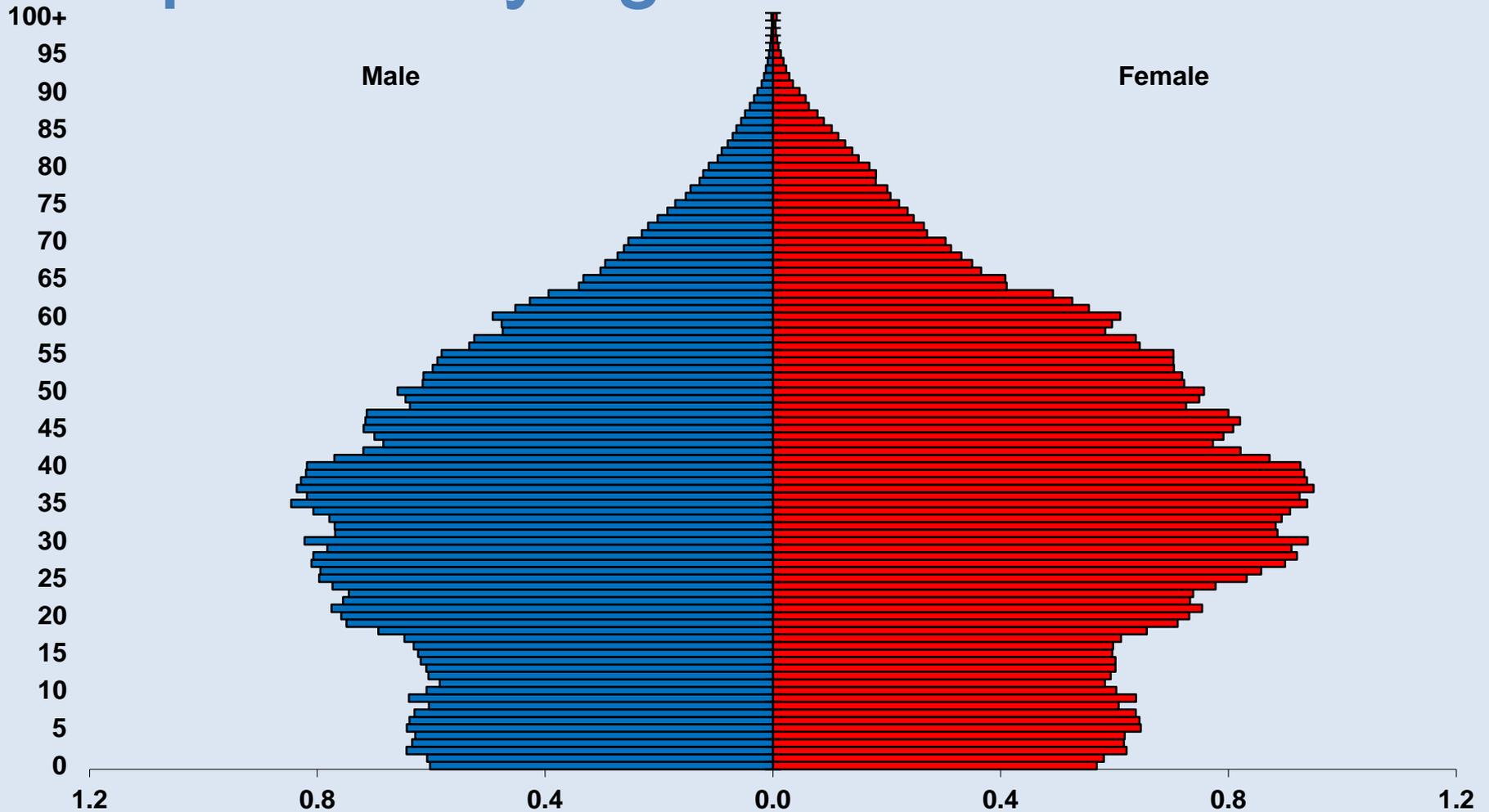
Percent Distribution of the Black Population by Age and Sex: 2016



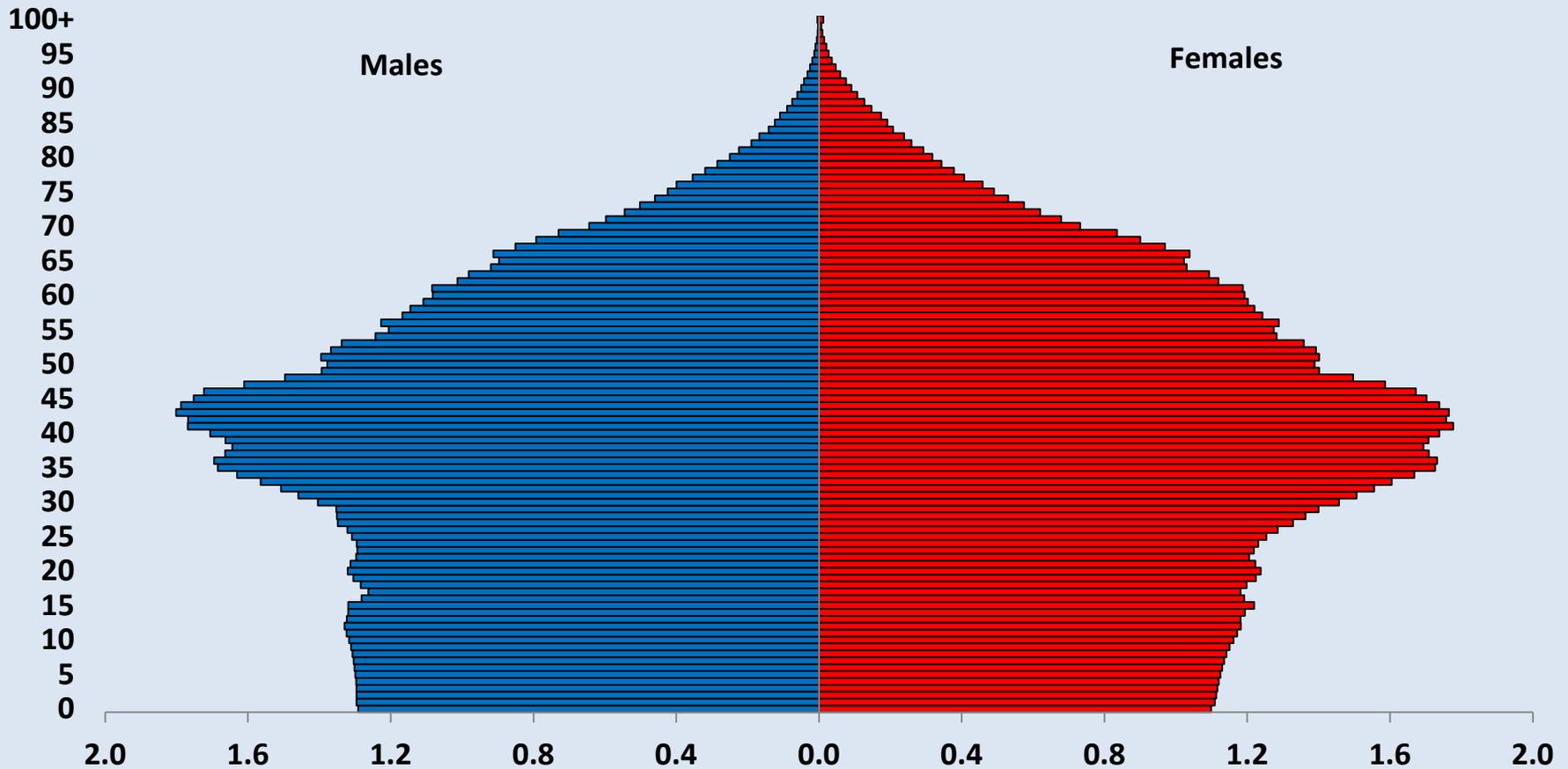
Percent Distribution of the Black Population by Age and Sex: 2026



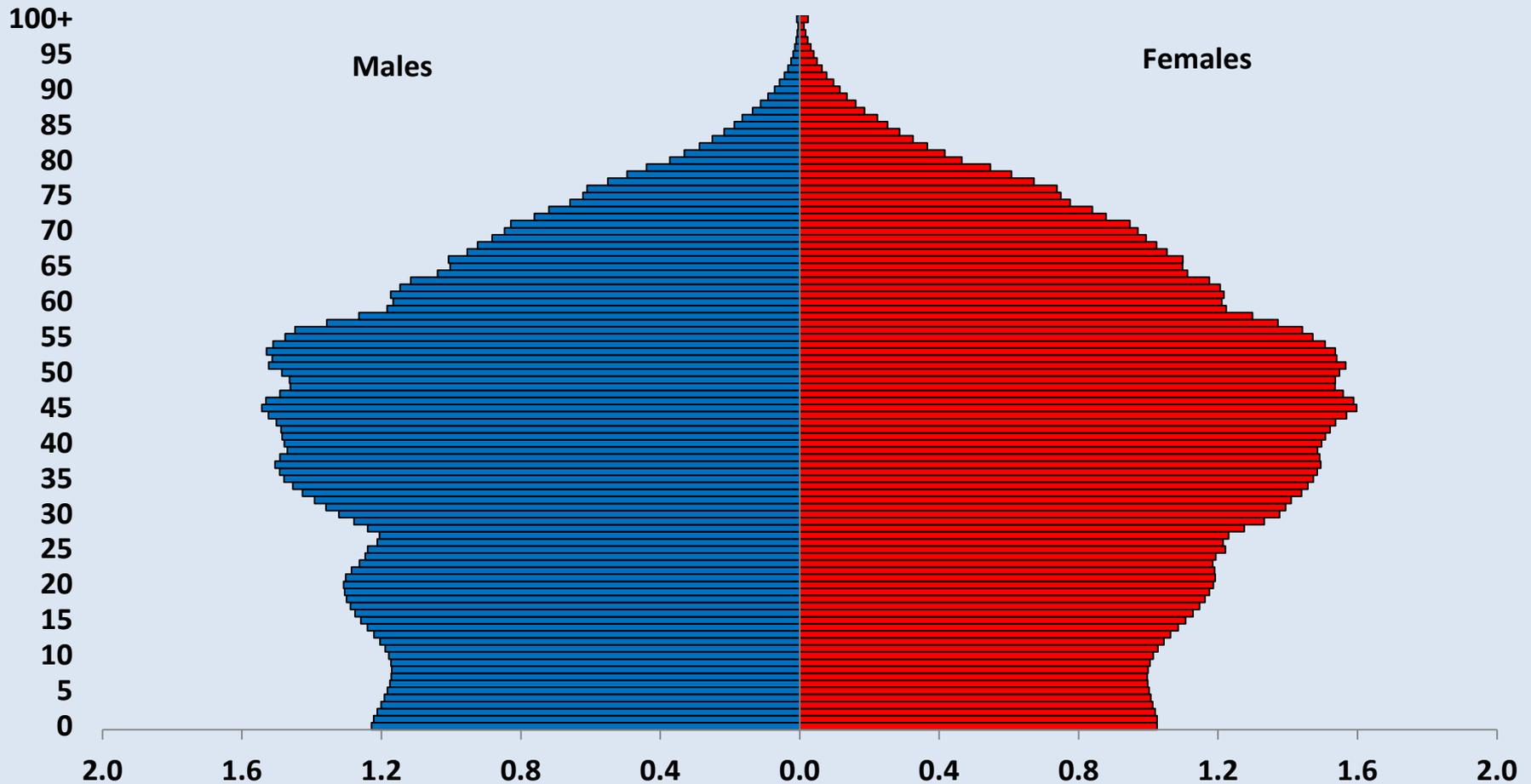
Percent Distribution of the Asian Population by Age and Sex: 2010



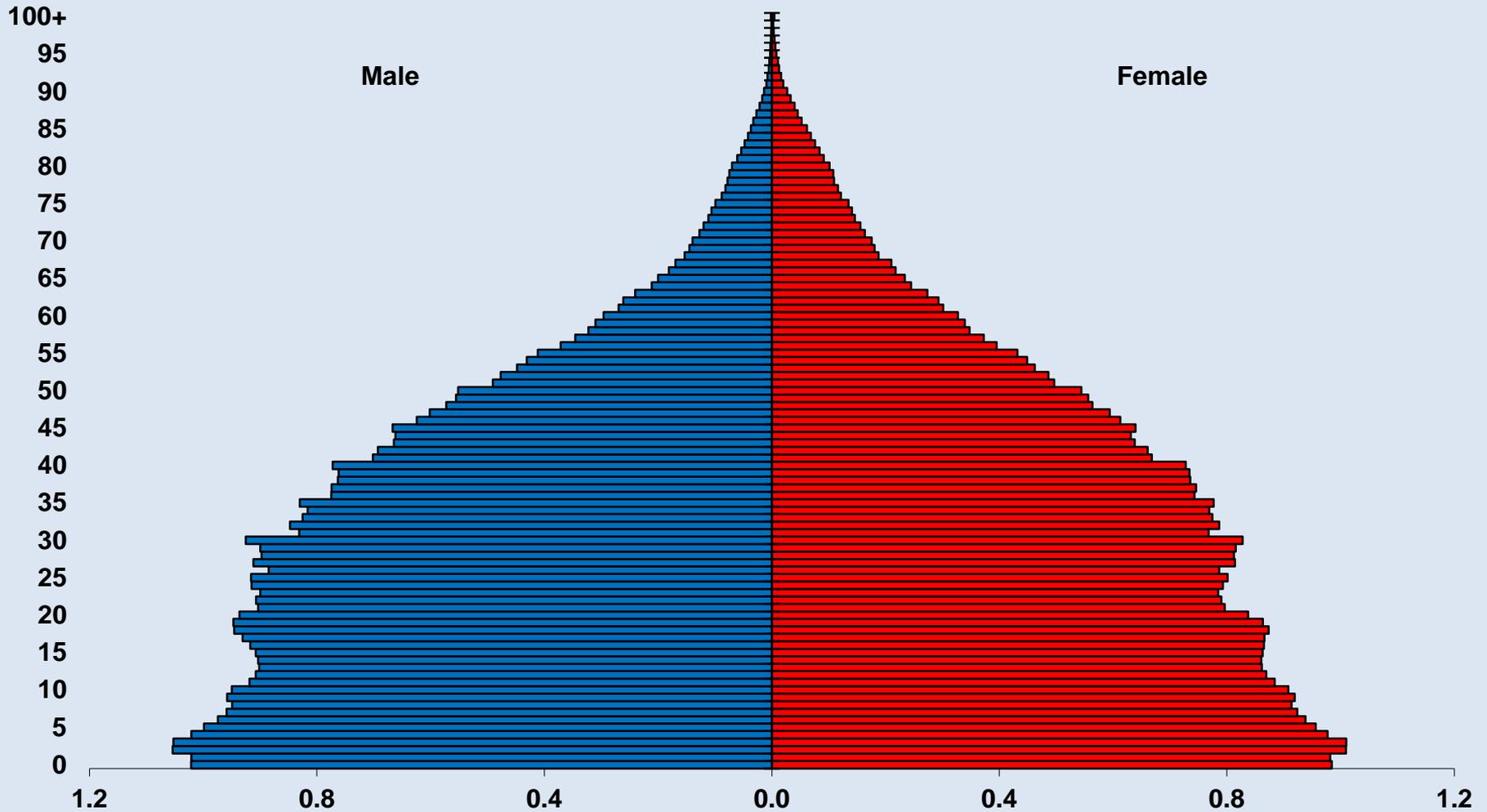
Percent Distribution of the Asian Population by Age and Sex: 2016



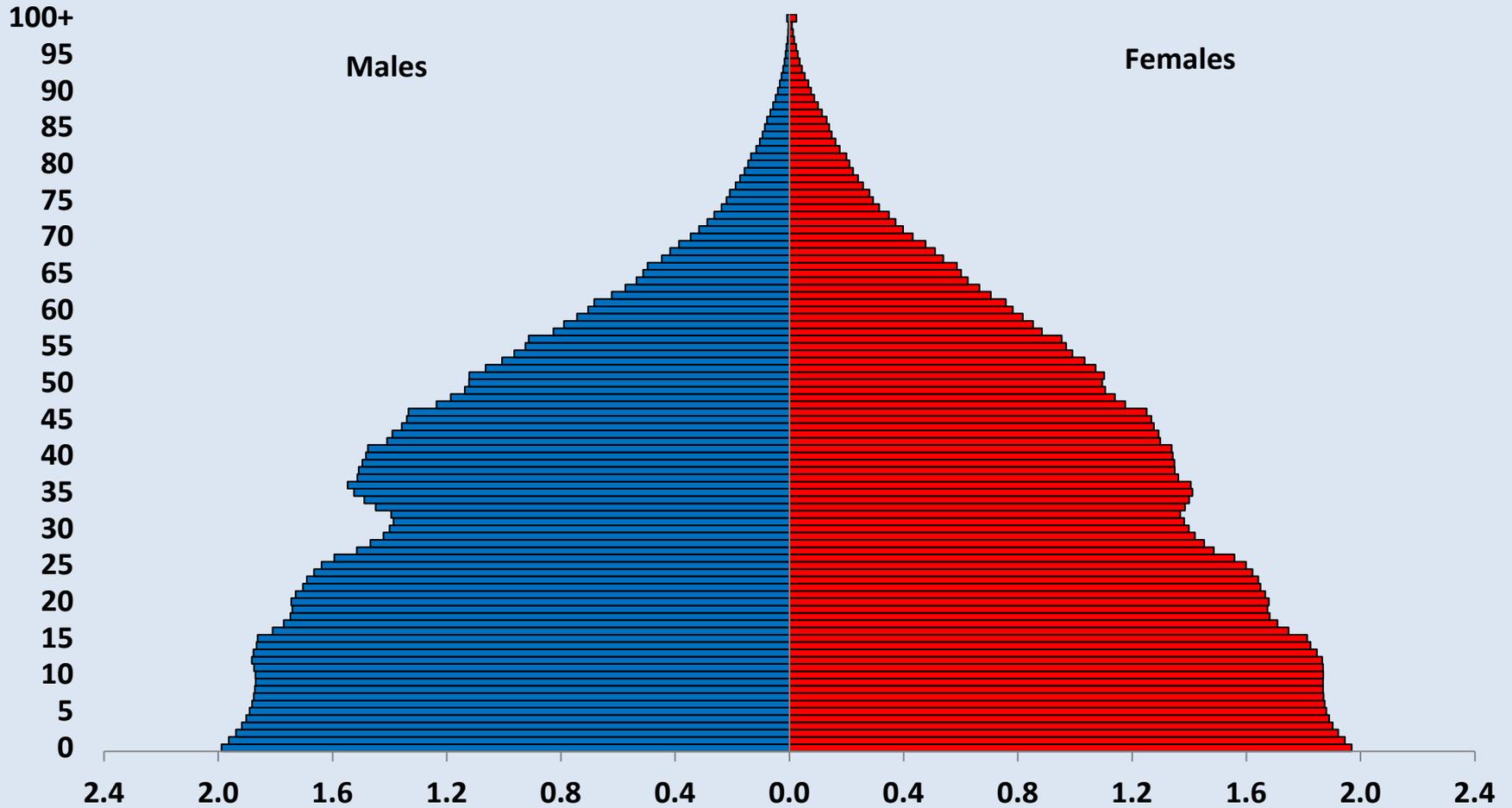
Percent Distribution of the Asian Population by Age and Sex: 2026



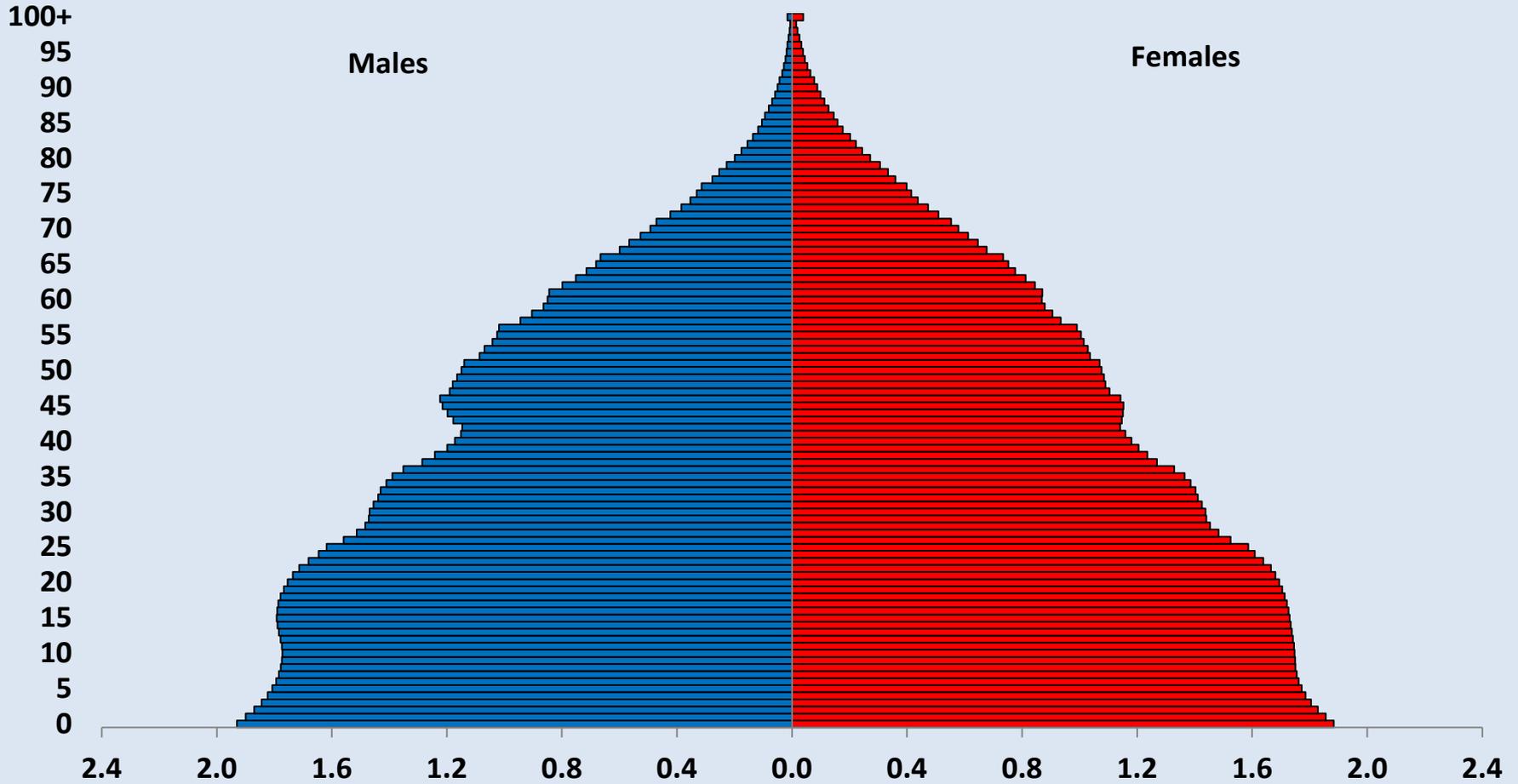
Percent Distribution of the Hispanic Population by Age and Sex: 2010



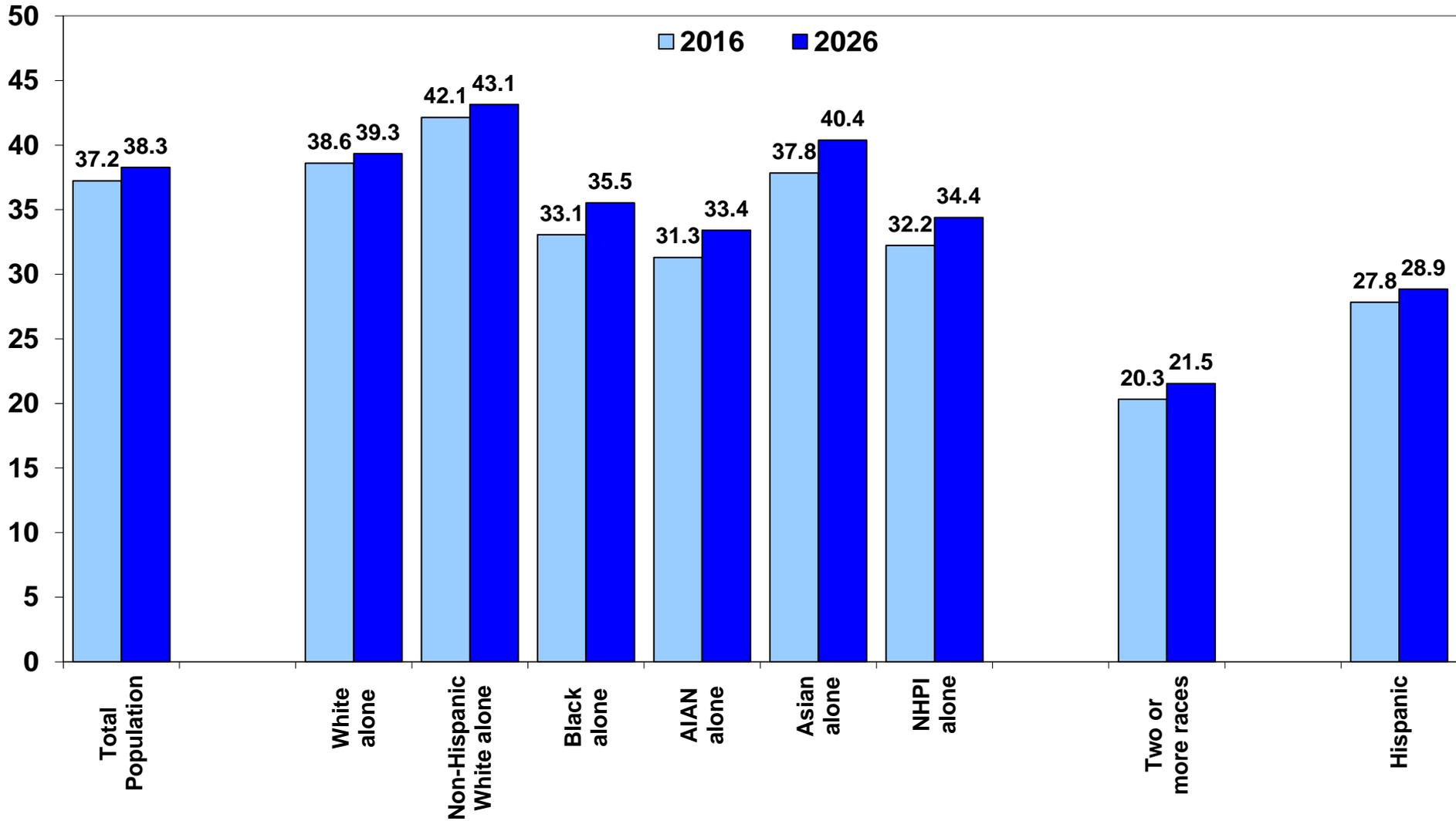
Percent Distribution of the Hispanic Population by Age and Sex: 2016



Percent Distribution of the Hispanic Population by Age and Sex: 2026

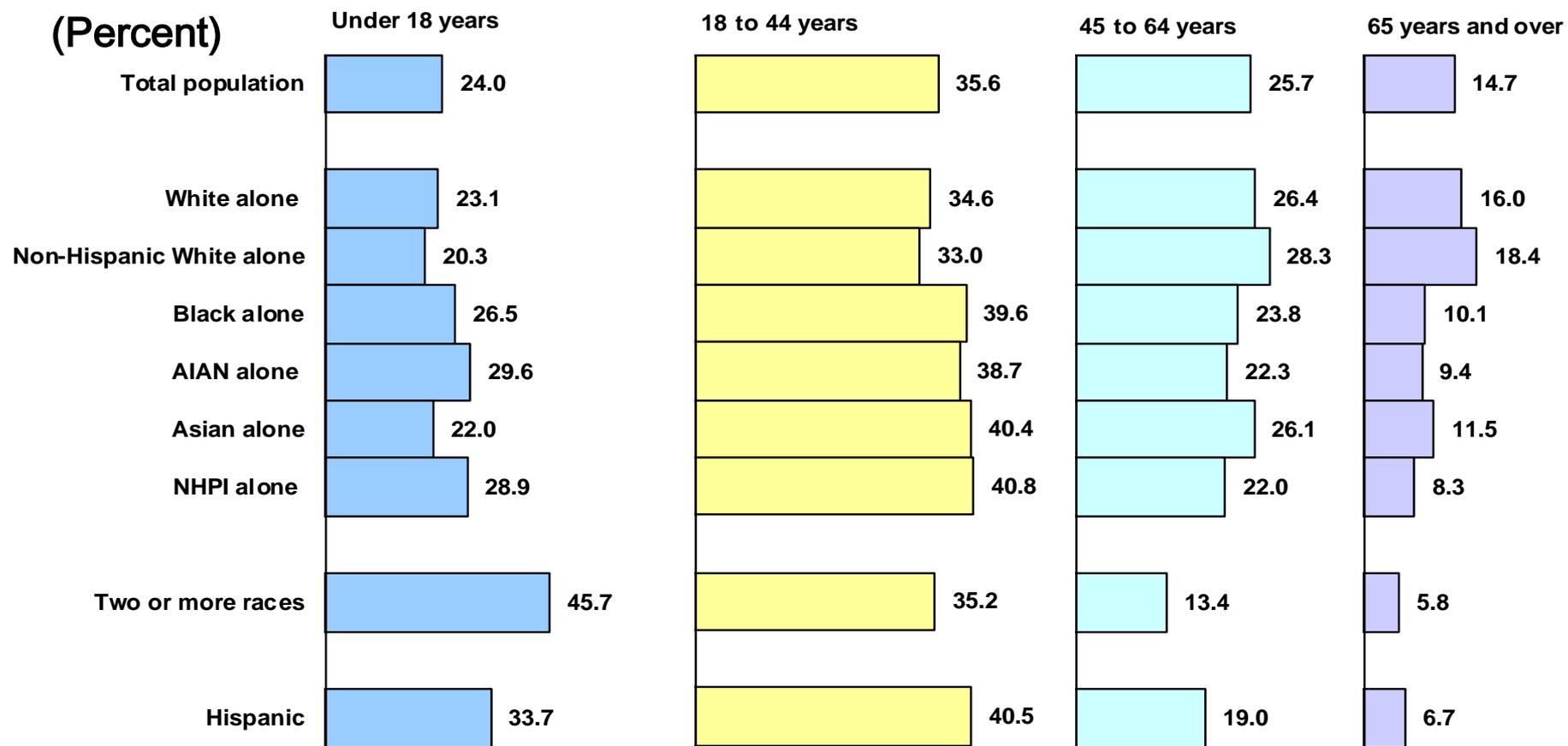


Projected Median Age of the Population by Race and Hispanic Origin: 2016 and 2026

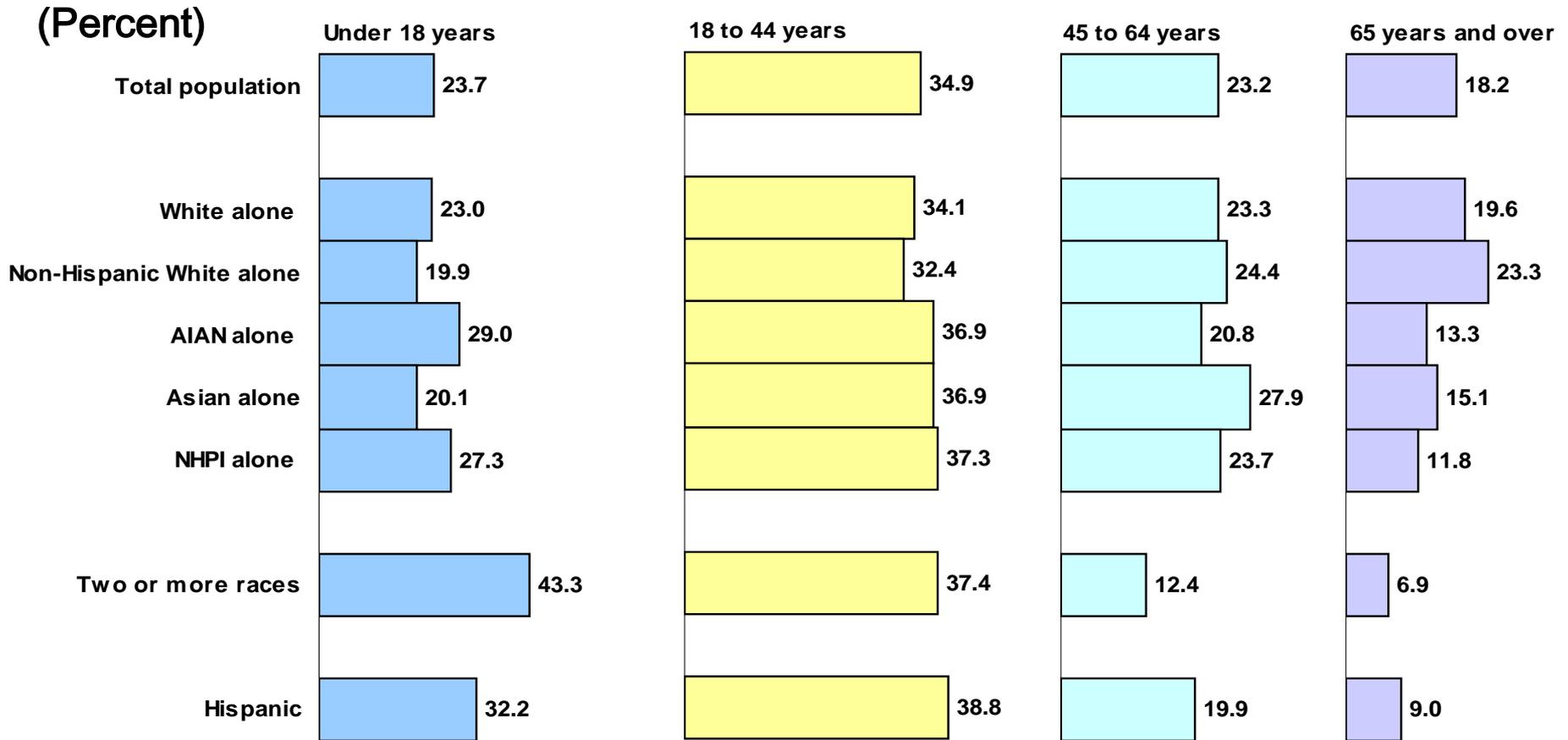


Source: U.S. Census Bureau, 2008 National Projections.

Projected Distribution of the Population by Age, Race, and Hispanic Origin: 2016



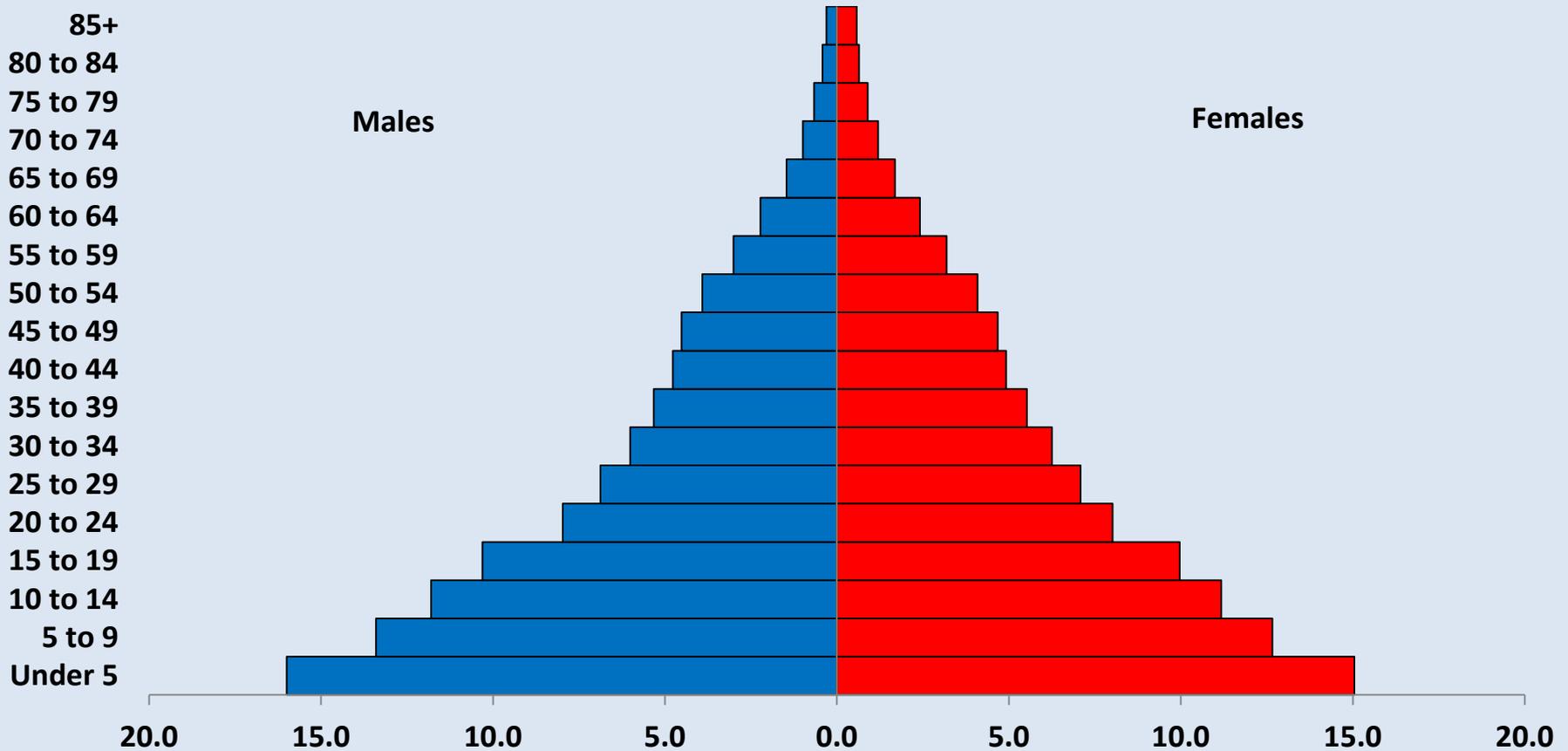
Projected Distribution of the Population by Age, Race, and Hispanic Origin: 2026



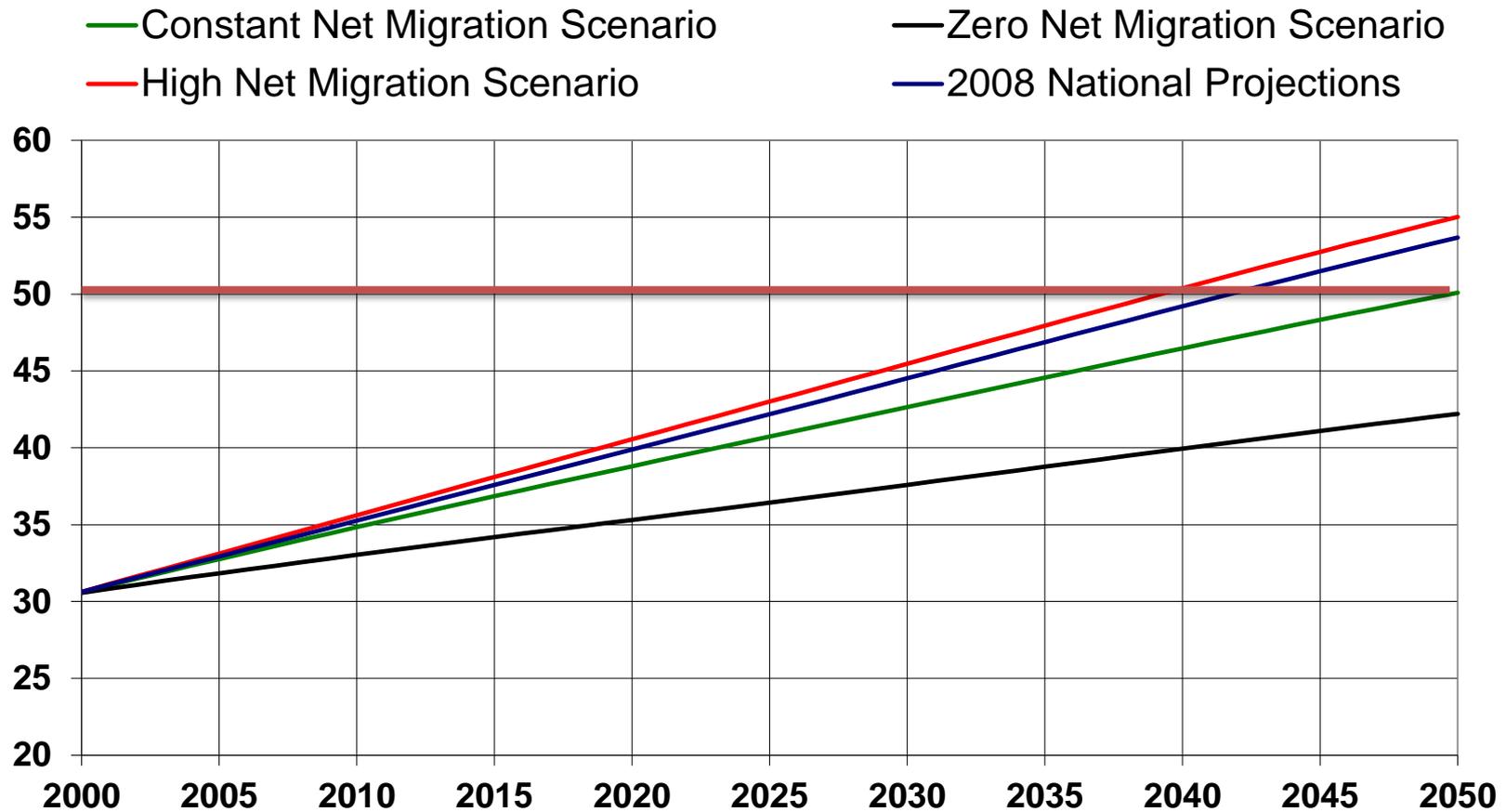
Cohort Component Projections

- $Pop(0, t) =$
 - + Births
 - + Immigrants
 - Deaths
 - Emigrants
- $Pop(a + 1, t + 1) = Pop(a, t) - Deaths$
 - + Immigrants
 - Emigrants

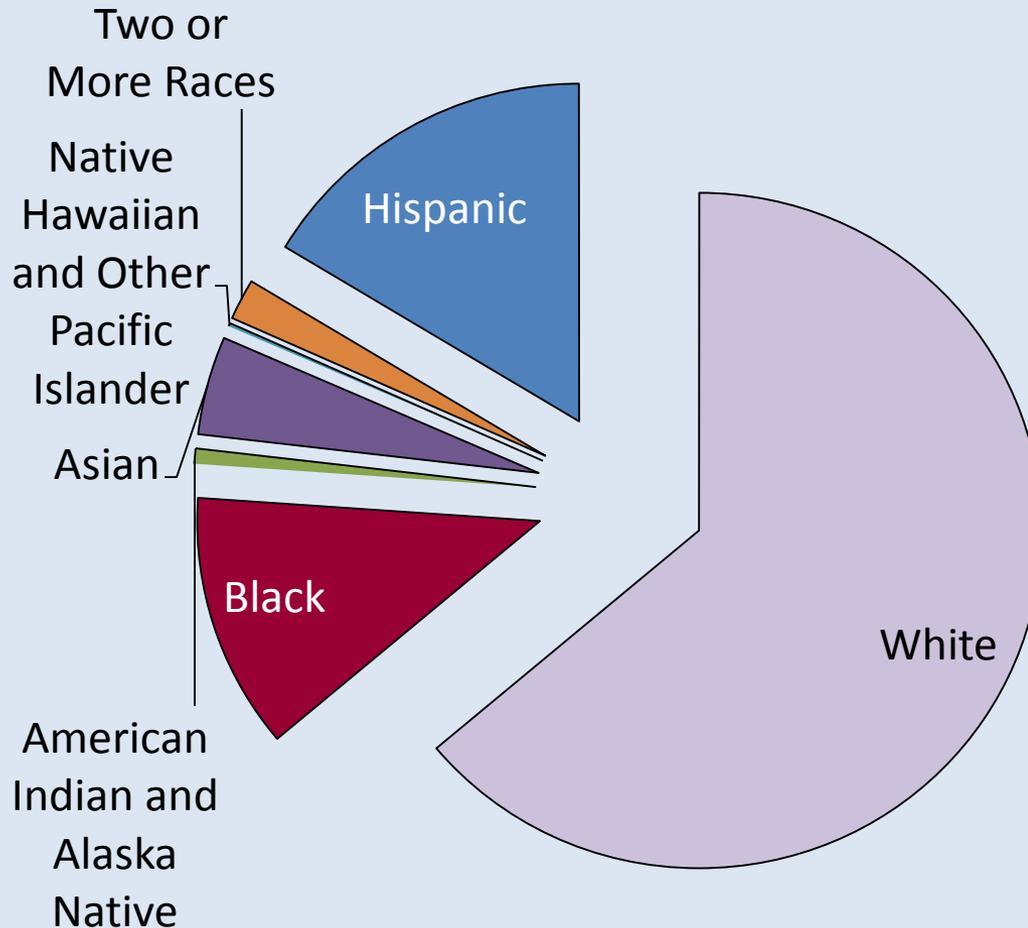
Percent Distribution of the Two or More Races Population by Age and Sex: 2010



Projections of the Percent Minority for the United States: 2000 to 2050

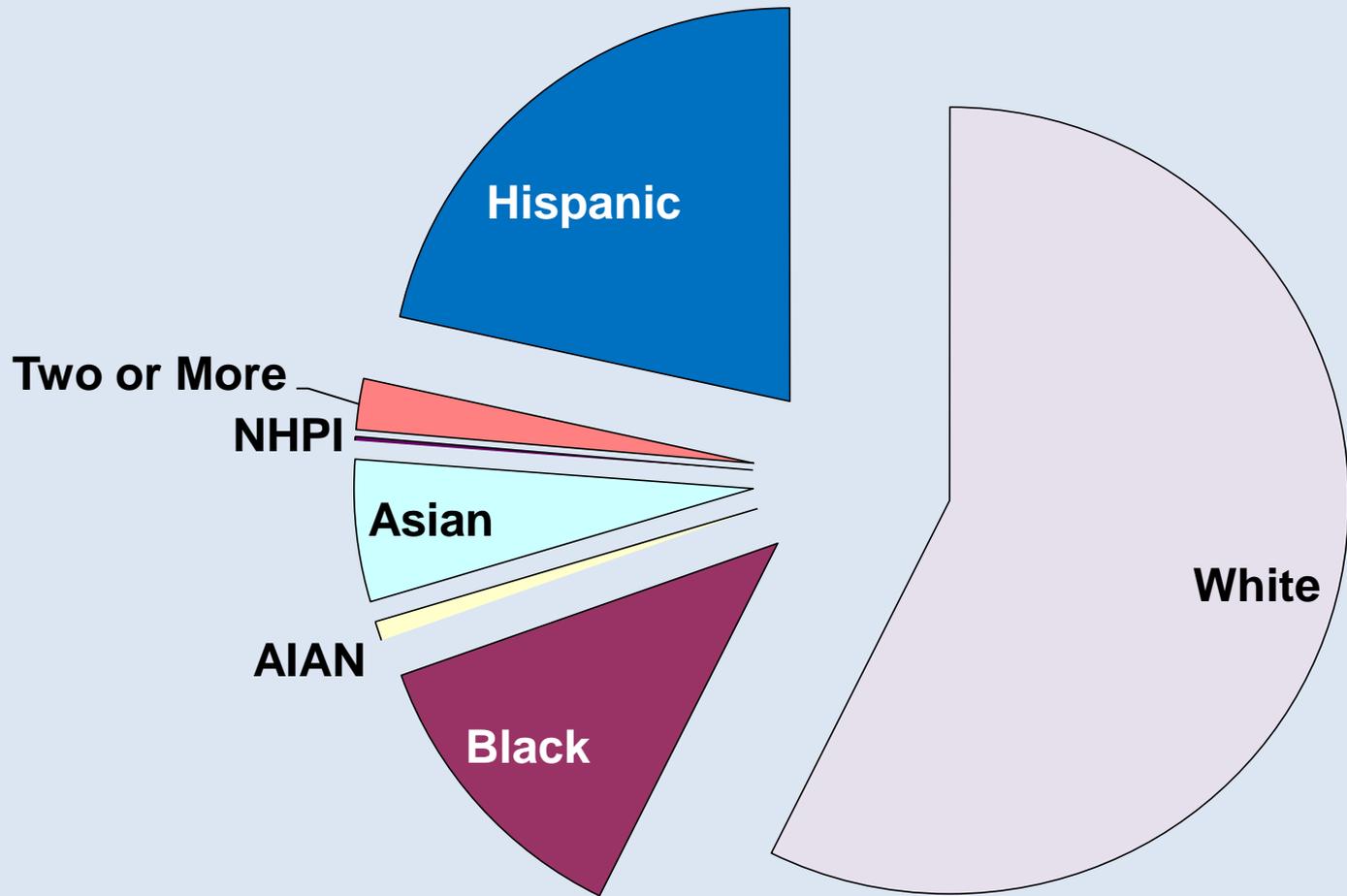


Percent Population by Race and Hispanic Origin: 2010

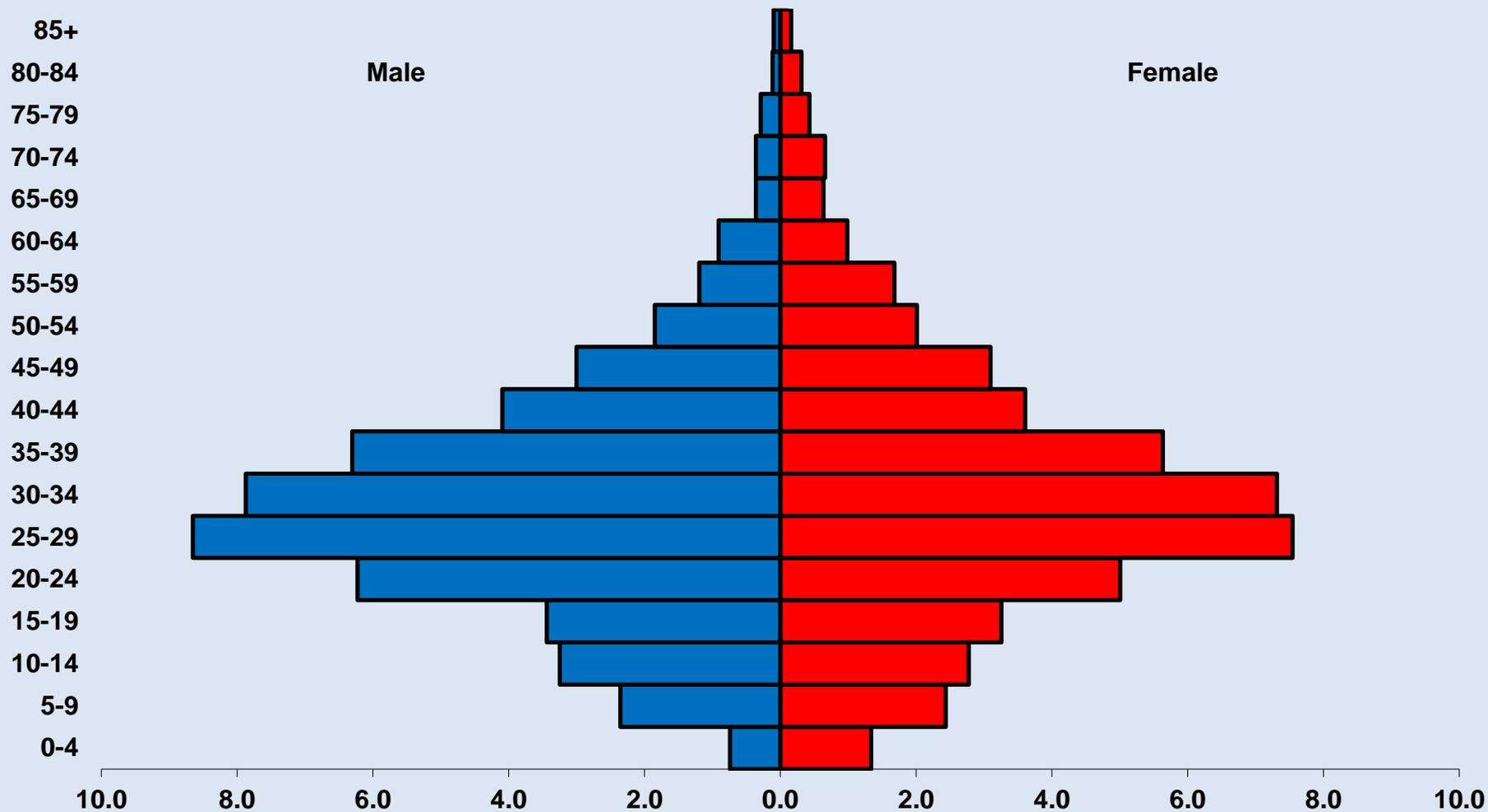


Race groups are non-Hispanic, single race groups, except for the Two or More Population.

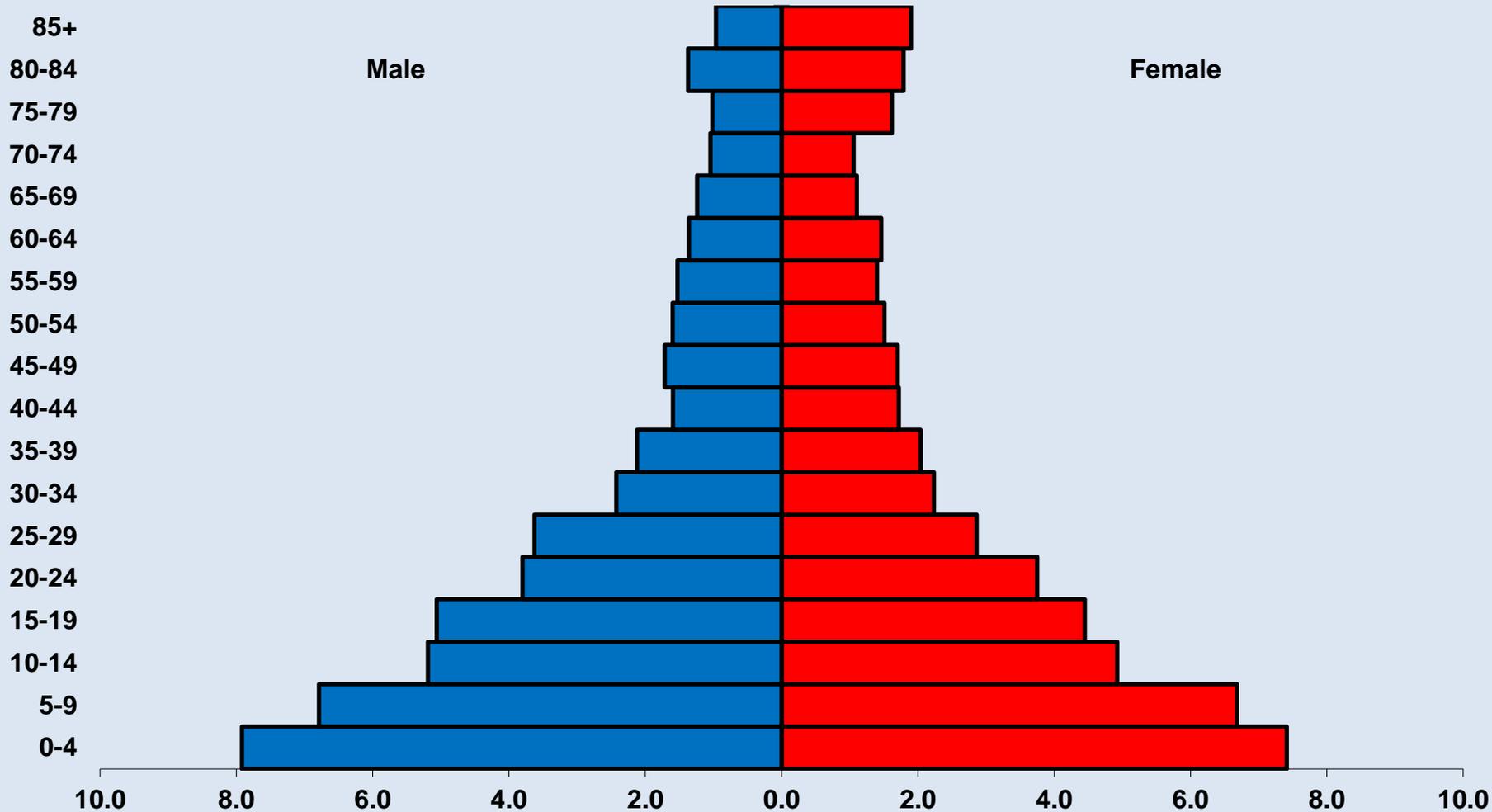
Projected Distribution of the Population by Race and Hispanic Origin: 2026



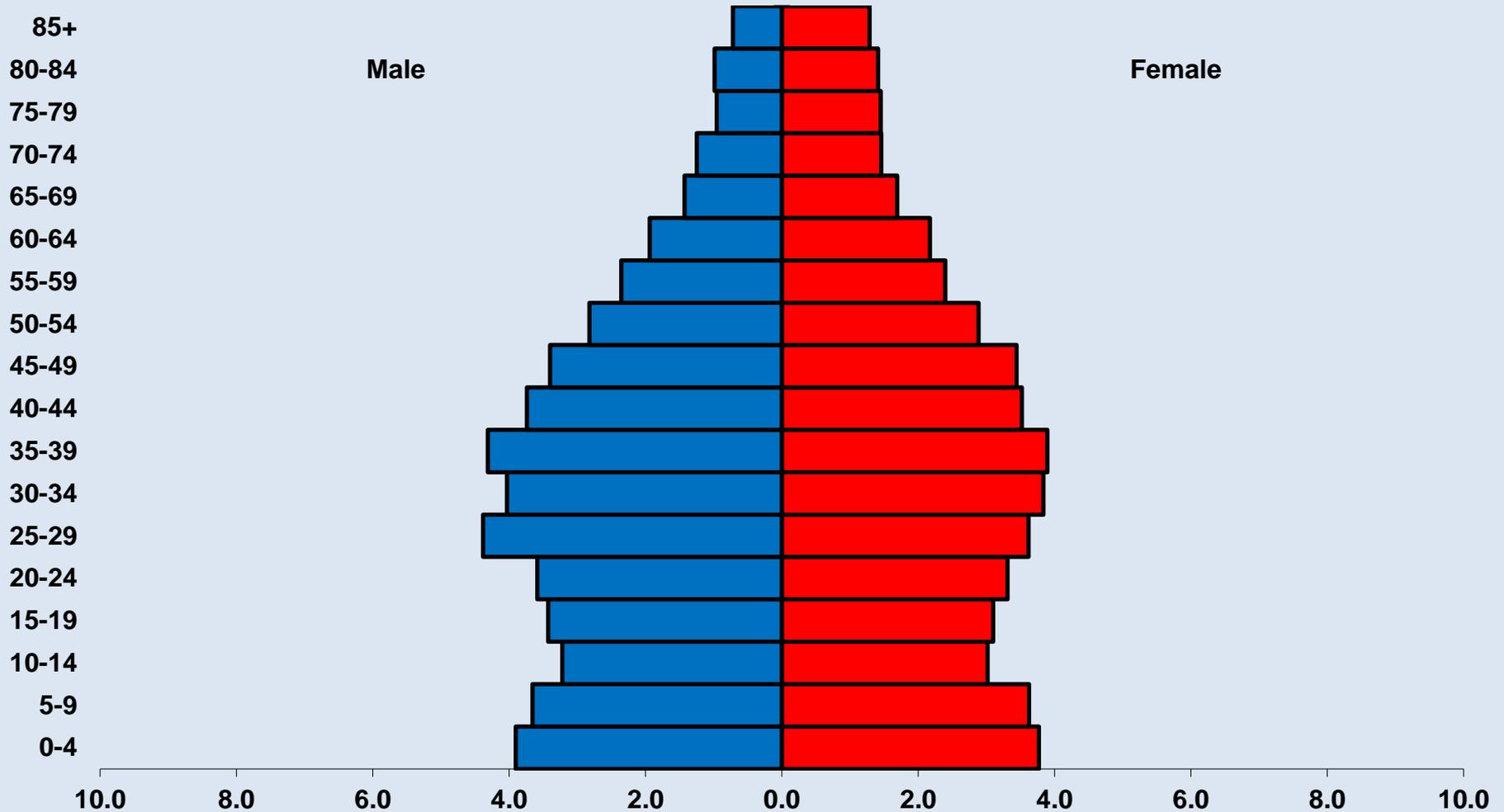
Percent Distribution of the Population of Recent Immigrants* by Age and Sex: 2010



Percent Distribution of Second Generation Americans: 2010

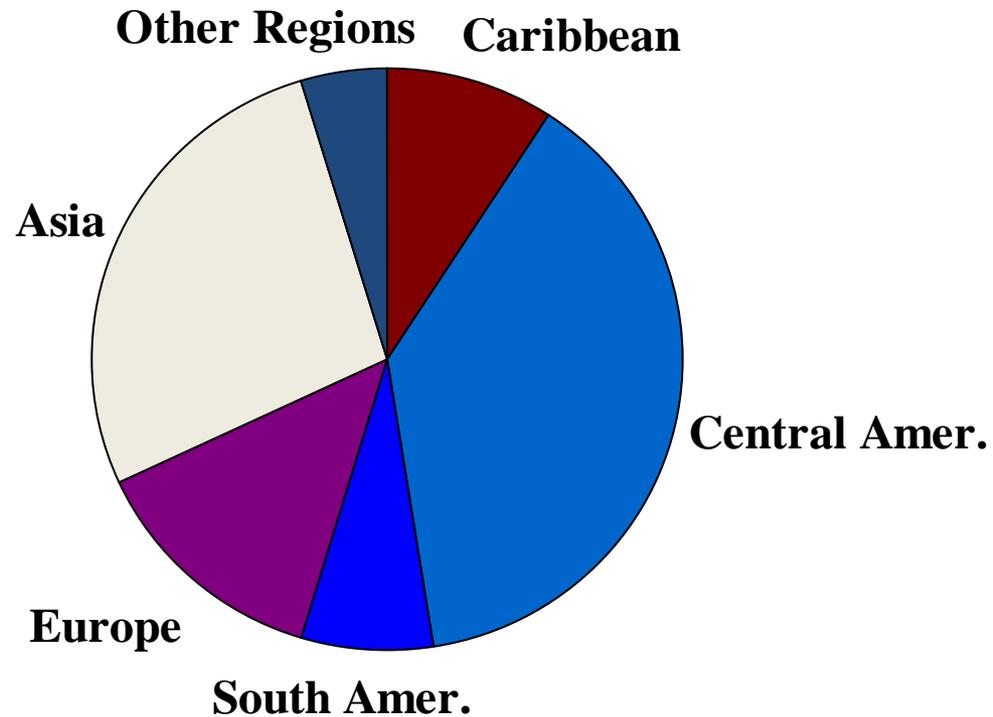


The Foreign Born plus Second Generation Americans: 2010

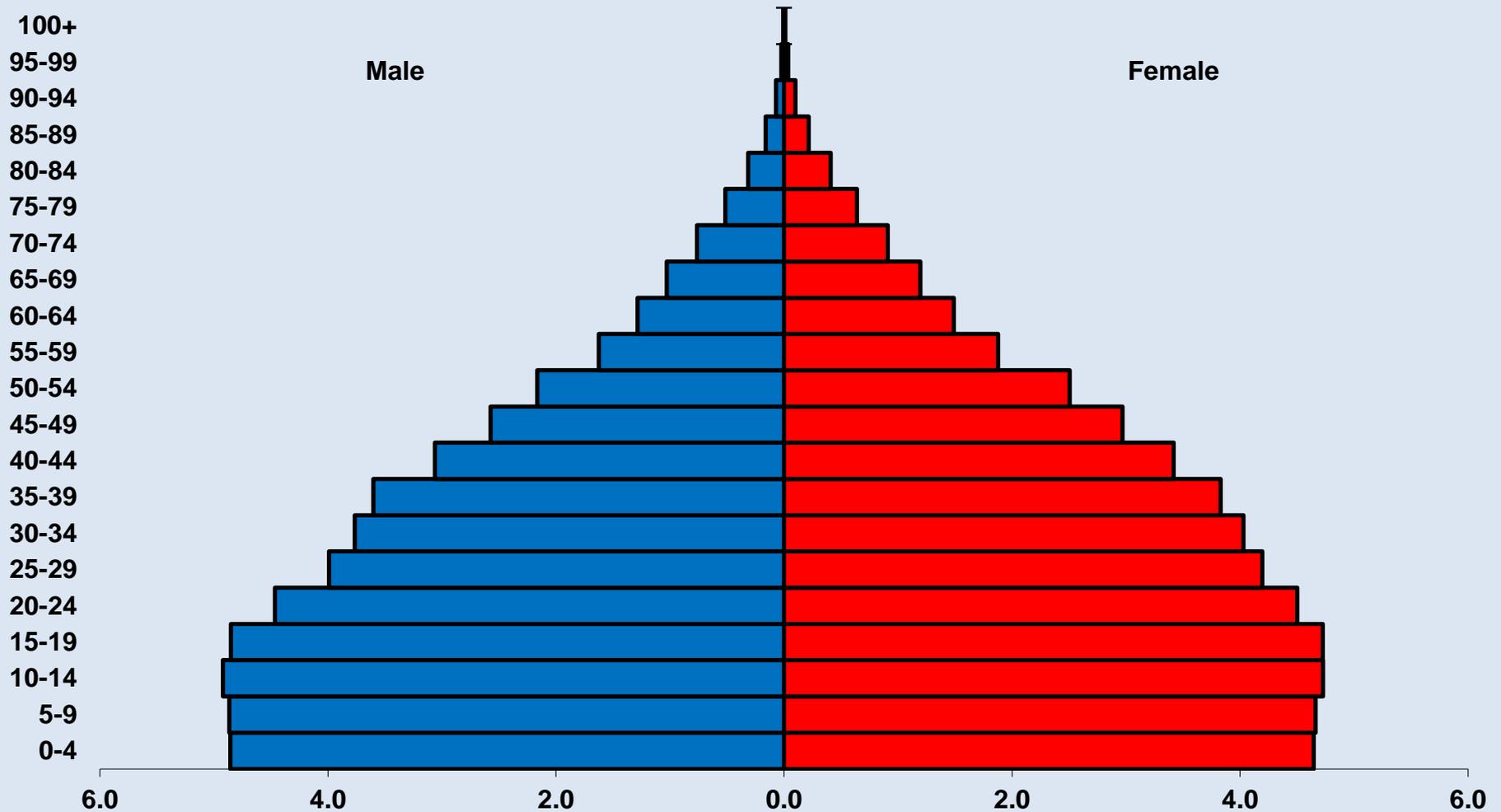


Foreign Born by Region of Birth: 2008

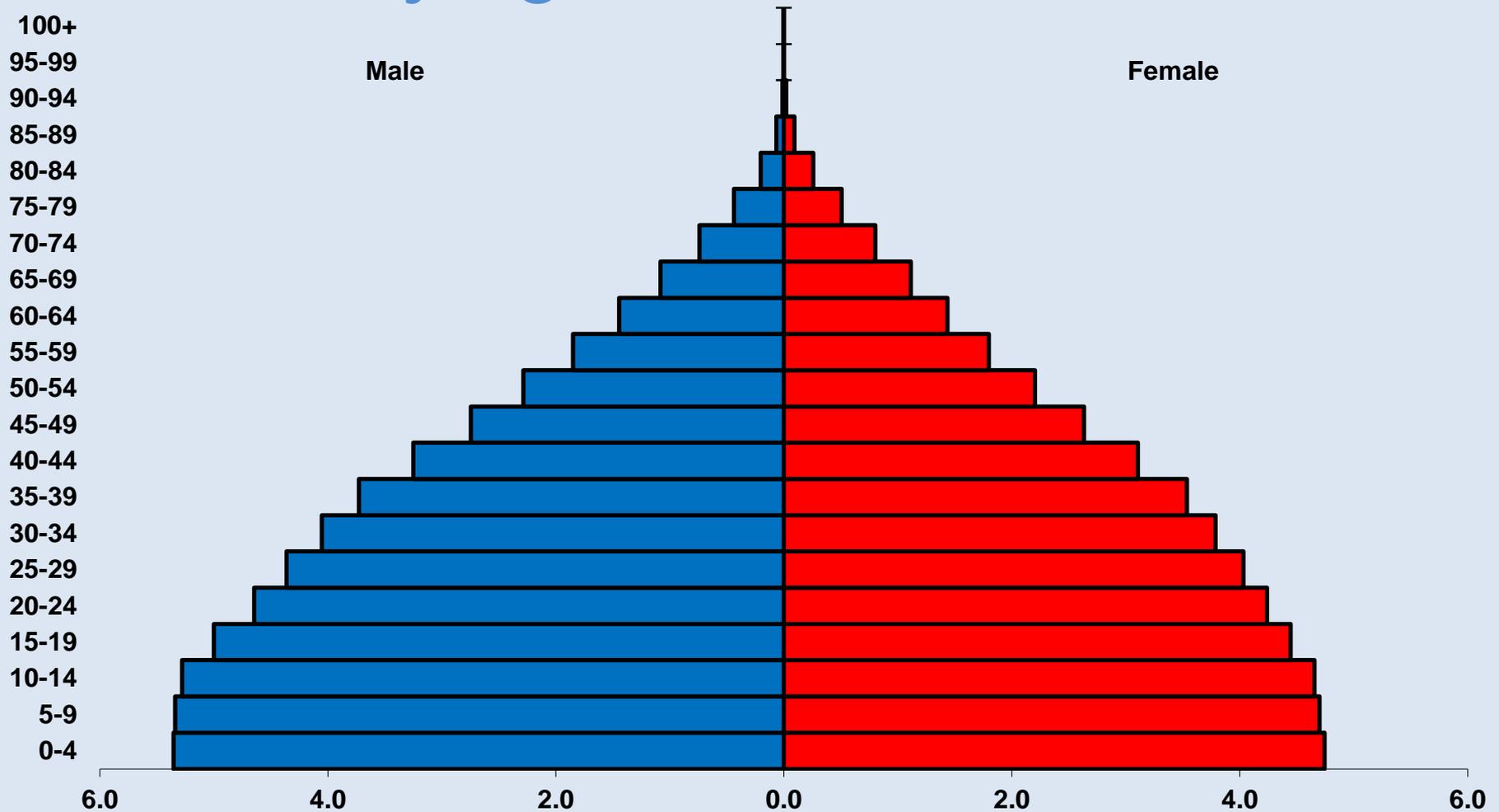
37.7 Mil.
Foreign-
Born
Residents



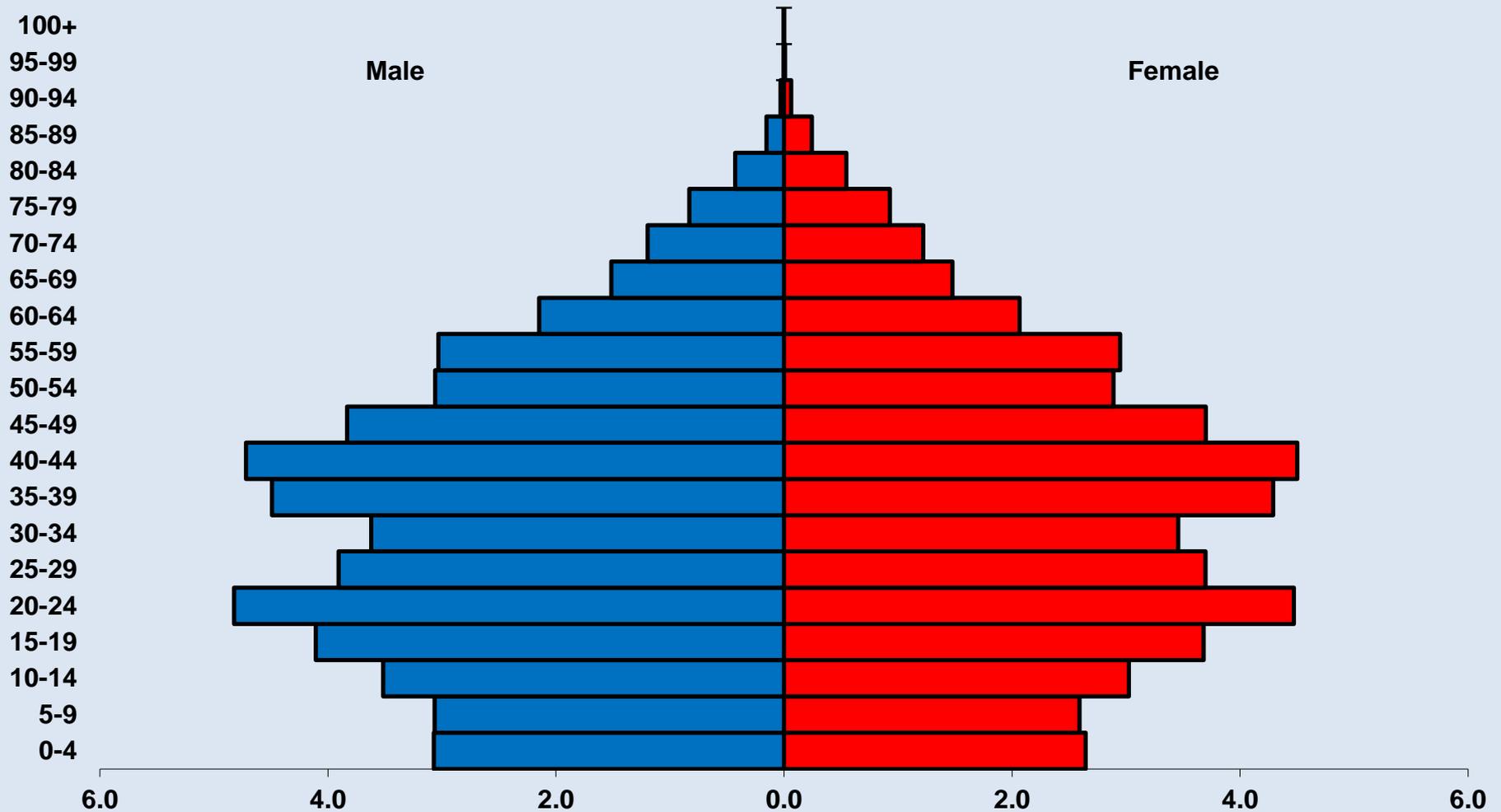
Percent Distribution of the Population in Mexico: 2010



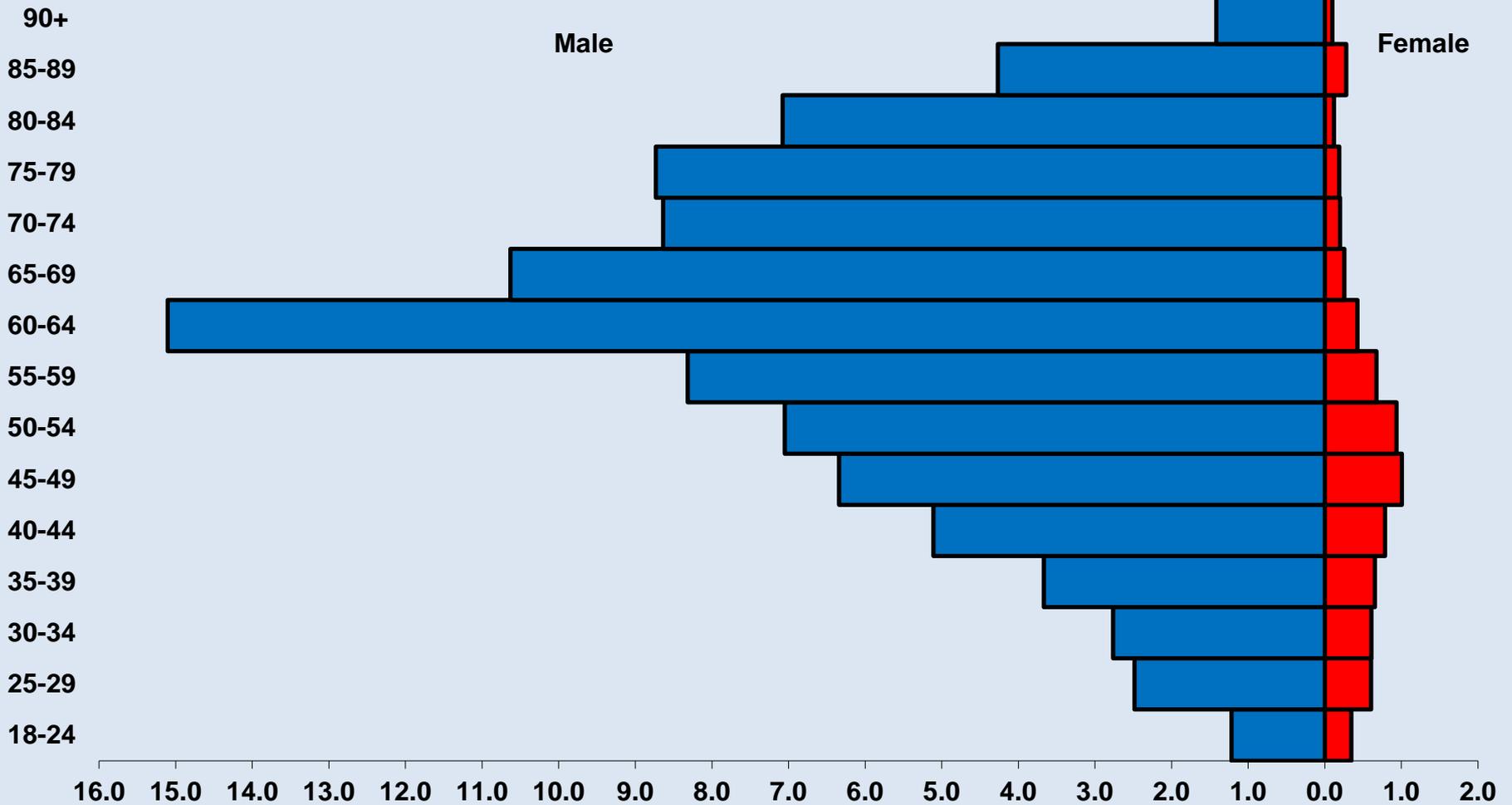
Percent Distribution of the Population in India by Age and Sex: 2010



Percent Distribution of the Population in China by Age and Sex: 2010

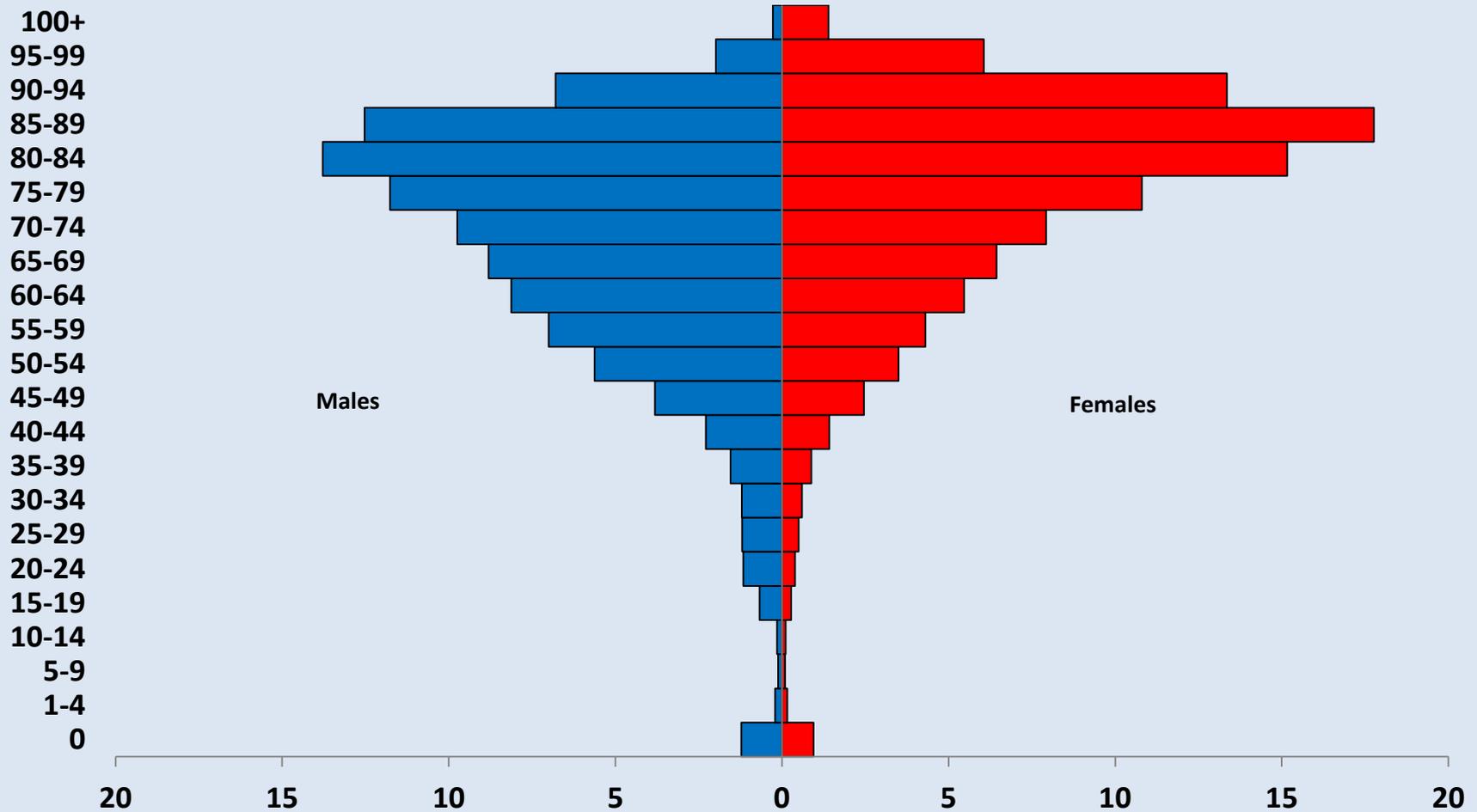


Percent Distribution of the Veteran Population by Age and Sex: 2010



And in the long run, we're all . . .

Percent Distribution of Deaths in 2009 by Age at Death



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