

Population Projections and Components of Change for the United States: Trends and Assumptions

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Overview

- Methodology
- Current projects
- Components of change
 - Methods, assumptions, and trends
 - Mortality
 - Fertility
 - Net international migration
- Questions

Methodology

- Cohort-component method

$$P_2 = P_1 + B - D + NIM$$

where : P_1 = Population at time 1

P_2 = Population at time 2

B = Births

D = Deaths

NIM = Net international migration

Current Projects

- Evaluating previous projections
- 2012 National Population Projections
 - By age, sex, race, and Hispanic origin
 - Based on:
 - 2010 Census
 - 2000-2010 Intercensal population estimates
 - Vital statistics through 2009

Components of Change

- Mortality
- Fertility
- Net International Migration

Mortality

- Methodology and assumptions
 - Life tables are produced to calculate survival ratios
 - Historical death data from NCHS and intercensal population estimates for the same time period
 - Produced by age, sex, and race/ethnic group
 - Survival rates are then forecasted using a time series model
 - Done for one, large race/ethnic group to a time past the projection horizon
 - Other groups' rates are converged to the large group's rate at that time

Projected Life Expectancy

Year	Hispanic (any race)		Non-Hispanic Black alone		Non-Hispanic all other races	
	Male	Female	Male	Female	Male	Female
2010	78.4	83.7	70.1	77.1	76.4	81.1
2030	80.2	85.0	74.8	80.9	78.7	83.2
2050	81.9	86.3	79.0	84.3	81.0	85.3

Source: U.S. Census Bureau. Population Division. 2008.

Fertility

- Methodology and assumptions
 - Age-specific fertility rates are calculated
 - Historical birth data from NCHS and intercensal population estimates of the female population for the same time period are used
 - Produced by race/ethnic group for women aged 15-49
 - Fertility rates are then forecasted using a time series model
 - Done for one, large race/ethnic group to a time past the projection horizon
 - Other groups are assumed to converge to the large group's rate at that time

Projected Total Fertility Rate

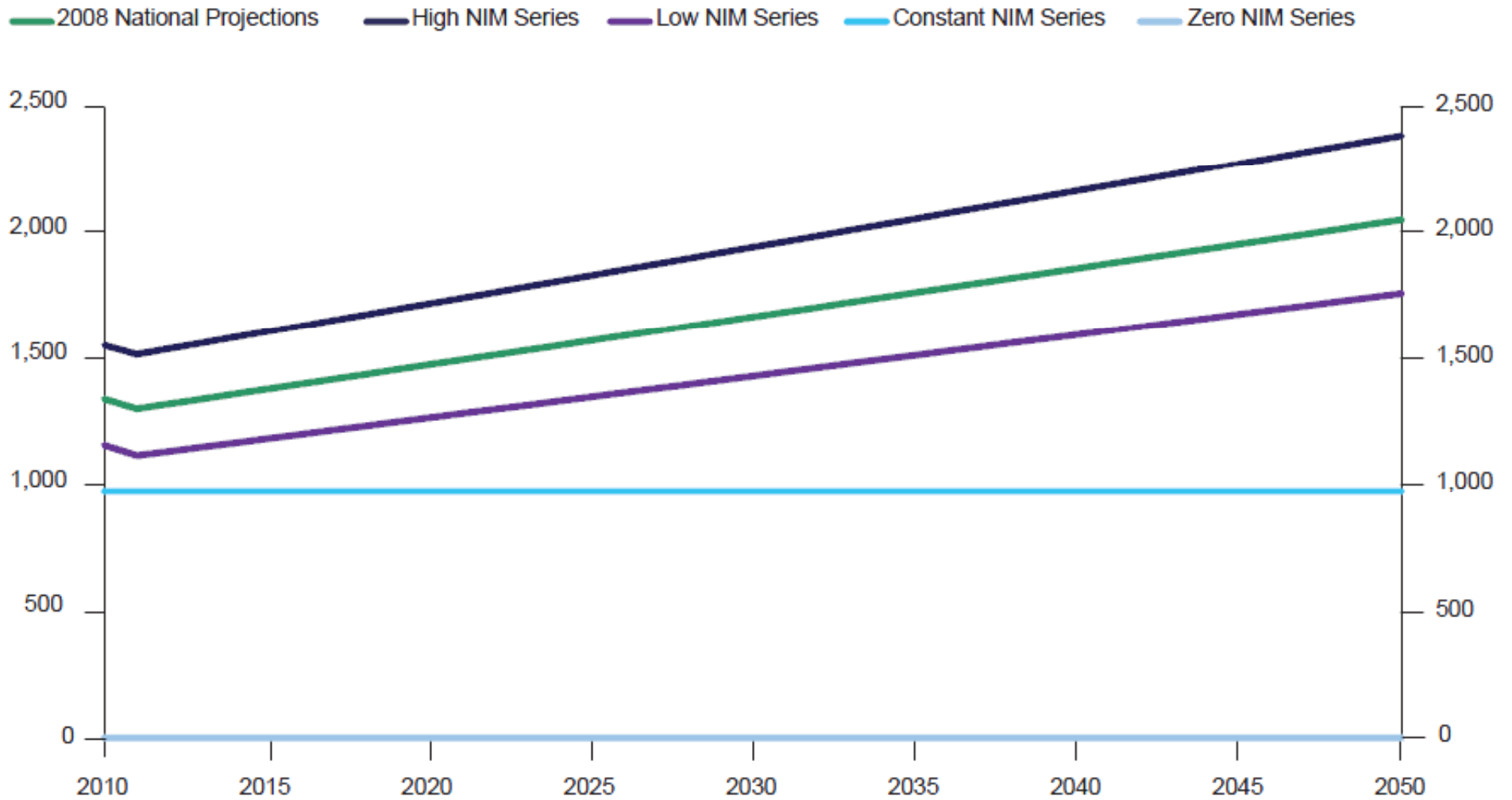
Year	U.S. Total	Hispanic (any race)	Non- Hispanic Black alone	Non- Hispanic all other races
2010	2.06	2.70	1.93	1.90
2025	2.06	2.53	1.91	1.90
2050	2.03	2.29	1.88	1.89

Source: U.S. Census Bureau. Population Division. 2008.

Net International Migration

- Methodology and assumptions
 - The net number of foreign-born migrants is calculated
 - Historical immigrant data from DHS are used with adjustments for out-migration
 - Net foreign-born migrants are then forecasted using a time series model
 - Done for four country-of-origin groups
 - Race and ethnicity are imputed based on the group and Census 2000 data
 - Age and sex are assigned based on historical trends
 - Total net migration is calculated by adding
 - Net migration from Puerto Rico
 - Net movement of Armed Forces overseas
 - Net international migration of the native-born

Projected Net International Migration

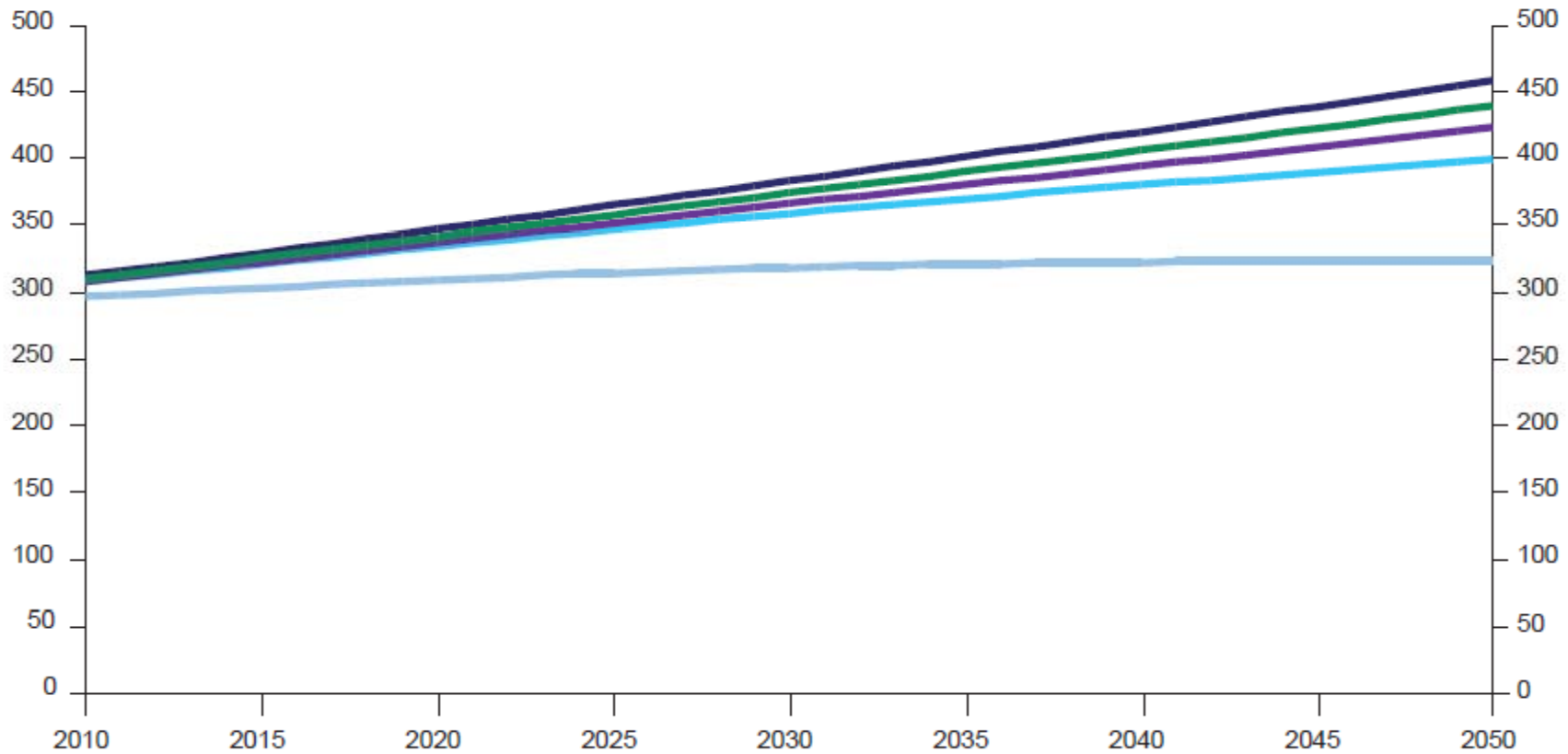


Numbers in thousands.

Source: U.S. Census Bureau. Population Division. 2008 and 2009.

Projected Total Population

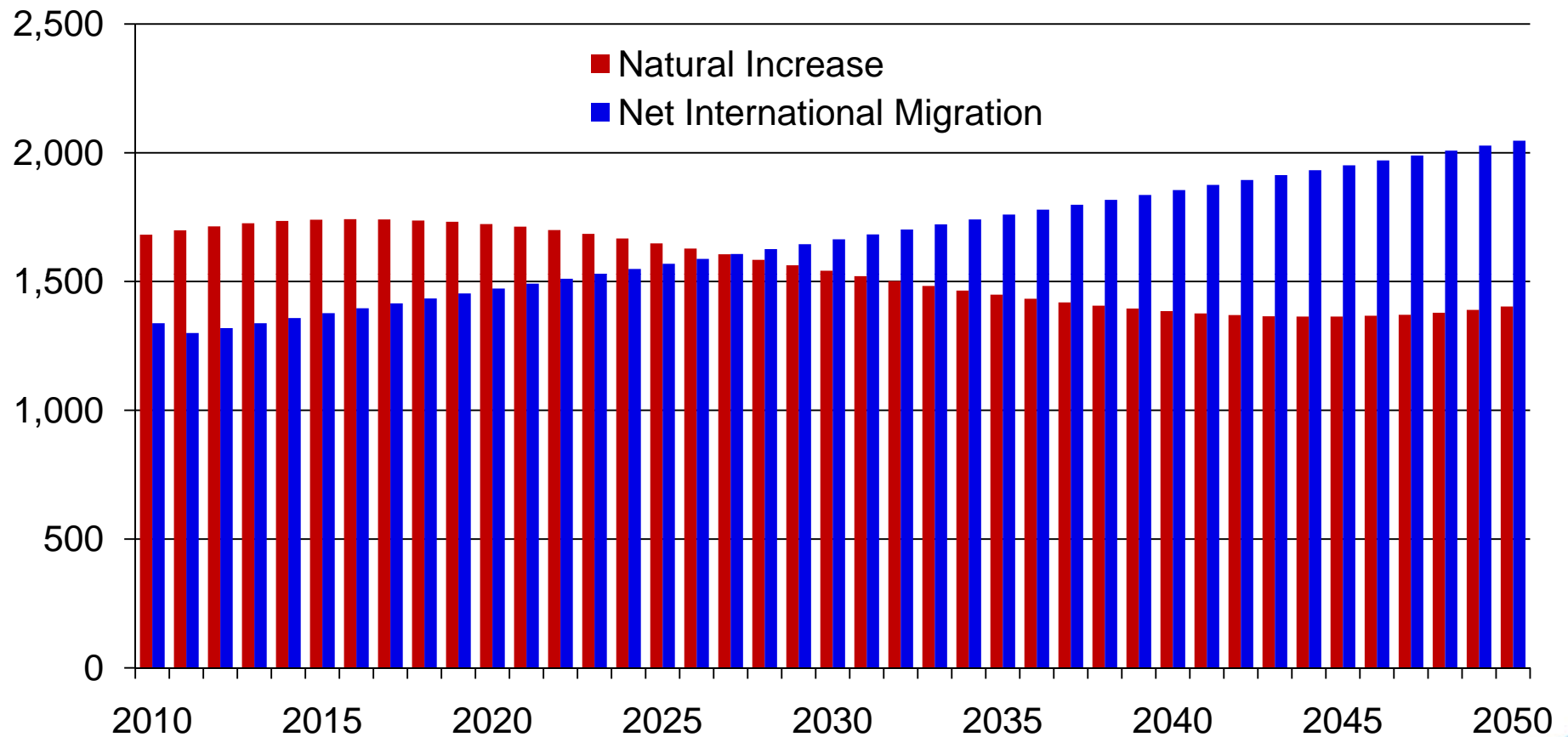
2008 National Projections High NIM Series Low NIM Series Constant NIM Series Zero NIM Series



Numbers in millions.

Source: U.S. Census Bureau. Population Division. 2008 and 2009.

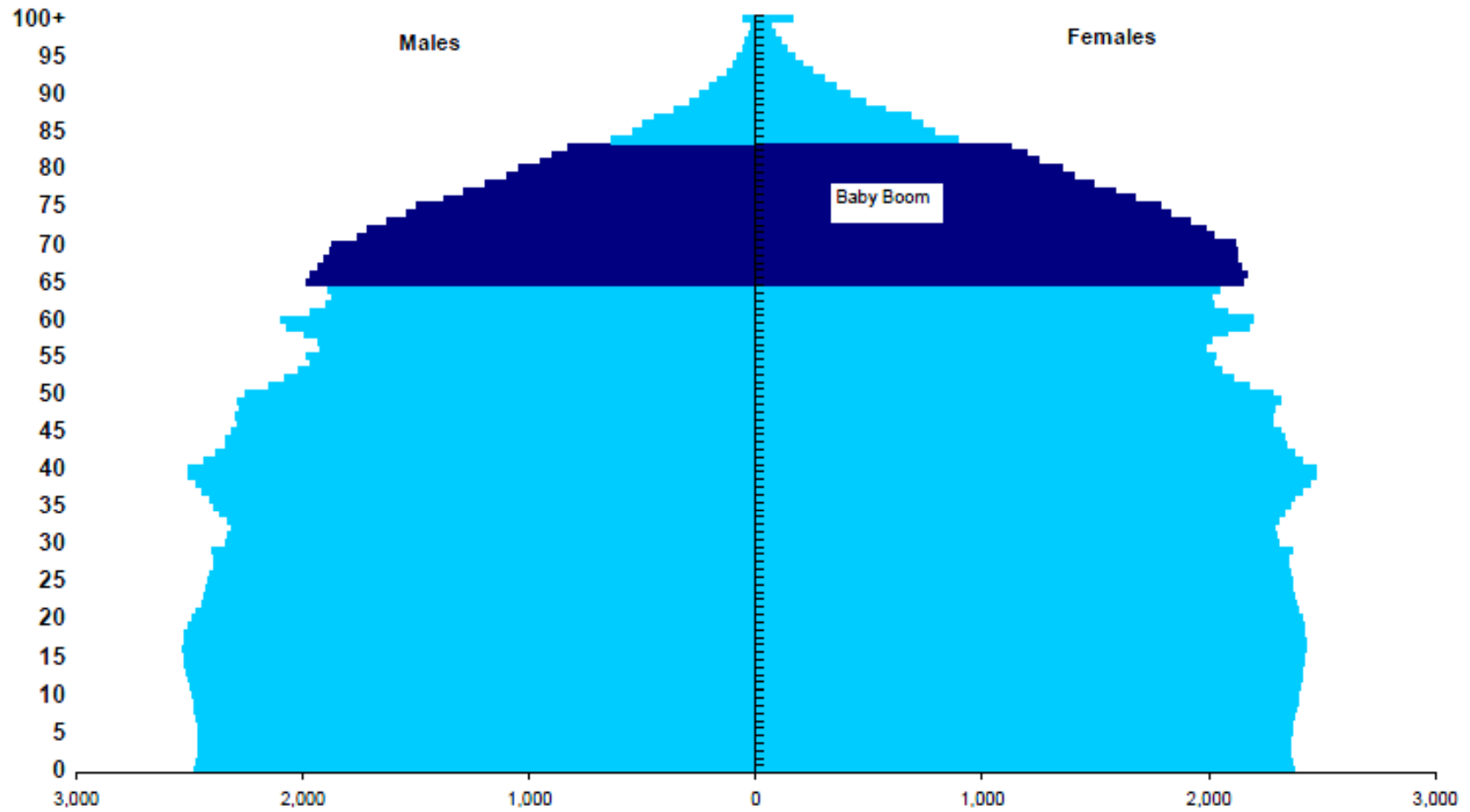
Net International Migration and Natural Increase



Numbers in thousands.

Source: U.S. Census Bureau. Population Division. 2008.

Projected Population: 2030



Numbers in thousands.

Source: U.S. Census Bureau. Population Division. 2008.

Questions?

Web Address and Contact Information

Web Address for Census Bureau
Projections:

<http://www.census.gov/population/www/projections/index.html>

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Thank you!