

# **The Role of International Migration in Projecting Racial and Ethnic Diversity in the U.S. Population**

By

Jennifer M. Ortman  
Population Division  
U.S. Census Bureau

Christine E. Guarneri  
Population Division  
U.S. Census Bureau

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## **Abstract**

International migration to and from the United States makes an important contribution to the racial and ethnic diversity of the nation. Using projections of the United States population produced by the U.S. Census Bureau, we examine the effects that different levels of international migration could have on shaping the racial and ethnic composition over the next four decades. The Asian population is the most impacted by changes in migration levels with respect to size, age structure, and proportional representation. The Hispanic population is likewise influenced by migration, though its population trends are likely to persist even in the absence of migration. The level of international migration also affects the timing of the majority-minority crossover, the year in which the non-Hispanic White alone population becomes less than 50 percent of the total population.

## **Introduction**

The United States is expected to experience significant increases in racial and ethnic diversity over the next four decades. The pace and extent of these changes will be shaped in part by the level of international migration. Using projections of the United States population produced by the U.S. Census Bureau, we examine the effects that different levels of international migration could have on shaping the racial and ethnic composition of the United States over the next four decades. Our findings illustrate the extent to which the level of international migration causes racial and ethnic diversity to vary in the coming decades with respect to size, proportional representation, and age structure.

## **Data and Methods**

Our research utilizes data from the 2008 National Population Projections and from a series of supplemental projections produced in 2009.<sup>1</sup> These projections are of the resident population by age, sex, race, and Hispanic origin. The projections are based on Census 2000 and were produced using a cohort-component method. The components of change were projected into the future based on past trends. The projections cover the period 2000 through 2050. This paper presents results for the years 2010 to 2050. The Census Bureau recommends that the population estimates be used as the measure of the current population for years when both population estimates and projections are available.

<sup>1</sup> Further details on both the 2008 and 2009 National Projections are available at <http://www.census.gov/population/www/projections>.

Mortality and fertility projections were developed using the same methodology for both the 2008 and 2009 National Projections. For the 2008 series, net international migration was projected primarily using historical data on foreign-born immigration from 1972 to 2002, and also includes net migration from Puerto Rico, the net movement of the Armed Forces population between the United States and overseas, and the migration of the native born to and from the United States. Projections of net international migration for the 2009 series were developed by modifying the levels used in the 2008 series to create four alternative net international migration assumptions: (1) High Net International Migration, (2) Low Net International Migration, (3) Constant Net International Migration, and (4) Zero Net International Migration.

In the High and Low Net International Migration series, the projected net international migration from the 2008 series was increased and reduced, respectively, by the ratio of the net international migration data produced by the Population Estimates Program to the projected net international migration from the 2008 series for the years 2001 through 2008 (14.14 percent). In the Constant Net International Migration series, the level of net international migration is held constant at a reduced level of 975 thousand migrants over the projection period, and illustrates the effect a level trend in international migration would have if maintained over the projection period. In the Zero Net International Migration series, net international migration is held constant at a value of zero for the entire projection period, thus assuming a closed population with no movement of individuals into or out of the United States.

A comparison of the level of net international migration by year for each series is presented in Figure 1. It is noteworthy that the level of migration fluctuates up and down

during the first decade in the 2008 National Projections and in the High and Low Net International Migration Series produced in 2009. These fluctuations are attributable to the projected out-migration of H1-B visa holders who arrived in during the 1990s and to the movement of the Armed Forces to and from the United States during this decade, which was projected to stabilize after 2010.

## **Findings**

The highest levels of net international migration correspond to the largest amount of growth for the Asian and Hispanic populations, which are the primary immigrant groups to the United States (Table 1). For low to high levels of international migration, the Asian and Hispanic populations are projected to more than double in size by 2050. Even if net international migration was maintained at a constant level of nearly one million, the Hispanic population is still projected to more than double by 2050, while the Asian population is expected to increase by 79 percent. The pace at which the Asian and Hispanic populations will grow is projected to slow considerably (Figures 2 and 3).

Most other race groups are projected to experience a moderate increase in size over the next four decades in all five projection series, and there is little difference in the projected growth rates for these groups across projection series. The one exception to this trend is for the non-Hispanic White alone population, which is projected to begin to decline in size in all five series (Figure 4). This decline is projected to begin around 2030 for all series except the Zero Net International Migration series. In that series, the decline begins in 2022.

Many trends are also evident upon examining the projected changes in the proportional distribution of the U.S. population by race and Hispanic origin (Table 2). The White alone population decreases as a percentage of the total population in all series (Figure 5). In particular, the non-Hispanic White alone population is expected to experience a large decline in proportional representation (Figure 6). The Black, American Indian and Alaskan Native, and Native Hawaiian and Other Pacific Islander populations are expected to maintain or slightly increase their percent share of the population in all series.

With the exception of the Zero Net International Migration series, the Asian population is projected to experience small increases in its percent share of the population (Figure 7). The percentage of Hispanics in the U.S. population is projected to increase substantially in all series, even in the Zero Net International Migration series (Figure 8). For the Hispanic population, the level of migration is projected to enhance but not drive trends in population growth and aging. Given differences in fertility rates across race and Hispanic origin groups, we find that even in the absence of international migration, the size of the Hispanic population is projected to increase substantially in the coming decades. In contrast, we find that the size and age structure of the Asian population is strongly linked to projected levels of migration.

The level of migration to the United States will also influence the extent to which the population will age over the next forty years. International migrants tend to be younger individuals (typically under the age of 35), which effectively slows the pace at which the population ages. Thus, high levels of migration are expected to produce a younger population while less or no migration will result in an older population.

The median age for all race and Hispanic origin groups increases over time in all five scenarios, indicating that the U.S. population is getting older (see Table 3). Moreover, the projected level of net international migration produces the anticipated effects on the median age of the population. Where migration is the highest, median age is expected to rise to 38.6 years by 2050. In the absence of migration, the median age is projected to reach 42.2 years by 2050.

The level of net international migration is projected to have the most influence on the median age of the Asian population. Under the assumption of constant net international migration, the median age of the Asian population is projected to increase from 35.9 years in 2010 to 42.3 years in 2050. With higher levels of migration, the median age of the Asian population increases from 25.7 years in 2010 to 43.1 years in 2050. Comparatively, the Hispanic population is projected to experience a smaller increase in median age, though migration also influences the pace at which this group is projected to age. Under the assumption of a higher level of migration, the median age of the Hispanic population is expected to be 30.9 years in 2050. In contrast, their median age is projected to rise to 33.1 years if there is constant migration.

The White alone population is expected to experience slight increases in median age and migration does exhibit some effects on the pace at which this group will age. However, migration is not projected to alter the pace of aging for the non-Hispanic White alone population. For this group, the median age is projected to rise to approximately 45 years by 2050 in all scenarios. The median ages for the Black, American Indian and Alaskan Native, and Native Hawaiian and Other Pacific Islander populations are projected to increase over time in all scenarios. As shown for the non-Hispanic White

alone population, the level of international migration does not affect how quickly these groups are projected to age.

The level of net international migration will affect the timing of the majority-minority crossover, the year in which the non-Hispanic White alone population becomes less than 50 percent of the total population. In each of the four series where migration occurs, the size of the minority population is expected to increase to the point that they represent the numeric majority between 2040 and 2050 (see Table 4 and Figure 9). The level of net international migration will influence how quickly this crossover occurs. Higher levels of net international migration are projected to lead to an earlier crossover of the minority share of the population, while lower levels will delay the timing of this crossover.

## **Conclusions**

The level of net international migration is projected to play an important role in shaping the racial and ethnic composition of the U.S. population in the coming years. The Hispanic and Asian populations are expected to be the most impacted by net international migration in terms of growth, proportional representation, and age structure. However, the Hispanic population is projected to grow even in the absence of international migration, indicating that trends for this population are also influenced by its current age distribution and the assumption that fertility rates for this group will remain relatively higher over time.

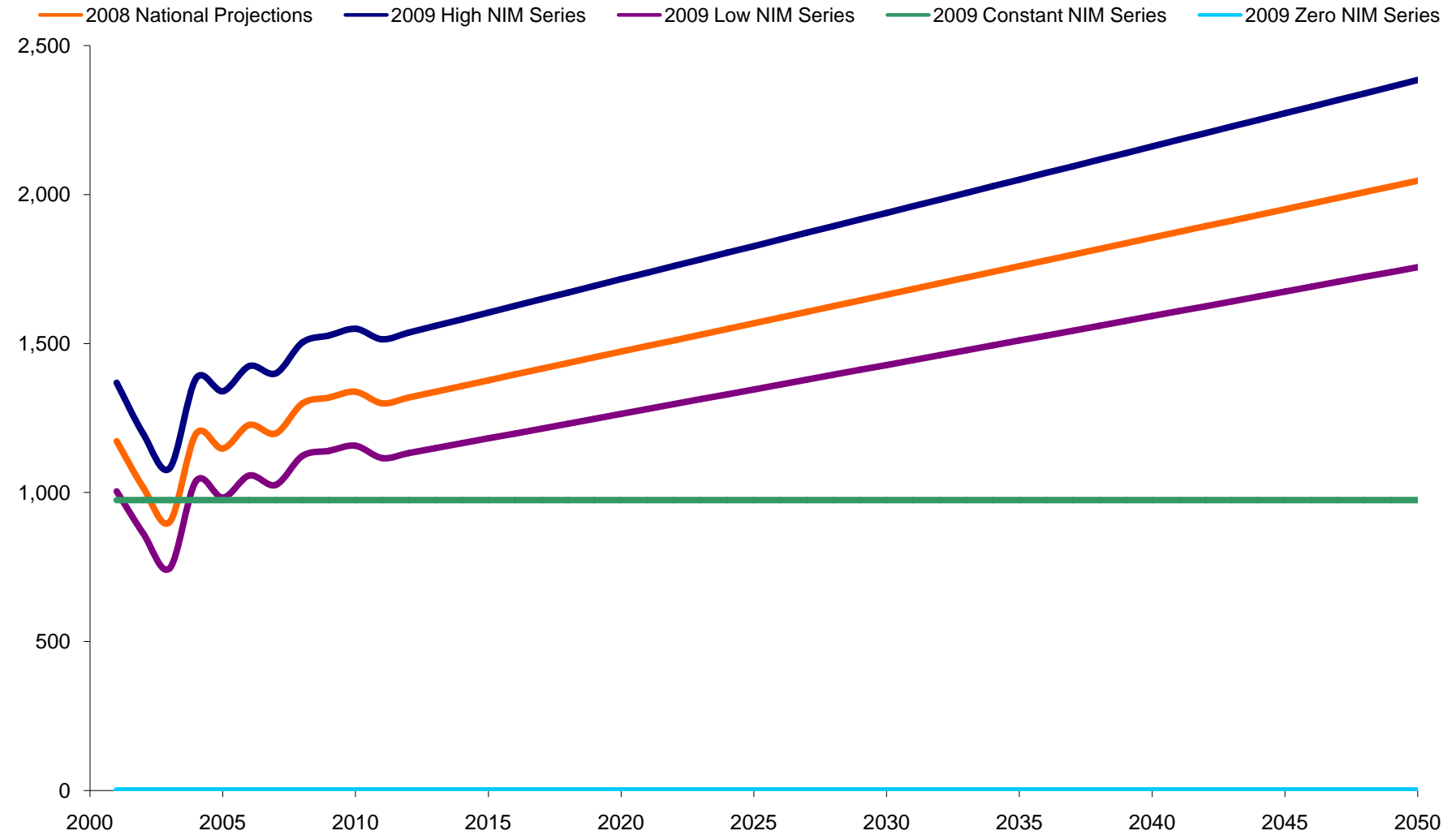
There is little variation found in the projection trends in growth and aging for the Black, American Indian and Alaskan Native, and Native Hawaiian and Other Pacific



Islander populations across the projection series. In contrast, both the size and percent share of the non-Hispanic White alone population are projected to decline in all series. The pace and magnitude of this decline will be influenced by the level of net international migration that occurs in the coming decades. Subsequently, net international migration will affect the timing of the majority-minority crossover.

**Figure 1. Projections of Net International Migration for the United States: 2001 to 2050**

(In thousands)



NIM = Net International Migration

<b>Table 1. Projections of the Population by Race, Hispanic Origin, and Projection Series: 2010 to 2050</b>					
<b>(Resident population as of July 1. Numbers in thousands.)</b>					
<b>Race, Hispanic Origin, and Year<sup>1,2</sup></b>	<b>2008 National Projections</b>	<b>2009 Net International Migration Series</b>			
		<b>High</b>	<b>Low</b>	<b>Constant</b>	<b>Zero</b>
<b>Total Population</b>					
2010	310,233	312,504	308,282	307,907	296,505
2030	373,504	382,612	365,683	358,407	318,346
2050	439,010	458,176	422,554	398,528	322,949
<b>One Race</b>					
2010	304,734	306,971	302,812	302,442	291,214
2030	363,621	372,566	355,941	348,783	309,478
2050	422,828	441,594	406,717	383,129	309,308
<b>White</b>					
2010	246,630	248,137	245,336	245,300	237,521
2030	286,109	292,161	280,914	277,108	249,447
2050	324,800	337,631	313,783	299,755	247,067
<b>Black</b>					
2010	39,909	40,105	39,741	39,735	38,735
2030	48,728	49,533	48,036	47,276	43,873
2050	56,944	58,678	55,455	52,765	46,489
<b>American Indian and Alaska Native</b>					
2010	3,188	3,206	3,172	3,169	3,078
2030	4,313	4,388	4,249	4,192	3,862
2050	5,462	5,624	5,323	5,124	4,482
<b>Asian</b>					
2010	14,415	14,922	13,979	13,658	11,344
2030	23,586	25,561	21,890	19,393	11,640
2050	34,399	38,358	31,004	24,443	10,536
<b>Native Hawaiian and Other Pacific Islander</b>					
2010	592	601	584	581	535
2030	885	923	852	815	655
2050	1,222	1,303	1,153	1,042	733
<b>Two or More Races</b>					
2010	5,499	5,534	5,470	5,465	5,291
2030	9,883	10,046	9,742	9,624	8,869
2050	16,183	16,582	15,837	15,400	13,642
<b>Non-Hispanic White Alone</b>					
2010	200,853	201,235	200,524	200,639	198,560
2030	207,217	208,633	206,002	205,562	198,678
2050	203,347	206,118	200,967	198,888	186,647
<b>Hispanic</b>					
2010	49,726	50,918	48,702	48,531	42,504
2030	85,931	90,860	81,699	78,071	56,036
2050	132,792	143,527	123,576	110,743	67,672

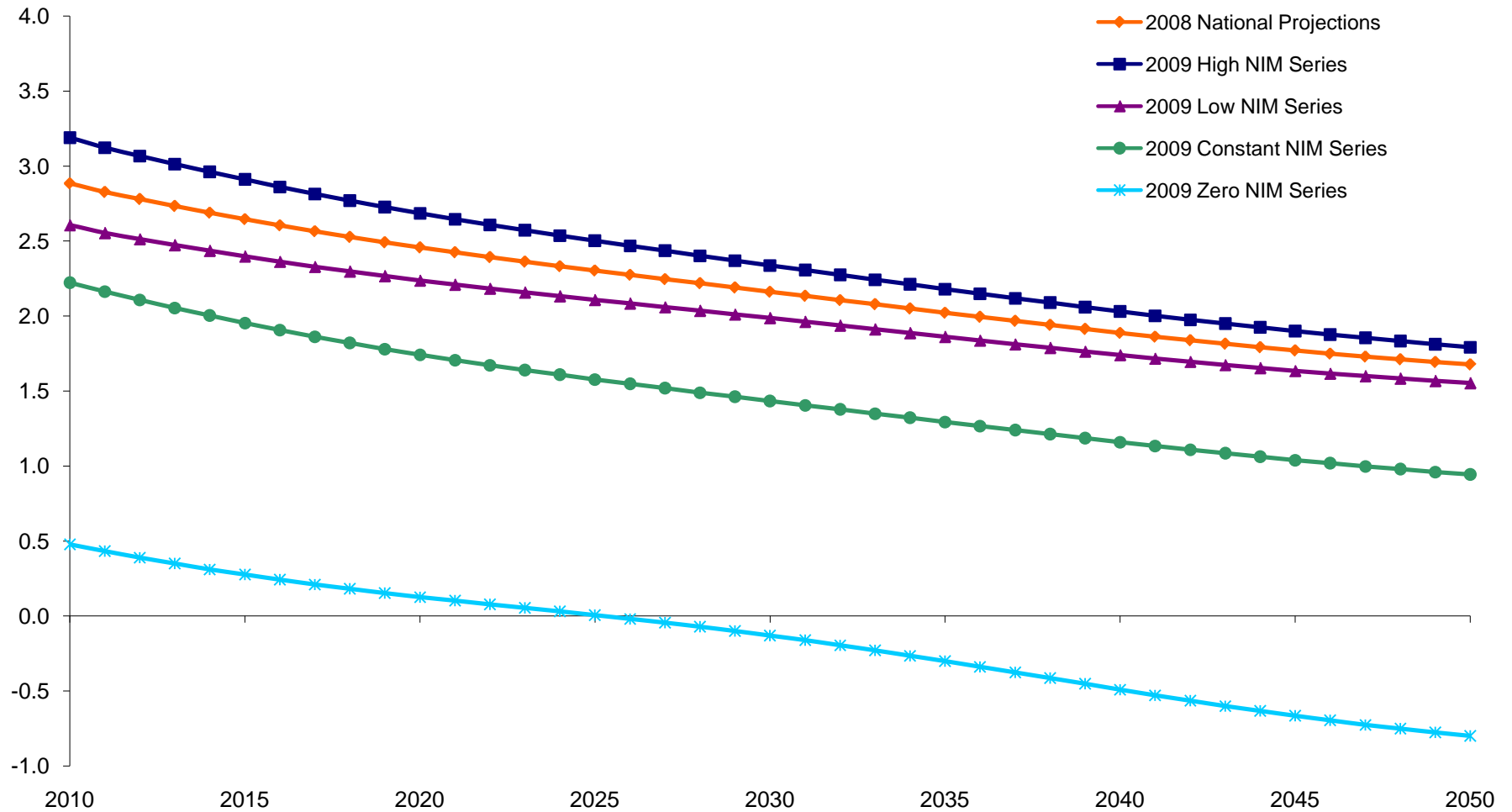
<sup>1</sup> Race refers to each of the race groups alone and the Two or More Races category represents the population reporting more than one race.

<sup>2</sup> Hispanics may be of any race.

Note: The original race data from Census 2000 are modified to eliminate the "some other race" category. This modification is used for all Census Bureau projections products and is explained in the document entitled "Modified Race Data Summary File Technical Documentation and ASCII Layout" that can be found on the Census Bureau website at <http://www.census.gov/popest/archives/files/MRSF-01-US1.html>.

**Source: U.S. Census Bureau, 2008 and 2009.**

**Figure 2. Projections of the Exponential Growth Rate of the Asian Population by Projection Series: 2010 to 2050**  
(Percent)

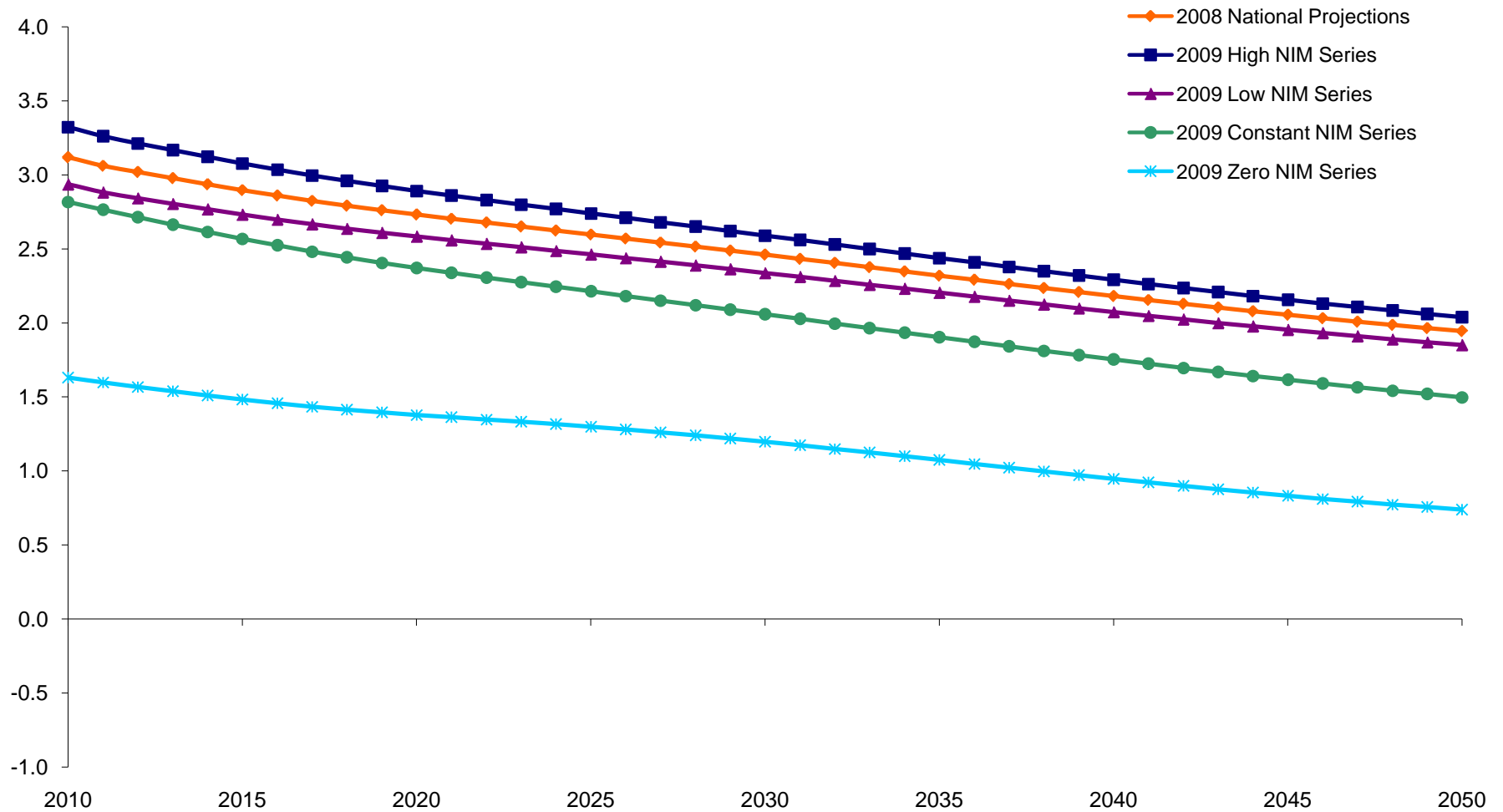


NIM = Net International Migration

Note: The exponential growth rate is calculated by taking the natural log of the annual percent change in the size of the total population for each group.

Source: U.S. Census Bureau, 2008 and 2009.

**Figure 3. Projections of the Exponential Growth Rate of the Hispanic Population by Projection Series: 2010 to 2050**  
(Percent)



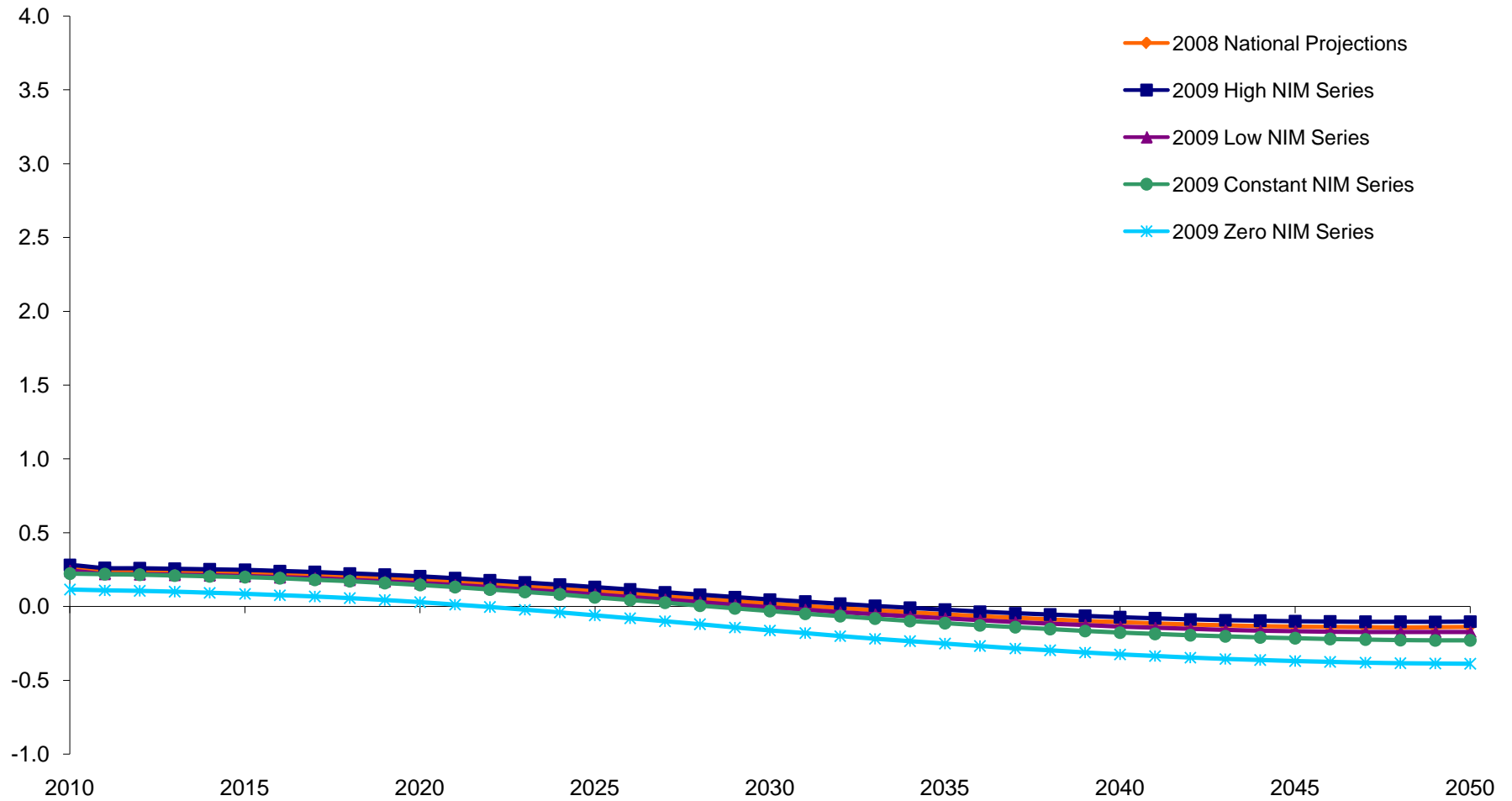
NIM = Net International Migration

Note: The exponential growth rate is calculated by taking the natural log of the annual percent change in the size of the total population for each group.

Source: U.S. Census Bureau, 2008 and 2009.

**Figure 4. Projections of the Exponential Growth Rate of the Non-Hispanic White Population by Projection Series: 2010 to 2050**

(Percent)



NIM = Net International Migration

Note: The exponential growth rate is calculated by taking the natural log of the annual percent change in the size of the total population for each group.

Source: U.S. Census Bureau, 2008 and 2009.

<b>Table 2. Distribution of the Population by Race, Hispanic Origin, and Projection Series: 2010 to 2050</b>					
<b>(Percent of total resident population as of July 1)</b>					
<b>Race, Hispanic Origin, and Year<sup>1,2</sup></b>	<b>2008 National Projections</b>	<b>2009 Net International Migration Series</b>			
		<b>High</b>	<b>Low</b>	<b>Constant</b>	<b>Zero</b>
<b>One Race</b>					
2010	98.2	98.2	98.2	98.2	98.2
2030	97.4	97.4	97.3	97.3	97.2
2050	96.3	96.4	96.3	96.1	95.8
<b>White</b>					
2010	79.5	79.4	79.6	79.7	80.1
2030	76.6	76.4	76.8	77.3	78.4
2050	74.0	73.7	74.3	75.2	76.5
<b>Black</b>					
2010	12.9	12.8	12.9	12.9	13.1
2030	13.0	12.9	13.1	13.2	13.8
2050	13.0	12.8	13.1	13.2	14.4
<b>American Indian and Alaska Native</b>					
2010	1.0	1.0	1.0	1.0	1.0
2030	1.2	1.1	1.2	1.2	1.2
2050	1.2	1.2	1.3	1.3	1.4
<b>Asian</b>					
2010	4.6	4.8	4.5	4.4	3.8
2030	6.3	6.7	6.0	5.4	3.7
2050	7.8	8.4	7.3	6.1	3.3
<b>Native Hawaiian and Other Pacific Islander</b>					
2010	0.2	0.2	0.2	0.2	0.2
2030	0.2	0.2	0.2	0.2	0.2
2050	0.3	0.3	0.3	0.3	0.2
<b>Two or More Races</b>					
2010	1.8	1.8	1.8	1.8	1.8
2030	2.6	2.6	2.7	2.7	2.8
2050	3.7	3.6	3.7	3.9	4.2
<b>Non-Hispanic White Alone</b>					
2010	64.7	64.4	65.0	65.2	67.0
2030	55.5	54.5	56.3	57.4	62.4
2050	46.3	45.0	47.6	49.9	57.8
<b>Hispanic</b>					
2010	16.0	16.3	15.8	15.8	14.3
2030	23.0	23.7	22.3	21.8	17.6
2050	30.2	31.3	29.2	27.8	21.0

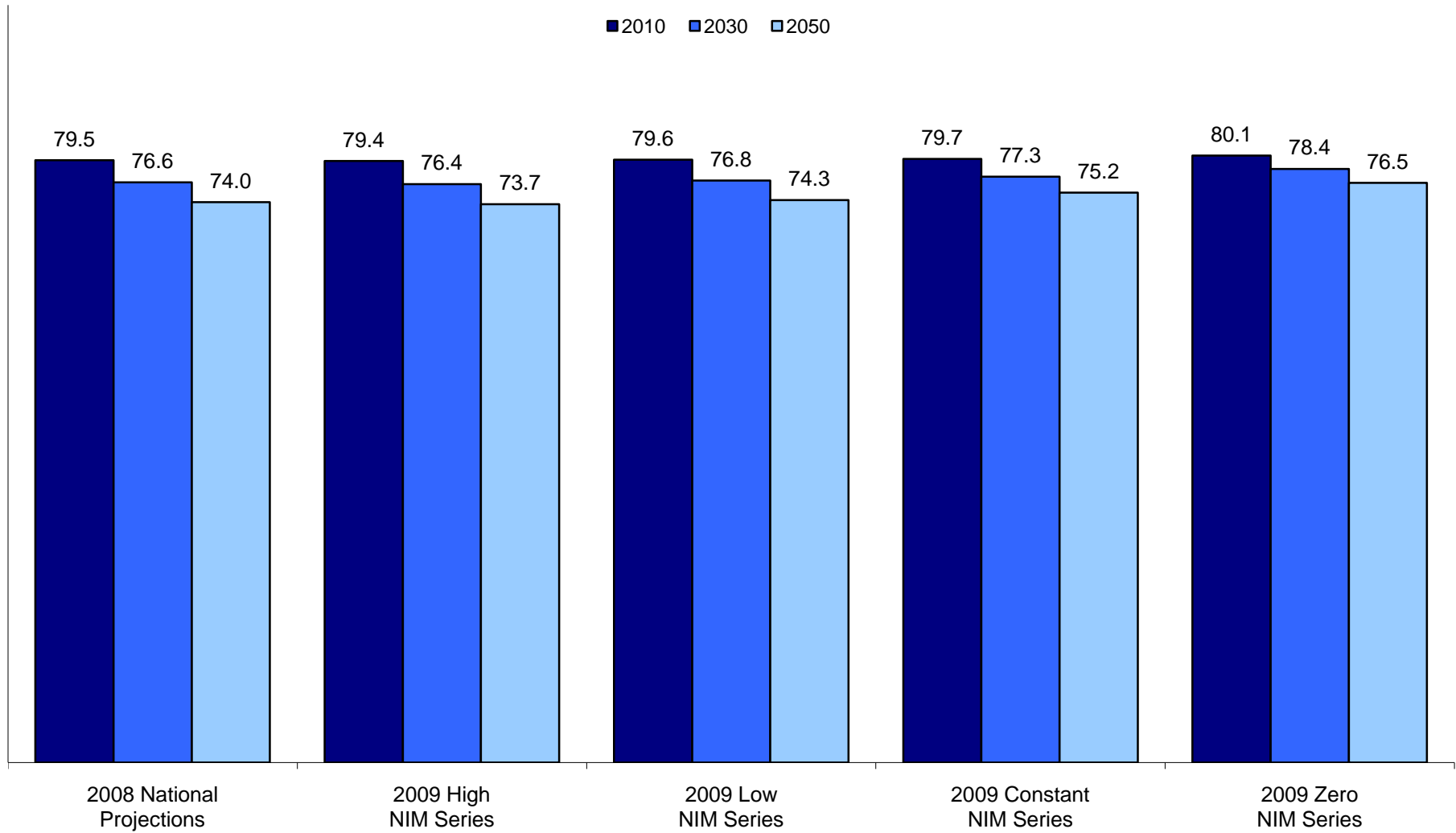
<sup>1</sup> Race refers to each of the race groups alone and the Two or More Races category represents the population reporting more than one race.

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**Source: U.S. Census Bureau, 2008 and 2009.**

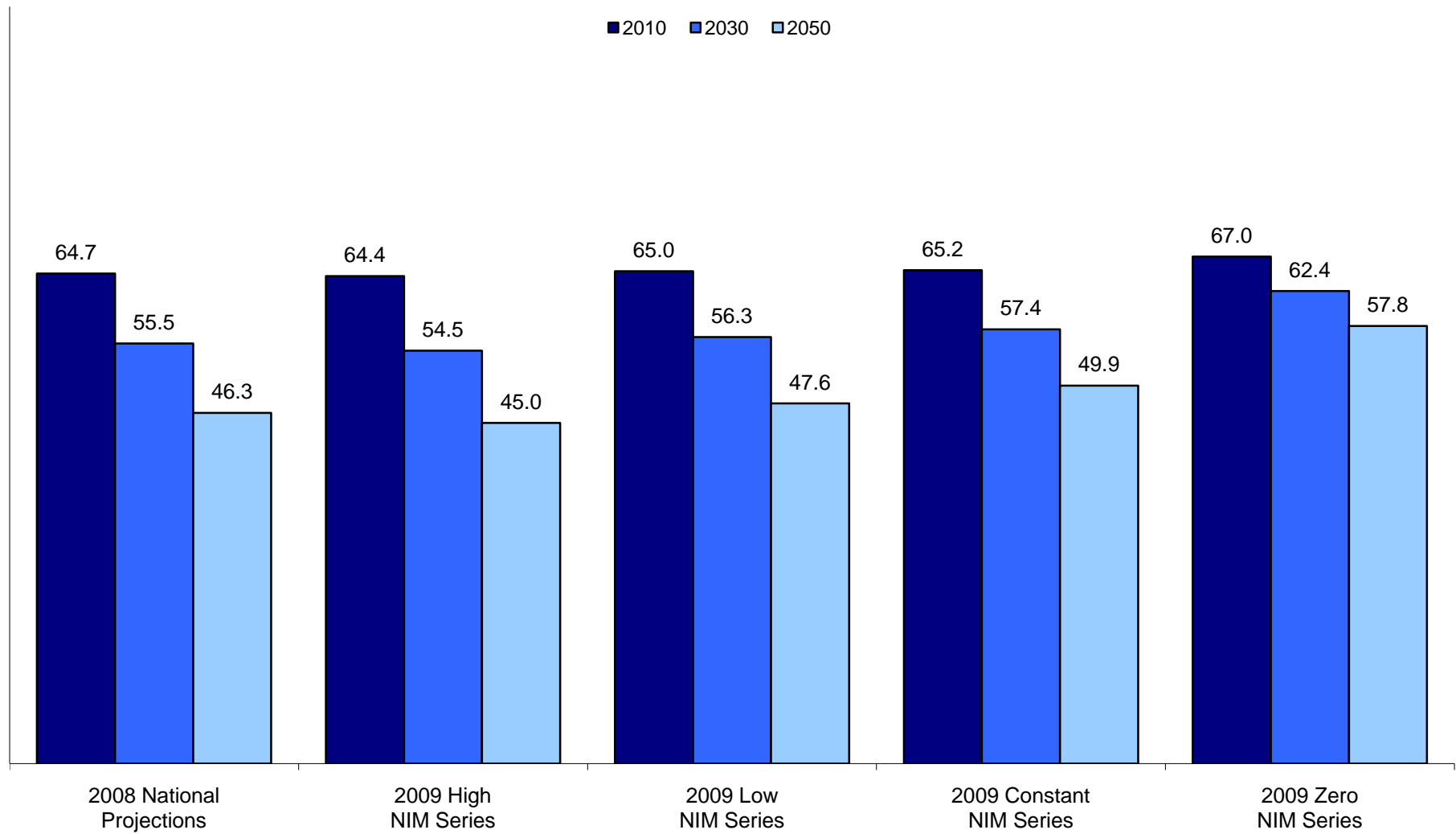
**Figure 5. Percent White Alone by Projection Series: 2010, 2030, and 2050**



NIM = Net International Migration

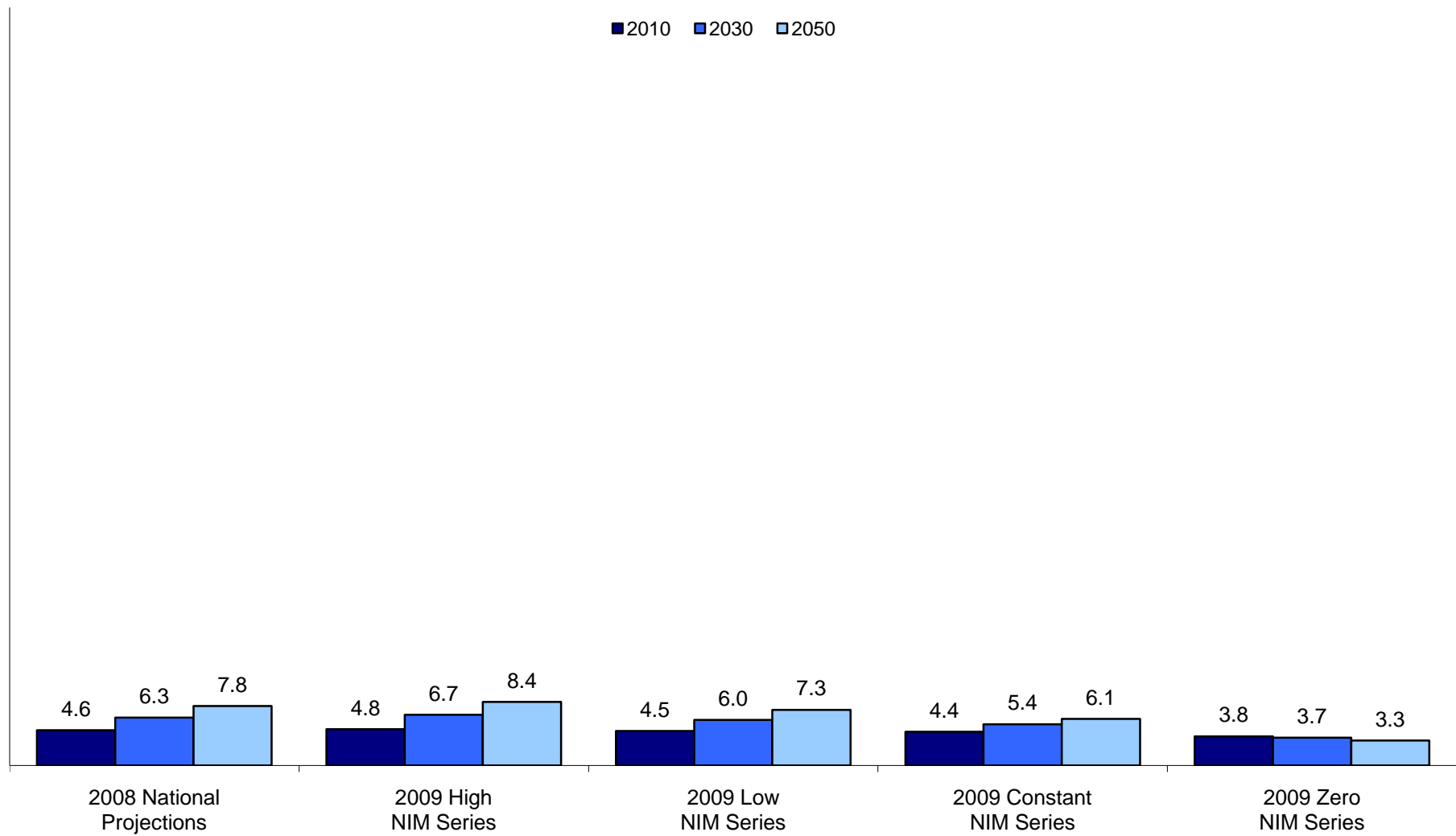


**Figure 6. Percent Non-Hispanic White Alone by Projection Series: 2010, 2030, and 2050**



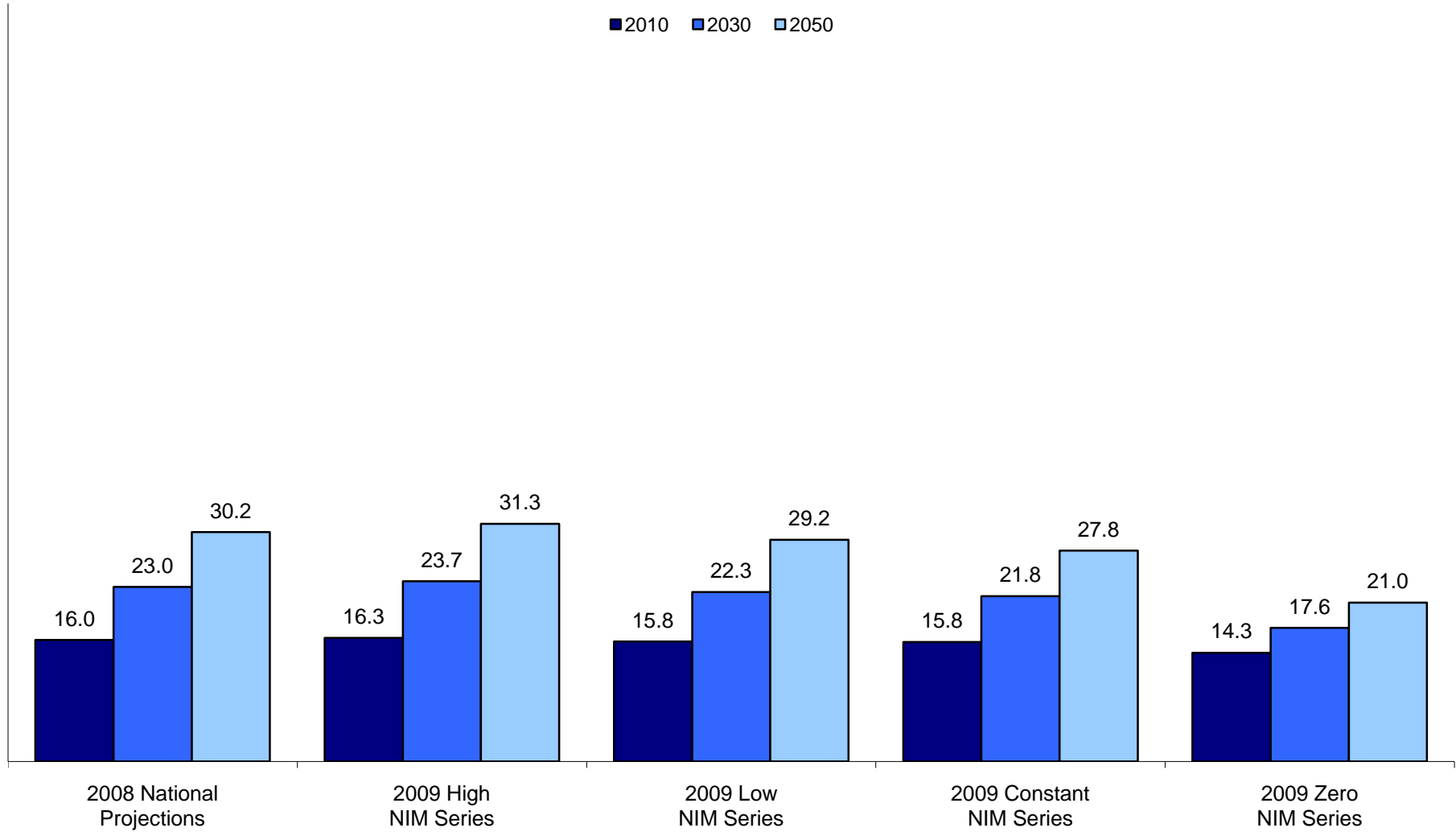
NIM = Net International Migration

**Figure 7. Percent Asian Alone by Projection Series: 2010, 2030, and 2050**



NIM = Net International Migration

**Figure 8. Percent Hispanic by Projection Series: 2010, 2030, and 2050**



NIM = Net International Migration

<b>Table 3. Projected Median Age of the Population by Projection Series, Race, and Hispanic Origin: 2010 to 2050</b>						
<b>Race, Hispanic Origin, and Year<sup>1,2</sup></b>	<b>2008 National Projections</b>	<b>2009 Net International Migration Series</b>				
		<b>High</b>	<b>Low</b>	<b>Constant</b>	<b>Zero</b>	
<b>Total Population</b>						
2010	36.9	36.7	37.0	37.1	37.8	
2030	38.7	38.4	39.0	39.2	40.8	
2050	39.0	38.6	39.3	39.7	42.2	
<b>White</b>						
2010	38.4	38.3	38.5	38.6	39.3	
2030	39.6	39.3	39.9	40.4	42.1	
2050	39.4	38.9	39.8	40.8	43.3	
<b>Black</b>						
2010	31.7	31.7	31.8	31.8	32.0	
2030	36.6	36.4	36.7	37.0	37.5	
2050	38.9	38.6	39.1	39.9	40.8	
<b>American Indian and Alaska Native</b>						
2010	29.9	29.9	30.0	30.0	30.3	
2030	33.8	33.6	34.0	34.3	35.2	
2050	34.9	34.6	35.1	35.7	36.6	
<b>Asian</b>						
2010	36.0	35.7	36.2	35.9	38.0	
2030	41.1	40.7	41.4	40.2	46.7	
2050	43.4	43.1	43.8	42.3	50.8	
<b>Native Hawaiian and Other Pacific Islander</b>						
2010	30.5	30.4	30.6	30.5	30.9	
2030	35.1	34.8	35.2	35.0	36.8	
2050	36.8	36.5	37.0	37.0	39.6	
<b>Two or More Races</b>						
2010	19.9	19.9	19.9	19.9	19.9	
2030	22.1	22.0	22.1	22.1	22.5	
2050	24.7	24.6	24.8	24.9	25.5	
<b>Non-Hispanic White Alone</b>						
2010	41.3	41.3	41.4	41.4	41.6	
2030	43.7	43.6	43.8	43.9	44.4	
2050	44.6	44.5	44.7	45.0	45.6	
<b>Hispanic</b>						
2010	27.5	27.3	27.7	28.0	29.0	
2030	29.2	28.9	29.5	30.5	32.7	
2050	31.2	30.9	31.5	33.1	35.7	

<sup>1</sup> Race refers to each of the race groups alone and the Two or More Races category represents the population reporting more than one race.

<sup>2</sup> Hispanics may be of any race.

Note: The original race data from Census 2000 are modified to eliminate the "some other race" category. This modification is used for all Census Bureau projections products and is explained in the document entitled "Modified Race Data Summary File Technical Documentation and ASCII Layout" that can be found on the Census Bureau website at <http://www.census.gov/popest/archives/files/MRSF-01-US1.html>.

**Source: U.S. Census Bureau, 2008 and 2009.**

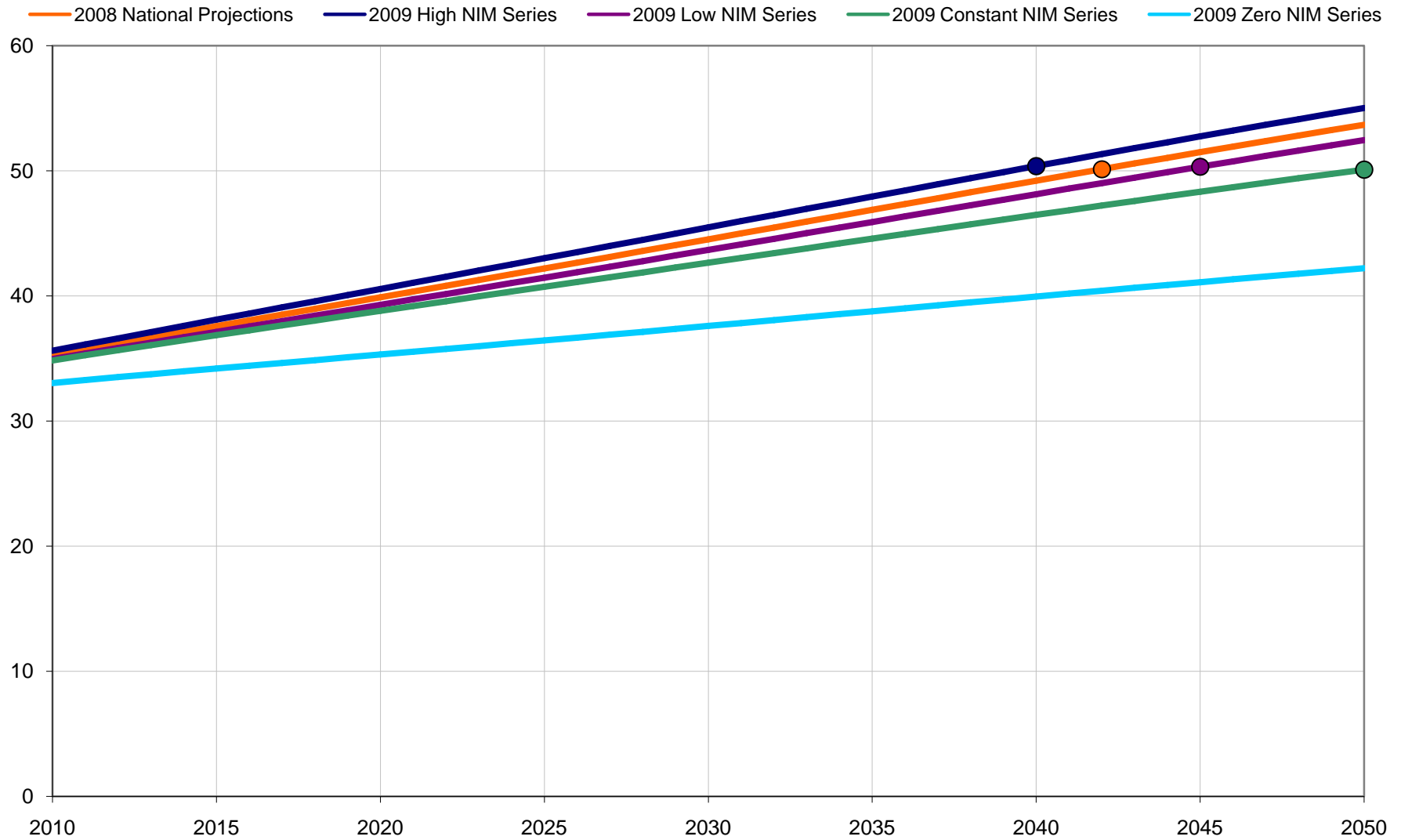
**Table 4. Projections of the Majority-Minority<sup>1</sup>  
Crossover by Net International Migration  
Series for the United States**

Series	Year
2008 National Projections	2042
2009 High Net International Migration Series	2040
2009 Low Net International Migration Series	2045
2009 Constant Net International Migration Series	2050

<sup>1</sup>Minority is defined here as people who are races other than White alone or are Hispanic.

**Source: U.S. Census Bureau, 2008 and 2009.**

**Figure 9. Projections of the Percent Minority for the United States: 2010 to 2050**



Note: Minority is defined here as people who are races other than White alone or are  
Source: U.S. Census Bureau, 2008 and 2009.