

2010 Demographic Analysis Press Conference

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U S C E N S U S B U R E A U

Helping You Make Informed Decisions

What is Demographic Analysis (DA)?

Demographic Analysis is a term used to refer to a set of methods that have historically been used to develop national-level estimates of the population for comparison with decennial census counts. DA estimates are developed from historical vital statistics, estimates of international migration, and other data sources that are essentially independent of the census.

These estimates are then compared to census counts and differences by age, sex, and limited race groups are examined.

DA in 2010

- Increased collaboration with external experts.
- The release of the DA estimates before the 2010 Census results.
- The production of five series of DA estimates.
- The use of data from the American Community Survey (ACS) to estimate international migration.
- Estimates by Hispanic origin (by age and sex for ages under 20).

The Demographic Accounting Equation

$$P = B - D + I - E$$

P = Population

B = Births

D = Deaths

I = Immigration

E = Emigration

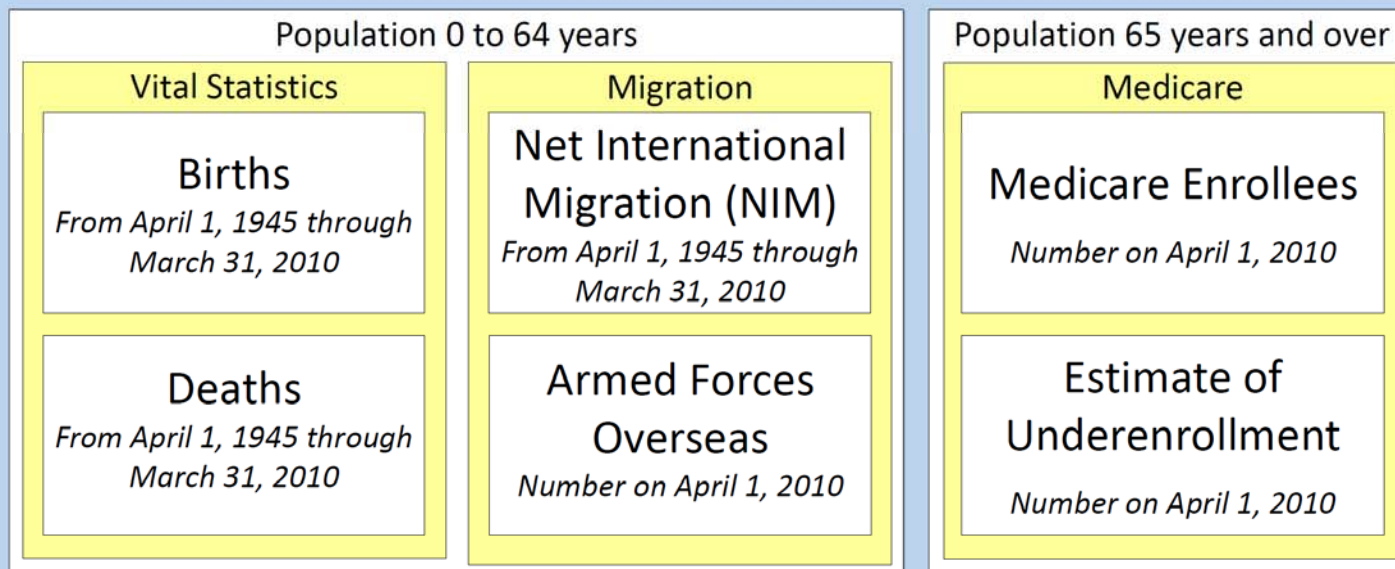
Two DA Estimation Subgroups

- Estimates for ages under 65 are based on historical components of change for cohorts beginning with 1945 [births, deaths, immigration, emigration]:

$$P = B - D + I - E$$

- Estimates for ages 65 and over are based on aggregate Medicare enrollment, and estimates of those not enrolled.

Development of the 2010 Demographic Analysis Estimates



2010 DA Estimate:

Resident Population = Births – Deaths + NIM – AFO + [Medicare + Estimated Underenrollment]

Historical Differences between Demographic Analysis Estimates and Census Counts

Population by race	(Numbers in thousands)			
	1970	1980	1990	2000
Total				
DA estimate	208,955	229,347	252,876	281,760
Census count	203,302	226,546	248,710	281,422
Percent difference	-2.71	-1.22	-1.65	-0.12
Black				
DA estimate	24,154	27,940	32,265	37,443
Census count	22,581	26,683	30,483	36,404
Percent difference	-6.51	-4.50	-5.52	-2.78
Non-Black				
DA estimate	184,801	201,407	220,610	244,317
Census count	180,721	199,862	218,227	245,018
Percent difference	-2.21	-0.77	-1.08	0.29

Uncertainty in the DA Estimates

- For 2010 DA, we have developed five series of estimates to demonstrate the impact of varying assumptions in three of the components of the DA estimates (births, international migration, Medicare enrollment).
- The five series of DA estimates were developed to more clearly communicate the uncertainty in the DA estimates.
- Each series of estimates is considered demographically plausible.

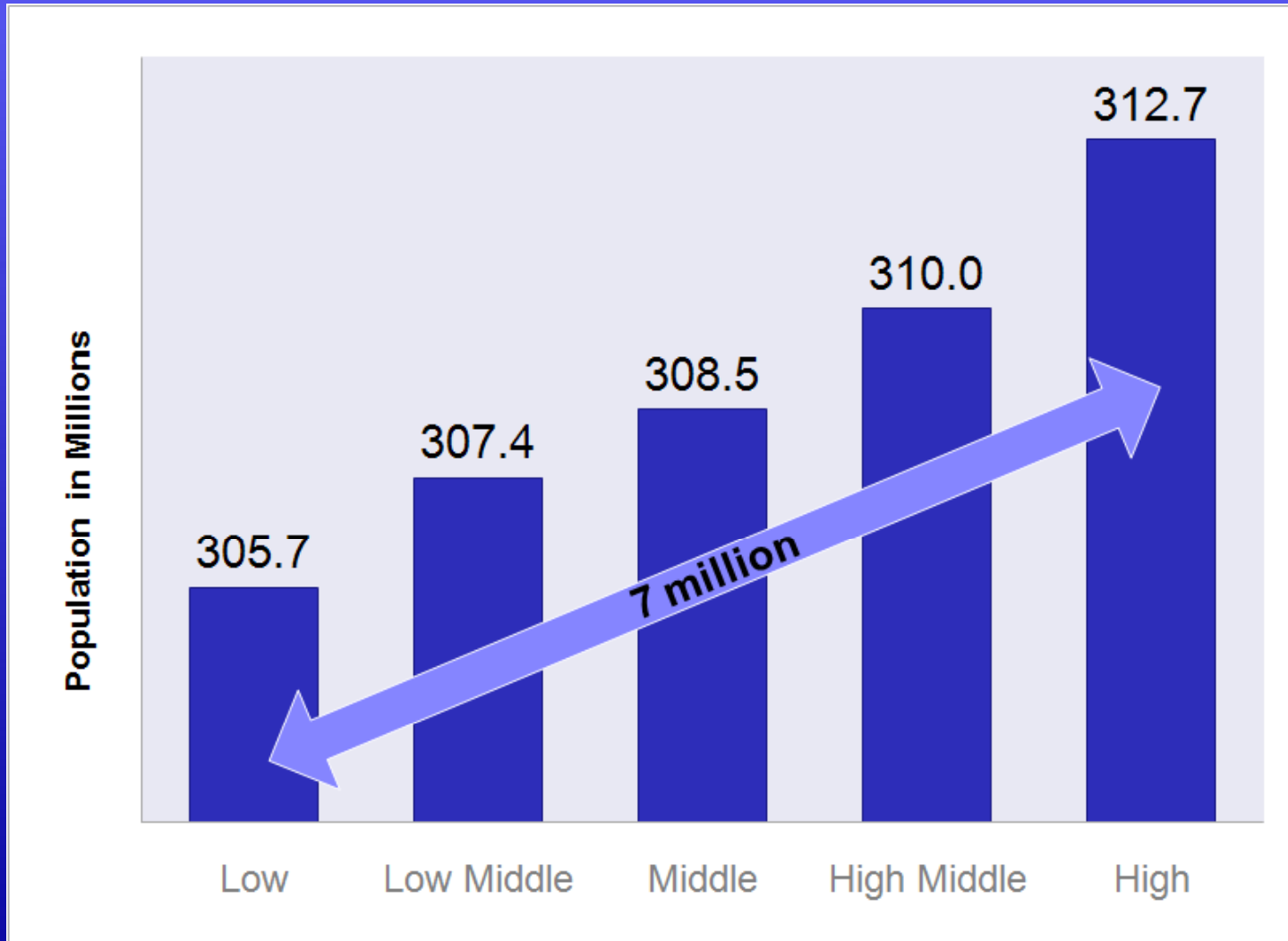
The DA Race Categories: Black and non-Black

- DA estimates have been limited to the Black and non-Black categories primarily for two reasons:
 - Information for races other than Black and White is not available for all years and all states in the historical vital statistics data.
 - The 2010 Census includes the option of selecting more than one race. The historical vital statistics did not include this option. The uncertainty that this introduces into the classification of births by race limits the usefulness of DA estimates for race categories other than Black and White.

What Is Being Released Today?

- Five series of DA population estimates at the national level by single year of age, sex, and race (Black and non-Black).
- Five series of DA population estimates at the national level by single year of age, sex, and Hispanic origin for ages under 20.
- A matrix showing how each series of estimates was developed.
- The individual components of each estimate series (births, deaths, international migration, Armed Forces Overseas, Medicare-based estimates).

2010 Demographic Analysis Estimates of the Resident Population: April 1, 2010



Development of the Five Series of Demographic Analysis Estimates

Series and Demographic Analysis Estimate (in millions)	Births	Deaths	Net International Migration (NIM)	Medicare-based Estimates
	Cohorts born between 1945 and 2010			Cohorts born before 1945
<i>Low Series</i> Resident Population = 305.7	<u>Low Birth Series:</u> Births = 249.4	<u>Registered Deaths:</u> Deaths = 14.8	<u>Low NIM Series:</u> NIM = 31.7	<u>Low Medicare Series:</u> Population 65 & over = 39.8
<i>Low Middle Series</i> Resident Population = 307.4	<u>Middle Birth Series:</u> Births = 249.9		<u>Low NIM Series:</u> NIM = 32.8	<u>Middle Medicare Series:</u> Population 65 & over = 40.0
<i>Middle Series</i> Resident Population = 308.5			<u>Middle NIM Series:</u> NIM = 33.9	
<i>High Middle Series</i> Resident Population = 310.0			<u>High Middle NIM Series:</u> NIM = 35.5	
<i>High Series</i> Resident Population = 312.7	<u>High Birth Series:</u> Births = 250.4		<u>High NIM Series:</u> NIM = 36.7	<u>High Medicare Series:</u> Population 65 & over = 40.9

Note: The Armed Forces overseas are subtracted when calculating the resident population.