Non-Poor Population Growth as a Population Characteristic: U.S. 1990-2010

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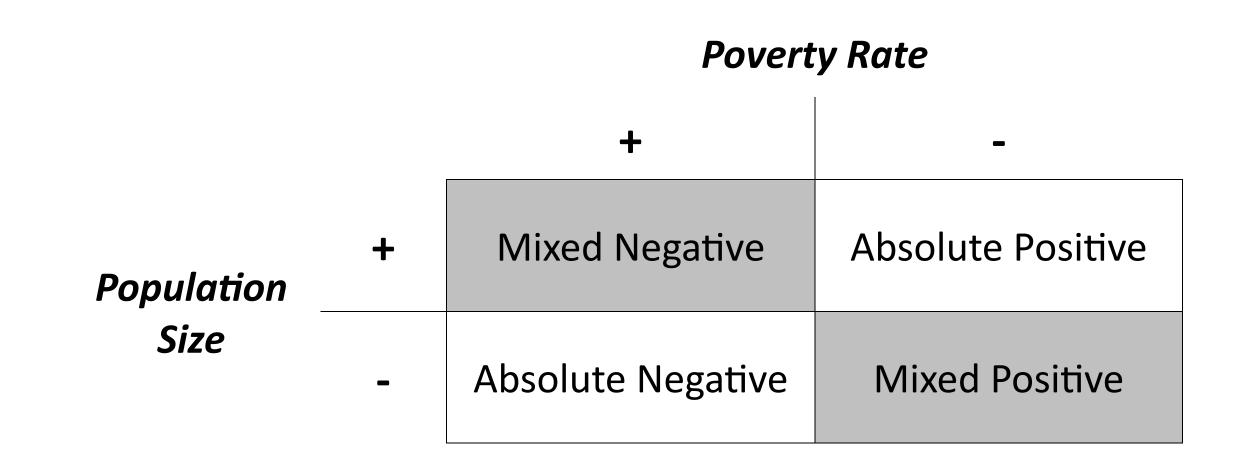
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OVERVIEW

Traditional measures of poverty are informative in indicating the degree of economic deprivation in a population at a cross-sectional point in time, but they disregard any growth in the size of the non-poor population. We develop a measure of non-poor population growth and argue that it constitutes a useful indicator of an important demographic dynamic. Decomposition techniques further reveal the extent to which sub-populations, such as low-skilled immigrants, account for non-poor growth. We illustrate our approach with an analysis of the U.S. states from 1990 to 2010, using data from the U.S. Census and the American Community Survey.

CONCEPTUAL FRAMEWORK

Changes in the poverty rate — whether measured in absolute or relative terms — can occur in different contexts of population dynamics, resulting in different outcomes with regard to **absolute human welfare**:

		Poverty Rate	
		+	-
Population Size	+	Mixed Negative	Absolute Positive
	-	Absolute Negative	Mixed Positive

The cells on the secondary diagonal indicate cases of absolute decline or improvement in overall human welfare, measured by the number of persons in non-poverty. Conversely, The shaded cells indicate cases with mixed outcomes. For example, while the poverty rate may be stable or even increasing over time, the absolute number of non-poor persons may also be increasing in a society.

This distinction is of particular interest in the context of internal and international migration, where low-skilled immigrants, who are potentially at risk of poverty in their countries of origin, have a share in non-poor population growth (which in turn contributes to alleviating global poverty).

METHODOLOGY

The rate of **non-poor population growth** (NPPG) refers to *the change in the number of persons who are non-poor in a society at a later point in time (time 2) relative to an earlier point in time (time 1), standardized by the population size at time 1.* That is, the NPPG refers to the extent to which a population is increasing the number of persons who are non-poor (e.g., above the Federal Poverty Threshold) over time relative to its baseline size.

$$(1) \quad NPPG = \frac{\text{Non-poor population at time 2 - Non-poor population at time 1}}{\text{Total population at time 1}}$$
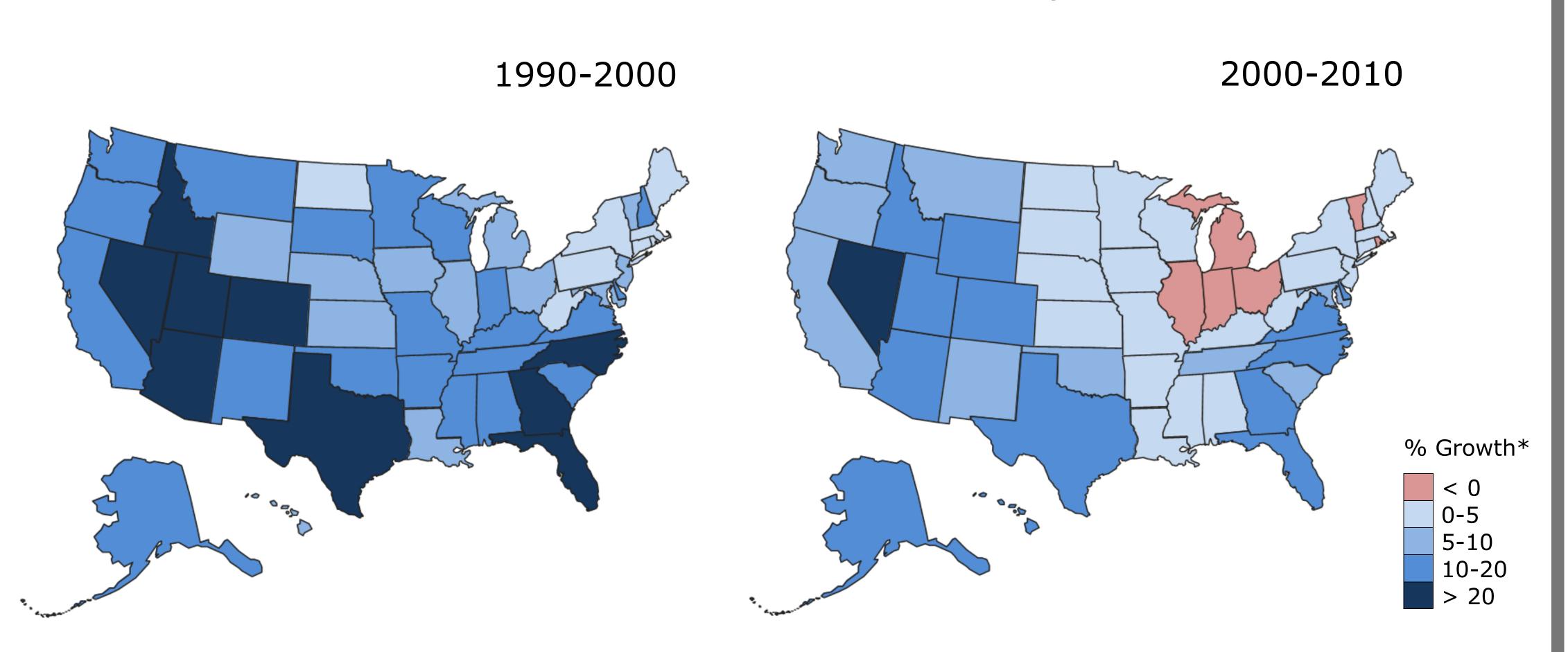
Since NPPG is linear by construction, it can easily be decomposed to reflect the relative share of native/foreign-born and low/high-skilled persons in non-poor growth.

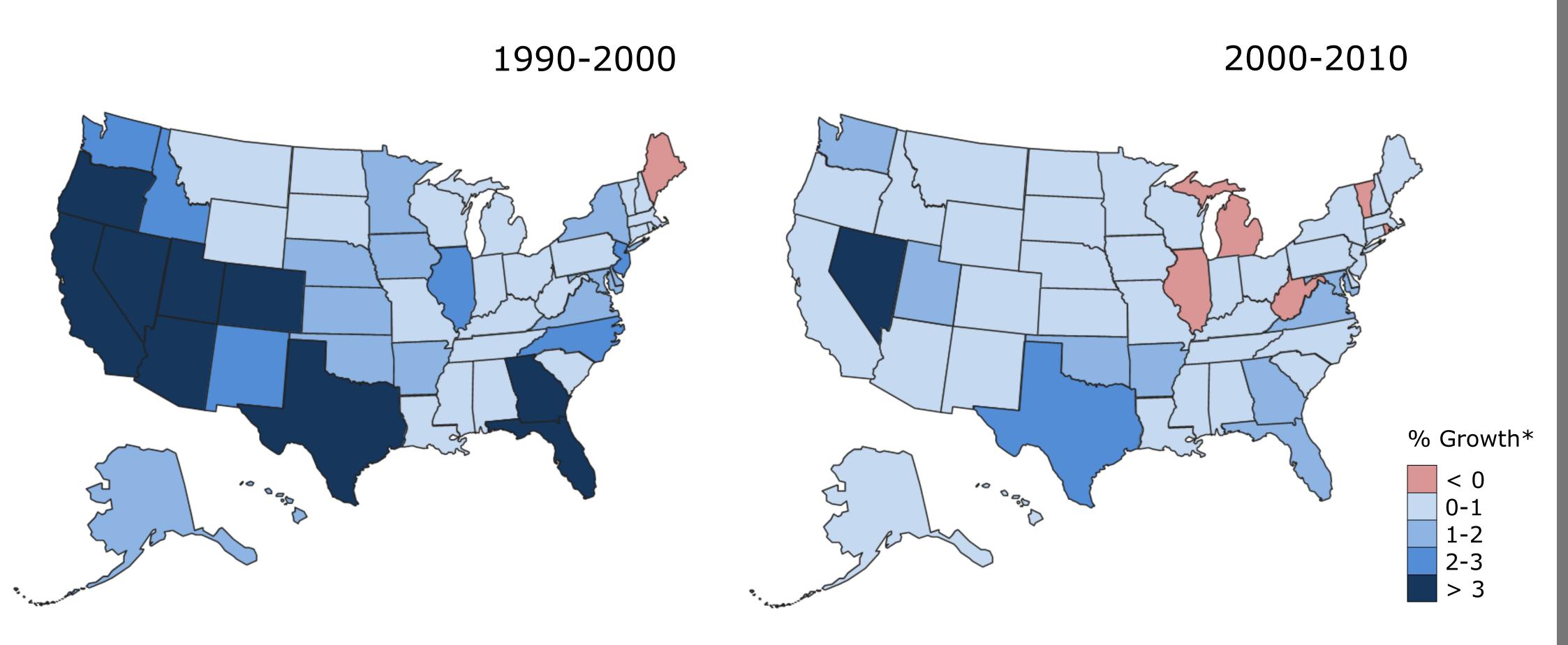$$(2) \quad NPPG = NPPG^{NB} + NPPG^{FB-LS} + NPPG^{FB-HS}$$

(NB = native born; FB-LS = low-skilled foreign born; FB-HS = high-skilled foreign born)

RESULTS

DECENNIAL NON-POOR POPULATION GROWTH BY STATE, U.S. 1990-2010

1990-2000   2000-2010

% Growth*
- < 0
- 0-5
- 5-10
- 10-20
- > 20

LOW-SKILLED, FOREIGN BORN DECENNIAL NPPG BY STATE, U.S. 1990-2010

1990-2000   2000-2010

% Growth*
- < 0
- 0-1
- 1-2
- 2-3
- > 3
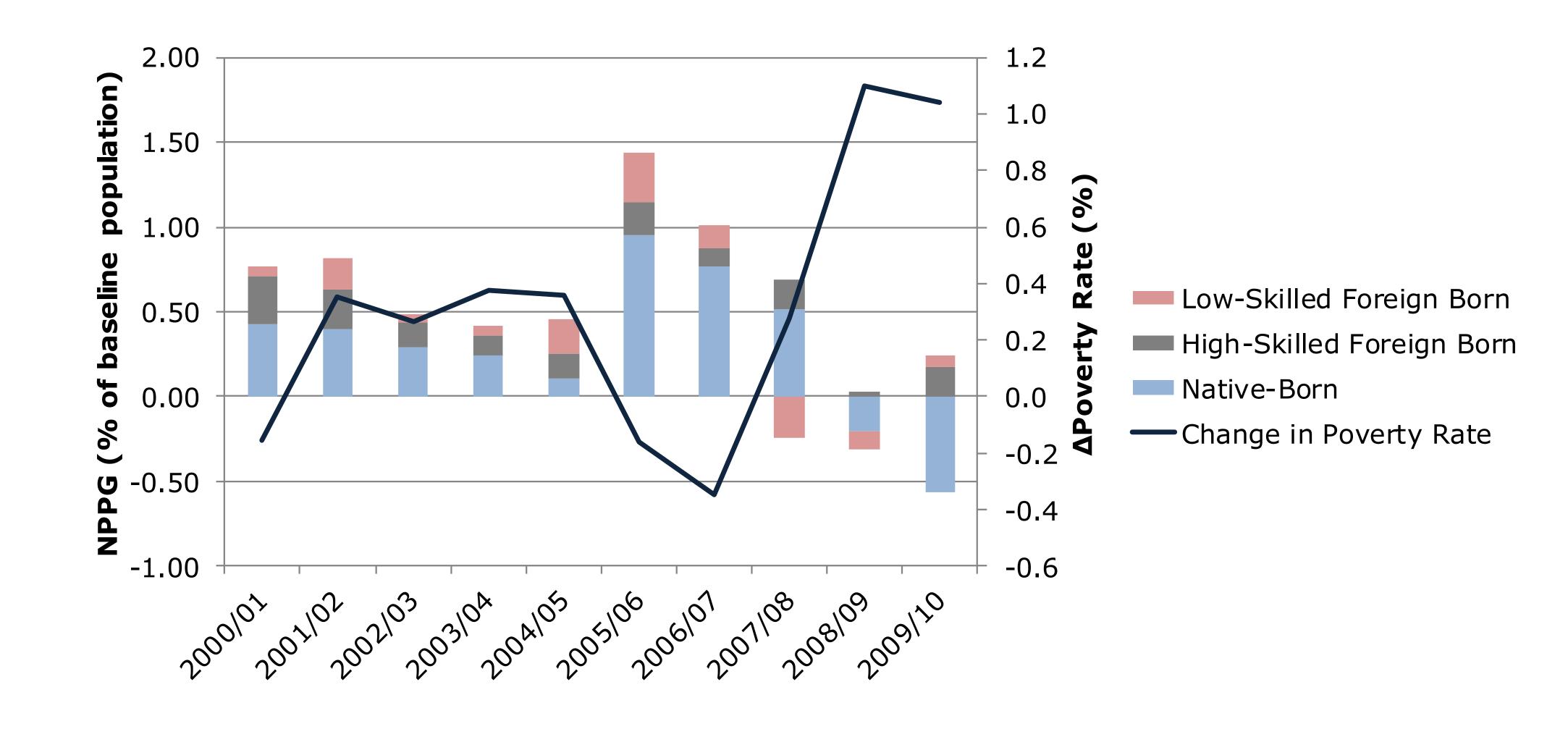
Definitions:
- % growth of *total* baseline population (1990 and 2000 respectively)
- Non-Poor defined here as above the Federal Poverty Threshold
- Foreign born defined as born outside of the U.S. to non-American parents (naturalized or otherwise)
- Low-skilled defined as having high-school degree or less

IN THE SPOTLIGHT
- Nevada experienced the highest NPPG during both decades (60.4% and 25.3% respectively), while the poverty rate stalled in 1990 and 2000 at 10.3%, and increased to 15.4% by 2010. Over two-thirds of the non-poor growth in each decade were in native-born Americans.

- California had NPPG of 10.6% in the 1990s (slightly below the national average) with approximately one third attributed to low-skilled immigrants. The poverty rate increased steadily by 1.7% in each decade.

- New Hampshire had the lowest poverty rate in 1990, 2000, and 2010. During 1990-2000 it experienced NPPG of 11.2%, with less than 1% of the growth attributed to low-skilled immigrants.

DECOMPOSITION OF ANNUAL NON-POOR POPULATION GROWTH, U.S. 2000-2010

Legend:
- Low-Skilled Foreign Born
- High-Skilled Foreign Born
- Native-Born
- Change in Poverty Rate

Empirical Findings
- The U.S. poverty rate declined nationally from 13.1% in 1990 to 12.4% in 2000, then increased to 15.5% in 2010 following the economic recession.

- During the decade of 1990-2000, the U.S. non-poor population has increased by 30 million, or 12.5% of the *total* U.S. population in 1990. 17.3% of the growth was in low-skilled, foreign born persons; an additional 14.3% were high-skilled, foreign born.

- In the following decade, 2000-2010, the U.S. non-poor population grew by 5.4% of the total population in 2000. 13.3% of the growth was in low-skilled migrants, corresponding to nearly 2 million additional people not in poverty.

- At the state level, neither initial poverty rate nor *change* in poverty rate were correlated to non-poor population growth.

- Non-poor growth for native-born citizens was highly correlated with that of low-skilled immigrants (r=0.73) in 1990s, but less so during the last decade (r=0.48).

DISCUSSION & CONCLUSION
- Cross-sectional measures of poverty are inherently static by design. They ignore the dynamic demographic characteristic of a given population to improve aggregate social welfare by accommodating non-poverty growth at a later point in time.

- The NPPG measure is sensitive to population increase (by either natural growth or migration) in both the poor and the non-poor populations. Decomposition then permits the partitioning of non-poor population growth by sub-populations to reveal variation by nativity or other variables of interest.

- Traditional poverty measures and NPPG exhibit wide variation across U.S. states, and are in fact uncorrelated. This suggests an underlying multitude of interrelations between population dynamics and poverty at the state level.

- To better understand the source-sink dynamics of global poverty, we should consider the capacity of particular populations to grow, naturally or otherwise, without increasing poverty in the process.