Extended Abstract

High Fertility, Low Mortality: Natural Increase and the Growing Spatial Diversity of the U.S. Population

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Introduction

We use updated Census Bureau estimates and race/ethnic specific birth and death data for the 1990-2000 and 2000-2010 periods to highlight the accelerating role of natural increase as an engine of population growth and diversity. The growing diversity of the U.S. population and its spatial dispersion from large urban cores to suburban and rural areas is among the most important U.S. population shifts of the past 30 years. Much scholarly research on diversity has focused on the important role played by Hispanic migration and more recently on the large second-order effects of Hispanic fertility. Our findings show that recent Hispanic population gains have been fueled increasingly by natural increase—the excess of Hispanic fertility over mortality. Domestic and international migration of Hispanics has become less important during the current period of net zero immigration from Mexico. Instead, natural increase among Hispanics in new destinations accounted for nearly one-half of Hispanic population growth during the 2000s, more than a doubling of the share observed in the 1990s.

It is important to recognize that Hispanic population change is not the only demographic force reshaping the nation. Indeed, recent changes in the racial and ethnic composition of America also reflect shifting patterns of migration and natural change among America's *non-Hispanic* populations, particularly native-born whites. In rural new destinations, for example, the influx of Hispanics has slowed long-term population declines caused by the chronic net out-migration of young adults of reproductive age. In some large and declining urban cores, Hispanics gains have similarly offset declines associated with population aging and suburbanization, both among non-Hispanic whites and blacks. In essence, Hispanic population

growth – fueled both by migration and fertility – provide a demographic counterweight to incipient depopulation.

This paper focuses on the important and often underappreciated influence of natural increase on growing U.S. diversity. We delineate the underlying demographic processes that account for changes in both the *absolute* and *relative* size of both the Hispanic and non-Hispanic population nationally, as well as in established gateways and new destinations. Specifically, we decompose changes in the racial and ethnic composition into four demographic components: (1) Hispanic net migration, (2) Hispanic natural increase; (3) non-Hispanic net migration; and (4) non-Hispanic natural decrease. Our analysis of 1990 – 2010 spans a turbulent era of demographic change characterized by growing diversity and the spatial dispersion of the minority population fostered by substantial minority population gains and much slower growth of the non-Hispanic white population. Our analysis is accomplished using annual county data on births and deaths from the U.S. Vital Registration System, together with newly-available county net migration estimates for 2000-2010, and similar existing estimates from the 1990s.

We have four specific objectives. First, to underscore America's growing racial and ethnic diversity, we document changes in Hispanic and non-Hispanic populations across all U.S. counties over the 1990-to-2010 period (see map below). Second, we track changes in Hispanic and non-Hispanic net migration and natural increase/decrease in both established gateways and new destinations, where observed changes in racial and ethnic composition have been most dramatic (see figure below). Third, we examine the contribution of <u>both</u> fertility and mortality to demographic change in both the Hispanic and non-Hispanic populations. Fourth, we examine these trends in spatial context by grouping counties based on size, functional type, and spatial proximity to urban cores.

Recently-released Census Bureau projections indicate that the United States will become a majority-minority country by 2043 if current patterns of fertility, mortality, and immigration continue. The demographic ascendancy of the U.S. Hispanic population will continue whether restrictive immigration legislation is enacted or not. The growth of the Hispanic population, fueled increasingly by natural increase, has taken on a demographic momentum of its own. Our study emphasizes that the racial and ethnic transformation of American society will unfold differently over geographic space, and that the demographic mechanisms producing diversity vary greatly from place to place. Unlike most previous studies, we also attend to the large role of white or non-Hispanic natural increase in accounting for county-to-county shifts in ethnic diversity over the past two decades.

Background

Growing racial diversity is a product of demographic changes in *both the* majority and minority population. Indeed, the demographic processes involved in the *numerical growth* of the Hispanic population over a fixed time period includes both net migration and natural increase. Net migration is simply the number of Hispanics moving into an area minus the number moving out during the time period. Natural increase of Hispanics refers to differences between births and deaths. Johnson and Lichter (2014) showed that 46 percent of U.S. Hispanic growth between 2000 and 2010 was due to immigration and 54 percent to natural increase. Changes in the

relative concentration or percentage of Hispanics is more complex, involving not only Hispanic net migration and natural increase, but also the offsetting or reinforcing effects of net migration and natural increase (or increasingly natural decrease) of non-Hispanics (including whites, blacks, and other groups). In contrast to the Hispanic net migration component, net in-migration of non-Hispanics will, by definition, decrease the percentage of Hispanics, whereas net out-migration will increase this percentage. Similarly, natural increase of non-Hispanics during a given interval will diminish the percentage of Hispanics. Conversely, natural decrease of non-Hispanics, which increasingly characterizes much of rural America (Johnson 2011, 2012), has hastened the growth in the percentage share of Hispanics.

Although the underlying demographic processes responsible for the numerical and relative growth are quite varied across counties, previous studies have focused almost entirely on one or another of these components. For example, much of the recent research literature links the growth of the Hispanic population to the significant immigration gains of the last several decades, especially in new and established destinations. The important role of fertility and natural increase in the growth of the Hispanic population has only recently been recognized (Johnson and Lichter 2008; 2010). To our knowledge, however, studies of the demographic contribution of white (or non-Hispanic) natural increase and net migration to the growth of and spatial variation in diversity has been overlooked. This is surprising, especially in light of below replacement fertility among whites and population aging which elevates currents rates of mortality. Indeed, chronic white net outmigration, especially of young people of reproductive age, has undoubtedly contributed to rising white natural decrease in some areas.

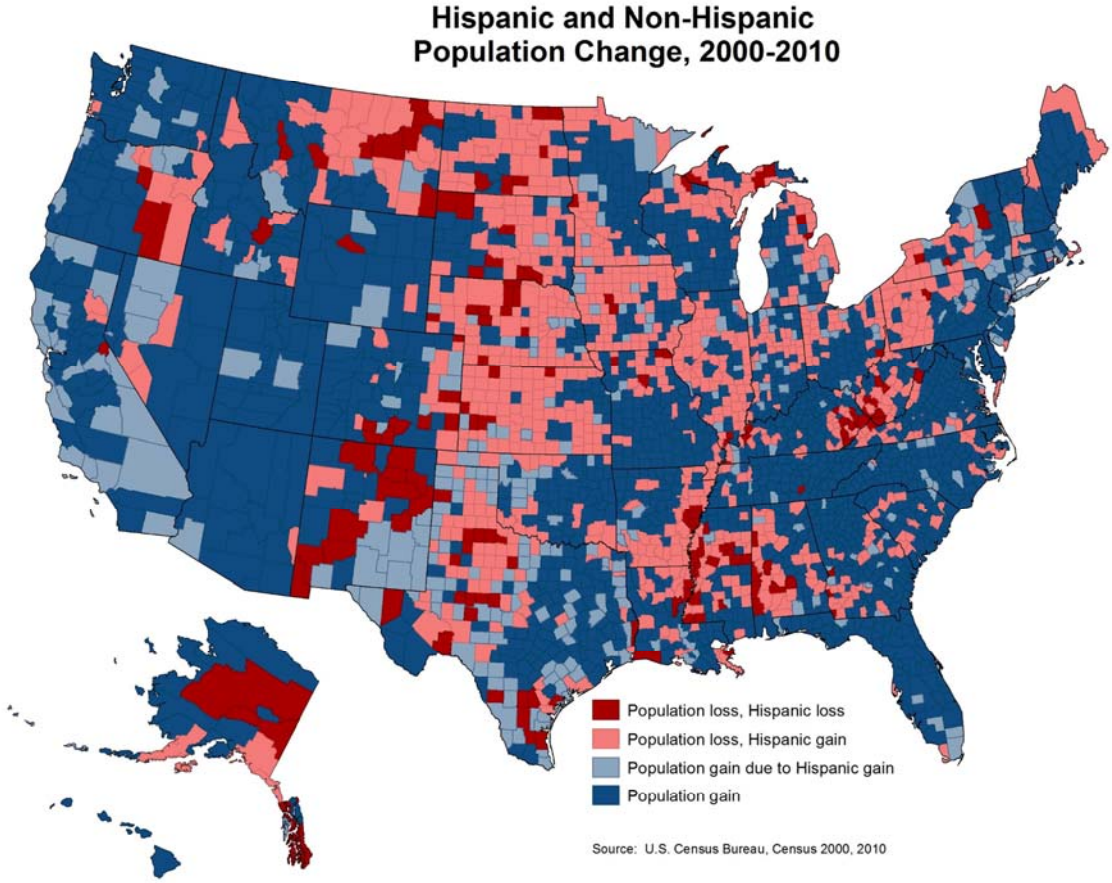
Data and Preliminary Analysis

Our analysis will provide detailed quantitative evidence on the contribution of each of the demographic processes to differential growth in the diversity of the population across all U.S. counties, including established Hispanic gateways and new destinations. In particular, the results highlight the demographic implications of changing patterns of natural increase for America's impeding racial transformation over the next generation or two. Data come from the National Center for Health Statistics, which provides county- and race-specific annual data on births and deaths.

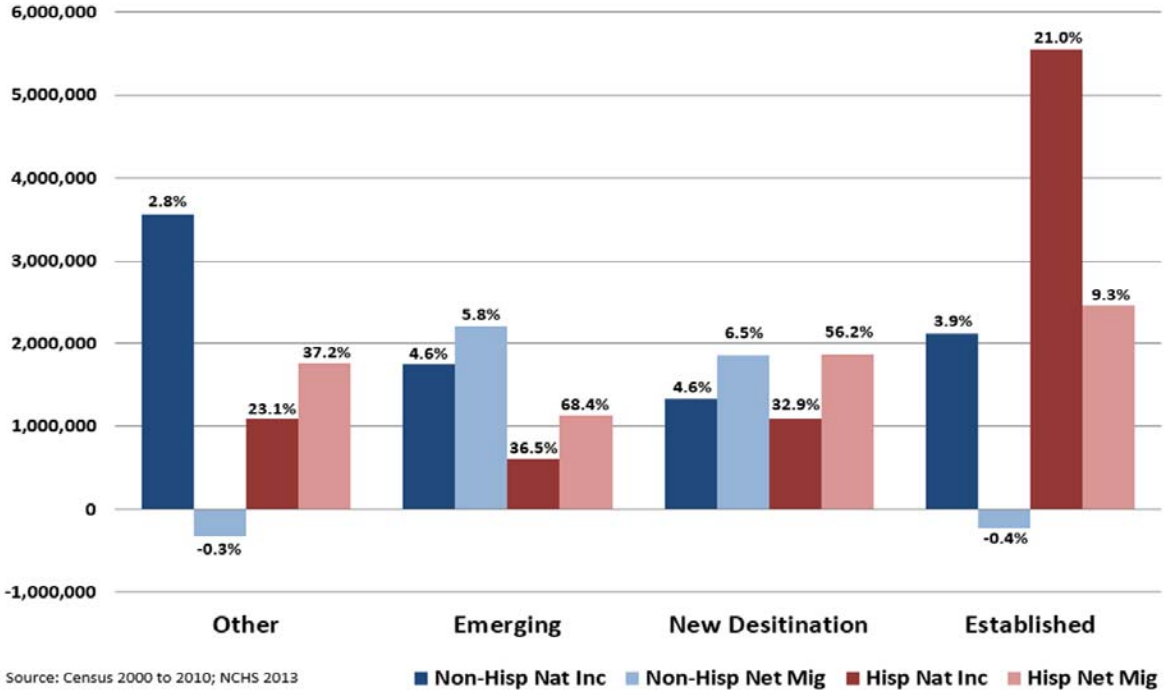
As shown in the map below, Hispanic and non-Hispanic population growth and decline exhibit substantial spatial variation across the U.S. landscape. Much of the upper Midwest—Americas heartland—has experienced population decline (shown in shades of red). This is also true of the so-called "black belt" crescent and Appalachia. Interesting enough, most of the declining counties have also experienced Hispanic population growth. And many other counties have grown only because Hispanic growth has exceeded non-Hispanic decline. Population diversity and change reflect diverging patterns of population growth and decline from county to county.

These patterns are further revealed in patterns in new and emerging Hispanic destinations (see figure below). This figure illustrates both the numerical and the percentage change in the Hispanic and the non-Hispanic population for different Hispanic destination type. It demonstrates the complex interplay among the demographic components of change. For

example, in established Hispanic destinations, the growth of the Hispanic population was considerably larger in both numerical and percentage terms than was the case for the non-Hispanic population. Most of the growth was fueled by Hispanic natural increase, which produced a population increase of 5.5 million—a 21 percent increase over the decade. Hispanic net migration also produced a gain of nearly 2.4 million, though this represent only a modest 9.3 percent increase in Hispanics. Thus, it is natural increase, not net migration that fueled most of the Hispanic population increases over the past decade. In contrast, the non-Hispanic population experienced a net migration loss, albeit modest (roughly 200,000 or -.4 percent). Non-Hispanic natural increase added about 2.1 million to the population, but the percentage gain (3.9 percent) was considerably smaller than for Hispanics. The net impact of large Hispanic population gains, coupled with a much smaller non-Hispanic gains, was much larger percentage shares of Hispanics in established areas and increases in the diversity in Established Hispanic counties.


Hispanic and Non-Hispanic
Population Change, 2000-2010
Population loss, Hispanic loss
Population loss, Hispanic gain
Population gain due to Hispanic gain
Population gain
Source: U.S. Census Bureau, Census 2000, 2010

Components of Change by DestinationType and Hispanic Origin, 2000 to 2010



Source: Census 2000 to 2010; NCHS 2013