

NATURAL DECREASE IN AMERICAN COUNTIES

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In 2002, more American counties (988) experienced natural decrease than at any time in the nation's history. The incidence of natural decrease has diminished since then, but remains near record levels. It is most common in rural areas remote from metropolitan centers. Spatial concentrations exist in the Great Plains, Corn Belt and East Texas, with scattered pockets in the Ozark-Ouachita Uplands, Upper Great Lakes and Florida. Natural decrease is a consequence of the complex interaction between fertility, mortality and migration over a protracted period and is symptomatic of fundamental changes in the demographic structure of an area. Age structure changes resulting from protracted, age-specific migration are a primary cause of natural decrease. Temporal variations in fertility also have a significant impact, but natural decrease counties do not have fertility levels that are below the national average. Recently Hispanic population gains in areas that were traditionally non-Hispanic white have started to alter the patterns of natural decrease.

Natural decrease has been unusual in the American experience, with few instances of county level natural decrease reported prior to the middle of the 20th centuryⁱ. However, it is no longer rare. By 2005, half of all U.S. counties had experienced at least one year of it. And, the pace of natural decrease is accelerated from 483 counties in 1990 to a record 988 in 2002. Ironically, natural decrease is widespread at the county level at a time when the annual number of births and overall natural increase in the U.S. is high.

Absolute gains from natural increase were greatest between 1946 and 1964, the period of the post-war baby boom, after which they diminished rapidly as births dropped in the early 1970s. Since 1980, annual births have rebounded and by 2005 natural increase in the U.S. was some 25 percent higher than in the early 1970s, despite a modest increase in mortality. However, by the end of the decade, the number of counties with natural decrease had started to decline. An important factor in this recent decline is the growing number of Hispanics in traditionally non-Hispanic areas.

That natural decrease can occur when births are abundant and natural increase is substantial at the national level underscores the subtle and complex dynamics of the demographic system (Alonso 1980). And, the recent influence differential impact of Hispanic fertility on the pattern of natural increase in selected areas underscores the many factors that influence local demographic trends.

Sub-national natural decrease has received little scholarly attention in the U.S. Dorn (1939) documented its brief emergence in a few places during the Depression of the 1930s. Beale (1964, 1969) was the first to note its reemergence during the 1950s and 1960s and presciently identified it as an “emergent phenomenon” in rural America. Later research tracked its ebb and flow at the county level from the 1970s to the early 1990s

(Fuguitt, Brown and Beale 1989; Johnson 1993b; Johnson and Beale 1992; Johnson and Purdy 1980; Morrill 1995). Some attention has also been given to county level natural decrease at the state or regional level (Adamchak 1981; Chang 1974; Goudy 2001; Koebernick and Markides 1975).

Natural decrease has received more attention in other developed countries, though most of the research has been done at the national level (Heilig et al. 1990; van de Kaa 1987). Recent research suggests that several European nations (including Germany, Italy, Poland and Russia) as well as Japan are currently experiencing natural decrease (Doteuchi 2006; Muenz 2006; Nikitina 2000). Both population aging and diminished fertility levels play an important role in the onset of natural decrease. With the expectation of continuing sub-replacement level fertility in many developed countries (Morgan and Taylor 2006), research now focuses on identifying policies (i.e. encouraging higher fertility and international replacement migration) that will mitigate the adverse effects of natural decrease (United Nations 2000).

This poster examines the extent and spatial distribution of sub-national (county level) natural decrease in the United States and its proximate demographic causes. Of particular interest is the longitudinal interaction between migration, fertility, mortality and the age structure which, in an increasing number of American counties, has led to natural decrease. The growing influence of Hispanics in accounting for recent trends in natural decrease will also be considered. Natural decrease is of interest because of its uneven spatial distribution; because it is a function of protracted and complex interactions among demographic, economic and social factors; and because it is unique historically. Protracted natural decrease may also be symptomatic of fundamental changes in the local

demographic structure because it eventually drains the demographic resilience from an area. It also places an enormous strain on the local infrastructure that must continue to provide services to the remaining population with dwindling human and economic resources. The prevalence of natural decrease in rural America makes it important that we understand the demographic dynamics that underlie it and consider its implications for future nonmetropolitan population redistribution trends.

¹ The geographic scale of analysis is particularly relevant to the study of natural decrease in the United States. While natural decrease has probably occurred in small geographic areas (towns, villages) intermittently for some time, it was extremely rare at the county level until the 1960s (Beale 1969). The first statewide incidence of natural decrease occurred in West Virginia in the late 1990s.