

Residential Settlement Patterns of Hispanics and Non-Hispanic Whites

Research demonstrates the importance of residential location for social and cultural incorporation as well as resource allocation through a host of public services. We now turn to the issue of Hispanic residential settlement patterns by addressing the following question: *How did residential separation between Hispanics and non-Hispanic Whites change in the past decade, during a period of unprecedented growth in the rural Hispanic population?* By measuring changes in residential distance between non-Hispanic Whites and Hispanics in different types of nonmetro counties and comparing these changes to residential patterns in metro counties, we find a progression of residential integration for Hispanics, based upon their location and length of time in the United States.

Measuring Residential Separation

Residential separation is a multi-dimensional characteristic comprised of *evenness* of population patterns, exposure to majority members, *concentration* within certain areas, *centralization* around core areas, and clustering toward enclaves (Massey, 1985; Massey and Denton, 1988). This analysis uses the Dissimilarity Index (D) to compute relative evenness of the distribution of two population groups within a given *area* by comparing their distributions across *subareas*, as shown in the following formula:

$$D = 0.5 * \sum_i \left| \frac{h_i}{H} - \frac{w_i}{W} \right|$$

where h_i and w_i are the Hispanic and non-Hispanic White population of subarea i and H and W are the total Hispanic and non-Hispanic White populations of the area (see fig. 12 for a hypothetical example). Values of D range from a minimum of 0 to a maximum of 1. Each value represents the proportion of either population that would have to change subareas to achieve evenness with the other group. For instance, a given county subdivided into Census tracts and with a D value of 0.5 indicates that half the Hispanic population would have to change Census tracts for the county's Hispanic population to have the same relative distribution as that of non-Hispanic Whites. Higher D values indicate greater spatial distance—meaning greater residential separation and a less even distribution—between the two groups.

We employ the Dissimilarity Index to analyze residential separation of Hispanics, by county category, of counties within the Nation, places (towns, villages, cities, etc.) within counties, and neighborhoods (Census tracts) within places (see box, “Analysis of Places”).

Residential Separation among Counties Within the Nation

The first of the three geographic scales we consider relevant for understanding changing settlement patterns of nonmetro Hispanics—the county—captures Hispanic population dispersion nationally, including among metro and nonmetro areas. In this case, the Nation functions as the “area” and counties as “subareas” across which we measure residential

Figure 12

Distribution of households within one hypothetical county with high residential separation and one with low residential separation

High-separation county							Low-separation county						
O	O	O		Y	Y	Y	Y	Y	O		Y	O	Y
O	O	O		Y	Y	Y	Y	O	Y		Y	Y	O
O	O	O		Y	Y	Y	O	Y	Y		Y	O	Y
Y	Y	Y		Y	Y	Y	O	Y	Y		Y	O	Y
Y	Y	Y		Y	Y	O	Y	O	Y		Y	Y	O
Y	Y	Y		Y	O	O	Y	O	Y		O	Y	Y

O Minority household
Y Majority household

Note: Cells represent subareas within areas (e.g., places within counties, Census tracts within places). Adapted from Iceland et al., 2002

separation. Earlier, we noted a clear and growing geographic diffusion of Hispanics into new regions of rural America. The declines in the Dissimilarity Index (D)—from 0.59 to 0.55 for the Nation as a whole, and from 0.65 to 0.57 for all nonmetro counties—indicate less spatial distance between Hispanics and non-Hispanic Whites, nationally.

Throughout the Nation and within all county types, Hispanics became more geographically integrated among non-Hispanic Whites over the course of the past decade (fig. 13). Hispanics were least dispersed among the 1,913 other nonmetro counties, but this county type also experienced the greatest decline in separation between Hispanics and non-Hispanic Whites. If this trend continues, it could portend significant ethnic and social change. With the exception of nonmetropolitan counties in the Southwest, rural America has long been populated overwhelmingly by non-Hispanic Whites who have had little consistent contact with foreign-born persons from non-European countries. If such interaction between nonmetro non-Hispanic Whites and Hispanics increases, it could mirror similar processes of, and struggles for, incorporation and acceptance occurring in metropolitan areas.

Increasing values of D at the national level would support the “demographic balkanization” thesis, which holds that America is dividing into broad ethnically and racially lopsided regional enclaves. However, since dispersion dominated Hispanic population patterns throughout the 1990s, particularly into nonmetro areas, declining dissimilarity indices across all county types are neither surprising nor consistent with the demographic balkanization thesis, at least for Hispanics.

Analysis of Places

For the analysis of places, we use incorporated and unincorporated places that were recognized in both the 1990 and 2000 Censuses.

For the analysis of neighborhoods, we use 1990 Census tracts, with matched 1990 and 2000 population figures to maintain identical spatial units between Censuses. Where tracts were split to account for growing populations, we re-aggregated 2000 tracts to match 1990 configurations. For the small number of Census tracts that were re-configured, we used a computer-based overlay analysis to allocate 2000 populations to 1990 geography. For the analysis of counties, *D* values represent single values for each of the four county types. For the analyses of places within counties, and neighborhoods within places, we computed *D* values for each county and then averaged them across counties for each of the four county types.

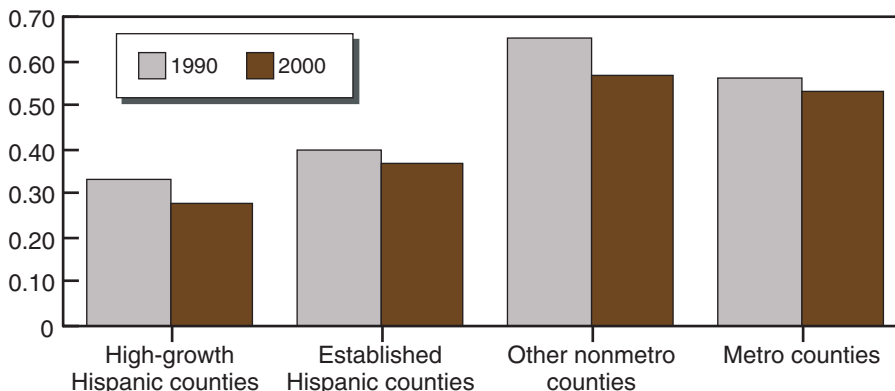
The Dissimilarity Index was chosen over other measures of segregation because of its relatively straightforward interpretation and comparability. Unlike measures of *exposure* used in some studies, *D* is not sensitive to relative numbers of minority members. In high-growth Hispanic counties, where both the absolute number and proportion of Hispanics increase rapidly, most *exposure* measures would increase in situations where relative population evenness (as measured by *D*) remained the same.

Some criticize the dissimilarity indicator for lower sensitivity to separation among larger geographic units, thus yielding higher values for residential separation in neighborhoods of a metropolitan area than in larger counties of a State. Similarly, residential separation, as measured by Census blocks, will be higher than for the same populations divided into larger units such as Census tracts or places. Our interest, however, is not to compare dissimilarity at different geographic scales—for example, between neighborhoods and places. Rather, within the *same geographic scale*, we wish to compare changes over time and changes across different county types.

Figure 13

Residential separation in counties within the United States, Hispanics and non-Hispanic Whites, by county type, 1990-2000

Dissimilarity Index (*D*)



Note: *D* measures how evenly distributed two population groups are within a given area, on a scale of 0 to 1. The higher the value of *D*, the less evenly distributed the two groups are.

Source: Economic Research Service/USDA.

Residential Separation in Places Within Counties

Within counties, however, the national trend of Hispanic population dispersion does not hold. At this level of analysis, for purposes of measuring dissimilarity, the county functions as the “area” and places (e.g., towns, villages, cities, etc.) function as “subareas.” Results measure the degree to which Hispanics and non-Hispanic Whites live together within or outside of town and city boundaries for the different county types (fig. 14).

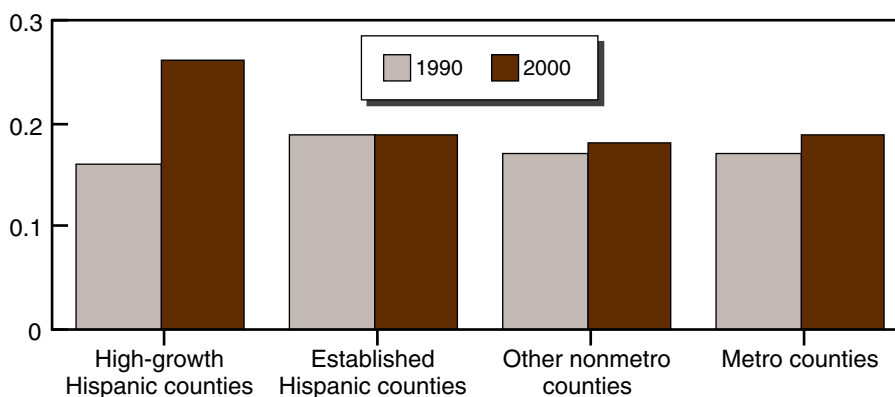
Between 1990 and 2000, residential separation increased slightly within metro and other nonmetro counties, but significantly (63 percent) in high-growth Hispanic counties, which exhibited the lowest average dissimilarity among all county types at this level of analysis in 1990. This increase in *D* means that, on average, Hispanics living in these 149 counties were about two-thirds more likely to be spatially isolated from non-Hispanic Whites across municipal boundaries in 2000 than they were in 1990. Changing residential separation in these counties is in striking contrast to that of established Hispanic counties, which, on average, exhibited geographic equilibrium between the two groups.

As noted earlier, municipal boundaries often represent economic and social dividing lines between groups that may heavily influence social service availability and opportunity for economic development on the one hand, and property values and local taxes on the other. The experience of nonmetro Blacks, who migrated in significant numbers to towns and cities following World War II, suggests that other nonmetro minority groups may similarly seek social, economic, and political support within the legal and political environment of places (Aiken, 1990). This occurs as non-Hispanic Whites leave those same places, sometimes in response to such population trends.

Figure 14

Residential separation in places within counties, Hispanics and non-Hispanic Whites, by county type, 1990-2000¹

Dissimilarity Index (D)



¹As defined by the Census Bureau, places are "designated places, consolidated cities, and incorporated places."

Note: *D* measures how evenly distributed two population groups are within a given area, on a scale of 0 to 1. The higher the value of *D*, the less evenly distributed the two groups are.

Source: Economic Research Service/USDA.

The *D* values do not distinguish between residential separation caused by the place-level clustering of Hispanics versus the outmigration of non-Hispanic Whites; in these places, either trend could produce the increase in residential separation shown.

The distribution of Hispanics and non-Hispanic Whites among places of varying sizes in high-growth Hispanic counties as of 2000 suggests a pattern similar to one observed between Blacks and Whites in the nonmetro South from 1970 to 1990 (Cromartie and Beale, 1996). Hispanics are more likely to live in larger towns and cities, while non-Hispanic Whites tend to concentrate outside of Census-defined places (fig. 15). Both of these trends increased during the 1990s (Cromartie and Kandel, 2002).

Several reasons may explain these differences, but one likely explanation is economic. In high-growth Hispanic counties, non-Hispanic Whites have significantly higher average incomes than Hispanics, allowing them to purchase newer and larger houses with larger properties. Such housing, however, tends to be found outside of towns and small cities, where traditional neighborhoods are residentially more dense. By contrast, Hispanics in these high-growth counties have less time in the United States than Hispanics elsewhere (table 4) which, combined with lower earning power, increases the likelihood they will live with or near relatives and friends in more crowded housing until they can afford their own. Nevertheless, the data raise broader concerns over whether Whites in these counties are moving away from places in reaction to an influx of Hispanics.

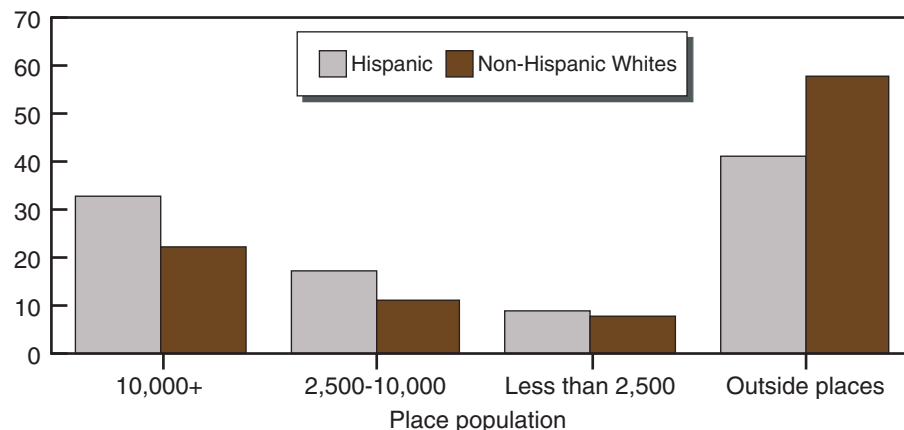
Residential Separation among Neighborhoods Within Places

Measuring residential separation at the Census tract level is similar to the more traditional measurement of neighborhood segregation within urban

Figure 15

Population distribution in high-growth Hispanic counties, by place population, 2000¹

Percent



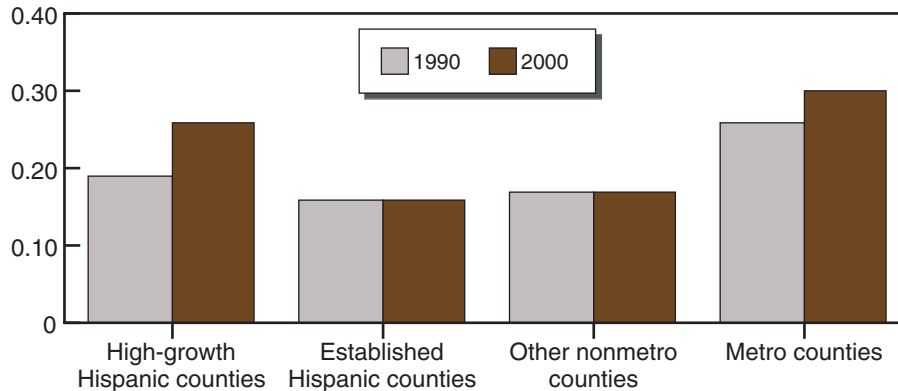
¹As defined by the Census Bureau, places are "designated places, consolidated cities, and incorporated places."

Source: Economic Research Service/USDA.

Figure 16

Residential separation in neighborhoods within places, Hispanics and non-Hispanic Whites, by county type, 1990-2000¹

Dissimilarity Index (D)



¹As defined by the Census Bureau, places are "designated places, consolidated cities, and incorporated places."

Note: D measures how evenly distributed two population groups are within a given area, on a scale of 0 to 1. The higher the value of D, the less evenly distributed the two groups are. In this figure, D equals the average of county D values within each county type.

Source: Economic Research Service/USDA.

areas. Here the incorporated place acts as the area and Census tracts function as subareas. Between 1990 and 2000, dissimilarity levels remained stable for established Hispanic counties and other nonmetro counties, but increased for high-growth Hispanic and metro counties (fig. 16). The increase in residential separation between Hispanics and non-Hispanic Whites in high-growth Hispanic counties between 1990 and 2000 points to greater separation associated with rapid demographic change. This finding differs from those of Hwang and Murdock (1983) and Murdock et al. (1994), whose analyses of Texas indicated that population growth from 1980-90 had reduced segregation at the place level.

Spatial separation between Hispanics and non-Hispanic Whites in neighborhoods within metro places remains relatively high compared with nonmetro places, and is consistent with earlier findings (Iceland et al., 2002). This results partly from differing sizes of rural and urban Census tracts. Because these tracts are larger in nonmetro counties, values for *D* are less likely to capture the same level of residential separation found between groups for similarly populated tracts in metro counties. However, metro and nonmetro residential separation patterns may also be capturing very different social and geographic processes that limit what can be deduced from comparisons of the two.

The increase in residential separation in high-growth Hispanic counties resembles more the situation in metro areas than in the other nonmetro county types. However, a stronger explanatory role must be given to rapid population change itself and to the striking socioeconomic characteristics of the new residents in these counties. Given influxes of new ethnic minorities, many of whom have little U.S. experience, skewed age and sex distributions, low schooling levels, and weak English language proficiency, it is not

surprising to find a rapidly rising, high level of separation in the initial stages of settlement.

At rates measured here, residential separation patterns between nonmetro Hispanics and non-Hispanic Whites, at least in high-growth counties, are beginning to resemble settlement patterns of many groups in metro areas and Blacks in parts of the rural South. If they follow patterns of Blacks in the rural South, nonmetro communities with high Hispanic populations may face similar outcomes: declining status as retail centers, growing dependence on government assistance, and inadequate schooling and transportation. Whether counties with growing Hispanic populations face such a future depends on several factors that are hard to predict. These include the continued availability of low-wage jobs, the extent of economic mobility among Hispanics and their children, future demographic change, incorporation processes in those communities, and the extent to which nonmetro counties and cities take steps to maintain and create healthy communities in the face of increasing ethnic diversity.