

SPATIAL SEGREGATION

The Stanford Center on Poverty and Inequality

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KEY FINDINGS

- There is extreme racial segregation within each of the states; in fact states are, on average, more racially segregated than are cities and metropolitan areas. In the average state, complete integration with whites could be secured by “moving” 73 percent of blacks, 61 percent of Hispanics, and 66 percent of Asians to a new neighborhood (within their state).
- States differ, often dramatically, in the extent to which they are racially or ethnically segregated. For example, 85 percent of blacks in Montana would have to move to a new neighborhood to effect complete integration, whereas only 56 percent of blacks in Nevada would have to do so.
- The states with the largest black, Hispanic, or Asian populations are often the least segregated. For example, New Mexico, which has a very high Hispanic population (46 percent), is also one of the states in which Hispanics are least segregated from whites, ranking 48th out of the 50 states and the District of Columbia.

For each of the 50 states, we ask a straightforward question: What percentage of whites, blacks, Hispanics, and Asians would have to move elsewhere in the state in order to achieve parity in the spatial distributions of racial and ethnic groups across the entire state? In other words, how spatially integrated are America’s minority populations within each of the states?

Residential segregation—the geographic separation of the races—is not just a big-city phenomenon. Although residential segregation is often measured at the level of cities, in fact it occurs at many different spatial scales—states, regions, metropolitan areas, cities, suburbs, and small towns. To fully understand segregation today, a broad approach is required, one that supplements the usual city-based evaluations of residential segregation with other spatial measurements, such as state-based measurements. We provide just such state-based estimates of segregation here.

This is an important task, given concerns that the United States is very polarized by race and geography. Indeed, some whites may be “hunkering down” in mostly white exurban communities, while others are “trapped” in isolated rural areas (e.g., Appalachia) or prefer largely white areas outside metropolitan areas in the Northeast (e.g., Vermont or upstate New York) or the Midwest (e.g., the Dakotas or other parts of the agricultural heartland). At the same time, blacks and Hispanics are highly urbanized populations, and most immigrants today live in metropolitan areas, including their suburban ring, which have become new

destinations for immigrant resettlement. Yet diversity is expanding beyond cities, and states have a larger role to play in ensuring equal opportunity in housing and access to good neighborhoods throughout the state. As America moves inexorably toward a new multiracial, multicultural society, the typically narrow geographic focus on big-city segregation seems increasingly anachronistic and may give misleading signals about changing race relations and spatial integration across the country.

Throughout our analyses, we use the Index of Dissimilarity, or *D*, to measure segregation. This index indicates the percentage of a given minority group that would have to move to other neighborhoods (within their state) in order to achieve parity between that group and whites in their percentage distributions across all neighborhoods. For more details on *D* and how we have calculated it, see the Appendix “Measuring Racial Segregation.”

Black-White Segregation

We begin our analyses by asking whether there is much segregation at the state level. The simple answer is that there is very much indeed. In fact, when black–white segregation is measured at the state level, *D* typically takes on a higher value than it does when calculated at the level of cities or metropolitan areas.¹ The red bar in Figure 1, which pertains to the average level of black–white segregation across all states, indicates that nearly three-fourths of all black Americans would have to move elsewhere (to other blocks with disproportionate shares of whites) in their home states in order for the

percentages of all blacks and whites across America’s cities, towns, and neighborhoods to become equal.

We next ask whether there is much variability across states in black–white segregation. Are there, in other words, some states in which segregation is especially extreme? The stereotypical view is that black–white segregation is highest in the South, where race relations have been strained by the historical past—slavery and its aftermath of Jim Crow, racial oppression, and discrimination. But previous metropolitan studies show, in fact, that neighborhood segregation is actually lowest in the American South.² The most highly segregated metropolitan areas, for example, are all located in the industrial North (Detroit, Milwaukee, New York, Newark, Gary, and Chicago). In each of these cities, black–white segregation in 2010 is in excess of 75 (when measured with D). In contrast, Atlanta (D = 58), Dallas (D = 55), and Memphis (D = 62) all have high, but substantially lower, segregation rates than big northern metropolitan areas.³

Our state-level analyses tell a similar story of regional variation. As shown in Figure 1, the ten most segregated black–white states are located outside the South. In these highly segregated states, like Montana (D = 85) and Wyoming (D = 82), blacks mostly live near other blacks. The states in which blacks are least segregated from whites are Nevada, Hawaii, Arizona, Alaska, and Delaware. These results suggest that states with very small black populations, like Montana and Wyoming, tend to be more segregated. Of the five least segregated states, only Delaware has a black percentage (21 percent) above the national average (12 percent) in 2010.

If we next restrict our analyses to states with large black populations of over 1 million in 2010, New York ranks as the nation’s most segregated state, with D equaling 82. At first blush, this may seem like a surprise; after all, New York is a progressive, heavily “blue” state. But high rates of segregation in New York State are driven by large differences in black-white settlement in the New York metropolitan areas vis-à-vis the rest of the state (i.e., rural upstate New York), which is mostly white in racial composition. A narrow focus on metropolitan areas alone misses the substantial segregation of blacks at the state level (and the “blue” and “red” spatial cleavage), which takes into account patterns across and within all cities, communities, and neighborhoods.

Moreover, among southern states, our results show that only Tennessee is included in the five most segregated states with black populations over 1 million. And several other states,

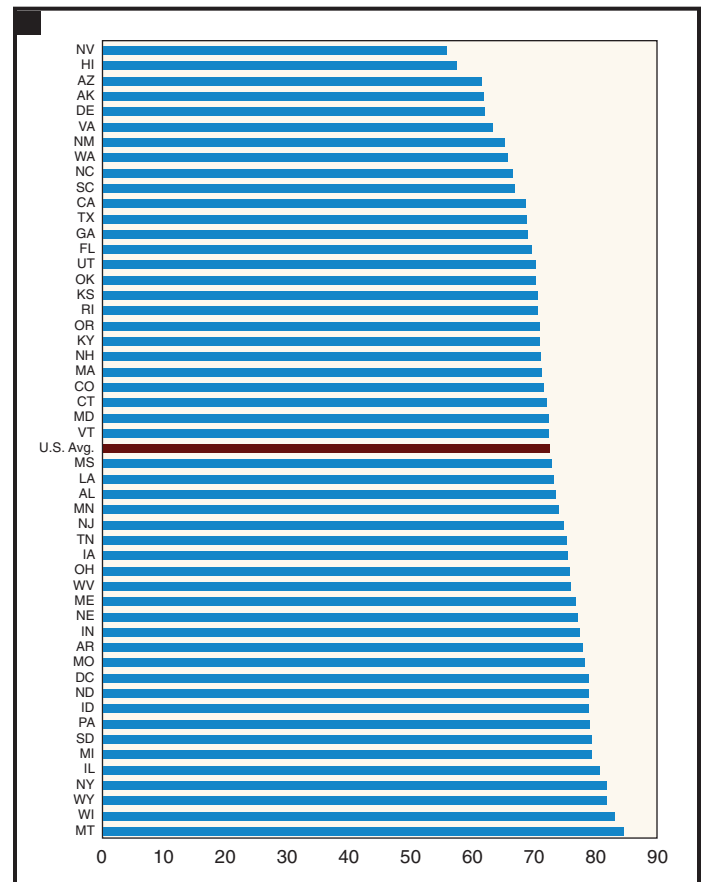
including Alabama (D = 74), Louisiana (D = 73), and Mississippi (D = 73), exhibit segregation scores that are similar to the national average (D = 73). One clear takeaway message is that racial and ethnic diversity at the state level seems to be negatively associated with segregation. That is, diverse states are often less segregated than other states. Most Americans seemingly are not responding to growing diversity by self-segregating themselves from others.⁴

Asian-White Segregation

Figure 2 provides the state rankings of Asian–white segregation. The first conclusion coming out of Figure 2 is that, averaged across all states, Asian–white segregation (D = 66) is somewhat lower than the corresponding black–white average (D = 73).

The second conclusion is that there is nonetheless much state variability around this average. The most segregated state is West Virginia (D = 81), and the least segregated is

FIGURE 1. State Rankings of Black-White Residential Segregation (D), 2010



Source: U.S. Census Bureau, 2010 machine-readable decennial census files.

Nevada (D = 47), although the District of Columbia (D = 34) ranks lower still.

The third conclusion: Diversity and segregation are again strongly related. That is, Asians tend to be most segregated in states with smaller Asian populations, measured either in absolute numbers or as percentages of the overall state population. Joining West Virginia as most segregated states are Wyoming, North Dakota, South Dakota, and Montana, all with Asian populations of roughly 1 percent or less.

Because Asians are unevenly concentrated across the American states, only nine states had Asian populations that exceeded the national Asian percentage of 4.8. And among these, all had Asian-white segregation scores less than the national average of 66. For example, nearly one-half (47 percent) of Hawaii's population is of Asian ancestry, and Hawaii's segregation score (D = 52) is the third lowest. The key exception to this rule is New York State, which has a relatively large D score of 67, even though it has a large Asian population. As with New York State's black population, the Asian popula-

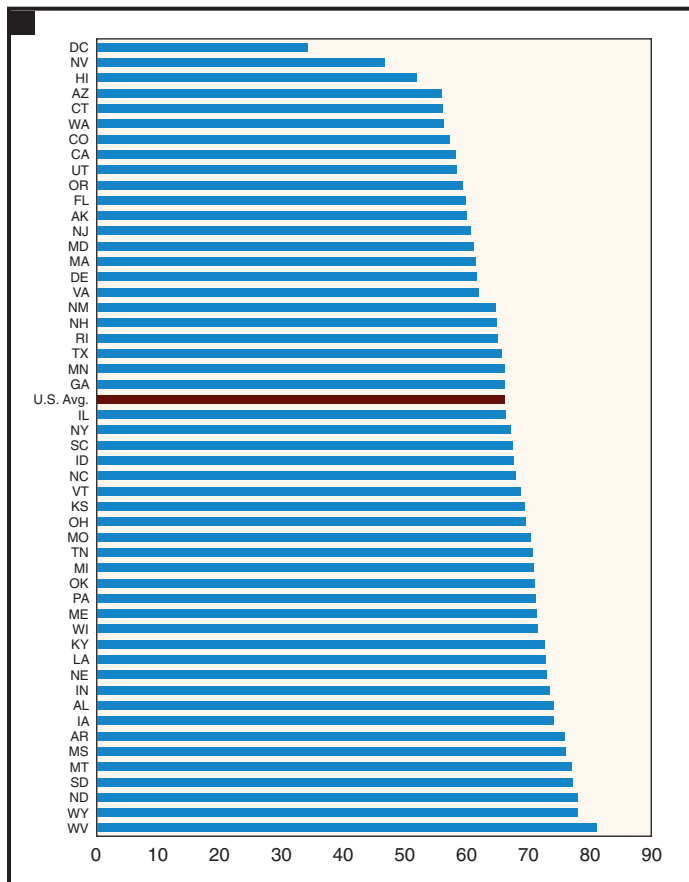
tion is considerably more segregated than in other states with large Asian populations.

Hispanic-White Segregation

Hispanics are America's fastest growing population, accounting for the overwhelming share of U.S. population growth over the past decade.⁵ As shown in Figure 3, the level of Hispanic-white segregation, averaged across states, comes in at 61, which is lower than the corresponding averages for either black-white (D = 73) or Asian-white (D = 66) segregation.

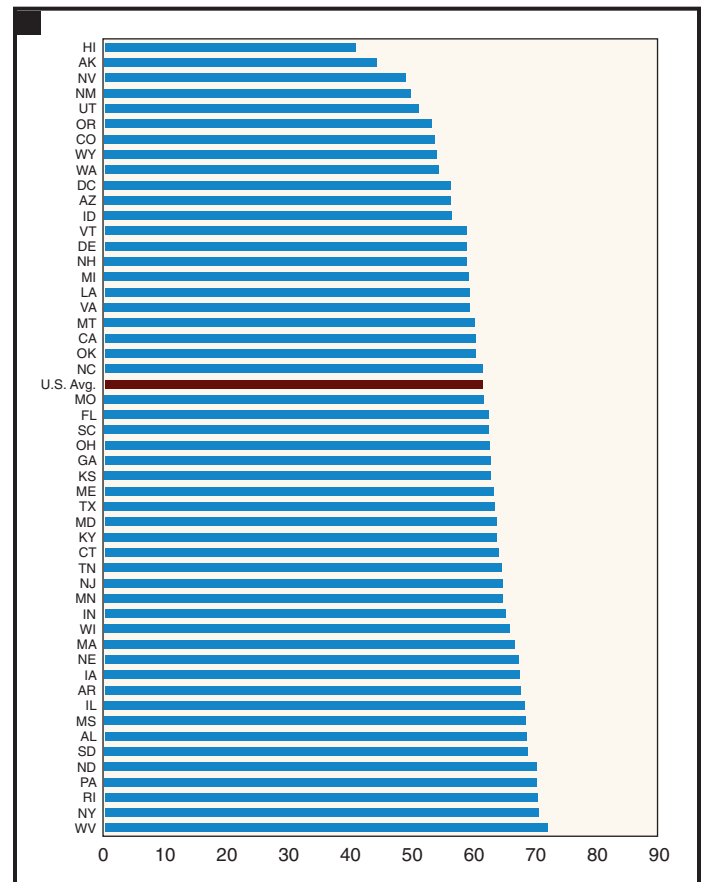
This figure also reveals that Hispanic-white segregation levels are more closely clustered around this low average than is the case for other types of segregation. There is of course some state-level variability, with Hispanic-white segregation ranging from a low of 41 (Hawaii) to a high of 72 (West Virginia). Like their Asian minority counterparts, the relatively small number of Hispanics in West Virginia are more highly segregated from whites than in any other state. Thus, this case again illustrates the familiar pattern of high segregation in those states with small minority populations. Most Hispanics

FIGURE 2. State Rankings of Asian-White Residential Segregation (D), 2010



Source: U.S. Census Bureau, 2010 machine-readable decennial census files.

FIGURE 3. State Rankings of Hispanic-White Residential Segregation (D), 2010



Source: U.S. Census Bureau, 2010 machine-readable decennial census files.

in West Virginia live together in neighborhoods in the largest West Virginia cities (Wheeling, Charlestown, or Morgantown), and relatively few live in remote or rural Appalachian counties.

In other states—even large ones like New York—high rates of Hispanic–white state segregation seem to reflect unusually large cultural, economic, and demographic divides within the state. Nearly 18 percent of New York’s population is Hispanic. But the overwhelming majority live in the New York metropolitan area. In 2010, 2.3 million Hispanics (of any race) lived in one of the five boroughs of New York City.⁶ The entire state has a Hispanic population of 3.4 million. Hispanics in New York City are highly segregated from other populations in the city, but also from New York’s largely white upstate population. It follows that racial and ethnic segregation occurs on many different spatial levels.

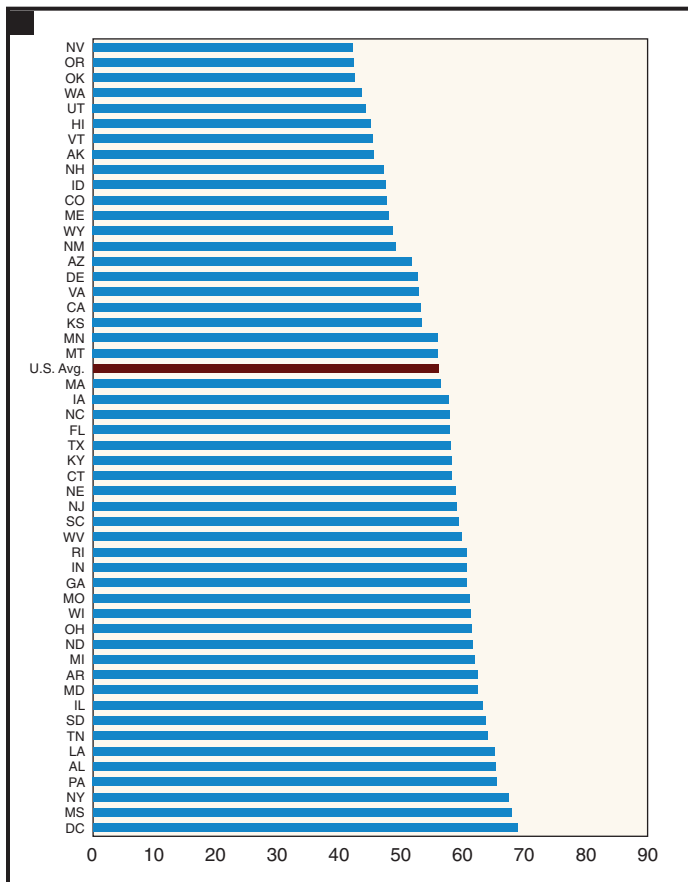
Perhaps surprisingly, states with rapidly growing Hispanic populations—gateways and new destination states—exhibited comparatively low Hispanic–white segregation levels. The two colossus states—Texas and California—with 9.5

and 14.0 million Hispanics, respectively, have Hispanic–white segregation levels that were only slightly above (Texas $D = 63$) and slightly below (California $D = 60$) the national average of 61. Among the eight states with over 1 million Hispanics each, New York again ranks as the most segregated state, while Colorado is the least segregated. New Mexico, which has the highest Hispanic percentage, at 46.3 percent, is also one of the least segregated states, ranking 48th out of the 50 states and the District of Columbia.

Segregation of Each Racial Group from All Others

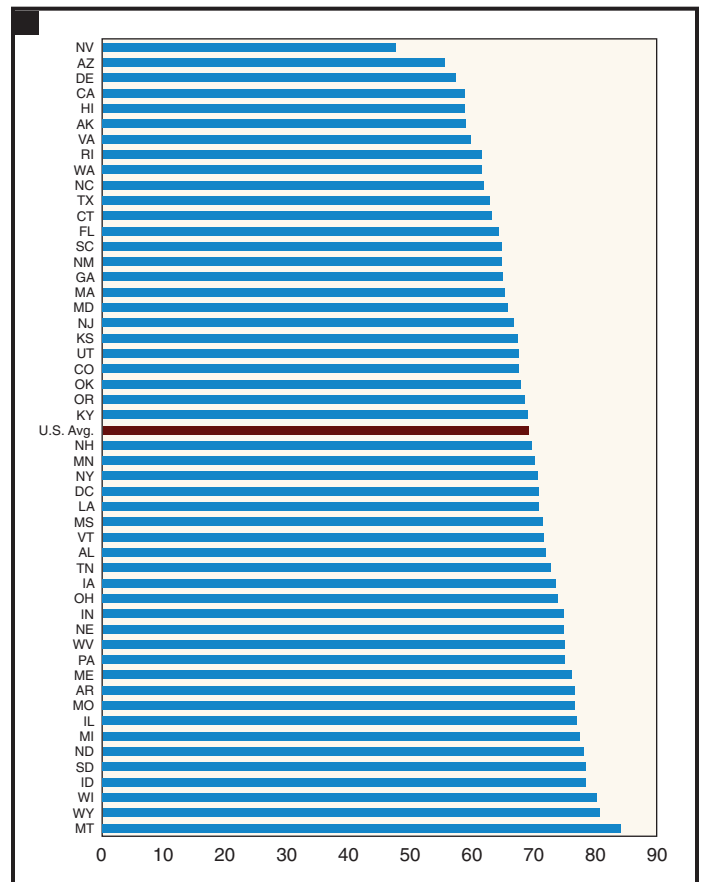
In Figures 4–7, we also provide the state rankings of each racial or ethnic group from all other groups in the population. Average state figures are represented by the red bars in each figure. These estimates can be viewed as indicators of the extent to which different racial and ethnic groups are integrated with the rest of the state population and hence the extent to which states have become racial “melting pots.” The U.S. averages imply that whites ($D = 56$) are more integrated with all other populations than are blacks ($D = 69$) and Asians ($D = 65$). Hispanics, perhaps surprisingly, are nearly

FIGURE 4. State Rankings of White-Other Residential Segregation (D), 2010



Source: U.S. Census Bureau, 2010 machine-readable decennial census files.

FIGURE 5. State Rankings of Black-Other Residential Segregation (D), 2010



Source: U.S. Census Bureau, 2010 machine-readable decennial census files.

as integrated with non-Hispanics ($D = 58$) as whites are with non-whites.

Confirming the conventional wisdom, these results also show that whites in the South are nevertheless highly segregated from non-whites. For example, white–other segregation is highest in the state of Mississippi (although the District of Columbia is slightly higher), and lowest in Nevada. The paradox is that black–white comparisons (Figure 1) suggest that southern blacks are less isolated from whites in Mississippi and other states in the Deep South, but also that whites are more isolated from all other groups. This reflects, at least in part, the fact that the “other” category in the white–other category is overwhelmingly black (and whites are still more segregated from blacks than other minority groups).

What Does It All Mean?

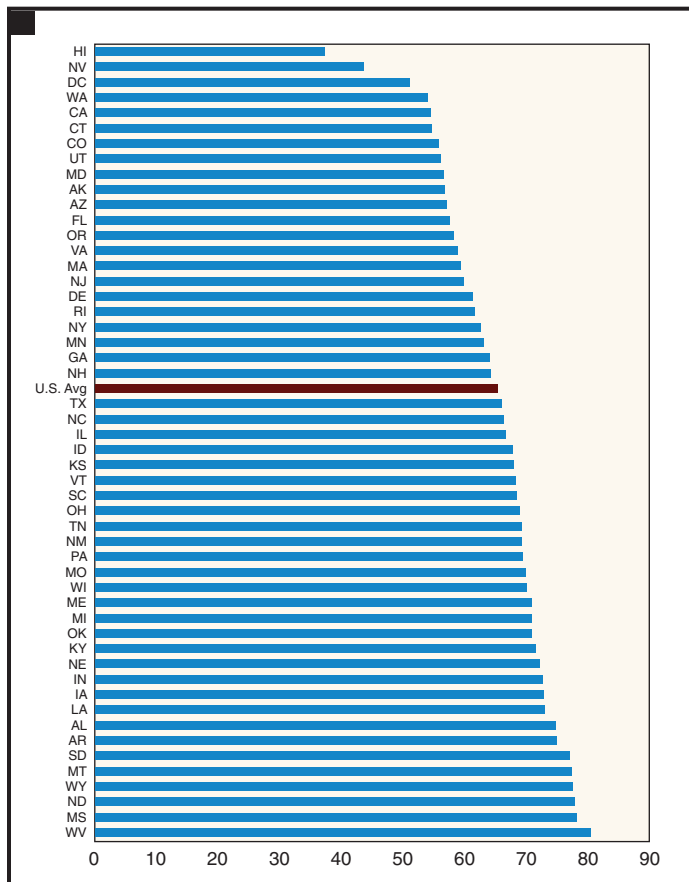
Most public policy analysts and social scientists view residential segregation as a decidedly metropolitan or big city phenomenon. It surely is. But the separation of America’s racial and ethnic groups also extends beyond metropolitan or

city boundaries. This point is clearly buttressed by the empirical evidence shown here for states. Indeed, current patterns of population dispersal—Hispanics to new rural destinations, Asians to ethnoburbs, and blacks to older suburbs—mean that a broader spatial lens is now required to fully understand the causes and consequences of racial and ethnic segregation in America.

If segregation is viewed as a proxy measure of “social distance” between racial groups, then the evidence presented here suggests a large chasm between the white majority and America’s growing minority populations. The statewide estimates of segregation presented here are, on average, higher than those based on segregation within big cities or within metropolitan areas.

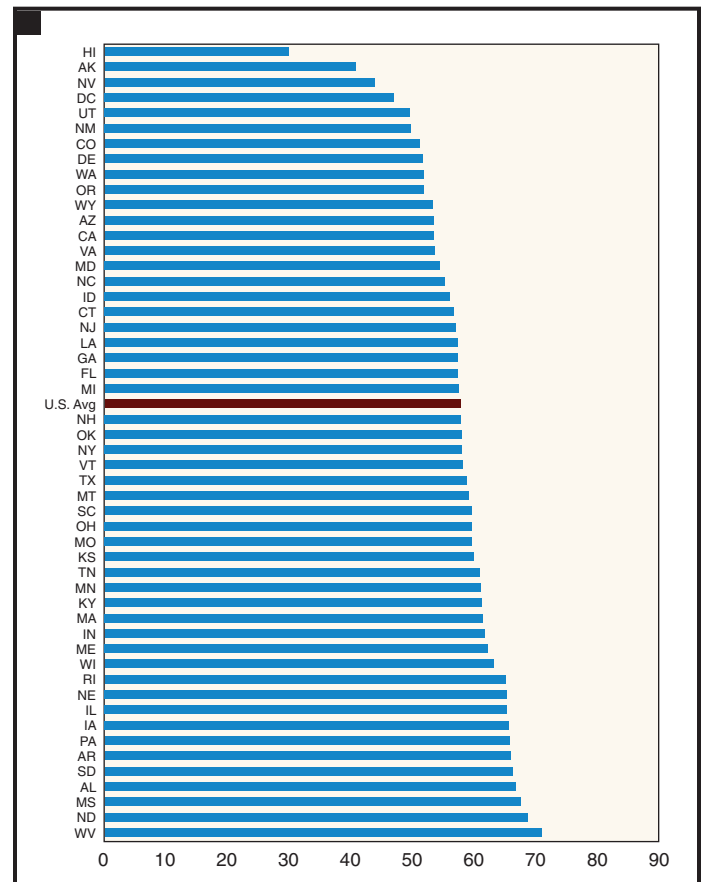
In results not presented here, we also found evidence of slight declines, on average, in state-level segregation from 2000 to 2010. This state-level pattern supports a different conclusion from metro-level segregation studies showing little decline or even increases in segregation from whites. Hispanics and

FIGURE 6. State Rankings of Asian-Other Residential Segregation (D), 2010



Source: U.S. Census Bureau, 2010 machine-readable decennial census files.

FIGURE 7. State Rankings of Hispanic-Other Residential Segregation (D), 2010



Source: U.S. Census Bureau, 2010 machine-readable decennial census files.

Asians are now “fanning out” across the nation, resettling in new Asian ethnoburbs, smaller metropolitan areas, and new immigrant destinations, including rural Hispanic boomtowns. These declines in state-level segregation are, however, quite small, and the overall picture of extreme segregation clearly holds in 2010.

There is even considerable segregation in America’s most progressive and seemingly post-racial states outside the American South. In fact, southern states with the most minorities—blacks, Asians, and Hispanics—often ranked well down the list of most segregated states. This means that—at the street level—whites and minorities are more likely to interact or at least have the potential to interact on a regular basis.

Does this matter? Previous studies of metropolitan segregation indicate that segregated minority populations often lack access to good jobs, quality schooling, adequate and affordable housing, and a safe environment. Living in close proximity with whites often creates new opportunities and personal connections otherwise unavailable to many minorities. Segregation cuts off opportunities from the mainstream. Whether state segregation—segregation at a broader spatial scale—limits opportunity is perhaps much less obvious or

well-documented. At a minimum, however, our results suggest that it is sometimes too easy for outsiders to denigrate the extremes of southern segregation—and the discrimination and racism it seemingly implies—when they too live in areas where they are little exposed to minorities on a daily basis.

Finally, our results also mean that states have a potentially large role to play in ensuring equal opportunity in housing and access to good neighborhoods—throughout the state. This is not just a responsibility of the federal government, or big city politicians and bureaucrats, or interested nongovernmental (e.g., real estate) organizations. How welcoming are mostly white communities to minorities living outside the metropolis? The Census Bureau forecasts that the United States will become a majority-minority society by 2043. But we do not have to wait until 2043 to see that growing racial and ethnic diversity—and segregation—are proceeding unevenly across the entire United States. For many states, the future is now. For others, changing patterns of segregation—within and between states, cities, and communities—will provide important lessons about whether we are moving to a post-racial society, one that provides opportunities for everyone, regardless of race or national origin. ■

APPENDIX: MEASURING SEGREGATION

Most previous studies of segregation use metro areas, central (principal) cities, or urbanized areas as units of analyses. They typically emphasize changing patterns of segregation across metro neighborhoods, as proxied by census tracts. The entire metro area is usually treated as a single housing or labor market that sorts different population groups into different neighborhoods. Segregation is typically measured using the Index of Dissimilarity (D). D_t is defined as

$$D_t = \frac{1}{2} \sum_{i=1}^k |m_{it} - w_{it}|$$

where m_{it} and w_{it} are the respective percentages of the minority and white populations residing in census tract i at time t . This index is based on pair-wise comparisons and varies from 0 (no segregation) to 100 (complete segregation). D indicates the percentage of minorities that would

have to move to other neighborhoods in order to achieve parity between a minority population and whites in their percentage distributions across all neighborhoods.

Here we use all states rather than metropolitan areas as the unit of analysis. We also use blocks rather than census tracts (neighborhoods) as accounting units to calculate segregation. Blocks are ideal for our purposes. Blocks represent the geographic scale in which majority and minority population engage at the “street level” in formal and informal social interaction (i.e., neighboring) that potentially takes place on a regular or daily basis. This is not always true at the neighborhood level; indeed, census tracts themselves can be highly segregated by race and can misrepresent the degree to which minority and majority population actually interact socially.

NOTES

1. See, for example, Logan, John R., and Brian J. Stults. 2011. *The Persistence of Segregation in the Metropolis: New Findings from the 2010 Census*. New York: Russell Sage Foundation and Brown University. It provides the first set of estimates of segregation based on the 2010 decennial census. Segregation measures for metropolitan areas and big cities are available at <http://www.s4.brown.edu/us2010/index.htm>. For general discussions of alternative measures of segregation and the advantages and disadvantages of each, see Reardon, Sean F., and David O'Sullivan. 2004. "Measures of Spatial Segregation." *Sociological Methodology*, 34, 121–62; and Reardon, Sean F., Stephen A. Matthews, David O'Sullivan, Barrett A. Lee, Glenn Firebaugh, Chad R. Farrell, and Kendra Bischoff. 2008. "The Geographic Scale of Metropolitan Segregation." *Demography*, 45, 489–514.
2. See Logan and Stults, 2011.
3. Estimates downloaded from <http://www.s4.brown.edu/us2010/index.htm>.
4. See Lee, Barrett A., John Iceland, and Chad R. Farrell. 2014. "Is Ethnoracial Residential Integration on the Rise? Evidence from Metropolitan and Micropolitan America since 1980." In *Diversity and Disparities: America Enters a New Century*. John Logan, Ed. New York: Russell Sage Foundation, 415–456.
5. See Lichter, Daniel T. 2012. "Immigration and the New Racial Diversity in Rural America." *Rural Sociology*, 77, 3–35.
6. Downloaded from the Census Bureau's Factfinder website, at http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1&prodType=table.

ADDITIONAL RESOURCES

- Frey, William H. 2015. *Diversity Explosion: How New Racial Demographics Are Remaking America*. Washington, D.C.: Brookings Institution.
- Lichter, Daniel T. 2013. "Integration or Fragmentation? Racial Diversity and the American Future." *Demography*, 50, 359–391.
- Lichter, Daniel T., Domenico Parisi, Michael C. Taquino, and Steven Michael Grice. 2010. "Residential Segregation in New Hispanic Destinations: Cities, Suburbs, and Rural Communities Compared." *Social Science Research*, 39, 215–230.
- Parisi, Domenico, Daniel T. Lichter, and Michael C. Taquino. Forthcoming. "The Buffering Hypothesis: Growing Diversity and Declining Black-White Segregation in America's Cities, Suburbs, and Small Towns?" *Sociological Science*, 2.