

Less Separate, No Less Unequal

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John R. Logan, Brown University
Brian D. Stults, Florida State University
Rachel McKane, Brown University

This study brings together two threads of research on the residential patterns of racialized minorities in urban areas of the United States. One is the analysis of levels and trends of residential segregation. The other is the inequality in resources and opportunities that is associated with segregation. Despite the Supreme Court's now-obsolete insistence on the "separate but equal" doctrine (*Plessy v. Ferguson* 1896), residential segregation has historically been associated with disadvantaged conditions for racialized minorities, particularly for African Americans and Hispanics. Here we ask how closely interconnected these phenomena are to one another, and specifically what the trends in residential segregation may imply for racial/ethnic inequality.

Segregation has remained high for African Americans, but modest changes over the past several decades are cumulating to a substantial decline across much of the country since 1980. Segregation of Hispanics from whites, which never reached the extreme levels of black-white segregation. These trends are documented in a working paper that covers the 1980-2020 period by John Logan and Brian Stults ("*Metropolitan Segregation: No Breakthrough in Sight*," <https://s4.ad.brown.edu/Projects/Diversity/Data/Report/report08122021.pdf>.)

But although long-term trajectories of segregation have been documented in detail, much less is known about trends in neighborhood inequality. Has the disadvantage faced by African Americans in terms of community-level resources and opportunities diminished along with declining segregation? Addressing this question raises others. To what extent is neighborhood inequality a function of segregation per se, independent of the large income disparity that necessarily limits blacks' residential options? It also invites comparisons to other racial/ethnic groups. Hispanics are also highly segregated, though not typically to the same extent as African Americans, but segregation between Hispanics and non-Hispanic whites has changed little in the last several decades. Is their residential separation from whites associated with residential disadvantage, and is that disadvantage also unchanging? And in the case of Asians, who on average have higher incomes than whites, is their more modest segregation also associated with greater parity in community resources?

Many social scientists have focused mainly on segregation itself. They have studied residential segregation as an indicator of boundaries between social groups in the same way that intermarriage between persons of different racial/ethnic background represents such boundaries. The concept of spatial assimilation derived from urban human ecology takes this approach. Living separately and relatively isolated from more established groups or groups with more resources was understood by human ecologists of the Chicago School as a natural reflection of group differences. By the same token, as more group members reached parity with mainstream society, by upward social mobility or generational shifts, it was expected that they would also

become spatially assimilated. Breaking out of racial or ethnic enclaves, then, could be taken as an indicator of more general social assimilation. Assimilation is no longer the main theoretical concept in segregation research, having been supplanted by greater recognition of the role of structural racism. Since the 1950s there has been a continuing stream of studies updating the trajectory of segregation decade by decade and analyzing variations across cities and metropolitan areas. All these studies were attentive to the segregation as an urban problem, but they gave little attention to its consequences for the living environment of minority group members

A second phenomenon, inequality in residential outcomes, has always had a part in the segregation literature. Early studies of black neighborhoods by DuBois and others emphasized the poor condition of housing occupied by African Americans, overcrowding, and unsatisfactory sanitation. Much later, researchers began to study more systematically how segregation contributes to disadvantaged neighborhood conditions. Doug Massey and collaborators documented the great disadvantages of black vs. white neighborhoods in Philadelphia in 1980 in terms of household variables such as poverty and unemployment, physical infrastructure such as incomplete plumbing or heating, public health indicators such as cancer deaths and infant mortality, crime rates, and high school dropout rates. In this and a related study of the San Francisco metropolitan area, he used ecological regressions to suggest that these differences could not be attributed to the disparate background characteristics of residents. Extending this direction of theorizing, he and his collaborators argued that racial segregation was responsible for a large share of the concentration of poverty in American cities. Around the same time, a series of studies by Richard Alba and John Logan reported individual-level “locational achievement models” showing that blacks and Hispanics lived in places and neighborhoods with lower income levels and higher crime rates than comparable whites and Asians.

The purpose of this report is to compare trends in residential segregation of minority groups from whites with trends in disparities across these groups in poverty concentration. This report updates findings in a similar report by John Logan based on data from the 2010 Census and 2008-2012 American Community Survey (Separate and Unequal: The Neighborhood Gap for Blacks, Hispanics and Asians in Metropolitan America, <https://s4.ad.brown.edu/projects/diversity/Data/Report/report0727.pdf>). A key feature of our approach is to incorporate information about people’s incomes. Since Asians on average have very similar incomes to those of non-Hispanic whites, income is not a likely obstacle to the ability of Asians to live in neighborhoods of similar quality to whites. However, African American and Hispanics have incomes that average around 60% of the white median income in most metropolitan areas. Therefore, it is not surprising that they live in less advantaged neighborhoods. To begin to control for this large difference in class composition across groups, we report findings separately for households with below average, average, and above average incomes.

Research design

Sample

We report segregation for metropolitan regions beginning in 1980, defined in every year using the Census 2020 boundaries of the metros, so the area studied is constant over time. In very large Metropolitan Statistical Areas (MSAs), the Census Bureau has identified separate Metropolitan Divisions, and we use these as our unit of analysis.

The number of defined metropolitan areas has increased substantially over time. In 2020 there were 404 metropolitan areas and divisions, an increase from 323 in 1980. Of these, 47 were not tracted in 1980, so tract-level data are unavailable; for all others, the 1980 tracts have been assigned to their location within 2020 metro boundaries. Another concern is that many areas designated as metropolitan after 1980 had small total populations in 1980 (in addition to the missing 47 cases, 74 had populations below 100,000). The following analyses include all metros for which there are available data, but the average values that are reported are weighted by population size. For example, in computing the average segregation scores between blacks and whites, metros are weighted by the size of the black population in a given decade. The weighted means therefore represent the characteristics of the metros where the average black person or family lived in that decade.

Data sources

The measurement of race is complicated by changes over time in the questions used by the Census Bureau to ask about race and the categories used in tabulations provided by the Census Bureau. Since 1980 two questions have been used: 1) is the person of Hispanic origin or not, and 2) what race does the person belong to? Beginning with the 2000 Census people have been allowed to list up to four different racial categories to describe themselves. Our goal is to create consistent categories similar to the way the federal government classifies minority groups for reporting purposes: Hispanic, non-Hispanic white, non-Hispanic black, non-Hispanic Asian/Pacific Islander, and non-Hispanic Native Americans and other races. (For convenience, generally in the remainder of this report we will use shorthand terms for the non-Hispanic groups: white, black, Asian, and other race.)

In every year the Hispanic category simply includes all persons who self-identify as Hispanic regardless of their answer to the race question. It is more complicated to calculate the number of non-Hispanics in each race category.

1. Our approach for handling multiple race responses in 2000-2020 is to treat a person as black if they described themselves as black plus any other race; as Asian if they listed Asian plus any other race except black; and as Native American/other race for any other combination.
2. It would be preferable to be able to calculate the number of non-Hispanic persons in each race category by subtracting the Hispanics from the total in each category. This is easy for our non-Hispanic white category because it includes no multiple-race persons and the necessary tables are available for every year in our study. It is also possible for blacks, Asians, and Native American/other race in 1990-2020 because tables are available for detailed multi-race categories by Hispanic origin.
3. For 1980 some of the necessary tables are not available, so we use estimation procedures for non-Hispanic blacks, non-Hispanic Asians, and non-Hispanic other race. We can calculate non-Hispanic blacks by subtracting the number of Hispanic blacks from the black total. But in 1980 there is no table separating out Asians from other races in the non-Hispanic population. Our solution is to make an estimate of non-Hispanic Asians and non-Hispanic other race using tract-level data, assuming that the ratio of Asians to other races among non-Hispanics is the same as the ratio of Asians to other races in the total tract population (which is given).

There are many possible measures of locational inequality based on standard population characteristics at the tract level. These include median household income, per capita income,

education, professional employment, unemployment, housing vacancy, and home ownership. Here we report only data on the share of households in a census tract whose incomes fell below the poverty line in a given decade. We use data from two sources. To know how many whites, blacks, Hispanics, or Asians live in a census tract, we rely on the decennial Census of Population. To know what share of residents fell below the poverty line, we use sample data from the decennial censuses in 1980-2000 and sample data from the five-year estimates of the American Community Survey in 2008-2012 and 2015-2019. Because they are based on a larger sample, the poverty data from the decennial censuses are more reliable than ACS estimates for the later years. However, the sample data in all years are unbiased and are highly reliable when aggregated across a large number of census tracts, as is done here.

Aside from disparities by race/ethnicity, the strongest determinant of the quality of people's neighborhoods is income. Naturally, on average it costs more to live in a better neighborhood. In the following analyses we calculate the poverty exposure of racial/ethnic group members (e.g., the poverty rate in the tract where the average group member lives). In order to make comparisons across groups for persons of roughly similar income level, we calculate these measures separately for group members in three different categories of family income. To do this requires tract-level information on the distribution of family incomes by race/ethnicity (based on the race of the household head) in each year. These data are available for the samples in the decennial census long form and ACS. A limitation is that in the ACS the available tabulations for blacks are for householders whose race is black alone, not in combination with another race. The tabulations for Asians similarly exclude Asians who report another race. Another limitation is that the most recent ACS data are for the period 2015-2019, which does not align exactly with the 2020 data used in measuring segregation. Unfortunately, the COVID-19 pandemic caused serious distortions in the 2020 ACS sampling, and the 2016-2020 ACS files are not being released at this time. The problematic 2020 sample will continue to pose problems in the ACS five-year estimates through the 2020-2024 release.

With access to individual-level or family -level data, it would be possible to control more carefully for differences in family income, or even to introduce other relevant background characteristics along with income. The available data at the tract level require a less fine-grained approach. We divide families into three categories based on their income: poor, middle, and affluent. Because incomes change over time, we define these categories in relation to the poverty line for a family of four in each decade. We treat those with family incomes below 175 percent of the poverty line as poor, those above 350 percent as affluent, and those in between as middle income. In doing this we have to adapt to the income categories provided by published tables in each decade. For example, in 2019 the poverty line for a family of four was \$25,750. By that standard, "poor" would be below \$45,062. The best available category in ACS 2015-19 is close to that amount: all households under \$45,000. "Affluent" would be above \$90,125. We must use the best available ACS category – households under \$100,000 – which is only approximately consistent with our definition. In other years, for "poor" we used values under \$15,000 for 1980, under \$22,500 in 1990, \$30,000 in 2000, and \$40,000 in 2005-2009. For "affluent" we used values over \$25,000 in 1980, \$45,000 in 1990, \$60,000 in 2000, and \$75,000 in 2005-2009.

Measures of segregation

The standard measure of segregation is the Index of Dissimilarity (D), which captures the degree to which two groups are evenly spread among census tracts in a given city. Evenness is defined

with respect to the racial composition of the city as a whole. With values ranging from 0 to 100, D gives the percentage of one group who would have to move to achieve an even residential pattern - one where every tract replicates the group composition of the city. A value of 60 or above is considered very high. For example, a D score of 60 for black-white segregation means that 60% of either group must move to a different tract for the two groups to become equally distributed. Values of 30 to 60 are usually considered moderate levels of segregation, while values of 30 or less are considered low.

Change can be cumulative, and small changes in a single decade – if they are repeated over several decades – can constitute a significant trend. For this reason, we provide results for the full 1980-2020 period, giving most attention to the longer-term trajectory for each group rather than change over each distinct 10-year period.

Another widely used measure of segregation is a class of Exposure Indices (P^*) that refers to the composition of a tract where the average member of a given group lives. We make some use of P^* to measure exposure to another racial/ethnic group or to one's own group (referred to in that case as the Isolation Index). We also apply it here to assess neighborhood inequality based on the share of neighbors who are below the poverty line. P^* is computed simply as a weighted average of the outcome measure, where the weight is the number of cases of a given category in each tract. For example, if we weight families by the number of affluent black household heads, the average value of poverty share across tracts is the P^* for poverty for affluent black families.

Results

Trajectories of residential segregation

Every decade since 1980, urban scholars have awaited the publication of new census data in the hope that it would show a breakthrough in efforts to desegregate American neighborhoods. The 2020 data suggest there will be no breakthrough. Here we reproduce the findings from Logan and Stults's report on segregation through 2020, noted above.

The main findings are brought together in Table 1, which reports the overall trends from 1980-2020 in terms of the Index of Dissimilarity (D), a measure of what percentage of a minority group's members live in neighborhoods where they are over-concentrated compared to whites, and a series of exposure indices that describe the racial composition of the neighborhoods where the average member of each group lived in each decade. In 2010, Logan and Stults summarized the main trends as follows:

- The average white, black, Hispanic, and Asian Americans live in very different neighborhood environments. Whites continue to live in predominantly white neighborhoods, although their declining numbers nationally and the growth of Hispanic and Asian populations has made these neighborhoods more diverse than they once were. Non-whites, too, live in neighborhoods where their co-ethnics are disproportionately represented.
- African Americans remain highly segregated, but there has been a continuing slow decline in the degree of separation. The large Northeastern and Midwestern metros that received the largest shares of black migration before 1980 – the Ghetto Belt – still have extreme levels of segregation. Nevertheless, they, too, are showing improvement.

- Hispanics and Asians are less segregated from whites than are African Americans, but in their case there has been little change in recent years. Their ethnic neighborhoods seems to be solidly entrenched as their numbers increase through both immigration and fertility.

From Census 2020 we mainly see a continuation of past trends:

- Declines in residential segregation between blacks and whites in the last decade continued at a slow pace. Segregation peaked around 1960 or 1970. After that time there were reasons to expect a potential breakthrough, due to civil rights legislation, changing white attitudes, and a growing share of middle class African Americans. The new data show not a breakthrough but a steady rate of change.
- Hispanics and Asians continue to be considerably less segregated than African Americans, and their segregation levels have remained nearly unchanged since 1980. In addition, since both these groups are growing, there is a tendency for their ethnic enclaves to become more homogeneous. As a result, these groups live in moderately more isolated settings now than they did when they were smaller in number.

The average non-Hispanic white person continued to live in a neighborhood that is very different racially from those neighborhoods where the average black, Hispanic, and Asian live. The average white person in metropolitan American in 2020 lived in a neighborhood that is 69% white, but contact with other groups is increasing decade by decade.

Table 1. Total Metropolitan Segregation and Isolation, Weighted Averages, 1980 to 2020

	1980	1990	2000	2010	2020		1980	1990	2000	2010	2020
Whites						Hispanics					
Dissimilarity with Blacks	68.0	61.9	57.4	53.0	49.7	Dissimilarity with Whites	50.2	49.9	50.6	48.3	45.3
Dissimilarity with Hispanics	40.2	39.8	43.4	42.5	40.0	Dissimilarity with Blacks	59.6	52.9	48.1	43.0	39.0
Dissimilarity with Asians	37.3	39.1	38.0	37.2	36.9	Dissimilarity with Asians	50.9	49.1	48.7	47.6	45.5
The average white lives in a neighborhood with:						The average Hispanic lives in a neighborhood with:					
% white of	88.3	85.3	80.4	75.6	69.4	% white of	47.5	42.3	37.2	35.3	33.6
% black of	5.0	5.9	6.9	7.9	8.8	% black of	10.1	10.2	10.7	11.3	12.1
% Hispanic of	4.6	5.8	7.7	10.4	12.4	% Hispanic of	38.2	42.0	44.9	45.8	44.6
% Asian of	1.4	2.5	3.8	5.0	6.4	% Asian of	2.8	4.8	5.8	6.5	7.5
Blacks						Asians					
Dissimilarity with Whites	72.7	66.8	63.3	58.8	55.2	Dissimilarity with Whites	40.4	41.1	41.4	40.8	40.0
Dissimilarity with Hispanics	60.3	57.4	51.7	45.8	40.9	Dissimilarity with Blacks	64.4	57.9	53.2	50.3	47.9
Dissimilarity with Asians	72.1	66.7	60.9	56.7	53.1	Dissimilarity with Hispanics	43.5	44.0	45.4	45.7	44.5
The average black lives in a neighborhood with:						The average Asian lives in a neighborhood with:					
% white of	31.3	34.8	34.4	35.1	34.2	% white of	61.3	58.1	52.2	48.8	44.3
% black of	60.8	54.6	50.3	45.1	40.8	% black of	7.0	7.8	8.8	9.2	9.9
% Hispanic of	6.1	8.2	11.1	14.7	17.4	% Hispanic of	11.9	15.0	16.7	18.4	19.1
% Asian of	1.0	2.0	3.2	4.2	5.6	% Asian of	18.0	18.5	20.9	22.5	24.5

Neighborhood inequality

We turn now to the question of **the gap in people's quality of life** as measured by the neighborhood's poverty level. Other studies show that neighborhood poverty is associated with inequalities in public schools, safety, environmental quality, and public health. The US2010 Project's web pages (<http://www.s4.brown.edu/us2010/SeparateAndUnequal/Default.aspx>) show in most metro areas similar neighborhood gaps in median and per capita income; percent of residents with a college education or professional occupation; home ownership; and housing vacancy. Data on poverty are used here to illustrate these differences in many other dimensions.

Table 2 lists the poverty level of the neighborhood where the average household lived in each year in metropolitan areas across the country. It also evaluates separately the neighborhood environments of poor, middle-income, and affluent group members. We will focus here on both the absolute numbers and on the ratio of the minority group value to the corresponding value for non-Hispanic whites: The higher the ratio, the greater the disparity experienced by the minority group. We comment on three aspects of these findings: 1) the persistent disparities between minorities and whites, 2) the overall trend in the magnitude of these disparities since 1980, and 3) the relationship of these trends with the trends in residential segregation that we reported in Table 1.

	Mean p*					Ratio to white p*				
	1980	1990	2000	2010	2020	1980	1990	2000	2010	2020
White poor	0.121	0.148	0.126	0.141	0.133					
White middle	0.091	0.108	0.099	0.117	0.103					
White affluent	0.069	0.075	0.072	0.088	0.076					
White total	0.091	0.106	0.093	0.108	0.097					
Black poor	0.280	0.290	0.250	0.242	0.239	2.32	1.96	1.99	1.71	1.79
Black middle	0.213	0.206	0.187	0.190	0.171	2.33	1.90	1.89	1.63	1.66
Black affluent	0.174	0.155	0.142	0.142	0.123	2.51	2.06	1.98	1.61	1.61
Black total	0.242	0.238	0.205	0.202	0.189	2.66	2.25	2.21	1.86	1.96
Hispanic poor	0.233	0.254	0.230	0.207	0.209	1.93	1.72	1.83	1.47	1.57
Hispanic middle	0.167	0.183	0.176	0.167	0.159	1.83	1.69	1.78	1.43	1.54
Hispanic affluent	0.124	0.128	0.131	0.126	0.116	1.79	1.70	1.82	1.43	1.51
Hispanic total	0.191	0.203	0.189	0.175	0.169	2.10	1.92	2.04	1.61	1.75
Asian poor	0.158	0.180	0.168	0.153	0.149	1.31	1.22	1.34	1.08	1.12
Asian middle	0.114	0.117	0.119	0.117	0.110	1.25	1.08	1.20	1.01	1.07
Asian affluent	0.082	0.074	0.079	0.082	0.075	1.18	0.98	1.10	0.94	0.99
Asian total	0.113	0.113	0.110	0.106	0.101	1.24	1.07	1.18	0.98	1.04

Continuing disparities. The overall disparities between groups (the “total” rows in Table 2) are generally in line with the differences in their median incomes, and one would be tempted to conclude that blacks and Hispanics live in lower-status neighborhoods than whites because of their own lower earnings, and Asians are less disadvantaged because they have higher incomes.

This would be a natural consequence of how a private housing market operates: sorting people by income. Yet it turns out, when we recalculate these figures for households with similar income levels, that racial differences remain large. For example, consider only affluent households. Table 2 shows that the average affluent white household lived in a neighborhood where the poverty share was under 9 percent in every year. But poor white households lived in neighborhoods with only slightly greater poverty shares, about 12-13 percent.

In contrast, affluent blacks lived in neighborhoods that were 12-17 percent poor, and affluent Hispanics in neighborhoods that were about 12 percent poor. On average around the country, in this whole period of nearly four decades, **affluent blacks and Hispanics lived in neighborhoods with poverty shares that were similar to or higher than poor whites.**

Even Asians lived on average in somewhat poorer neighborhoods than whites in all these years. The table shows that this disadvantage was mainly due to the residential pattern of poor Asians -- considerably worse than whites of comparable income -- while affluent Asians actually had reached parity with comparable whites in 2010 and 2020.

Trends in neighborhood disparities. While considerable neighborhood disadvantage persists for African Americans and Hispanics, it diminished in this four-decade period. However, we note a striking difference between the trend from 1980 to 2010 and the change in just the last decade. The ratio of black to white exposure to poverty declined from 2.71 in 1980 to 2.00 in 2010, consistently every decade (although the decline was considerably smaller between 1990 and 2000 than across other decades). But having reached a level of 2.00 in 2010, the ratio in 2020 remained almost the same (1.96) in 2020. We find a similar pattern for Hispanics and Asians -- improvement relative to the white average between 1980 and 2010, but very little change from 2010-2020.

Decoupling of trends in segregation and neighborhood disadvantage. It is notable that African Americans, the group that is most residentially segregated from whites, are also the group with the greatest neighborhood disadvantage relative to whites. Further, the long-term trajectories of both segregation and disadvantage for African Americans were both positive through 2010, suggesting that they may be causally linked. It would seem natural to conclude that neighborhood disadvantage is a direct consequence of segregation and expect that if segregation is reduced, so also disadvantage will diminish. However, that interpretation is not consistent with our findings:

- First, although black-white segregation continued its slow decline from 2010 to 2020, blacks' relative disadvantage did not.
- Second, while the relative disadvantage of Hispanics and Asians declined from 1980 through 2010, these groups' segregation from whites had been mostly unchanged. Only in the last decade (2010-2020) did Hispanic residential segregation drop for the first time by as much as three points, but disadvantage did not change.

More detailed future analyses comparing across metropolitan areas and income classes are needed to evaluate how changes over time in segregation and disadvantage are related to one another. Our initial findings here suggest that the connection between these two aspects of the residential color line is not as direct or simple as might have been expected.

Conclusion

The title of this report is “Less Separate, No Less Unequal.” It refers specifically to the change in what had seemed a decade ago to be continued, though slow progress in residential opportunities for minority groups in the United States. Black-white segregation was declining, and segregation of Hispanics and Asians – while not dropping – was considerably lower than had been experienced by African Americans. In addition, all three minority groups were moving through 2010 toward parity with whites in poverty concentration, a significant indicator of residential inequality. But their relative position did not improve in the last decade.

Our update to 2020 is a reminder of the persistent disparities between the kinds of neighborhoods where African Americans and Hispanics live and where whites and Asians live. It also reminds us that these disparities cannot be attributed simply to the overall income differences between groups. It continues to be true that affluent black and Hispanic Americans live in neighborhoods with higher poverty than do whites with considerably lower incomes.

Also disturbing is that the improvements in black and Hispanic neighborhood quality, in relation to whites, have not continued through 2020. This finding challenges simple assumptions about how future changes in residential segregation might affect these groups’ residential outcomes.