In recent decades, U.S. metropolitan areas have become increasingly diverse: whereas in 1990, the population of the largest metropolitan areas was roughly 73 percent white, 13 percent Black, 10 percent Hispanic, and 3 percent Asian, in 2020, the white population represents only 53 percent, the Black population 13 percent, the Hispanic population 21 percent, and the Asian population 8 percent of the metropolitan area population. The “diversity explosion” (Frey 2018) the U.S. experienced was often accompanied by the expectation that racial segregation would also decline. Previous studies have shown that overall, segregation indeed has declined in recent decades, although the decline has been relatively modest (Logan, Stults, and Farley 2004).

This data visualization makes two contributions. First, it presents a multigroup index as well as all possible pairwise indices of the four major racial groups: whites, Blacks, Hispanics, and Asians. Although multigroup segregation declined by about 12 percent to 16 percent in every decade, the results for some racial groups are more mixed. The segregation of Blacks from all other groups declined over the entire period, but the segregation of Hispanics and Asians from the white population increased, as did the segregation between Hispanics and Asians. For the most recent period, 2010 to 2020, all pairwise segregation indices declined by between 7 percent and 14 percent, except Asian-white segregation, which increased by about 3 percent. Despite these declines, Blacks in particular remain highly segregated from whites and Asians in many U.S. metropolitan areas.

### Abstract
This data visualization presents changes in U.S. residential racial segregation from 1990 to 2020, including the recently released 2020 census data. Using Theil’s information index $H$, the visualization shows both the multigroup index of segregation that involves all racial groups and also all possible pairwise indices of the four major racial groups: whites, Blacks, Hispanics, and Asians. Although multigroup segregation declined by about 12 percent to 16 percent in every decade, the results for some racial groups are more mixed. The segregation of Blacks from all other groups declined over the entire period, but the segregation of Hispanics and Asians from the white population increased, as did the segregation between Hispanics and Asians. For the most recent period, 2010 to 2020, all pairwise segregation indices declined by between 7 percent and 14 percent, except Asian-white segregation, which increased by about 3 percent. Despite these declines, Blacks in particular remain highly segregated from whites and Asians in many U.S. metropolitan areas.

### Keywords
segregation, race

### Trends in Racial Residential Segregation in the United States
Figure 1A shows the average multigroup $H$ index for the period from 1990 to 2020. For all panels, a weighted average across the 228 metropolitan areas of the United States is shown, where the weights are based on the 2020 metropolitan area population. Clearly, multigroup segregation strongly declined in the United States, with a total decline of 37 percent over the 30-year period. The decline was especially visible in high-segregation areas; for instance, in 1990, there...
Figure 1. Trends in U.S. residential racial segregation, 1990 to 2020.

Note: Panel A shows the trend in multigroup racial residential segregation as a summary measure across all racial groups. Multigroup racial segregation declined by 37 percent between 1990 and 2020. Panels C to E show pairwise segregation measures from the point of view of each racial group. These detailed results paint a mixed picture: the segregation of Blacks from all other groups declined over the entire period, but the segregation of Hispanics and Asians from the white population increased, as did the segregation between Hispanics and Asians. For the most recent period, 2010 to 2020, all pairwise segregation indices declined by 7 percent to 14 percent, except Asian-white segregation, which increased by about 3 percent. The percentage change refers to the entire period.
were 21 metropolitan areas with an $H$ index above 40, while in 2020 there were none.

However, the multigroup index may hide countervailing patterns for other racial groups. The remaining four panels show all possible pairwise indices among the four major racial groups, from each group’s perspective. The multigroup index is a complex weighted average of these pairwise indices. Often, studies of segregation focus on Figure 1B, the segregation of whites from the other groups, and especially on Black-white segregation. In the past three decades, Black-white segregation declined by roughly 10 index points, or 23 percent. The segregation of whites and Hispanics also declined somewhat between 2010 and 2020, while the segregation between whites and Asians increased slightly in every decade. However, white-Asian and white-Hispanic segregation are at much lower absolute levels compared with white-Black segregation.

Figure 1C focuses on the perspective of the Black population. As the index is symmetric, the segregation of Blacks from whites is identical to the segregation of whites from Black. What is less often computed in empirical studies of segregation are the Black-Hispanic and Hispanic-Asian trend lines. Noticeably, Black-Asian segregation is not much different from Black-white segregation, a trend that has become more pronounced over time. The segregation of Blacks from Hispanics is the most strongly declining form of segregation, paralleling the overall trend in multigroup segregation.

Hispanics, shown in Figure 1D, are the most integrated group, in the sense that they are roughly equally segregated from every other group. At an index value of about 20 in 2020, their segregation from other groups is relatively low, and Hispanic-white, Hispanic-Black, and Hispanic-Asian segregation all declined between 2010 and 2020.

Figure 1E shows the segregation of Asians from the other racial groups. The picture parallels the situation of the white population: high but slowly declining segregation from Blacks and lower and rather stable segregation from Hispanics. As seen before, Asian-white segregation is lowest among all pairwise comparisons, although it slowly increased in every decade. Between 2010 and 2020, Asian-white segregation was the only pairwise index that saw a small increase of 3 percentage, while all other indices declined.

Summary

The trend in multigroup residential racial segregation in the United States from 1990 to 2020 shows a decline, but results for pairwise measures that focus on only two racial groups at a time paint a more mixed picture. Although the highest indices declined rather strongly (between 19 percent and 36 percent for segregation indices involving the Black population), some other indices saw increases, with especially Asian-white segregation increasing strongly. For just the most recent period, 2010 to 2020, all pairwise indices decreased by 7 percent to 14 percent, with the exception of Asian-white segregation, which increased by 3 percent. Nonetheless, the pace of the decrease is slow, and there are no signs of residential racial segregation radically declining in the coming years. Despite the declines, Blacks in particular remain highly segregated from whites and Asians in many U.S. metropolitan areas.

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Supplemental Material

Supplemental material for this article is available online.

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