Residential Separation of Ethnic Groups (Segregation)

This section is designed to complement our many ethnic group maps. By describing each group’s distinctiveness of distribution by means of a statistic, we make it a bit easier to compare the distributional dimension of the different groups. (Scroll down to see table.) The first part of this section explains the interpretation and calculation of the statistic we use. The second part discusses our findings for Los Angeles County.

Measuring and interpreting segregation. For many decades scholars have been measuring the degree to which Whites and other groups live in different neighborhoods, often comparing results over time. The degree of the residential separation between Whites and other groups has traditionally been interpreted as an indirect measure of the degree of acceptance of the other group by Whites. Moreover, because Whites have had more financial resources than other groups, this separation also indicates the extent of neighborhood inequality between groups. With respect to Blacks and Whites, the slow but steady decrease in measured Black-White separation or segregation over the last half century reflects the pace of progress toward racial equality.

At the same time, the arrival of large numbers of Hispanic and Asian immigrants has required new interpretations of residential separation. That is because most newly arrived immigrants prefer to live in the same neighborhood as family members and others in their same group. This produces ethnic residential clustering. For immigrant groups that grow rapidly, such clustering results in increased residential separation from Whites. At the same time, immigrants and their children do slowly learn English and other aspects of the dominant U.S. culture. By itself, such assimilation, as well as some economic progress on the part of immigrant families, would tend to reduce White-Hispanic and White-Asian separation from one decade to the next. Thus, whether residential separation increases or decreases over time reflects the balance between the countervailing influences of assimilation and preference for living near one’s own group.

To measure the level of residential separation or segregation between two ethnic groups, we use the index of dissimilarity, typically labeled as “D”. This has been the most widely used statistic for this purpose. The index summarizes the comparative distribution of two groups in all neighborhoods (usually identified as census tracts) of a larger area, which for us is Los Angeles County. The index ranges from 0 (no segregation, with groups in relatively similar proportions in each tract) to 1 (completely segregated, with no census tract containing both groups).
D-scores below .30 are considered low and D-scores above .60 are considered high. The actual score represents the percentage of either one of the groups that would need to move to different tracts in order to eliminate all distributional differences.

Although researchers have usually focused on White-Black, White-Hispanic, and White-Asian segregation, we measure segregation separately for all pairings of the 34 groups in our study. The matrix of D-scores and change in D-scores between 1990 and 2010 enable us to uncover any situation in which the residential situation of two groups is unusually high or low or changing rapidly. Because random effects may elevate the index of dissimilarity when one or both of the two groups being compared is very small and because ancestry numbers are based on only a five percent sample in each tract, we have less confidence in the D-scores for small groups, particularly ancestry groups. This is why we do not discuss here any group with fewer than 10,000 persons.

**Segregation in Los Angeles County.** In Los Angeles County Whites are residentially separated at about the same high level (D about .64) from Blacks, Mexicans, Chinese, Guatemalans, Salvadorans, and Armenians. Even higher levels of segregation are found between Whites and Cambodians, Samoans, and Hondurans. But note that both Mexicans and Blacks are as highly segregated from many groups, including Asian Indians, Chinese, Japanese, Koreans, and Vietnamese, as they are from Whites.

Group differences in income are an important factor behind these high rates of separation. This is shown on the graph of median household income for the different groups, where the income of Whites is much higher than the income for most other groups. In the case of Chinese, their large concentrations in the San Gabriel Valley, as shown on our maps, reflect a preference for living in or near a Chinese cultural milieu compared to the culture reflected in mostly White neighborhoods. The fact that segregation between Chinese and Mexican is even higher than that between Chinese and Whites suggests the added influence of lower average incomes among Mexicans. In general, D-scores of two groups with similar median incomes, as shown on the graph, should result from causal factors other than income differences.

With respect to change in D-scores between 1990 and 2010, groups with large increases (above .20) in segregation probably represents an increased geographical concentration due to the arrival of many new immigrants. This seems the likely explanation for the increased separation of Armenians and Iranians from most other groups. Groups with large decreases in segregation reflect dispersion from
earlier concentrations, likely due to cultural assimilation between the groups or increased similarity of economic status. This is illustrated in the decreased segregation between Whites and Asian Indians, between Guatemalans and Mexicans, and between Colombians and both Whites and Asian Indians. Our maps of change between 1990 and 2010 show the locations of these distributional changes.

The residential separation of Whites, Blacks, Asians, and Hispanics from each other is greater in Los Angeles County than in its outlying counties or in most other metropolitan areas across the country (http://www.s4.brown.edu/us2010/Data/Report/report2.pdf). Why is this the case? In addition to the general factors already mentioned, segregation is usually lower in newer suburbs than in central areas, where older ethnic concentrations are modified slowly. For example, Black-White segregation in more outlying Riverside and San Bernardino counties is .44 compared to Los Angeles County’s D-score of .65. Also, minority-White D-scores tend to be slightly higher where minority percentages are higher. For this reason it’s sometimes useful to compare segregation in places where minority percentage are similar. For example, because Blacks represent 9 percent of Los Angeles County’s population, it’s clear that this county’s segregation is well above the average of .54 for metros where Blacks comprise between 5 and 10 percent of the total population.

With respect to Hispanics and Asians, the normally occurring assimilation and its expected effect in reducing D-scores with Whites have been more than balanced by the arrival of so many others in their group that D-scores have increased slightly since 1990. In Los Angeles County the White-Hispanic segregation of .63 is now the highest in the country, and Asian-White segregation here is fourth highest. Readers who are familiar with one or more groups in Los Angeles County may be able to understand their relative levels of segregation in terms of the causal factors we’ve presented. For more geographical detail, the D-score for a group can be used in conjunction with its distribution and change maps.

See table below.
### Change in D-Score Between 1990 and 2010

The table below shows the change in D-score between 1990 and 2010 for various groups in Los Angeles County. The D-score measures the level of segregation between groups, with higher values indicating greater segregation.

<table>
<thead>
<tr>
<th>Non-Hispanic White</th>
<th>Non-Hispanic Black</th>
<th>Asian</th>
<th>Cuban</th>
<th>Guatemalan</th>
<th>Jamaican</th>
<th>Korean</th>
<th>Mexican</th>
<th>Puerto Rican</th>
<th>Samoan</th>
<th>Thai</th>
<th>Vietnamese</th>
<th>White Black</th>
<th>Other Hispanic</th>
<th>Other Non-Hispanic White</th>
<th>Other Non-Hispanic Black</th>
<th>Other Asian</th>
<th>Other Cuban</th>
<th>Other Guatemalan</th>
<th>Other Jamaican</th>
<th>Other Korean</th>
<th>Other Mexican</th>
<th>Other Puerto Rican</th>
<th>Other Samoan</th>
<th>Other Thai</th>
<th>Other Vietnamese</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.08</td>
<td>0.09</td>
<td>0.03</td>
<td>0.01</td>
<td>0.06</td>
<td>0.01</td>
<td>0.03</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01</td>
<td>0.06</td>
<td>0.02</td>
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<td>0.01</td>
<td>0.06</td>
<td>0.02</td>
<td>0.02</td>
</tr>
</tbody>
</table>

**Note:** D-scores range from 0 (no segregation) to 1 (complete segregation). The table above is useful for comparing the degree of racial segregation between different groups. Higher D-scores indicate greater segregation.