

**Racial Segregation in America:
A Nontechnical Review of Residential
Segregation in Urban Areas**

by

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Introduction

This essay provides a brief, nontechnical review of residential segregation in American urban areas. The review is geared to undergraduate students and others who have little prior acquaintance with sociological analysis of residential segregation. It begins with an overview of segregation in American urban areas and a short introduction to sociological conceptions of segregation. Then it examines thematic maps for selected cities – taken from the SegMaps program -- to illustrate key points about patterns of ethnic residential segregation in US cities.¹

Residential Segregation in America

America is a highly urbanized society. The vast majority of its population resides in cities.² And, in fact, half of its population resides in just a few dozen large metropolitan areas.³

One of the fundamental social facts of urban life in America is residential segregation. Cities in the US are highly segregated along ethnic and socioeconomic lines and this segregation has major consequences for the lives and life chances of individuals and social groups.

The lay person has an intuitive understanding of both the fact of segregation and its consequences. To the lay person, segregation is the “obvious” organization of urban space into areas that are readily characterized in terms such as “well-to-do”, “poor”, “safe”, “unsafe”, “white”, “black”, “rough”, etc.. The lay person also understands that residential location is linked to a wide range of important outcomes such as housing quality, neighborhood amenities, quality of schools and social services, and exposure to crime and other social problems, and, in this respect at least, has a strong intuitive sense of the consequences of segregation.

Demographers and urban sociologists bring scientific rigor to the study of segregation. They define segregation in precise terms, conceptualizing it as a multidimensional, structural characteristic of urban areas. They have developed

¹ The SegMaps program is described in the Appendix at the end of this document. It is a Java applet that the interested reader can access from the VLAB-RESI web site housed and maintained at Texas A&M University.

² In this discussion, I use the terms “city” and “metropolitan area” interchangeably to refer to areas that include the populations socially and economically integrated with a particular urban center (or cluster of urban centers). In this expansive view, cities include not only “central cities” as defined by political boundaries but also suburban and exurban regions that are associated with and dependent upon them.

³ As will be noted below, the 40 largest megapolitan and metropolitan areas in the US contain more than half of the total US population and well over half of the total population of all of the principle ethnic minority populations of the US.

rigorous techniques for obtaining quantitative measurements of multiple dimensions of segregation. And, they have carefully studied the nature and extent of segregation, its determinants, and its consequences. Not surprisingly, sociological research confirms many of the lay person's intuitions about segregation. Segregation is a basic fact of urban life; it has important consequences for individuals and groups; and it is intimately bound up with ethnic stratification and urban poverty both as cause and consequence.

Sociological Conceptions of Segregation

Empirical studies have documented how residential segregation varies across cities and changes over time. Over the decades, this scientific literature has become highly quantitative, relying heavily on abstract summary indices to describe patterns of segregation and make comparisons between cities and over time. The measures of segregation used in these studies are familiar tools to demographers and urban sociologists who study segregation. But students and others who do not have a background in the details of measuring segregation often find the indices difficult to comprehend and interpret. Fortunately, however, it is not necessary to become a technically trained expert in the field to understand basic sociological conceptions of segregation.

The general notion of segregation is simple; individuals and groups are not randomly distributed in urban space -- they distributed in systematic patterns connected with characteristics of ethnicity and socioeconomic standing. This general notion has been refined to distinguish different aspects of segregation. The research literature in sociology gives special attention to five major dimensions of ethnic segregation (Massey and Denton 1988): (1) uneven distribution, (2) isolation, (3) clustering, (4) centralization, and (5) concentration.

Each of these dimensions can be measured quantitatively by computing the scores of specialized summary indices. However, the indices and the computing procedures used to obtain them are not of interest here.⁴ Instead, the focus here is on more intuitive depictions of segregation based on thematic maps that have been prepared to highlight certain patterns of population distribution. With that in mind, the five major dimensions of segregation are introduced here in non-technical terms.

Uneven Distribution. This aspect of segregation concerns the degree to which a group's percentage representation in different neighborhoods departs from the group's percentage representation in the city's overall population. Under conditions of even distribution, all groups will be represented in every neighborhood in proportions that match their respective representation in the city's overall population.

⁴ For an introductory review of measures of segregation, see Jaret (1995). For an advanced review, see Massey and Denton (1988).

Isolation. This aspect of segregation concerns the degree to which members of a group are "isolated" because they reside in areas where their group predominates thus leading them to have less "residential contact" with other groups.⁵ Isolation can result from uneven distribution, but it also is affected by each group's representation in the city population. Thus, for example, a group might be "isolated" even if it is evenly distributed if it is the predominate group in the city's population.

Centralization. This aspect of segregation concerns the degree to which members of a group are disproportionately located in central neighborhoods.

Concentration. This aspect of segregation concerns the degree to which members of a group are located in a small, densely settled geographic area.

Clustering. This aspect of segregation concerns the degree to which the areas where a particular group predominates are located next to each other in urban space (e.g., adjacent to each other). Strong clustering produces *ghettoes*, large, ethnically homogeneous regions within the city.

Hyper-Segregation. The different dimensions of segregation do not necessarily vary together. For example, as mentioned above, a group may be evenly distributed yet still be isolated. Similarly, a group may be unevenly distributed but without being clustered into a single ghetto. Alternatively, a group may have high levels of isolation without being centralized or concentrated.

Since the different dimensions of segregation do not necessarily vary together, it is of special interest and significance when several dimensions do reach high values simultaneously. When this occurs, it is termed *hyper-segregation* (Massey and Denton 1989). For the purposes of this review, hyper-segregation exists when a group has high levels of segregation on three or more of the five dimensions of segregation identified above.

Measuring and Depicting Segregation

In this section I briefly describe the nature of the data that were used to develop the maps the SegMaps program uses to depict patterns of segregation in urban areas. I also note the characteristics of SegMaps' data base of cities.

Ethnic Categories

The maps that the SegMaps program displays reflect data for four racial-ethnic categories -- White, Black, Latino, and Asian.⁶ These are "pan-ethnic" categories developed from racial and ethnic identifiers used in the 1980 and 1990 US Censuses of Population. These "racial" categories reflect social

⁵ Isolation is an important instance of the broader idea of "exposure" or "contact". This broader idea includes *cross*-group contact as well as *within*-group contact.

⁶ Data were also developed for the census category of Native Americans, but this population does not register in maps for most cities.

groupings. While they are connected in the lay public's mind with stereotypes of physical appearance (phenotype), they do not identify meaningful biological categories. Instead, they reflect social groupings that correspond with ethnic distinctions that are generally recognized by the public at large and that have historically been salient in social interaction in the United States.

The data on ethnic distribution are generated by census questions regarding racial and ethnic identification.⁷ A thumbnail sketch of what the category labels reflect can be provided as follows. *White* - persons identifying with ancestors that originated in Europe (with the exception of Hispanic groups). *Black* - persons whose ancestors originated in Africa. *Asian* - persons whose ancestors originated in countries of Asia (including, for example, Japan, China, Korea, India, Viet Nam, and the Philippines). *Latino* - persons of Latino or Hispanic ancestry including groups originating in Mexico, Cuba, Puerto Rico, the Dominican Republic, and Central or South America. *Nonwhite* - persons of non-European and/or Hispanic ancestry including persons whose ancestors originated in Africa, Asia, and Latin and South America, or whose ancestors were indigenous peoples of the Americas.

Neighborhoods

Neighborhoods are identified based on either *census tracts* or, in some cases, *census block groups*. Both are small geographic areas used in the census for the purpose of providing data on small areas. They approximate "true" neighborhoods in some respects but not others. Tracts and block groups are similar to neighborhoods in that their populations are small and somewhat homogeneous with regard to social characteristics. Typically, the population in a tract numbers between 1,000 and 8,000. Block groups are smaller subdivisions of tracts and usually contain between 500 and 1,500 people. The Census Bureau establishes boundaries of tracts and block groups with the goal of delimiting small areas with populations that are similar with respect to social and economic characteristics. However, similarity on social characteristics does not necessarily mean a sense of "community" within the area and in that respect census tracts and block groups differ from "true" neighborhoods.

The Data Base

The SegMaps data base provides segregation maps for all consolidated metropolitan areas and for metropolitan areas ranked among the 40 largest in the US.⁸ In addition, several "extra" metropolitan areas are included in the data

⁷ Significantly, individuals "choose" their racial designations, albeit from categories provided by the census. However, the categories are developed in part so they will delimit social categories recognized by the general population.

⁸ Consolidated metropolitan areas (sometimes called "megapolitan areas") include multiple metropolitan areas (termed "primary metropolitan areas in census terminology).

base on an *ad hoc* basis because they are of particular interest.

While the metropolitan areas in the SegMaps data base represent only a small fraction of all metropolitan areas (the 2000 Census identified 331 metropolitan areas), they contain a very large share of the US population and an even larger share of the population living in metropolitan areas. The metropolitan areas included in the SegMaps data base contain almost 60% of the US population residing in metropolitan areas and just less than 50% of the total US population. Thus, while the number of metropolitan areas in the SegMaps data base is relatively small, the maps for these cities depict segregation patterns experienced by about half of all Americans.

Examining Segregation Maps

In this section I discuss how segregation can be "seen" in the specially prepared thematic maps that SegMaps presents. My goal here and in the remainder of the paper is only to illustrate basic empirical patterns by examining maps for a handful of representative cities. Space limitations make it impossible for me to review every city in every way possible in this document. So I invite the interested reader to use the SegMaps program to examine other cities and additional maps.⁹

The SegMaps program presents two kinds of maps that are especially effective in depicting ethnic segregation: "ethnic mix" maps and "group percentage" maps.¹⁰ The ethnic mix maps use different colors and shadings to indicate what racial and ethnic groups predominate in the population of different areas of a city.¹¹ The group percentage maps use monochromatic shading to indicate how a particular group is represented in the population of each area of the city (darker shades indicate higher proportionate representation).

An example of an ethnic mix map is provided for Chicago in 1990.¹² Chi-

The list of 40 largest consolidated metropolitan areas and metropolitan areas is developed using data from the 2000 census.

⁹ To do this, simply start your browser and point it to the VLAB-RESI web site found at the following web address.

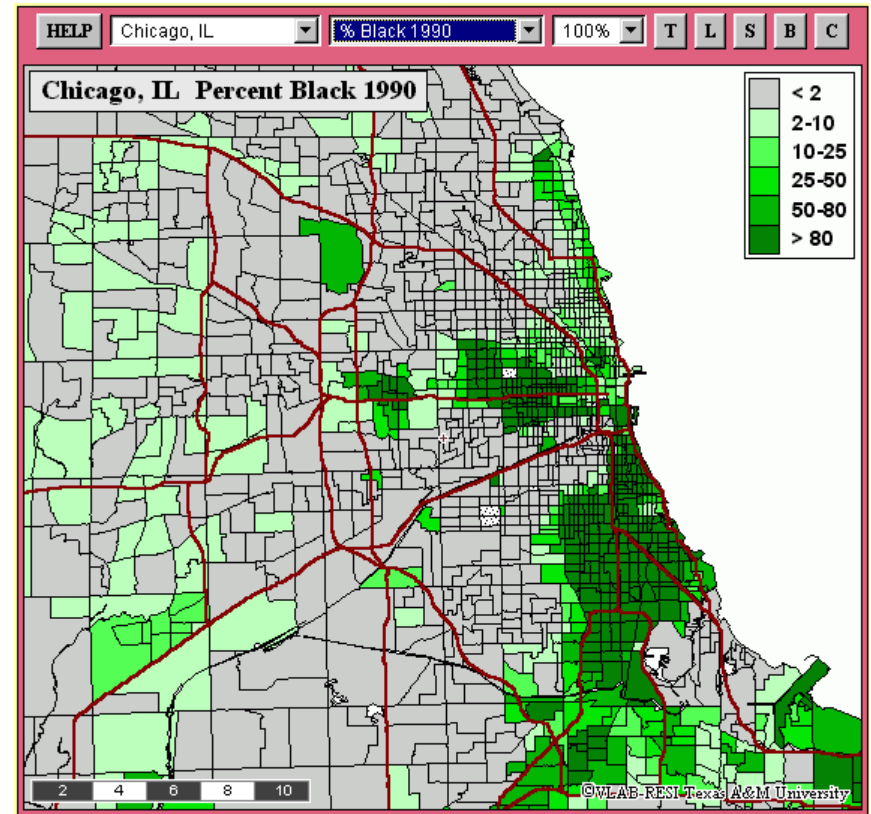
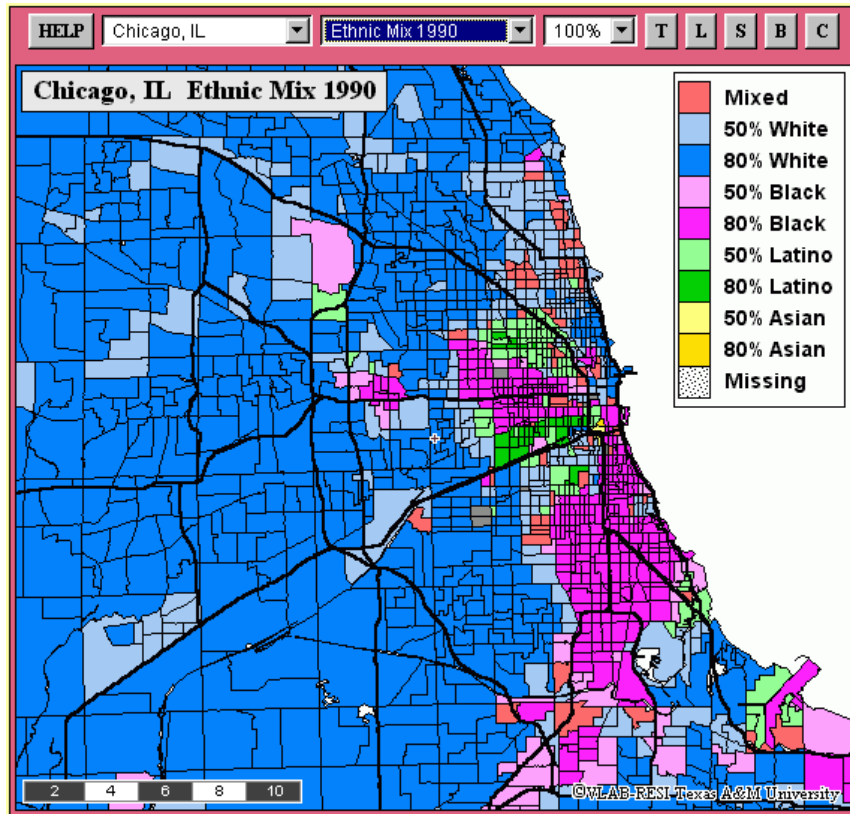
<http://vlab-resi.tamu.edu/vlab.htm>

Once the opening page has loaded, click on the links for the SegMaps program.

¹⁰ SegMaps also presents maps depicting patterns of neighborhood change, socioeconomic position, and population density. While interesting in their own right, they are not discussed here in the interest of brevity.

¹¹ At present SegMaps presents data for 1980 and 1990, but does not present data for ethnic segregation patterns in 2000. However, maps based on data for 2000 will be developed in the near future.

¹² This, like all other maps in this document, is taken from a "screenshot" that captured an image presented by the SegMaps program.



Chicago is a good example to consider for a couple of reasons. It is a highly segregated city that manifests many of the common patterns of segregation found in major American cities. In addition, Chicago is an apt choice because it has been studied extensively since sociological analysis of residential segregation in urban areas traces its intellectual heritage to the work of generations of sociologists at the University of Chicago.

The ethnic mix map and the group percentage map both provide a good sense about four of the five dimensions of segregation (namely, evenness, isolation, centralization, and clustering).

Even Distribution. When all groups are “evenly” distributed across a city’s neighborhoods, the ethnic mix map will be a single color for the entire city (the color that reflects the city’s overall ethnic mix). If groups are distributed “unevenly”, the ethnic mix map will register different colors in different areas. In the extreme, it may depict a “mosaic” or “patchwork quilt” of varying

colors. This is exactly what is observed for Chicago. Using the legend to interpret the map’s colors, the northern and western areas of the city are predominantly white (shaded blue in the map), the south central area of the city is predominantly black (shaded magenta), and the west central area of the city is predominantly Latino (shaded green) with a secondary area of black concentration. It is clear that the major ethnic groups in Chicago are not evenly distributed across neighborhoods.

It is also useful to examine even distribution on a group-by-group basis. For this, the group percentage maps are particularly helpful and an example depicting the percentage representation of blacks in the neighborhoods of Chicago is shown in another “screenshot” taken from the SegMaps program. When a particular group is distributed evenly throughout the neighborhoods of a city, the group percentage map for that group will be a single, uniform shade throughout the city (i.e., the color that corresponds to the group’s representation

in the city population). If the group is distributed unevenly, the group percentage map will depict variations of lighter and darker shading across different areas of the city. The group percentage map for blacks in Chicago shows that blacks are distributed very unevenly across Chicago's neighborhoods -- most neighborhoods are either very lightly or very darkly shaded. Very few neighborhoods are colored in the intermediate shade that corresponds to the group's representation in the city population.

Isolation. The group percentage maps also provide useful insights into patterns of isolation. Generally speaking, a group will be isolated when some areas of the city are depicted as having a high representation of the group (darkly shaded) while other areas have a low representation of the group (lightly shaded). Isolation will be low for a group when no or only a few areas in the city are characterized by high proportionate representation of the group. The group percentage map for blacks in Chicago shows that blacks are a highly isolated group.

Clustering. The group percentage maps reveal clustering on a group-by-group basis. Clustering is high when darkly shaded areas are adjacent to each other rather than randomly distributed or "checker-boarded". Clustering is also indicated when transitions from high to low representation are evident; that is when there is a progression across adjacent neighborhoods from high to medium to low representation for the group. If the transition is "abrupt" and there are only a few large areas of high representation, clustering is particularly pronounced and may be characterized as ghettoization. The group percentage for blacks in Chicago shows that black neighborhoods are strongly clustered into a very large south-side "ghetto" and a secondary west-central ghetto.

Ethnic Mix maps also show clustering, albeit with less precision than the group percentage maps. Their advantage is that they can reveal clustering for several groups simultaneously. The map for Chicago shows massive clustering for predominantly white neighborhoods in the suburban areas of the city. It also shows two areas on the west side of downtown where predominantly Latino neighborhoods are clustered together.

Centralization. The ethnic mix and group percentage maps both highlight centralization. The group percentage maps are especially helpful for showing how centralization varies across groups.¹³ Readers familiar with Chicago's downtown "Loop" area will recognize that the maps for Chicago show blacks and Latinos to be highly centralized and whites to be highly suburbanized.

¹³ Bear in mind that centralization is a *relative* concept; that is groups are more or less centralized in comparison with other groups in the city. Thus, since cities differ in their physical "compactness", a group that is "centralized" in a sprawling city like Houston might be more physically spread out than a less centralized group in a compact city like Boston.

Concentration. Strictly speaking, this dimension of segregation is not directly depicted in the ethnic mix and group percentage maps. However, it is common for central neighborhoods to be settled more densely than other neighborhoods.¹⁴ As a consequence, "concentration" tends to follow "centralization" which the maps do depict fairly well.

Based on the centralization patterns just described, the maps suggest that blacks and Latinos are concentrated compared to whites. Closer inspection (using methods not discussed here) shows this to be the case. The link between concentration and centralization can be explored by inspecting SegMaps' population density maps to confirm that central neighborhoods in the city are in fact higher-density neighborhoods.

Hyper-Segregation. The ethnic mix maps are effective for indicating hyper-segregation because they can indicate uneven distribution, clustering, centralization, and, to a certain extent, isolation. Furthermore, they provide the visually dramatic contrast with other groups that helps drive home the significance of hyper-segregation.

The group percentage maps show only one group at a time and are less dramatic visually. In fact, however, they reveal hyper-segregation for a particular group with greater clarity than can be obtained with the ethnic mix maps. In the group percentage maps, a hyper-segregated group will be shown as a few, centrally located regions of high group representation surrounded by a large region of low group representation. The group percentage map is more precise for representing extreme hyper-segregation because it is better able to show that a group's representation in outlying areas is very low.¹⁵

The maps for Chicago clearly show that blacks are hyper-segregated in this city; they are unevenly distributed, isolated and concentrated in a large, highly centralized ghetto (cluster). Thus, blacks are highly segregated on all five of the dimensions of segregation discussed here.

Limitations of Maps

A word of caution is warranted. Maps are an effective tool for documenting segregation patterns, but they do have important limitations. One is the fact that outlying neighborhoods tend to have an inappropriate disproportionate visual impact when compared with central neighborhoods. Census tracts and block groups are drawn to capture equal-size populations, not equal-size geographic areas. Thus, their physical size (and corresponding area in maps) tends to be smaller in central areas where population density is greater. As a result, high-density, central neighborhoods receive less "visual weight" even though

¹⁴ This can be confirmed by examining SegMaps' population density maps.

¹⁵ The ethnic mix map will only show that the group is less than a majority in outlying areas. It cannot reveal "pioneering" or low percentage representation.

their share of the city's population is as large or larger than that of outlying neighborhoods which are larger in physical size. This means that for many purposes, the reader should make a "mental adjustment" and give greater importance to central neighborhoods to compensate for the fact that they get less visual weight in the maps.¹⁶

A second limitation of maps is the "flip side" of their strength. They are geared to conveying quantitative information visually to make it intuitive and easy to interpret. However, to achieve this, they sacrifice the ability to convey quantitative information with the precision that is possible with tables and summary scores. This means, for example, that maps can convey differences between cities that vary markedly in their patterns of segregation. But they are much less useful for representing differences between cities that are only moderately different.

The appropriate conclusion is a simple one. Recognize that maps can provide a valuable introduction to patterns of segregation, but also recognize that, to obtain a fuller and more complete understanding of city-to-city variation in segregation patterns, it is ultimately necessary to examine quantitative measurements of the different dimensions of segregation.

The Pervasiveness of Segregation

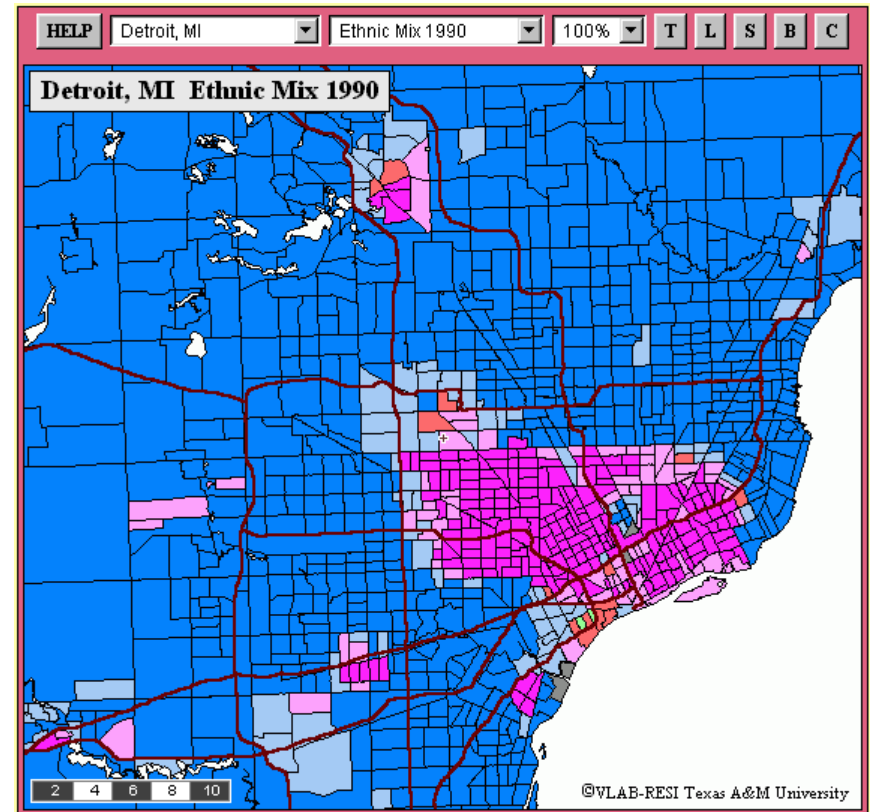
One of the most fundamental facts about residential segregation is that it is found in all urban areas of the United States. To be sure, there is variation in form and degree of segregation across areas. But major urban areas that are "low" on ethnic residential segregation are low only relative to other cities. They are not low on segregation in any *absolute* sense.

One disadvantage of using maps to present data on segregation is that it is not easy to present a summary of results for many cities. Certainly, it is not feasible to show maps of every city in the data base to establish the point that all American cities are characterized by high levels of ethnic segregation. Fortunately, this point has already been well-established by quantitative studies (e.g., Massey and Denton 1986; Farley and Frey 1994). And it is quite feasible for the interested reader to "step" through every city in the SegMaps data base to examine segregation patterns in every major US metropolitan area.

Variation in Racial Residential Patterns

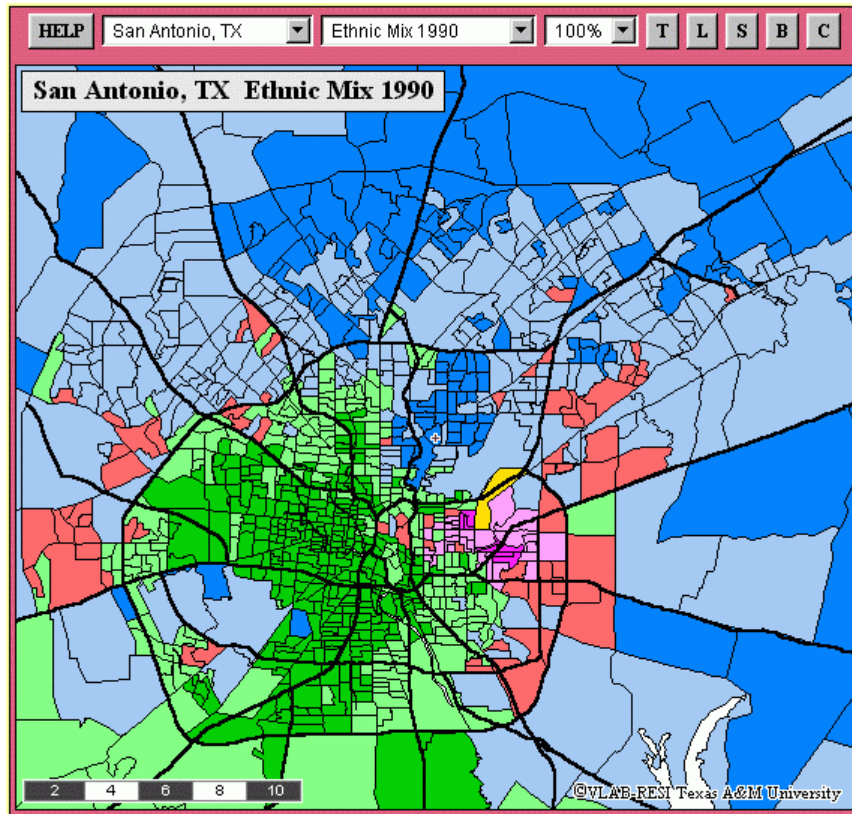
Every major metropolitan area is characterized by high levels of ethnic

¹⁶ This is particularly important for isolation which is determined not only by the number of areas at the extremes on group representation, but also by the proportion of the group's overall population residing in each type of area. This is shaped by area population size which is much more similar across areas than their physical size. Thus, central areas which are visually small in size are just as important as other areas for determining isolation.



residential segregation, but segregation in major metropolitan areas does vary in important ways. For example, cities vary widely in their racial and ethnic makeup and this has important implications for their patterns of residential segregation. Cities in the Midwest (e.g., Cincinnati, Cleveland, Detroit, Milwaukee, Minneapolis, and St. Louis) are primarily "White-Black" cities characterized by a relatively simple pattern of white and black residential areas. The map for Detroit presented on the next page illustrates this pattern. This "White-Black" pattern is also found in major metropolitan areas of the Northeast (e.g., Boston, Pittsburgh, and Philadelphia) and the South (e.g., Atlanta, New Orleans, and Tampa-St. Petersburg).

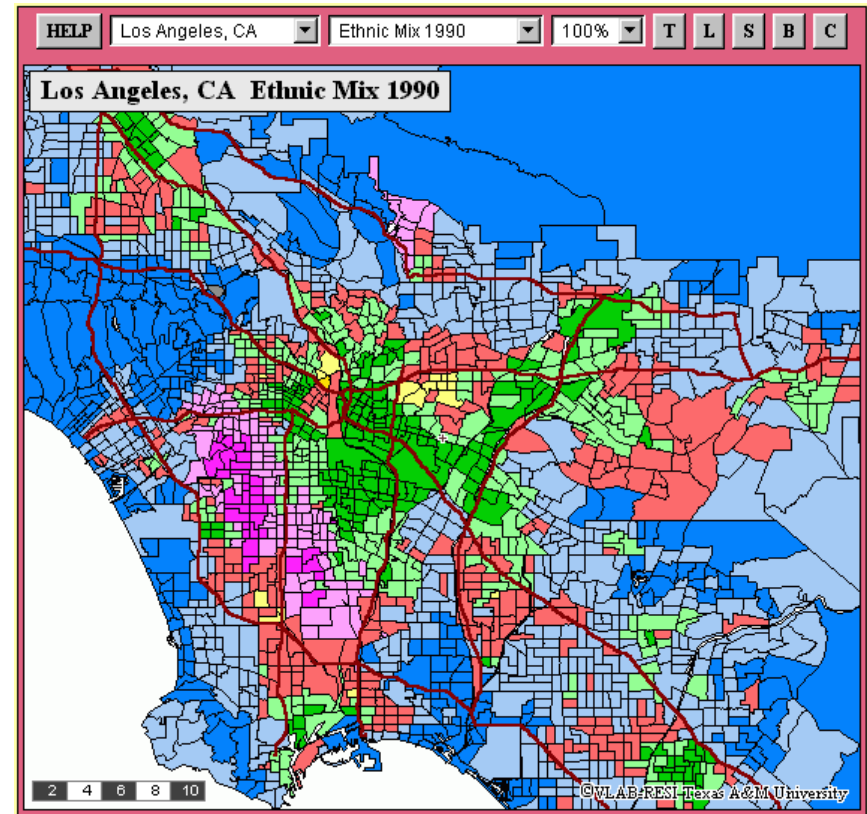
The "White-Black" pattern is a common one and, indeed, for many people the very term segregation brings to mind the specific notion of white-black segregation. Among the 40 major metropolitan areas, the overwhelming majority have identifiable black areas -- area with at least one 80% black neighborhoods



and several immediately adjacent majority black neighborhoods.

Latinos are the most rapidly growing ethnic minority population in the US and Latinos presently are emerging as the largest ethnic minority population in the country. Even so *only two* of the 40 largest metropolitan areas are primarily “White-Latino” cities (San Antonio and Phoenix, both found in the Southwest). Among major metropolitan areas, San Antonio is by far the one with the most evident Latino residential presence. The ethnic mix map for San Antonio illustrates this point.

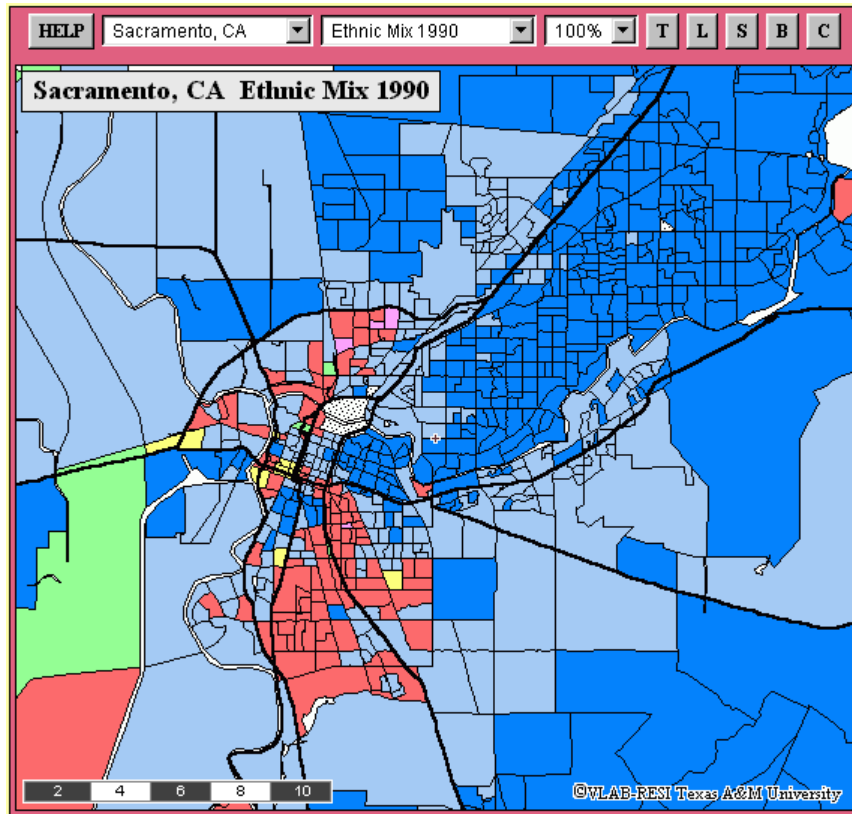
Asian-Americans are the second most rapidly growing ethnic minority population in the US, yet *none* of the major metropolitan areas are primarily “White-Asian” cities. Furthermore, over half of the top 40 metropolitan areas do not have *any* identifiable Asian residential areas (at the level of census tracts or block groups). Of those that do, most have only a handful of identifiable Asian neighborhoods.



Especially Diverse Cities

Several major metropolitan areas stand out for having segregation patterns that reflect great diversity in the racial and ethnic composition of the city’s residential areas. Three in particular are Los Angeles, New York, and San Francisco. The ethnic mix maps for these cities reveal readily identifiable areas for all four major racial groups (white, black, Latino, and Asian) with large expanses of black and Latino neighborhoods. The ethnic mix map for Los Angeles illustrates this pattern. Several other cities in the top 40 have a substantial presence of at least three (white, black, and Latino) of the four groups. Notable examples include Chicago, Dallas-Fort Worth, Houston, and Miami.

Comparing these cities with “two-group” cities such as Atlanta, Cleveland, Detroit, and Pittsburgh shows how markedly cities can vary in terms of the ethnic diversity of residential neighborhoods.



High Segregation Cities

Among major metropolitan areas, several have the dubious distinction of being marked by the very highest levels of white-minority segregation. Based on quantitative measures of uneven distribution (similar to those reported by Massey & Denton 1986) Chicago, Cleveland, Detroit, St. Louis, and Milwaukee can be singled out for special mention. The patterns seen in the ethnic mix maps for Chicago and Detroit (introduced earlier) are typical of this group of cities. Each city has a clearly identifiable, centrally located black ghetto (an expansive region of dozens of contiguous, 80% black neighborhoods). Most identifiable black neighborhoods are 80% black rather than simple-majority black. Few neighborhoods are “mixed” (with no identifiable ethnic majority). Transitions from 80% black neighborhoods to neighborhoods that are less than 20% black are very abrupt.

Examination of the maps of percent black reinforce these observations and highlight additional common patterns. The group percentage map for blacks in Chicago (introduced earlier) is typical. Neighborhoods tend to fall into two categories; 80% black or less than 2% black. Few neighborhoods have intermediate values on percent black and those that do are generally found in “transition areas” bordering large, central ghettos. The maps also reveal extreme clustering; the vast majority of 80% black neighborhoods are contiguous in space creating large expanses of black residential areas that are extremely isolated in terms of contact with other ethnic groups.¹⁷

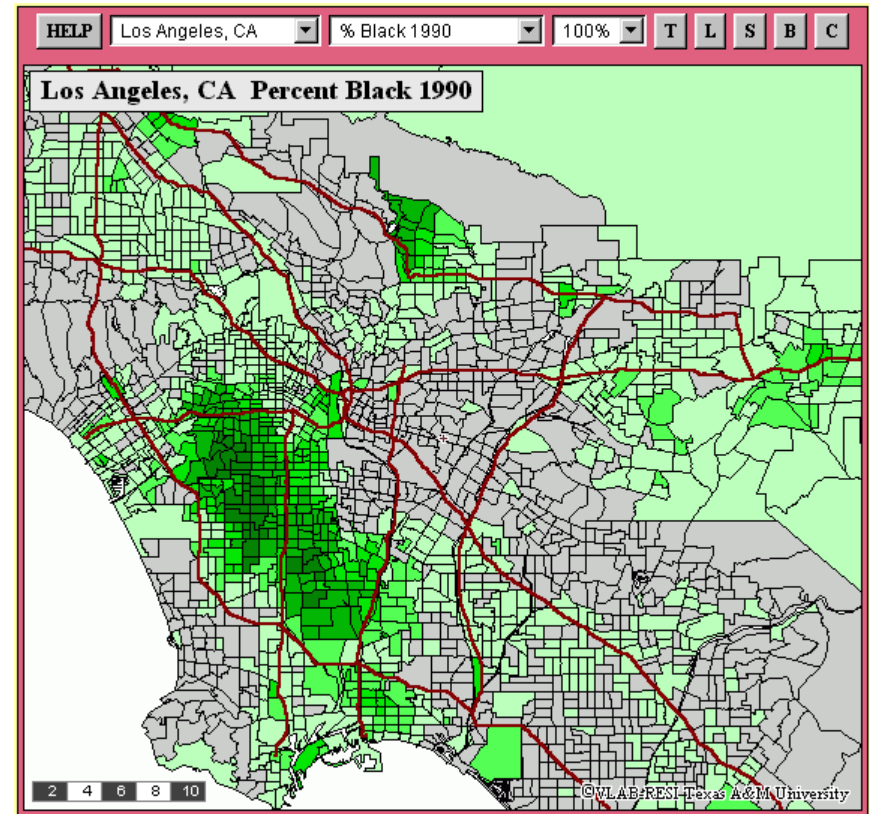
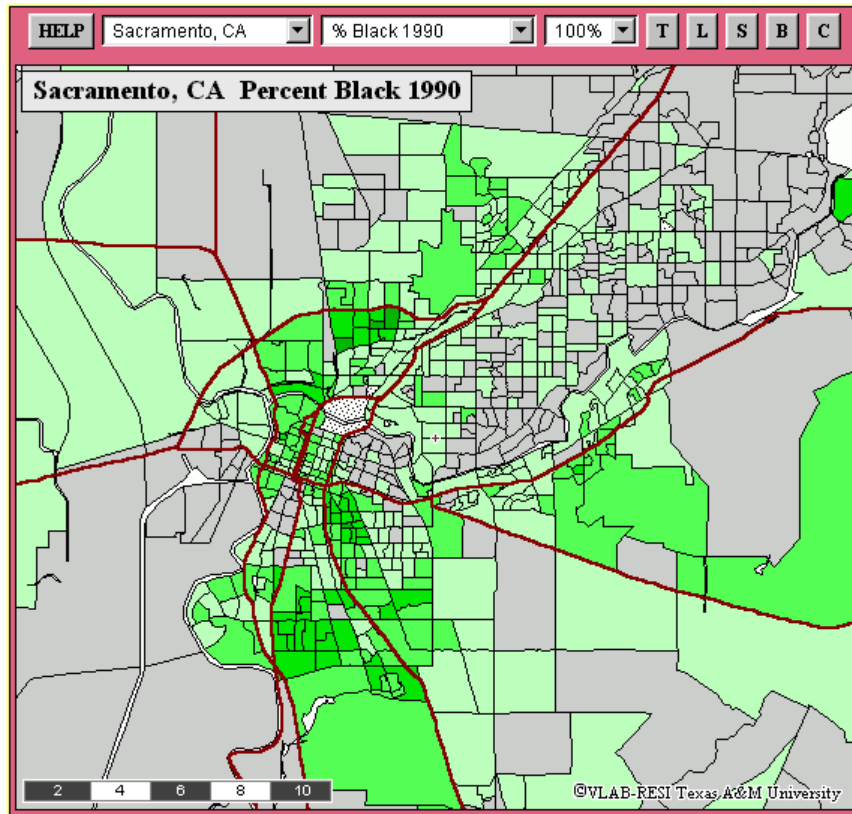
Two final points can be noted about these high-segregation cities. First, in every case, the high level of segregation involved is between whites and blacks. *Nowhere* does white-Latino or white-Asian segregation approach the highest levels seen for white-black segregation. Second, the cities are in the Midwest and, with the possible exception of Chicago, may be characterized as “White-Black” cities.

Low Segregation Cities

What do cities with lower levels of segregation look like? Focusing on white-black segregation, four cities in the SegMaps data base warrant mention. Specifically, Phoenix, Sacramento, San Diego, and San Antonio have *comparatively* low levels of segregation (not low in an *absolute* sense). The contrast between these cities and the high-segregation cities just noted can be seen by examining the ethnic mix and percent black maps for Sacramento. Many of Sacramento’s neighborhoods are “mixed” (shaded red) or have only “simple” ethnic majorities rather than “super” majorities (i.e., 80% or more of a single group). Thus, the group percent map for blacks in Sacramento shows that areas with intermediate percentages of percent black greatly outnumber areas that are 80% black. In fact, in Sacramento (and also in Phoenix and San Diego) no neighborhood in the city is 80% black.

Interestingly, these lower-segregation cities are rapidly growing, ethnically diverse city located in the Southwest. They contrast sharply with the highly segregated cities of the Midwest. The interested reader is invited to compare the ethnic mix and group percentage maps for Sacramento and San Diego with those for the high segregation cities like Detroit and Cleveland. This will show that Sacramento and San Diego contain only a small number of identifiable black, Latino, and Asian neighborhoods, no 80% minority neighborhoods, and, most importantly, more “mixed” neighborhoods than distinct, single-minority

¹⁷ There are cities where white-black segregation on the dimension of uneven distribution is high, but clustering is not as pronounced as seen in many cities. For example, while most cities have a primary black ghetto, Cincinnati, Minneapolis, and Pittsburgh have multiple, spatially disconnected areas of black residential concentration.



neighborhoods. In Detroit and Cleveland, the number of 80% black neighborhoods greatly outnumbers both simple-majority black and mixed areas *combined*. Furthermore, the ratio of 80% white areas to simple-majority white areas is much higher in Detroit and Cleveland, indicating that whites in Sacramento and San Diego are much more likely to live in integrated neighborhoods.

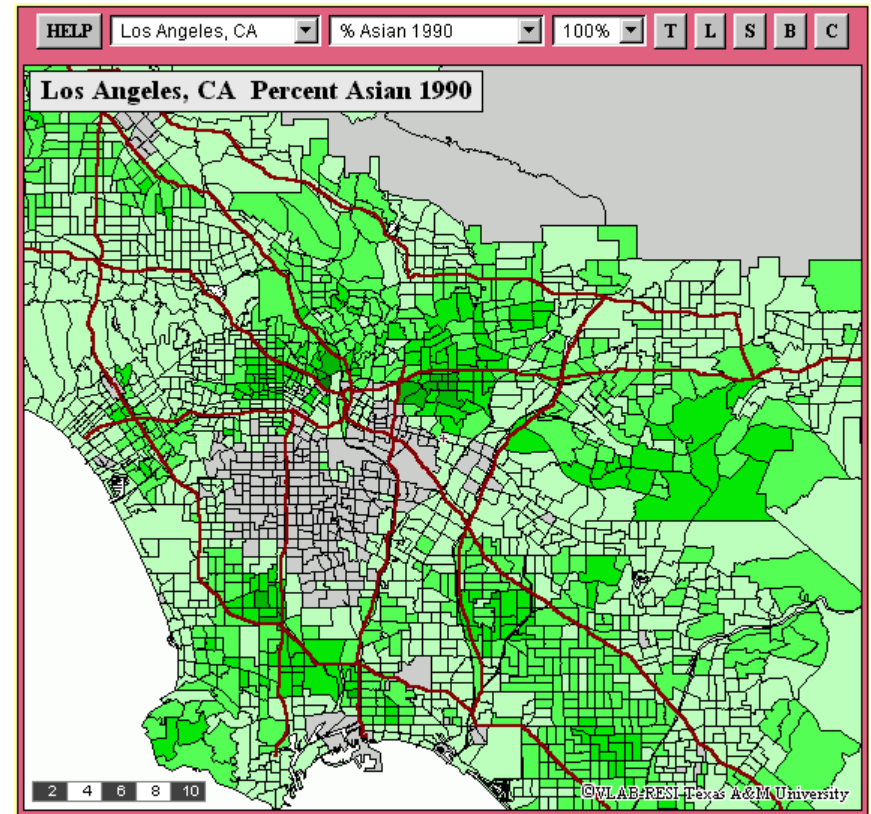
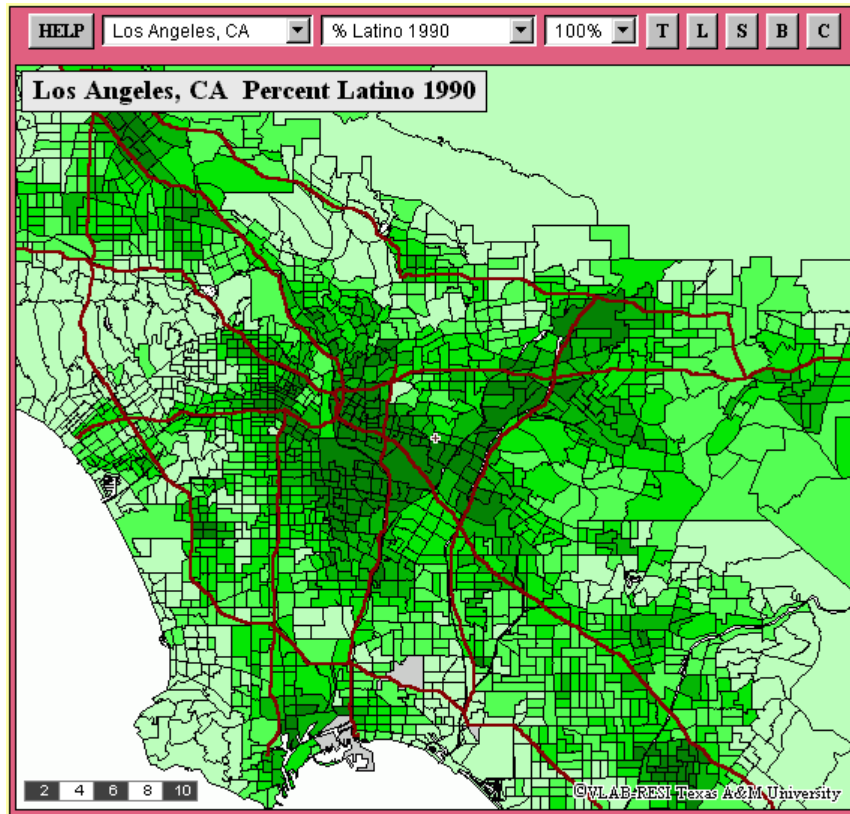
The fact that the low-segregation cities are ethnically diverse, rapidly growing, and located in the Southwest is not coincidence. Quantitative studies of recent patterns of city variation in segregation and its change in segregation by Massey and Denton (1987) and Farley and Frey (1994) report that cities with these characteristics tend to have lower levels of residential segregation and greater declines in segregation.

Black, Latino, and Asian Segregation Patterns

Several distinctions can be drawn between patterns of segregation for

blacks, Latinos, and Asians – the three major ethnic minority populations in the US. First, blacks are subject to much higher residential isolation than the other groups. This can be best seen by comparing group percentage maps for cities with large concentrations of all three minority populations – Los Angeles, San Francisco, and New York. Maps for Los Angeles illustrate the point. Observe that the Asian population has a higher ratio of intermediate percentage neighborhoods to majority neighborhoods. In contrast, the black population has the lowest ratio and the Latino population is in between. This visual demonstration corroborates the findings reported in quantitative studies of minority group isolation (e.g., Massey and Denton 1987; Farley and Frey 1994). Blacks are more likely than other minorities to live in high levels of residential isolation from other groups. Asians are less likely; Latinos are in between.

A related finding runs in parallel to the one just noted; minority suburbanization is greatest for Asians, lowest for blacks, and in between for Latinos.



This finding is a bit harder to discern in the group percentage maps for the three minority groups in cities like Los Angeles (the visual contrasts in the maps are evident to those who study segregation patterns closely, but they are not nearly as dramatic as some of the other patterns we have highlighted). But, the patterns are there and are confirmed by quantitative analysis of segregation patterns. Suburbanization, of course, is the “flip side” of centralization. So the finding can be restated as follows: blacks are more centralized than other minority populations, Asians are least centralized, and Latinos are in between.

Hyper-Segregation and Black Exceptionalism

The earlier discussions noted that blacks experience higher levels of segregation than other minority populations on the various dimensions of segregation including uneven distribution, isolation, clustering, centralization, and concen-

tration.¹⁸ Massey and Denton (1988) were the first to rigorously establish this finding using sophisticated quantitative measures of each of the five dimensions of segregation. They noted that it was not uncommon for all five dimensions of segregation to be high for blacks *simultaneously*. They termed this condition *hyper-segregation*.

As seen earlier in the maps for Chicago and Detroit, the pattern of hyper-segregation is visually distinct in both the ethnic mix maps and the percent black maps. The interested reader can easily see that the pattern is found in many of the cities in the SegMaps data base (e.g., Boston, Cleveland, Dallas,

¹⁸ As noted earlier, the maps in the SegMaps data base do not “speak” directly to the dimension of concentration. However, since population densities in cities are greater in central locations, the visual pattern of high centralization for blacks usually implies high concentration.

Milwaukee, St. Louis, and Washington, to mention just a few more).

The contrast with other minority groups is stark. Asian residential patterns do not approach hyper-segregation in *any* city in the SegMaps data base. Patterns of Latino residential distribution approach hyper-segregation in only a couple of cities, San Antonio and Los Angeles. But even in these cities the group percentage maps for Latinos reveal a clear visual contrast from hyper-segregation as seen for blacks. In Los Angeles, for example, while the percent Latino map shows a centrally located “barrio” (a cluster of contiguous 80% Latino neighborhoods), it also shows many neighborhoods with intermediate levels of Latino representation and much less abrupt transitions from 80% Latino neighborhoods to neighborhoods where Latinos are less than 20% of the population. If this is hyper-segregation, it is not as severe as the extreme hyper-segregation seen for blacks in some cities.

In sum, the severity and frequency of hyper-segregation for blacks sets their residential segregation patterns apart from the patterns of segregation experienced by other minority groups.

Sociological Understandings of Segregation

The descriptive findings reviewed here and illustrated by the maps presented by the SegMaps program document the existence and patterning of racial segregation in major metropolitan areas of the US. This scientific description is valuable in and of itself. However, it does not provide an “explanation” of why residential segregation exists and what social processes create and maintain it.

It is beyond the scope of the present discussion to review theories of segregation. However, I can take a moment to note that the study of residential segregation is one of the oldest fields in sociological research and theories of the causes of residential segregation are relatively well developed with a long history of cumulative improvement and refinement. For an advanced introduction to these theories, consider Massey (1985) or Massey and Denton (1993). For an introduction geared to undergraduates, consider Jaret (1995).

These treatments identify several type of hypotheses commonly advanced to account for segregation. Some emphasize the role of ethnic prejudice, “social distance”, preferences, and choice dynamics in housing markets. Others emphasize minority-majority differences in purchasing power combined with spatial segregation of high- and low-cost housing. Others emphasize various forms of housing discrimination including exclusion, steering, redlining, and other forms of differential treatment that reduce minority access to the broader housing market.

Sociological studies have tended to emphasize discrimination dynamics. Studies by economists have tended to call attention to choice and market dynamics and how they are shaped by preferences and group differences in purchasing power. Of course, the different hypotheses are *not* mutually exclusive

and there is strong evidence to suggest that all three are relevant and are mutually reinforcing.

The SimSeg program found at the VLAB-RESI web site provides a means for performing virtual experiments to explore these ideas. It also provides other materials that review theories of residential segregation in more detail.

Concluding Remarks

Ethnic segregation in America is a fundamental social fact with important consequences for a wide range of social and stratification outcomes. The SegMaps program provides a way for students and others who are new to the study of residential segregation to gain an intuitive appreciation for many of the concepts used in segregation analysis and the major descriptive findings about segregation patterns that have been advanced in the technical research literature. However, while the maps the SegMaps program presents can provide a valuable introduction to the study of segregation, they also have important limitations (noted earlier). Thus, I strongly encourage the reader to pursue their interest in residential segregation much further.

A full understanding of residential segregation requires gaining familiarity with the findings from the quantitative research literature (e.g., Massey and Denton 1986; 1988; 1993; Farley and Frey 1994), the literature on the history of residential segregation (e.g., Massey and Denton 1993), and the ethnographic literature detailing micro-level segregation dynamics (e.g., Anderson 1990; DeSena 1990; 1994). Given the importance of residential segregation for so many aspects of American life, an educated person should get the broadest possible perspective on this sociological phenomenon.

Literature Cited & Suggested Reading

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Appendix: The SegMaps Program

The SegMaps Program and the VLAB-RESI Web Site

The SegMaps program is a Java applet that runs "under" web browsers. SegMaps is geared to undergraduate instruction focusing on residential segregation. The underlying motivation for developing the program was to provide a tool for presenting data on residential segregation in an intuitive form that would help students better grasp key findings about residential segregation.

SegMaps relies extensively on graphical presentations (thematic maps developed using GIS software) to describe patterns of segregation, neighborhood ethnic composition, and neighborhood change over time. It also draws on the new technology of the World Wide Web and web-based software to make these maps accessible to instructors, students, and other interested parties with access to the World Wide Web.

The SegMaps program can be found on the web at the Virtual Laboratory in Racial and Ethnic Stratification and Inequality (VLAB-RESI), a site developed and supported with funding from the National Science Foundation and developed by Mark Fossett, Professor in the Department of Sociology and Research Affiliate at the Racial and Ethnic Studies Institutes at Texas A&M University, College Station, Texas. The web address for the site is:

<http://vlab-resi.tamu.edu/vlab.htm>

SegMaps is one among several programs geared to undergraduate instruction and made available through the VLAB-RESI web site. As of this writing, the VLAB-RESI web site features two additional programs: SimSeg, a web-based computer simulation model of residential segregation dynamics, and InterGen, a web-based model of the inter-generational transmission of ethnic inequality. With continued NSF support, the site will build out further in the future and add additional programs illustrating different aspects of racial and ethnic stratification and inequality.

The VLAB-RESI site and the SegMaps page in particular provide web access to a range of materials focusing on residential segregation (e.g., this document). One relevant link for the latest quantitative data on trends in residential segregation can be found at the Lewis Mumford Center for Comparative Urban and Regional Research, Metropolitan Racial and Ethnic Change – Census 2000. The web address for this site is:

<http://www.albany.edu/mumford/census/>