

# **Choosing Segregation: Racial Imbalance in American Public Schools, 1990-2000**

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Revised March 29, 2002**

After a period in which desegregation efforts were widespread in American public schools, the average level of segregation has hardly changed in the last ten years, and in some places there is clearly a rollback of progress made before 1990. In many metropolitan regions, desegregation evident in the 1989-90 school year has given way to substantial increases of black-white segregation. In most of these, Supreme Court action in 1991 that relaxed the criteria for rescinding desegregation orders has freed school officials to pull back their previous steps to achieve racial balance. Consciously or not, Americans in these regions are increasingly making a choice for segregation.

New national data for 1999-2000 show that segregation from whites has edged upwards not only for black children, but also for Hispanic, and Asian children. At the same time, they reveal that segregation places black and Hispanic children, on average, in schools where two-thirds of students are at or near the poverty line.

## **Background of this study**

The Mumford Center previously issued a report on the residential segregation of children based on Census 2000 (<http://mumford1.dyndns.org/cen2000/report.html>). We found that black children are by far the most segregated minority group, though they are modestly less segregated from white children in 2000 than they were in 1990. There was no change in neighborhood segregation of Hispanic and Asian children during this time, but their increasing numbers has meant that they are now a larger share of the population in neighborhoods where they are clustered.

In the current study we analyze segregation among public elementary school children using data collected by the National Center for Educational Statistics (NCES) through the 1999-2000 school year. Schools in many cases are less segregated than neighborhoods, partly because they often draw from larger areas and partly because school assignments sometimes cross neighborhood lines. But there is also potential for schools to be more segregated than neighborhoods, as some families opt out of the public school system or take school attendance lines into account in deciding where to live. We ask how these factors have combined to affect disparities in the racial and ethnic composition of schools.

To facilitate comparisons between residential segregation and school segregation, we aggregate schools into metropolitan regions, and then separately into the central city and suburban portions of those regions. Therefore our results do not measure segregation within particular school districts, but more broadly the disparities between schools in the same geographic area regardless of district boundaries.

We recognize that schools are segregated not only by race but also by class. To take class segregation into account, we take advantage of the NCES reports of student eligibility for free or reduced-price lunches. To be eligible, a family must fall below 185% of the poverty line – around \$32,000 for a family of four in 1999-2000. Though some states still do not provide information on the school lunch program, this is the best available indicator of the income level of students in public schools.

### **How We Measure Segregation**

The standard measure of segregation is the Index of Dissimilarity (D), which captures the degree to which two groups are evenly spread among schools in a given city. Evenness is defined with respect to the racial composition of the city as a whole. The index ranges from 0 to 100, giving the percentage of children in one group who would have to attend a different school to achieve racial balance - one where every school 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 would mean that 60% of either group must move to a different school for the two groups to become equally distributed. Values of 40 to 50 are usually considered moderate levels of segregation, while values of 30 or less are considered low.

This report also refers to information on neighborhood segregation. For this purpose we use data from the U.S. Census of 1990 and 2000 specifically for the under-18 population. Neighborhood segregation is measured at the level of census tracts, areas that usually have 3000-5000 residents.

### **Standards for evaluating change in dissimilarity scores**

In our analysis, we interpret change either up or down on the following criteria:

- Change of 10 points and above - Very significant change
- Change of 5-10 points - Moderate change
- Below 5 points - Small change or no real change at all

### **Exposure and Isolation Indices**

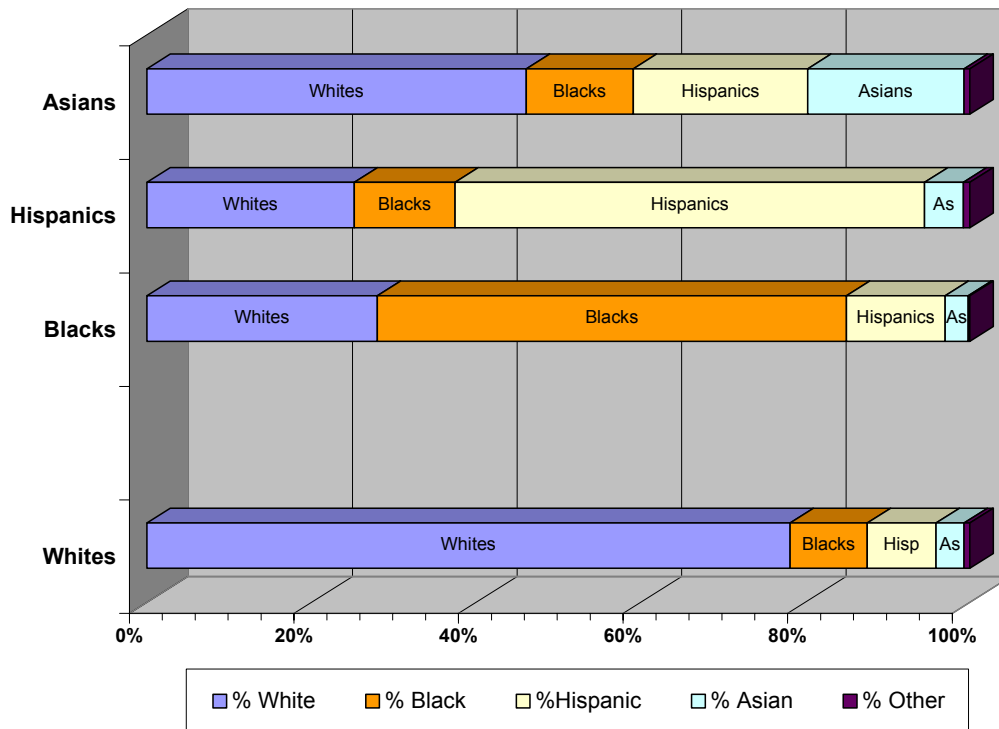
Another widely used measure of segregation reported here is a class of Exposure Indices (P\*) that refer to the racial/ethnic composition of the school that the average member of a given group attends. Exposure of a group to itself is called the Index of Isolation, while exposure of one group to other groups is called the Index of Exposure. Both range from 0 to 100. For example, an Isolation score of 78.1 for whites means that the average white attends a school that is 78.1 % white. An Exposure score of 9.4 for white-black exposure indicates that the average white attends a school that is 9.4% black.

Even if segregation (measured by the Index of Dissimilarity) remains the same over time, growth in a minority population will tend to leave it more isolated - that is, attending schools where they are already over represented.

### The experience of diversity in schools

Segregation translates to very different school experiences for children of different racial and ethnic backgrounds. Exposure indices at the national level reveal that white, black, and Hispanic elementary children on average all attend schools where their group is a majority. This typical school experience is represented in Figure 1.

**Figure 1. Diversity Experienced in Each Group's Typical School - National Metropolitan Average**



The average white child attends a school that is over 78% white. Only 9% of other children in this typical school are black, 8% Hispanic, and 3% Asian. Though children often do not attend a neighborhood school, the racial composition of schools attended by white kids closely matches that of their own neighborhood.

In sharp contrast, the average black child's school is more than half black (57%). Hispanic children also are in majority Hispanic schools (57%). And Asians, despite being only 4% of the elementary population, are in schools that average 19% Asian.

Each minority group's exposure to white children is declining. In 1989-90, 32% of the average black child's schoolmates were white; that has dropped to 28% in 1999-2000. Similar drops were experienced by Hispanics (from 30% to 25%) and Asians (52% to 46%).

### **Rolling back efforts to desegregate African American children**

The national average level of segregation of black from white elementary children in metropolitan regions (weighting these regions by the size of the black school population) is high in 1999-2000: 65 on a scale from 0 to 100. This means that nearly two-thirds of black children (or equally, two-thirds of white children) would have to transfer to a different school in order to achieve integration.

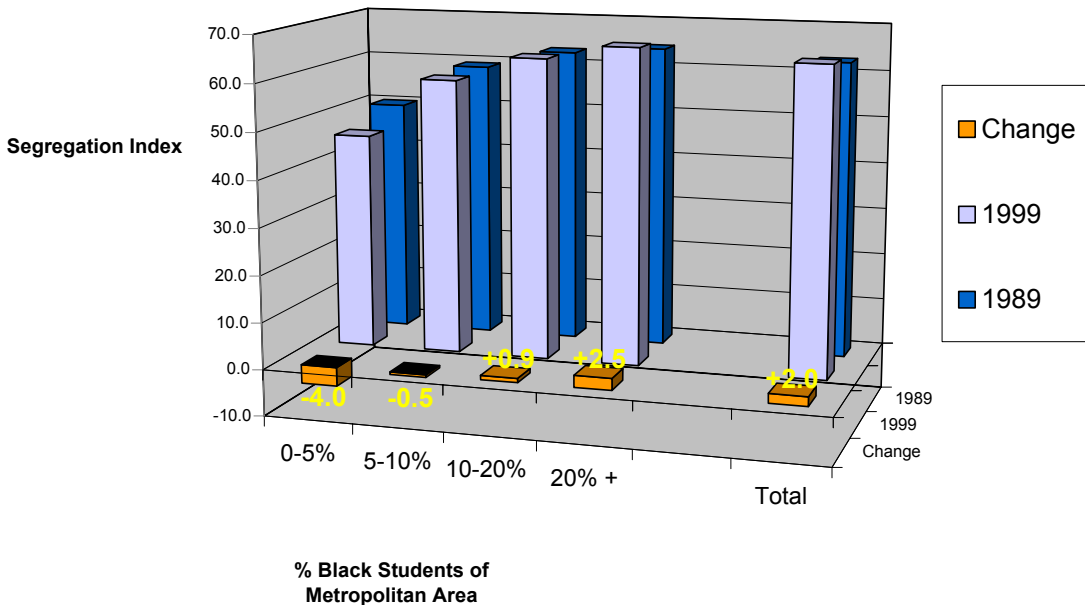
This represents a 2-point increase in school segregation compared to 1989-90, a small shift but especially significant when we note that residential segregation was declining by 3 or 4 points in the same period.

One reason for this increase in separation is there are different trends in areas where black children are a small part of the school population and those where they have a more substantial presence. As Figure 2 illustrates, segregation is much lower in those metropolitan regions where blacks are less than 5% of the school population ( $D = 46$ ) than in those where they are above 20% ( $D = 67$ ). In addition, the trend is for decreasing segregation in the former category (a decline of 4 points) but increasing segregation in the latter (up 3 points). Clearly there are lower obstacles to integrating a smaller minority group. Unfortunately, most black children, about 3 out of 4, live in the regions where they are more than 20% of the population.

A second and more disturbing reason is that in many places there has been a clear retreat from efforts to desegregate black schoolchildren. The history of the civil rights movement in postwar America is largely one of overcoming the legacy of separate and unequal schools. These efforts had achieved great success by the 1989-90 school year. We can measure this success in the fact that school segregation was much lower than residential segregation at that time (60 for schools vs. 72 for neighborhoods in the central cities, where many of the policy initiatives were focused).

Table 1 lists the 59 metropolitan areas of the country whose central cities enrolled more than 25,000 elementary children in 1989-90, and where at least 10% of the children were African American. (Three entirely suburban metropolitan regions meeting these criteria are also included in this list.)

**Figure 2. Change in Black-White School Segregation by % Black Population in 1999-2000**



In slightly more than half of these areas (32), segregation in the city schools was within 10 points of the level of neighborhood segregation. These are cases where it appears there had been no major policy initiative dealing with racial imbalance in the schools – separation in schools mainly mirrored separation in the neighborhoods. In most of these cases there has been little change in school segregation in the subsequent ten years. Only a few increased or declined by more than 5 points.

In the remaining 27 cases – cases where schools were much less segregated than neighborhoods in 1989-1990 – city school segregation increased in all but two, and the average increase was 10 points. In these same areas, segregation of blacks from whites in their neighborhoods actually declined. **Therefore, increased school segregation in these cases did not result from changes in where children lived. It was caused by changes in policies that once worked effectively to reduce school segregation, but that were reversed in the 1990s.**

Some of these are school districts in the South that cross city lines, such as Tampa-St. Petersburg, FL; Charlotte, NC; and Greensboro, NC. All three had implemented court-ordered school assignment plans in 1971, and all include both city and suburban schools. Hence the metro-wide level of segregation in 1989-90 was very low in these cases: 35 in Tampa-St. Petersburg, FL; 37 in Charlotte, NC; and 43 in Greensboro, NC (compared to levels of neighborhood segregation of children of 72 for Tampa-St. Petersburg, FL; 59 for Charlotte, NC; and 66 in Greensboro, NC). But by 1999-2000, after a decade in which busing was extensively litigated and school officials sought to experiment with a variety of plans for redistricting and school choice, segregation was up sharply: up 10 points in Tampa-St. Petersburg, FL and 9

points in both Charlotte, NC and Greensboro, NC. As Table 1 shows, segregation in schools within the city limits was initially even lower, but increased more.

<b>Table 1. School and neighborhood segregation in cities with large black student enrollments</b>				
<b>Metropolitan Regions</b>	<b>Schools</b>		<b>Neighborhoods</b>	
	<b>1989-90</b>	<b>1999-00</b>	<b>1989-90</b>	<b>1999-00</b>
<b>School segregation was within 10 points of neighborhood segregation in 1989-90</b>				
<b>School segregation increased more than 5 points</b>				
Detroit, MI	75.0	85.8	77.9	80.5
Houston, TX	64.7	72.5	70.2	73.5
Austin-San Marcos, TX	57.1	64.6	59.2	64.6
Kansas City, MO-KS	62.0	68.7	69.3	67.5
Vallejo-Fairfield-Napa, CA	49.4	56.0	45.8	50.9
New Orleans, LA	79.5	84.8	69.1	76.0
<b>School segregation changed less than 5 points</b>				
Memphis, TN-AR-MS	71.1	66.2	73.7	69.2
Stockton-Lodi, CA	52.5	48.9	53.6	52.8
Newark, NJ	90.2	86.6	83.5	84
Philadelphia, PA-NJ	80.3	77.2	86.6	80.2
Atlanta, GA	85.7	82.7	83.5	87.5
Oakland, CA	72.1	69.3	72.3	71
Baltimore, MD	76.3	79	79.1	74.3
Chicago, IL	81.8	84.1	87.5	85.5
Providence-Fall River-Warwick, RI-MA	63.7	61.4	67.3	58.7
Middlesex-Somerset-Hunterdon, NJ	64.7	62.7	59.5	56.3
Toledo, OH	66.9	68.5	70.8	64.9
Norfolk-Virginia Beach-Newport News, VA-NC	42.3	43.8	51.3	48.1
Colorado Springs, CO	44.9	46.3	46.7	44.5
Bakersfield, CA	46.4	47.6	50.7	45.2
Oklahoma City, OK	57.2	56	60.8	54.2
Dallas, TX	69.9	69	70.6	69.2
Nassau-Suffolk, NY	70.2	70.9	79.7	76.6
Fresno, CA	46.7	47.3	52.9	45.5
Riverside-San Bernardino, CA	43.6	44.2	51.7	47.9
Washington, DC-MD-VA-WV	88.3	88.5	85.3	84.9
Bergen-Passaic, NJ	84	84	80.1	75.8
New York, NY	81.4	81.5	86.2	86.1
<b>School segregation declined more than 5 points</b>				
Fort Worth-Arlington, TX	62.8	54.3	58.9	50.7
Miami, FL	85.8	77.3	83.5	84.1
Portland-Vancouver, OR-WA	64.4	55.6	64.1	48.8
Tulsa, OK	62.8	55.7	65.6	57.6

**Metropolitan Regions****Schools****Neighborhoods****1989-90****1999-00****1989-90****1999-00****School segregation was more than 10 points lower than neighborhood segregation in 1989-90****School segregation increased by more than 5 points**

Cleveland-Lorain-Elyria, OH	38.1	71.2	84.3	75.3
Columbus, OH	39.6	65.3	68.1	61.7
Milwaukee-Waukesha, WI	44.2	64.9	78.9	75.2
Las Vegas, NV-AZ	20.9	41.1	54.1	42.6
Cincinnati, OH-KY-IN	36.9	54.1	73.3	64.4
Denver, CO	46.3	63.1	69	64.5
Greensboro--Winston-Salem--High Point, NC	24.8	41.3	62.6	59.7
Tampa-St. Petersburg-Clearwater, FL	25.5	39.2	71.0	68.5
Seattle-Bellevue-Everett, WA	47.0	59.3	68.9	60.3
Charlotte-Gastonia-Rock Hill, NC-SC	24.3	36.2	61.8	59.2
Minneapolis-St. Paul, MN-WI	32.2	42.4	62.1	55.3
San Francisco, CA	55.2	65.1	67.8	70.8
Wichita, KS	21.1	30.3	63	54.3
Springfield, MA	45.2	53.3	66.5	58.4
Buffalo-Niagara Falls, NY	26.8	34.7	74.6	71.2
San Diego, CA	52.5	59.6	65.5	65
Indianapolis, IN	36.3	43.3	70.1	63.9
Omaha, NE-IA	58.2	64.9	76.2	67.8
Nashville, TN	32.4	38.8	64	54.2
Boston, MA-NH	52.5	57.5	76.5	69.3

**School segregation changed less than 5 points**

Shreveport-Bossier City, LA	57.9	61.5	71.1	64.9
Sacramento, CA	32.3	36	43.6	41.1
Raleigh-Durham-Chapel Hill, NC	34.7	38	63.3	61.7
Los Angeles-Long Beach, CA	66.4	63.3	77.5	70
St. Louis, MO-IL	71	68.1	83	74.9
Little Rock-North Little Rock, AR	38.9	41.5	59.8	61.2
Jacksonville, FL	41.3	43.1	60.7	51

Includes metropolitan regions whose central city elementary enrollment was over 25,000 in 1999-2000, and black children were more than 10% of the student body.

Three entirely suburban regions that otherwise meet these criteria are also included.

Data for these regions refer to suburban segregation; for other cases, they include only the cities in the metropolitan region.

Despite these increases, Greensboro, NC school officials agreed on a plan to replace busing with school choice in April 1999, without legal opposition. And federal courts have recently ended desegregation orders for the other districts: for St. Petersburg, FL in 2000 and for Tampa, FL and Charlotte, NC in 2001.

In other areas, these changes are in school districts that serve only the central cities. Cleveland, OH is the most extreme example in Table 1. In 1976 a federal judge found that Cleveland city school officials had preserved an illegally segregated system, where dozens of schools were all white or all black. In 1996, the court ended busing and eliminated court-ordered racial balance guidelines that dictated the percentage of black students attending each school. The court then agreed in July 2000 to release the district from court control.

Neighborhood segregation in this metro area's three central cities of Cleveland, Elyria, and Lorain is very high, but declined from 84 to 75 in the last ten years. Elementary school segregation, by contrast leaped from only 38 in 1989-90 to 71 in 1999-2000 – a more than 30-point increase as the courts gave up control.

Other cities where a similar process has taken place – surprisingly low levels of school segregation in the wake of court-ordered desegregation plans, followed by substantial increases in the last decade – include Columbus, OH; Milwaukee, WI; Cincinnati, OH; Denver, CO; Seattle, WA; and Minneapolis, MN.

The Mumford Center analysis has identified the 50 metropolitan regions with the largest number of black elementary schoolchildren in 1999-2000. These are listed in the following tables.

Table 2 lists regions by their level of residential segregation, using the Index of Dissimilarity. Metropolitan Detroit is by far the most segregated of these (89, about the same as ten years before). Most cases in the top 10 are in the North, with the exception of Birmingham, AL.

At the other end of the continuum, the least segregated metropolitan regions are found in the South. Raleigh-Durham-Chapel Hill, NC is number 50. Surprisingly some Southern metropolitan areas where segregation increased substantially in the last decade – including Charlotte, NC and Tampa-St. Petersburg, FL – are still among the less segregated systems on this list.

Table 3 provides the values of the black isolation index. These figures translate segregation into the experience of the average black child. Again Detroit tops the list: the average black child in this metropolitan region (even taking into account that some of these children now live in the suburbs) is in a school that is 87% black. The next highest levels of isolation, all above 80%, are Southern metropolitan regions: Memphis, TN; Jackson, MS; New Orleans, LA; and Birmingham, AL.



**Table 2. Black-White School Segregation for Students in Top 50 Metro Areas**

1999 Rank	1989 Rank	AREA NAME	1999 Segregation	1989 Segregation
1	1	Detroit, MI	88.5	88.7
2	3	Chicago, IL	83.9	83.2
3	2	Newark, NJ	82.3	85.2
4	5	Cincinnati, OH-KY-IN	82.1	78.3
5	6	Cleveland-Lorain-Elyria, OH	81.2	77.4
6	4	New York, NY	80.6	79.8
7	15	Milwaukee-Waukesha, WI	78.2	70.1
8	7	Birmingham, AL	77.8	75.5
9	8	Philadelphia, PA-NJ	74.8	74.5
10	10	Kansas City, MO-KS	74.2	73.3
11	9	Baltimore, MD	72.8	74.1
12	19	Memphis, TN-AR-MS	72.7	68.2
13	13	Pittsburgh, PA	72.3	71.1
14	18	Miami, FL	72.2	68.5
15	24	New Orleans, LA	71.3	66.5
16	14	Nassau-Suffolk, NY	70.9	70.2
17	12	Boston, MA-NH	70.7	71.1
18	27	Houston, TX	70.2	63.6
19	25	Jackson, MS	70.1	65.6
20	11	Oakland, CA	70.1	72.4
21	21	Columbus, OH	70.0	67.9
22	17	Minneapolis-St. Paul, MN-WI	69.8	68.9
23	22	St. Louis, MO-IL	69.6	67.4
24	20	Atlanta, GA	68.2	68.0
25	31	Indianapolis, IN	66.9	59.8
26	16	Los Angeles-Long Beach, CA	66.8	69.5
27	26	Washington, DC-MD-VA-WV	66.6	65.0
28	36	Baton Rouge, LA	66.6	54.0
29	23	Fort Worth-Arlington, TX	65.4	67.2
30	34	Mobile, AL	64.6	55.6
31	28	Dallas, TX	62.1	62.5
32	29	Richmond-Petersburg, VA	61.2	61.9
33	30	Fort Lauderdale, FL	60.9	61.6
34	33	San Diego, CA	58.4	57.3
35	38	Shreveport-Bossier City, LA	57.5	51.1
36	35	Columbia, SC	57.3	54.9
37	41	Nashville, TN	55.7	47.6
38	32	West Palm Beach-Boca Raton, FL	55.4	58.9
39	46	Greensboro--Winston-Salem--High Point, NC	52.3	43.2
40	37	Charleston-North Charleston, SC	52.2	52.3
41	39	Orlando, FL	51.1	49.2
42	40	Augusta-Aiken, GA-SC	50.0	48.0
43	45	Lafayette, LA	49.1	43.5
44	42	Jacksonville, FL	48.3	45.7
45	43	Riverside-San Bernardino, CA	48.2	45.4
46	44	Norfolk-Virginia Beach-Newport News, VA-NC	46.3	43.6
47	47	Charlotte-Gastonia-Rock Hill, NC-SC	45.9	36.6
48	49	Tampa-St. Petersburg-Clearwater, FL	44.6	35.3
49	48	Greenville-Spartanburg-Anderson, SC	41.1	35.4
50	50	Raleigh-Durham-Chapel Hill, NC	37.6	32.3

**Table 3. Isolation Experienced by Black Students in Top 50 Metro Areas**

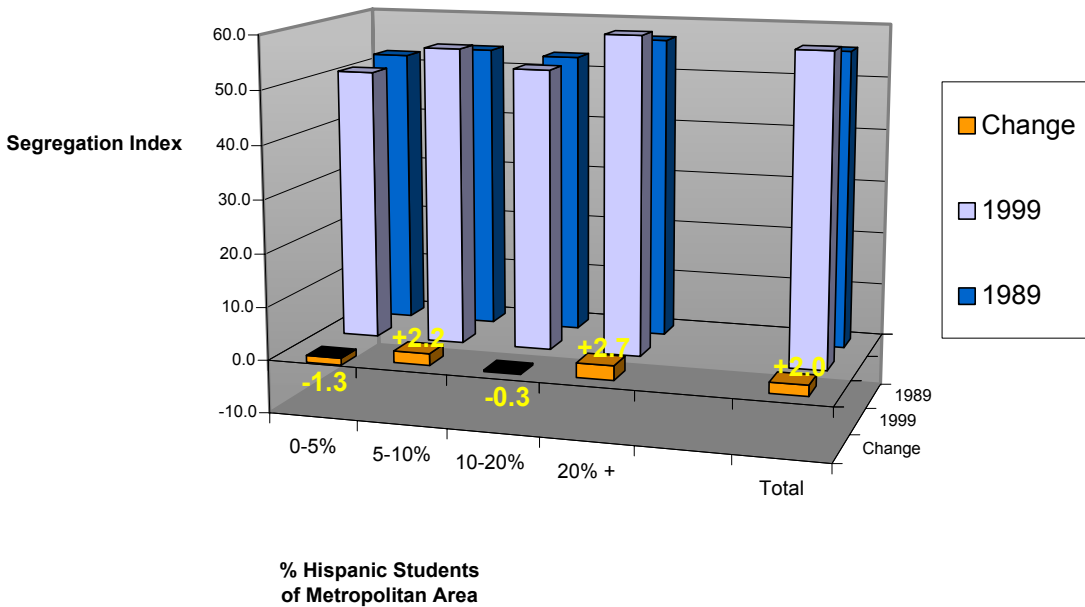
1999 Rank	1989 Rank	AREA NAME	1999 Isolation	1989 Isolation
1	1	Detroit, MI	87.0	85.4
2	2	Memphis, TN-AR-MS	82.7	80.7
3	5	Jackson, MS	81.6	78.6
4	6	New Orleans, LA	81.2	77.5
5	4	Birmingham, AL	80.1	78.9
6	3	Chicago, IL	78.2	79.9
7	17	Cleveland-Lorain-Elyria, OH	77.5	65.5
8	7	Baltimore, MD	76.1	77.4
9	16	Baton Rouge, LA	76.0	66.4
10	21	Cincinnati, OH-KY-IN	73.8	63.1
11	11	Shreveport-Bossier City, LA	72.1	68.0
12	13	Mobile, AL	72.1	67.6
13	25	Milwaukee-Waukesha, WI	71.7	60.7
14	8	Newark, NJ	71.1	75.3
15	12	St. Louis, MO-IL	70.1	67.8
16	10	Atlanta, GA	69.4	70.1
17	9	Philadelphia, PA-NJ	69.4	70.1
18	14	Richmond-Petersburg, VA	67.8	67.6
19	15	Miami, FL	67.1	67.4
20	20	Columbia, SC	67.1	64.7
21	18	Charleston-North Charleston, SC	66.4	65.1
22	19	Washington, DC-MD-VA-WV	65.4	64.8
23	24	Augusta-Aiken, GA-SC	63.7	61.6
24	23	Fort Lauderdale, FL	62.6	62.3
25	27	Lafayette, LA	61.8	56.5
26	38	Columbus, OH	61.2	44.1
27	26	Kansas City, MO-KS	61.1	58.4
28	22	New York, NY	60.8	62.7
29	28	Norfolk-Virginia Beach-Newport News, VA-NC	60.3	54.9
30	35	Pittsburgh, PA	56.0	49.6
31	34	Jacksonville, FL	55.5	49.7
32	29	West Palm Beach-Boca Raton, FL	53.2	54.8
33	39	Indianapolis, IN	51.5	42.7
34	42	Greensboro--Winston-Salem--High Point, NC	50.4	39.8
35	30	Houston, TX	50.2	54.1
36	31	Dallas, TX	48.0	53.8
37	37	Raleigh-Durham-Chapel Hill, NC	46.8	44.6
38	40	Orlando, FL	45.7	41.7
39	45	Nashville, TN	45.7	38.1
40	43	Charlotte-Gastonia-Rock Hill, NC-SC	45.4	39.2
41	32	Fort Worth-Arlington, TX	43.9	53.4
42	41	Boston, MA-NH	42.9	41.4
43	33	Oakland, CA	42.4	53.2
44	36	Nassau-Suffolk, NY	41.9	45.1
45	46	Greenville-Spartanburg-Anderson, SC	41.2	37.2
46	48	Minneapolis-St. Paul, MN-WI	38.6	26.7
47	47	Tampa-St. Petersburg-Clearwater, FL	36.4	27.9
48	44	Los Angeles-Long Beach, CA	31.9	38.2
49	49	San Diego, CA	21.1	20.9
50	50	Riverside-San Bernardino, CA	17.5	16.1

Least isolation is found in those areas with much smaller black populations, where even a high level of segregation does not produce majority black schools. The lowest levels are in three metropolitan regions in California (Los Angeles, San Diego, and Riverside) where in fact blacks are outnumbered by Hispanics and Asians.

### Segregation of Hispanic schoolchildren

Hispanic children are less segregated than black children ( $D = 58$  in 1999-2000, compared to 65 for blacks). However the trend is in the same upward direction, and varies in a similar way across metropolitan regions. As Figure 3 shows, Hispanic segregation dropped by a point (from 52 to 51) in regions where Hispanics are less than 5% of the elementary population. But it increased by 3 points (from 57 to 60) in regions where they are more than 20% of the total. These 20% plus regions are where more than 3 out of 4 Hispanic children live.

**Figure 3. Change in Hispanic-White School Segregation by % Hispanic Population in 1999-2000**



Another important factor for Hispanics is their rapid population growth, more than a 50% increase in the last decade, almost equaling the number of black elementary children in metropolitan public schools (about 3.6 million for each group). As their numbers grow, they become more highly concentrated: the average Hispanic attended a school that was 53% Hispanic in 1989-90, increasing to 57% Hispanic in 1999-2000.

Unlike African Americans, there has been little court action regarding Hispanic school segregation. As a result it is uncommon to find a metropolitan region in 1989-90 where school segregation was lower than neighborhood segregation. Of the 50 metropolitan areas with the

largest Hispanic enrollment in their central city schools, there were only 7 cases with more than a 10-point difference in this direction: Odessa-Midland, TX; Springfield, MA; Lawrence, MA; Denver, CO; Bridgeport, CT; Santa Barbara, CA; and Riverside, CA. Of these, Denver and Lawrence are the ones where we find a serious rollback in desegregation efforts: Hispanic-white school segregation there jumped 17 points in the last decade in Denver's city schools and 16 points in Lawrence. It now equals the level of neighborhood segregation in both cities. School segregation has remained unusually low in the other four cases.

Also unlike what we found for African Americans, Hispanic children in the largest metro areas are nearly as likely to be in schools that are more segregated than their neighborhoods. Again looking at the 50 metropolitan areas with the largest Hispanic enrollment in their central city schools, there are also 4 cases with more than a 10-point difference in this other direction in 1989-90. These were San Luis Obispo, CA, Newark and Jersey City, NJ, and Miami, FL. Miami (neighborhood segregation of only 31, but school segregation of 52 in this year) is a surprising case, because its Hispanic minority is largely Cuban, with a reputation for considerable political influence.

Overall trends in Hispanic-white segregation are provided in the following two tables. These are indices for the metropolitan region as a whole, and they include data for the 50 metropolitan regions with the largest number of Hispanic elementary schoolchildren in 1999-2000.

Table 4 lists regions by their level of residential segregation, using the Index of Dissimilarity. Hartford, CT; Newark, NJ; New York, NY; Philadelphia, PA; Boston, MA; Chicago, IL; and one entirely suburban region, Bergen-Passaic, NJ, top the list. In these cases Hispanic schoolchildren were slightly less segregated in 1999-2000 than they had been a decade before, but the degree of ethnic imbalance is nonetheless very high.

Least segregated are several metropolitan regions in Florida (Fort Lauderdale, West Palm Beach, Orlando) and California (Merced, Modesto, Stockton).

Table 5 provides the values of the Hispanic isolation index. The highest values are extreme: the average Hispanic child in the Texas metropolitan regions of Laredo, McAllen, and Brownsville is in a school that is more than 95% Hispanic. But in a majority of these metropolitan regions isolation is above 50%, and even where it is relatively low, it is increasing as the Hispanic population grows.

**Table 4. Hispanic-White School Segregation for Students in Top 50 Metro Areas**

1999 Rank	1989 Rank	AREA NAME	1999 Segregation	1989 Segregation
1	1	Hartford, CT	74.1	79.9
2	2	Newark, NJ	72.6	77.7
3	6	New York, NY	72.3	72.6
4	3	Philadelphia, PA-NJ	71.9	76.0
5	7	Boston, MA-NH	71.5	71.5
6	5	Chicago, IL	71.2	73.7
7	4	Bergen-Passaic, NJ	70.1	75.5
8	8	Los Angeles-Long Beach, CA	69.3	65.8
9	9	Orange County, CA	69.1	62.4
10	12	Houston, TX	65.0	59.1
11	11	San Francisco, CA	62.4	59.4
12	21	Salinas, CA	61.8	55.2
13	13	Dallas, TX	61.4	57.8
14	17	Ventura, CA	60.1	56.0
15	16	Washington, DC-MD-VA-WV	59.9	56.5
16	18	Atlanta, GA	59.9	55.8
17	19	Denver, CO	59.7	55.8
18	14	Bakersfield, CA	59.4	57.8
19	23	Phoenix-Mesa, AZ	59.3	54.5
20	10	San Antonio, TX	57.6	60.1
21	20	Fort Worth-Arlington, TX	57.2	55.7
22	24	McAllen-Edinburg-Mission, TX	56.7	54.0
23	32	San Jose, CA	55.5	49.0
24	25	Nassau-Suffolk, NY	55.4	53.7
25	34	Oakland, CA	55.4	47.4
26	15	Jersey City, NJ	54.2	57.1
27	30	Fresno, CA	54.0	49.8
28	31	San Diego, CA	53.6	49.7
29	36	Austin-San Marcos, TX	53.5	46.4
30	28	Tucson, AZ	52.8	53.0
31	41	Salt Lake City-Ogden, UT	52.6	41.7
32	27	Corpus Christi, TX	52.1	53.0
33	45	Laredo, TX	49.6	37.7
34	26	El Paso, TX	49.2	53.6
35	29	Tampa-St. Petersburg-Clearwater, FL	49.1	51.5
36	33	Brownsville-Harlingen-San Benito, TX	48.8	47.4
37	35	Albuquerque, NM	47.8	46.5
38	38	Visalia-Tulare-Porterville, CA	47.8	43.7
39	49	Las Vegas, NV-AZ	47.5	35.3
40	37	Sacramento, CA	47.3	43.8
41	22	Miami, FL	46.9	54.9
42	46	Riverside-San Bernardino, CA	45.1	36.8
43	40	Portland-Vancouver, OR-WA	44.1	42.3
44	42	Las Cruces, NM	43.5	40.8
45	39	Stockton-Lodi, CA	42.8	42.5
46	47	Orlando, FL	42.4	35.7
47	43	West Palm Beach-Boca Raton, FL	42.1	40.2
48	44	Modesto, CA	39.3	38.9
49	50	Merced, CA	33.2	34.0
50	48	Fort Lauderdale, FL	29.1	35.6

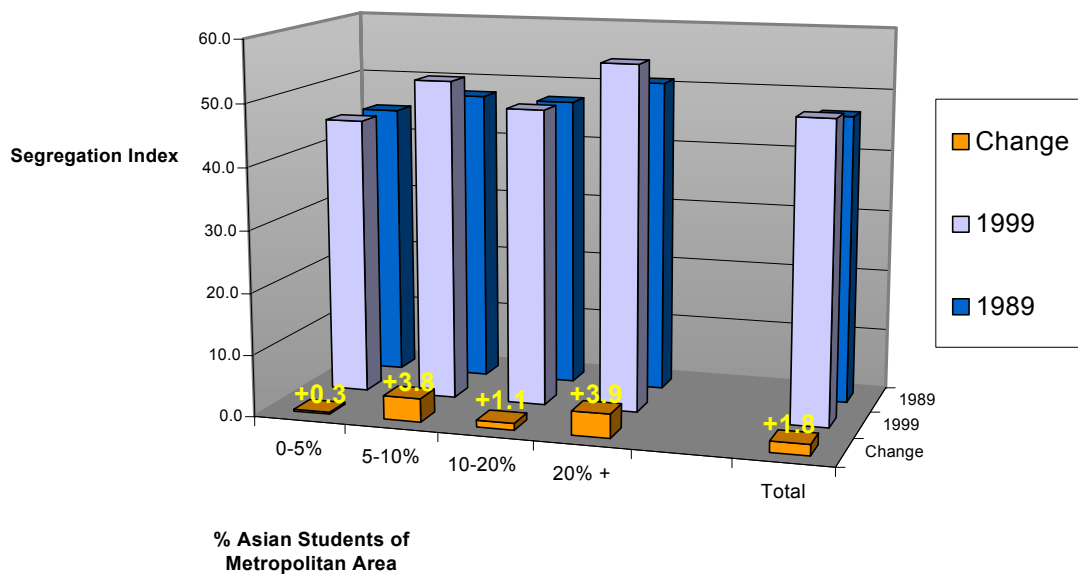
**Table 5 . Isolation Experienced by Hispanic Students in Top 50 Metro Areas**

1999 Rank	1989 Rank	AREA NAME	1999 Segregation	1989 Segregation
1	1	Laredo, TX	97.6	95.4
2	2	McAllen-Edinburg-Mission, TX	96.6	95.0
3	3	Brownsville-Harlingen-San Benito, TX	95.3	93.9
4	4	El Paso, TX	88.7	83.6
5	5	Las Cruces, NM	81.6	75.2
6	8	Salinas, CA	80.2	69.9
7	7	Corpus Christi, TX	75.6	74.1
8	9	Los Angeles-Long Beach, CA	75.5	68.9
9	6	San Antonio, TX	73.9	74.3
10	10	Miami, FL	73.2	67.5
11	12	Orange County, CA	71.1	60.5
12	11	Jersey City, NJ	69.0	63.2
13	13	Visalia-Tulare-Porterville, CA	68.9	58.7
14	18	Ventura, CA	67.6	56.5
15	14	Fresno, CA	66.4	58.5
16	16	Bakersfield, CA	65.8	57.3
17	15	Albuquerque, NM	62.1	57.4
18	17	Chicago, IL	61.3	56.6
19	20	Houston, TX	60.4	52.6
20	19	Tucson, AZ	59.6	54.2
21	30	Riverside-San Bernardino, CA	58.5	43.2
22	27	Merced, CA	57.8	44.6
23	24	Phoenix-Mesa, AZ	57.1	46.2
24	22	New York, NY	56.6	49.6
25	28	San Diego, CA	56.0	44.3
26	31	Dallas, TX	55.1	42.4
27	25	San Jose, CA	54.8	45.8
28	29	Austin-San Marcos, TX	51.9	43.9
29	34	Denver, CO	50.5	39.7
30	35	Modesto, CA	50.1	37.1
31	21	Hartford, CT	50.0	51.7
32	23	Bergen-Passaic, NJ	48.8	48.2
33	32	Fort Worth-Arlington, TX	48.4	41.8
34	36	San Francisco, CA	46.2	36.1
35	26	Newark, NJ	45.3	44.6
36	37	Stockton-Lodi, CA	44.1	32.4
37	45	Las Vegas, NV-AZ	42.2	17.1
38	39	Oakland, CA	38.1	25.8
39	33	Philadelphia, PA-NJ	37.5	39.9
40	38	Boston, MA-NH	35.7	28.3
41	46	Orlando, FL	31.7	15.0
42	42	West Palm Beach-Boca Raton, FL	30.0	18.5
43	49	Salt Lake City-Ogden, UT	29.0	12.4
44	40	Tampa-St. Petersburg-Clearwater, FL	28.9	20.3
45	44	Washington, DC-MD-VA-WV	27.5	18.4
46	41	Nassau-Suffolk, NY	26.6	18.6
47	43	Sacramento, CA	25.6	18.4
48	47	Portland-Vancouver, OR-WA	24.7	14.4
49	48	Fort Lauderdale, FL	24.1	12.9
50	50	Atlanta, GA	19.9	9.3

## Segregation of Asian schoolchildren

Asian children are the smallest and also the least segregated minority group, with an average value of D that is just below 50. But for them also the level of segregation varies with the size of the group. Where Asians are less than 5% of the elementary population, the average value of D is only 45. In the very few metropolitan areas where they are more than 20% of the population, the value is 56 and rose by 5 points in the last decade. These figures are graphed in Figure 4.

**Figure 4. Change in Asian-White School Segregation by % Asian Population in 1999-2000**



The number of Asian elementary schoolchildren has grown only moderately in the last decade – rising less than has the total Asian population of all ages. As a result, Asian isolation increased only slightly during this period. But it is surprisingly high for such a small group: the average Asian child attends a school that is 19% Asian. The more substantial changes in the Asian experience have been a decline in their exposure to white children (from 52% to 46% white in the average Asian child’s school) and an increasing exposure to Hispanics (from 18% to 21%).

As we found for Hispanics, Asian school segregation is usually close to the level of neighborhood segregation. To illustrate this point, we look at the 25 metropolitan regions whose city schools had the largest numbers of Asian students in 1989-90. In four of these (Minneapolis-St. Paul, MN; Lowell, MA; Merced, CA; and Seattle, WA) school segregation was lower than neighborhood segregation by more than 10 points, and in none of these was there a large change in the subsequent decade. In no case was school segregation higher than neighborhood segregation by this large a margin.

The 25 metropolitan regions with the largest number of Asian elementary schoolchildren in 1999-2000 are listed in the following tables. Table 6 lists regions by their level of school segregation, using the Index of Dissimilarity. Most segregated are Minneapolis-St. Paul, MN (where the schools are now 7% Asian) and San Francisco, CA (27% Asian). In these places Asian school segregation is nearly as high as the average segregation of black children in the U.S. (65). Other places where Asian schoolchildren are most highly segregated include New York, NY, and Sacramento and Stockton, CA. Among these major metropolitan areas, Asian segregation is lowest in three places on the West Coast: Portland, OR; Seattle, WA; and Riverside, CA.

**Table 6. Asian-White School Segregation for Students in Top 25 Metro Areas**

1999 Rank	1989 Rank	AREA NAME	1999 Segregation	1989 Segregation
1	1	San Francisco, CA	64.2	63.1
2	10	Minneapolis-St. Paul, MN-WI	61.5	50.7
3	7	New York, NY	58.0	51.7
4	3	Sacramento, CA	56.8	56.1
5	4	Stockton-Lodi, CA	56.8	55.1
6	6	Boston, MA-NH	54.5	53.7
7	5	Atlanta, GA	54.0	54.7
8	9	Houston, TX	53.8	51.0
9	2	Fresno, CA	53.0	56.3
10	16	Detroit, MI	52.9	46.0
11	12	Los Angeles-Long Beach, CA	52.2	48.0
12	8	San Diego, CA	51.0	51.7
13	11	Dallas, TX	50.8	48.4
14	15	Oakland, CA	49.1	46.4
15	13	Chicago, IL	48.7	48.0
16	14	Philadelphia, PA-NJ	48.6	46.5
17	18	San Jose, CA	47.8	41.9
18	17	Washington, DC-MD-VA-WV	46.8	45.1
19	23	Orange County, CA	44.5	38.2
20	19	Bergen-Passaic, NJ	44.0	41.1
21	21	Nassau-Suffolk, NY	42.0	40.0
22	22	Middlesex-Somerset-Hunterdon, NJ	41.4	38.9
23	20	Seattle-Bellevue-Everett, WA	38.2	40.5
24	25	Portland-Vancouver, OR-WA	37.1	35.5
25	24	Riverside-San Bernardino, CA	37.1	36.6

Table 7 provides the values of the Asian isolation index. San Francisco, CA is highest, reflecting both its large Asian population and Asians' high level of segregation – the average Asian child attends a school that is nearly half Asian. Also above 30% are San Jose, CA; New York, NY; and Oakland, CA. The lowest values are found in Atlanta, GA; Detroit, MI; and Riverside, CA.



**Table 7. Isolation Experienced by Asian Students in Top 25 Metro Areas**

1999 Rank	1989 Rank	AREA NAME	1999 Isolation	1989 Isolation
1	1	San Francisco, CA	46.0	43.9
2	3	San Jose, CA	39.4	28.0
3	7	New York, NY	31.8	23.1
4	5	Oakland, CA	30.1	24.6
5	2	Stockton-Lodi, CA	29.3	33.2
6	6	Los Angeles-Long Beach, CA	27.8	24.6
7	10	Orange County, CA	24.4	19.8
8	14	Minneapolis-St. Paul, MN-WI	24.3	15.0
9	9	Sacramento, CA	23.6	22.5
10	11	Bergen-Passaic, NJ	22.4	19.3
11	8	San Diego, CA	22.2	23.0
12	15	Middlesex-Somerset-Hunterdon, NJ	22.0	14.4
13	4	Fresno, CA	20.6	26.1
14	13	Seattle-Bellevue-Everett, WA	19.7	15.7
15	12	Boston, MA-NH	15.9	16.4
16	16	Chicago, IL	15.5	13.3
17	17	Washington, DC-MD-VA-WV	13.7	12.1
18	18	Houston, TX	13.4	11.0
19	21	Dallas, TX	12.1	8.4
20	20	Nassau-Suffolk, NY	11.0	8.5
21	19	Philadelphia, PA-NJ	10.9	9.5
22	24	Portland-Vancouver, OR-WA	10.2	7.2
23	22	Atlanta, GA	8.8	8.0
24	25	Detroit, MI	8.6	4.9
25	23	Riverside-San Bernardino, CA	8.3	7.9

## **Separate, Not Equal**

School segregation in itself separates children of different races, but some have argued that it is not inherently problematic for members of any race. On the other hand, there is a long history of “separate and unequal” education in American public schools.

With NCES data, the best indicator of “better and worse schools” is their class composition. Much evidence shows that high-poverty schools reduce the educational performance of children, even controlling for their own class and race. Therefore it is useful to know to what extent American elementary schools are segregated by class, and what the schools of each racial group are like.

Class is measured in the NCES data in terms of family income, and more specifically by the ratio of family income to the poverty line. Students below 185% of the poverty line qualify for the free or reduced-priced lunch program. We will refer to these students as “poor” – they are at or near the poverty line. All other students are “nonpoor.”

In 1999-2000, the average poor student in public elementary schools attended school that is 63% poor. The average nonpoor student’s school was only 27.5% poor.

Boundaries of class and race come together with the following result:

- White students are in schools that are 30% poor.
- Black students are in schools that are 65% poor.
- Hispanic students are in schools that are 66% poor.
- Asian students are in schools that are 42% poor.

These data show that racial segregation works to the benefit of white students, placing them in very different schools from minority students, and particularly in schools with less class disadvantage. Mainly black and Hispanic children pay the price of racial segregation.

There is considerable variation in the extent of these disparities, as shown in Tables 8-10. These tables list the percent poor in the school of the average white elementary child in 1999-2000. They then list the differential experienced by the average black, Hispanic, or Asian child in the same metropolitan region. As a national average, for example, the black-white differential is 35% -- the difference between the white value (30%) and the black value (65%). In the metropolitan areas with the largest enrollments for each minority group, it is exceedingly rare to find a negative differential. There is no such case for black children, only one for Hispanics (the unusual case of largely Hispanic Brownsville TX), and only one for Asians (Riverside, CA where Asians have a scant 0.2% advantage over white children in this respect).

Let us look first at the situation of black elementary children. Their disparity with whites is highest in Newark (a 57% differential) and Detroit (a 55% differential). White children are considerably more sheltered from poor and near-poor children in these areas than the national average, and black children are considerably more exposed than in the nation as a whole. It is no coincidence that these are two of the top three metropolitan areas in racial segregation – segregation in these cases translates directly into attending schools that offer very different educational prospects.

Other regions with especially high disparities include Boston, Milwaukee, Philadelphia, and Cleveland.

At the other end of the continuum are regions where the disparity is lower than the national average, in the range of 15 to 25 points. Most of these are in the South: Greenville SC; Raleigh-Durham, NC; Charlotte, NC; Tampa, FL; Greensboro, NC. These are familiar names, recalling places where desegregation plans have been effective in the past and where despite the recent retreat from these policies the current level of school segregation is still in the moderate range.

For Hispanics the greatest disparities in poverty exposure appear in two New Jersey metro areas: Bergen-Passaic and Newark. Neither of these is exceptional in terms of Hispanic children's exposure to poverty schools – both are just above the national average of 65%. What makes them stand out is that white children in these areas are so very sheltered, typically in schools where only 11-12% of students are poor or near poor. Hence the gap here is above 50%. Other regions with disparities above 40 percentage points include Philadelphia, PA; Orange County, CA; Hartford, CT; Boston, MA; Los Angeles, CA; and Houston, TX. These 8 areas are among the top 10 in school segregation of Hispanic children. Again, school segregation implies differential exposure to high-poverty schools.

**Table 8. Disparities in Black-White Exposure to Poverty For Each Group's Typical School in 1999-00.**

<b>AREA NAME</b>	<b>% poor, typical school of white children</b>	<b>% poor is this much higher for Blacks</b>	<b>School Segregation</b>
Newark, NJ	12.37	56.80	82.3
Detroit, MI	21.10	55.09	88.5
Philadelphia, PA-NJ	17.69	49.39	74.8
Cleveland-Lorain-Elyria, OH	25.21	48.90	81.2
Milwaukee-Waukesha, WI	19.64	47.23	78.2
Boston, MA-NH	15.63	45.89	70.7
Baltimore, MD	19.64	42.36	72.8
Cincinnati, OH-KY-IN	28.46	41.98	82.1
Kansas City, MO-KS	22.35	41.93	74.2
Minneapolis-St. Paul, MN-WI	17.80	40.75	69.8
St. Louis, MO-IL	26.62	40.42	69.6
Oakland, CA	20.29	38.47	70.1
Richmond-Petersburg, VA	18.55	38.12	61.2
Atlanta, GA	25.07	37.93	68.2
Los Angeles-Long Beach, CA	36.39	37.78	66.8
Columbus, OH	23.36	37.67	70.0
Houston, TX	28.54	37.29	70.2
New York, NY	39.92	36.78	80.6
Pittsburgh, PA	28.33	36.26	72.3
Memphis, TN-AR-MS	34.29	35.91	72.7
Fort Lauderdale, FL	29.43	34.60	60.9
Miami, FL	47.25	34.36	72.2
Nassau-Suffolk, NY	13.17	33.56	70.9
New Orleans, LA	50.71	32.77	71.3
Dallas, TX	28.51	32.64	62.1
Shreveport-Bossier City, LA	40.38	31.25	57.5
San Diego, CA	34.83	30.68	58.4
Indianapolis, IN	25.60	30.33	66.9
Washington, DC-MD-VA-WV	19.58	29.95	66.6
Fort Worth-Arlington, TX	29.92	29.68	65.4
Baton Rouge, LA	46.55	29.58	66.6
West Palm Beach-Boca Raton, FL	38.48	28.97	55.4
Charleston-North Charleston, SC	40.30	28.92	52.2
Jackson, MS	40.91	28.48	70.1
Columbia, SC	34.09	27.18	57.3
Birmingham, AL	31.05	26.51	77.8
Norfolk-Virginia Beach-Newport News, VA-NC	32.36	25.47	46.3
Augusta-Aiken, GA-SC	45.20	25.31	50.0
Mobile, AL	45.09	25.16	64.6
Jacksonville, FL	39.96	24.09	48.3
Orlando, FL	41.40	23.00	51.1
Greensboro--Winston-Salem--High Point, NC	34.94	21.43	52.3
Lafayette, LA	58.69	19.70	49.1
Tampa-St. Petersburg-Clearwater, FL	46.16	18.14	44.6
Charlotte-Gastonia-Rock Hill, NC-SC	34.22	17.65	45.9
Riverside-San Bernardino, CA	46.45	16.50	48.2
Raleigh-Durham-Chapel Hill, NC	33.46	14.96	37.6
Greenville-Spartanburg-Anderson, SC	37.64	13.31	41.1

**Table 9. Disparities in Hispanic-White Exposure to Poverty For Each Group's Typical School in 1999-00.**

AREA NAME	% poor, typical school of white children	% Poor is this much higher for Hispanics	School Segregation
Bergen-Passaic, NJ	11.89	53.58	70.1
Newark, NJ	12.37	51.52	72.6
Philadelphia, PA-NJ	17.69	49.70	71.9
Orange County, CA	21.22	47.61	69.1
Boston, MA-NH	15.63	46.98	71.5
Hartford, CT	13.99	46.74	74.1
Los Angeles-Long Beach, CA	36.39	44.26	69.3
Houston, TX	28.54	40.75	65.0
Dallas, TX	28.51	38.38	61.4
New York, NY	39.92	38.02	72.3
Ventura, CA	24.26	37.91	60.1
San Francisco, CA	17.92	37.21	62.4
Denver, CO	18.79	36.79	59.7
Salinas, CA	40.13	36.41	61.8
Fort Worth-Arlington, TX	29.92	33.63	57.2
San Diego, CA	34.83	32.55	53.6
Oakland, CA	20.29	31.85	55.4
Austin-San Marcos, TX	25.97	31.43	53.5
San Jose, CA	21.93	30.30	55.5
Bakersfield, CA	50.55	29.29	59.4
Salt Lake City-Ogden, UT	25.75	29.28	52.6
Nassau-Suffolk, NY	13.17	28.84	55.4
Albuquerque, NM	38.01	27.66	47.8
Washington, DC-MD-VA-WV	19.58	26.08	59.9
Atlanta, GA	25.07	25.56	59.9
Sacramento, CA	33.80	25.55	47.3
Fresno, CA	47.61	24.05	54.0
Corpus Christi, TX	48.19	23.82	52.1
Las Vegas, NV-AZ	27.63	23.42	47.5
Jersey City, NJ	48.04	22.76	54.2
West Palm Beach-Boca Raton, FL	38.48	22.59	42.1
Stockton-Lodi, CA	48.49	21.14	42.8
Riverside-San Bernardino, CA	46.45	20.90	45.1
Visalia-Tulare-Porterville, CA	57.86	20.30	47.8
Miami, FL	47.25	20.13	46.9
Las Cruces, NM	54.47	18.89	43.5
Portland-Vancouver, OR-WA	31.11	18.35	44.1
Modesto, CA	53.56	17.78	39.3
Tampa-St. Petersburg-Clearwater, FL	46.16	16.93	49.1
San Antonio, TX	37.22	16.53	57.6
Laredo, TX	64.48	15.64	49.6
Orlando, FL	41.40	13.87	42.4
El Paso, TX	54.92	13.40	49.2
Merced, CA	63.13	13.13	33.2
Fort Lauderdale, FL	29.43	9.72	29.1
McAllen-Edinburg-Mission, TX	46.33	6.93	56.7
Brownsville-Harlingen-San Benito, TX	53.70	-16.46	48.8

Four Texas metro areas where Hispanic students are a very large majority fall at the other end of the continuum: Brownsville, McAllen, and El Paso. Fort Lauderdale, FL, and Merced, CA, are also among the lowest five cases on this measure.

For Asian students, we examine the 25 metro areas with the largest Asian enrollments. Though nationally we found only a 13% gap in exposure to poor children between whites and Asians, the disparity is considerably higher than this in some places. The top six are also the six regions with the highest level of Asian-white school segregation: Minneapolis-St. Paul, MN; New York, NY; San Francisco, CA; Sacramento, CA; Stockton, CA; and Boston, MA.

The smallest disparities are in Riverside, CA; Dallas, TX; and three entirely suburban metropolitan areas in New York and New Jersey: Nassau-Suffolk, Middlesex-Somerset-

Hunterdon, and Bergen-Passaic. Except for Dallas, these are among the least segregated metropolitan areas for Asian children.

Social scientists calculate correlation coefficients in order to determine to what degree one phenomenon is linked to another. Correlations range from 0 to 1.00, where the highest value of 1.00 indicates that the phenomena are virtually the same – they are “perfectly correlated.” The correlation between the black-white disparity in exposure to poverty and black-white school segregation is .87 (weighting msa’s by the number of black students). The corresponding correlations for Hispanic and Asian children are .82 and .67. All of these are extremely high values.

The implication of these findings is very clear. Separate means unequal in American public schools. Schools vary greatly in their class composition, and many studies indicate that a disproportionate concentration of poverty in any one school undermines educational achievement for all students in that school. This is why some school systems, such as Cambridge, Massachusetts, have recently decided to use free lunch eligibility as a criterion for assigning students to schools. The school board hopes in this way to improve education in the system as a whole. What we have shown is the strong connection of separation by race and separation by class. For all three minorities, even for Asian children who typically experience only moderate school segregation, one of the major stakes in the segregation process is the quality of schools that each group will attend.

**Table 10. Disparities in Asian-White Exposure to Poverty For Each Group's Typical School in 1999-00.**

<b>AREA NAME</b>	<b>% poor, typical school of white children</b>	<b>% poor is this much higher for Asians</b>	<b>School Segregation</b>
Minneapolis-St. Paul, MN-WI	17.80	33.55	61.5
New York, NY	39.92	30.11	58.0
San Francisco, CA	17.92	29.24	64.2
Sacramento, CA	33.80	25.33	56.8
Stockton-Lodi, CA	48.49	23.09	56.8
Boston, MA-NH	15.63	22.33	54.5
Orange County, CA	21.22	18.16	44.5
Philadelphia, PA-NJ	17.69	15.12	48.6
San Diego, CA	34.83	14.79	51.0
Fresno, CA	47.61	14.31	53.0
Oakland, CA	20.29	13.92	49.1
Los Angeles-Long Beach, CA	36.39	13.66	52.2
Atlanta, GA	25.07	8.92	54.0
San Jose, CA	21.93	8.69	47.8
Houston, TX	28.54	7.65	53.8
Washington, DC-MD-VA-WV	19.58	7.50	46.8
Detroit, MI	21.10	4.61	52.9
Portland-Vancouver, OR-WA	31.11	4.41	37.1
Bergen-Passaic, NJ	11.89	4.03	44.0
Middlesex-Somerset-Hunterdon, NJ	11.78	2.29	41.4
Dallas, TX	28.51	1.53	50.8
Nassau-Suffolk, NY	13.17	.94	42.0
Riverside-San Bernardino, CA	46.45	.17	37.1

## Appendix on Data and Method

The analysis for this report is based on the Common Core of Data (CCD) collected annually by the National Center for Education Statistics (NCES). NCES is the federal entity responsible for collecting data on all public schools in the United States. For every public elementary and secondary school, CCD provides demographic and free lunch eligibility data for the student population. Our analysis was conducted using data primarily for the 1989-99 and 1999-2000 school years.

### Missing Racial Composition Data

Because compliance with NCES reporting is voluntary for state education agencies, statewide gaps in the reporting of student racial composition occur on an annual basis. Student racial composition was not reported for Idaho for any year between 1989 and 1999. Therefore Idaho was omitted from our analysis. In 1989 schools in the following states did not report student racial composition: Georgia, Maine, Missouri, Montana, South Dakota, Virginia, and Wyoming. In 1999, schools in Tennessee did not report student racial composition. For these states we merged the student membership and racial composition data from the next year in which these variables were available. The table below shows the states that did not report racial composition for each time period, and the years in which data were extracted and added to the 1989-90 and 1999-2000 files.

1989-90	1999-2000
Montana, Wyoming (1990-91)	Tennessee (1998-99)
Missouri (1991-92)	
South Dakota, Virginia (1992-93)	
Georgia, Maine (1993-94)	

### Missing Free Lunch Data

Many states did not provide data on eligibility for free lunches in 1989-90, and we believe that reports for some other states may have understated the number of eligible children in that year. Therefore our data on free lunches are limited to the 1999-2000 school year. For that year, data are not reported for the following states: Arizona, Illinois, Tennessee, and Washington. Further, we have not included in our calculations information for any metropolitan region in which less than 70% of schools reported valid free lunch data.

### Criteria for Identifying Elementary School Children

Approximately 10 percent of the schools in the NCES database comprise both elementary and non-elementary grades. Therefore for this report we did not select “elementary schools” but rather “elementary grades.” In every school we counted the numbers of students in grades pre-kindergarten through six. Because in most schools we knew the racial composition of the school as a whole, not for any particular grades, we assumed that the elementary children in a school

that also included non-elementary grades had the same racial composition as the entire school. For 1999-2000 our sample of 49,367 schools enrolled a total of 21.2 million elementary students. For 1989-1999 the sample was slightly smaller at 42,531 schools with a total of 18.1 million elementary students.

### **Geographic Unit of Analysis**

Our unit of analysis is the Metropolitan Statistical Area (MSA, PMSA) as defined by the U.S. Census Bureau in the year 2000. We obtained a public use file from the Census Bureau containing MSA codes for the nation's 331 MSAs and corresponding State FIPS and mailing zip codes. Because the NCES CCD provides the State FIPS and mailing zip codes for each public school, we were able to match the schools to the MSA file. We then aggregated the school data to the MSA level. To ensure that we obtained a representative sample of elementary school children for each MSA, we compared the total school population to the total number of children ages 5 to 11 years provided by the Census in 1990 and 2000. These were never the same, because not all children in this age range attend public schools, but there was consistency in the coverage of the child population between 1989-90 and 1999-2000 in each metropolitan region.