## November

 2016- 6\% of charter students, $\mathbf{5 \%}$ of LRMA TPS students, and $7 \%$ of LRSD students attended schools where $\mathbf{9 0 \%}$ or more of students are of the same race.
- $\mathbf{3} \%$ of charter students, $\mathbf{1 8 \%}$ of LRMA TPS students, and $\mathbf{2 2 \%}$ of LRSD students attended schools where $\mathbf{9 0 \%}$ or more of students are eligible for Free/Reduced Lunch.
- Fewer than $50 \%$ of students in any sector attended racially integrated schools.
- Fewer than $38 \%$ of students in any sector attended socioeconomically integrated schools.
- Public school students in the Little Rock Area are more likely to attend a racially integrated school than a socioeconomically integrated school.


# Integration in the Little Rock Area: Part 4 What Is The Current Level of Integration in Little Rock? 

## This Brief

Introduction Hyper-Segregated Schools Integrated Schools Differences in Composition<br>Conclusion


#### Abstract

School integration has been a contentious policy issue in Little Rock since the 1950s. Recent charter expansions have raised questions about the current level of integration in public schools (charter and traditional) in the Little Rock Area. As part of our series on integration in Little Rock, this brief examines the prevalence of hyper segregated white, black, and economically disadvantaged schools, and calculates the average difference between school demographics and the area's demographics.


## Introduction

In our previous briefs, we examined patterns in enrollment and demographics in Little Rock Area charters and traditional public schools (TPSs), characteristics of student movers, and differences in school characteristics between the schools student exit and enter. With that foundation, we now turn to current levels of racial and socioeconomic integration in Little Rock Area charters and TPSs.

We focus on three measures of integration in this brief to describe the current level of integration in Little Rock Area public schools. There are many different ways to define integration, but we selected three that are reasonable for the Little Rock area: racially hypersegregated schools, socioeconomically hypersegregated schools, and schools that are integrated, or mirror the demographics of the community .

We begin by examining the percent of students who attend hyper-segregated schools, defined as schools where $90 \%$ or more of the students are the same race or are eligible for Free/Reduced price lunch. While this measure of segregation fails to consider the overall racial or socioeconomic composition of the broader
community, we believe it is important to identify schools in which $90 \%$ of the students are similar.

Next, we examining the percent of students who attend integrated schools, defined as those with racial compositions that are similar to that of the community as a whole. Specifically, an integrated school is within a certain numerical range of the area's demographic composition.

Finally, we create a continuous integration measure by computing the difference between schools' demographic characteristics and the area's average demographic characteristics. This numerical "distance" is a measure of how integrated the school is, with smaller values representing schools more representative of the area's student population, and larger values indicating the school demographics are very different from the area's student population.

In this brief, as in previous briefs, we focus on racial and socioeconomic integration. Further, when we discuss racial integration we focus on black and white students.

## Key Terms

Racially hyper-segregated: $90 \%$ or more of students enrolled in the school are of the same race.

Economically hyper-segregated: 90\% or more of students enrolled in the school are eligible to receive Free/Reduced price lunch.

Integrated: The demographics of the students enrolled are similar to those of the public school students in the Little Rock Metro Area.

## Hyper-Segregated Schools

We begin by examining the percent of students who attended hyper-segregated public schools-charters and TPSs-in the Little Rock Metro Area (LRMA) between the 2008-09 and 2014-15 school years. A hypersegregated school is defined as a school in which $90 \%$ or more of students are of the same race or socioeconomic status. We consider schools in which $90 \%$ or more of students are white, schools in which $90 \%$ or more of students are black, and schools in which $90 \%$ or more of students receive free or reduced price lunch (FRL). In this brief, as in our other briefs in this series, we use an indicator of whether or not a student receives free or reduced price lunch (FRL) as a proxy of economic disadvantage. There were no schools in the Little Rock Metro Area in which the share of students receiving FRL was fewer than $10 \%$, so this category is omitted from analyses.

Figure 1 illustrates the number of public schools (traditional and charter) in LRMA by percentage of students that are black in 2014-15. The distribution is relatively normal, with few schools enrolling very low or very high percentages of black students. The four traditional public schools and one charter school in which $90 \%$ or greater of the students are enrolled are circled in Figure 1 and are identified as racially hypersegregated. While we can identify that these five schools are hyper-segregated for this one year, further analysis is needed to determine if these schools have experienced the same demographic pattern in prior years and how many students are attending the identified schools.

Table 1 presents the percent of students in the Little Rock Metro Area enrolled in hyper-segregated schools in (2014-15) and across all years examined (2008-09 through 2014-15).

Figure 1: Number of Schools in the Little Rock Metro Area by Percent Black Enrollment, 2014-15 by Sector.


Racially hyper-segregated: A similar percentage of charter school students and TPS students attended racially hypersegregated schools.

Economically hyper-segregated: A greater percentage of TPS students attended economically hyper-segregated schools.

Table 1 illustrates two main patterns. First, a similar percentage of charter school students and TPS students attended racially hyper-segregated schools during the years examined. In 2014-15, 4.4\% of charter students attended a racially hyper-segregated school, as did $3.9 \%$ of TPS students in the Little Rock Metro Area (LRMA) and $5.6 \%$ of students in the Little Rock School District (LRSD). Across the years examined, $6.3 \%$ of charter students attended a racially hyper-segregated school, as did $5.0 \%$ of LRMA TPS students and $7.3 \%$ of LRSD students.

Second, a substantially higher percentage of students attended socioeconomically hyper-segregated schools (where $90 \%$ or more of students were receiving FRL), and there are significant differences between sectors when looking at socioeconomic segregation. In 2014-15, $11.6 \%$ of charter students attended socioeconomically hyper-segregated schools, while $21.5 \%$ of LRMA TPS students and $28.7 \%$ of LRSD students attended socioeconomically hyper-segregated schools. Across the years examined, $3.3 \%$ of charter students attended schools in which over $90 \%$ of students received FRL, while $17.7 \%$ of LRMA TPS and $22.4 \%$ of LRSD students attended such socioeconomically hyper-segregated schools. This is consistent with other analyses in our series on integration in the Little Rock Area: charters serve a less economically disadvantaged student population than TPSs in the Little Rock area.

Table 1: Percentage of Little Rock Area Students Enrolled in Hyper-Segregated Schools, 2008-2015 by Sector.

|  | 2014-15 |  |  | Total(2008 to 2015) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ? | $\begin{aligned} & \text { 易 } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & E \\ & 0 \\ & 0 \\ & 0 \\ & =0 \\ & 0 \end{aligned}$ | $\xrightarrow{2}$ | $\begin{aligned} & \text { E } \\ & 2 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { E } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| Racially <br> Hyper-Segregated | 4.4\% | 3.9\% | 5.6\% | 6.3\% | 5.0\% | 7.3\% |
| Hyper Segregated: <br> White | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% |
| Hyper-Segregated: Black | 4.4\% | 3.4\% | 5.6\% | 6.3\% | 4.6\% | 7.3\% |
| Socioeconomically Hyper-Segregated | 11.6\% | 21.5\% | 28.7\% | 3.3\% | 17.7\% | 22.4\% |
| Enrollment | 5,709 | 51,055 | 24,725 | 28,761 | 365,965 | 177,520 |

Charters: Charters in the Little Rock Metro Area. LRMA TPSs: Traditional Public Schools in the Little Rock Metro Area (Little Rock School District, North Little Rock School District and Pulaski County Special School District). LRSD TPSs: Traditional Public Schools in the Little Rock School District
Note: For totals, schools are counted as hyper-segregated in each year that they are identified.

Our measure of hyper-segregated schools is useful because it creates clear distinctions between schools along a fixed criterion, and it is reasonable to think that if the student body within a school overwhelmingly lacks racial or socioeconomic diversity, it is segregated. This perspective does not consider, however, what schools can reasonably be expected to look like demographically, because it does not take into account the demographics of the area in which the school is located. For example, if a school is located in an area where $98 \%$ of residents are black, and $98 \%$ of the students in that school were black, then our measure would label that school hyper-segregated, while it is simultaneously perfectly representative of the community from which it could draw students.

In the next sections, we consider the extent to which schools in the Little Rock Metro Area are representative of the broader community.

## Integrated Schools

To determine what percentage of students in each sector attends integrated schools, we needed to construct a quantifiable definition of integration. This requires that we set a reasonable comparison group against which to measure the demographics of public schools. Is a school integrated if it reflects the demographics of the country? The state? The city? The neighborhoods surrounding the school?

We set our comparison group as all students enrolled in public schools in the Little Rock Metro Area. This encompasses the area from which charter schools draw students, the students who could attend area TPSs, and is broad enough to transcend neighborhood-based residential segregation, which may reflect historic patterns of legal housing discrimination. We do not compare school demographics to the demographics of all individuals living in the Little Rock Metro Area, because some students choose to attend private schools or are homeschooled.

Once we've set a comparison group, we determine how closely a school needs to reflect the comparison group in order to be defined as "integrated"-are only those schools that perfectly match the area integrated, or can there be

Figure 2: Number of Schools in the Little Rock Metro Area by Percent Black Enrollment, 2014-15 by Sector.

slight differences between school demographics and area demographics? In this section, we set cut-offs for determining integration to examine discrete categories of integrated schools, but because these cut-offs are somewhat arbitrary, in the next section we examine a continuous measure of integration to relax our judgments about what an integrated school should look like.

Figure 2 illustrates the number of public schools (traditional and charter) in LRMA by percentage of students that are black in 2014-15. The distribution is relatively normal, and represent the LRMA average of $56 \%$ black enrollment. The traditional public schools and charter schools in which $41 \%$ to $71 \%$ of the students are black are circled in figure 2 and are identified as racially integrated. While we can identify that these are integrated for this one year, further analysis is needed to determine if these schools have experienced the same demographic pattern in prior years and how many students are attending the identified schools.

Table 2 shows the percentage of students in Little Rock Area charters, LRMA TPSs, and LRSD TPSs who attended integrated schools across all seven years examined in this analysis. We define integrated in as schools within 15 percentage points of the LRMA racial or socioeconomic average. In a separate analysis, we define integrated schools as schools within 10 percentage points of the LRMA racial or socioeconomic average; the results are generally similar.

The demographics of students enrolled in LRMA public schools changed each year; for example, in 2008-09, $58 \%$ of public school students in LRMA were black, while in 2014-15, about $56 \%$ of students in LRMA public schools were black. We calculated the percent of students in integrated schools for each sector for each year, then totaled the number of students in integrated schools across all years to determine the total percent of students in integrated schools across all seven years.

## Racially Integrated Schools-\% Black

Rows 1-2 in Table 2 show the percentage of charter and TPS students who were enrolled in schools where the percent of black students was similar to the percent of black students enrolled in the LRMA public school system overall. The first column shows Across the seven years examined, $49.8 \%$ of charter school students were in schools where the percent of black students in the student body was within 15 percentage points of the area average and 47 charter schools were identified as integrated across the seven years examined; in 2014-15, 6 charter schools were integrated. In 2014-15, about $56 \%$ of students in LRMA public schools were black, and $52.9 \%$ of charter students were in integrated schools, meaning more than half of charter students were in schools where 41-71\% of students were black. In 2014-15, 10 charter schools were identified as integrated.

Table 2: Percentage of Students in Integrated Schools (+/- 15 percentage points of Little Rock Metro Area average), 2008-09 to 2014-15 by Sector.

| Row |  |  | Charters | LRMA TPSs | LRSD TPSs |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|c} \text { Integrated- } \\ \text { Black } \end{array}$ |  | $\%$ of students in +/$15 \%$ schools | 49.8\% | 47.0\% | 41.9\% |
|  | 2 | N of schools (schools repeat across years) | 47 | 269 | 112 |
| $\begin{aligned} & \text { Integrated- } \\ & \text { White } \end{aligned}$ |  | $\%$ of students in $+/-$ $15 \%$ schools | 59.9\% | 36.5\% | 27.4\% |
|  | 4 | N of schools (schools repeat across years) | 54 | 200 | 60 |
| $\begin{array}{\|c} \text { Integrated- } \\ \text { FRL } \end{array}$ |  | $\%$ of students in +/$15 \%$ schools | 13.9\% | 37.1\% | 25.0\% |
|  | 6 | N of schools (schools repeat across years) | 22 | 231 | 72 |

The next column shows the percent of students in LRMA TPSs who attended integrated schools between 2008-09 and 201415. A slightly higher percentage of charter students attended integrated schools than did TPS students. Across all seven years examined, $49.8 \%$ of charter students attended integrated schools, while just $47.0 \%$ of LRMA TPS students did. In 2014-15, $52.9 \%$ of charter students attended schools where $41-71 \%$ of students were black, as did $51 \%$ of LRMA TPS students.

Finally, we examine the percent of LRSD students who attended schools with a similar percentage of black students in their student body as in the LRMA public school system. Across the seven years examined, we see that only $41.9 \%$ of LRSD students attended integrated schools, a lower fraction than that among charter or LRMA TPS students. In 2014-15, 47.1\% of LRSD students attended 18 integrated schools.

## Racially Integrated Schools-\% White

Rows 3-4 show the percentage of students enrolled in LRMA public schools where the percent of white students in the student body resembles the percent of white student in the area. There is a striking difference between the percent of charter students and TPS students who attend integrated-white schools. Across all seven years examined, $59.9 \%$ of charter students attended schools where the percent of white students was within 15 percentage points of the percent of white students enrolled anywhere in LRMA public schools. However, only $36.5 \%$ of LRMA TPS students and $27.4 \%$ of LRSD students attended similarly integrated schools. In 2014-15, 9 charter schools were integrated-white schools, as were 28 LRMA TPSs and 10 LRSD schools.

## Socioeconomically Integrated-\% FRL

Rows 5-6 show the percentage of students in socioeconomically integrated public schools in LRMA. We see that $13.9 \%$ of charter students attended socioeconomically integrated schools across the seven years examined, as did $37.1 \%$ of LRMA TPS students and $25.0 \%$ of LRSD students. In 2014-15, just under $52 \%$ of LRMA public school students received FRL. That year, $17.4 \%$ of charter students attended 5 socioeconomically integrated schools, as did $35.0 \%$ of LRMA TPS students and $19.8 \%$ of LRSD students.

Racially integrated- Black: A similar percentage of charter school students and TPS students attended schools that were similar to average black enrollment,

Racially integrated- White: A greater percentage of charter school students attended schools that were similar to average white enrollment.

Socioeconomically integrated: A smaller percentage of charter students attended economically integrated schools than TPS students.

Students in the Little Rock Area are more likely to attend a racially integrated school than a socioeconomically integrated school.

## Differences in Composition

Our final analysis in this brief also compares the demographic composition of charter schools and TPSs to the demographics of the area as a whole, but instead of setting cut-offs of what qualifies a school as integrated, we calculate a continuous measure of the difference between schools' demographics and the area's demographics. This process is illustrated in Figure 3. Previously, we identifies the schools that were within a range of the LRMA average as 'integrated'. In this analysis, the actual difference between the school demographics and the average demographics is calculated. The greater the "distance" between the school's composition and the area's composition, the more segregated the school, and conversely, integration increases as the distance between the school's composition and the area's composition decreases. We calculate this measure in three ways. First, we look at the absolute value of the difference between the school's composition and the composition of the area as a whole. Second, we look at the average difference between schools that enroll a higher share of black, white, or FRL students and the share of black, white, and FRL students in LRMA public schools. Finally, we look at the average distance between the schools that enroll a lower share of black, white, or FRL students and the share of black, white, and FRL students in LRMA public schools. Table 3 presents these differences by sector.

Figure 3: Example of Continuous Difference Measure in the Little Rock Metro Area by Percent Black Enrollment, 2014-15 by Sector.


## \% Black

In table 3, Rows 1-3 show the average difference between the percent of black students enrolled in charters, LRMA TPSs, and LRSD TPSs and the percent of all black students in LRMA public schools by sector across the years 2008-09 through 2014-15. On average, the gap between the percent of black students in the community and the percent of black students in charters was the greatest over the years examined. Across the seven years examined, charters were on average $\pm 19.5$ percentage points away from the area average, while LRMA TPSs were $\pm$ 16.6 percentage points, and LRSD schools were 17.8 percentage points from the area demographics.

In row 2 we see that students in charter schools that enrolled a disproportionately large share of black students typically attended schools in which the share of black students in the student body was 27.2 percentage points greater than the share of black students in area public schools overall. Students who attended LRMA or LRSD TPSs that enrolled a disproportionately large share of black students typically attended schools where that gap was 18.5 or 21.0 percentage points wide, respectively.

Finally, row 3 shows the magnitude of the difference between the share of black students enrolled in charters and TPSs and the total percent of black students in the area in schools that enrolled a disproportionately small share of black students between 2008-09 and 2014-15. Again, the magnitude is greatest for students in charter schools, which on average enrolled an 18.3 percentage point lower share of black students than were in the area as a whole, while LRMA TPSs enrolled a 15 percentage points lower share of black students and LRSD TPSs enrolled an 11.8 percentage point lower share of black students than were enrolled anywhere in the LRMA public school system.

Table 3: Distance from the Little Rock Metro Area Demographic Composition, 2008-09 to 2014-15 by Sector.

|  | Row |  | Charters | $\begin{gathered} \hline \text { LRMA } \\ \text { TPSs } \end{gathered}$ | $\begin{gathered} \hline \text { LRSD } \\ \text { TPSs } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \% <br> Black | 1 | Absolute Distance From Metro Area \% Black | $\pm 19.5$ | $\pm 16.6$ | $\pm 17.8$ |
|  | 2 | Average Distance For Students Above LRMA \% Black | 27.2 | 18.5 | 21.0 |
|  | 3 | Average Distance For students Below LRMA \% Black | -18.3 | -15.0 | -11.8 |
| \% White | 4 | Absolute Distance From Metro Area \% White | $\pm 17.2$ | $\pm 18.3$ | $\pm 20.2$ |
|  | 5 | Average Distance For Students Above LRMA \% White | 16.9 | 16.3 | 14.7 |
|  | 6 | Average Distance For students Below LRMA \% White | -20.1 | -20.8 | -22.7 |
| $\begin{gathered} \text { \% } \\ \text { FRL } \end{gathered}$ | 7 | Absolute Distance From Metro Area \% FRL | $\pm 27.8$ | $\pm 19.6$ | $\pm 22.1$ |
|  | 8 | Average Distance For Students Above LRMA \% FRL | 18.1 | 20.5 | 22.1 |
|  | 9 | Average Distance For students Below LRMA \% FRL | -29.7 | -18.7 | -22.7 |

Figure 4: Example of Continuous Difference Measure in the Little Rock Metro Area by Percent Black Enrollment, 2014-15 by Sector.


Figure 4 displays the information regarding black student enrollment graphically, making it easy to determine that the students attending charter schools were, on average, attending schools that were less similar to the LRMA than students in traditional public schools. Charter schools that were above average black enrollment were farther from the average than the TPSs were, and charter schools that enrolled fewer black students than the regional average were also farther from the average than TPSs. It is important to note the difference in the number of schools in each sector as well. Because there are more TPSs than charters, these averages could be partially reflecting the greater variability that comes from a smaller N .

## \% White

Rows 4-6 in Table 3 show the average distance between the share of white students in the LRMA public school system and the share of white students enrolled in charters, LRMA TPSs, and LRSD TPSs between 2008-09 and 2014-15. Row 4 shows the absolute value of the difference between the share of white students enrolled in charters across all years and the share of white students in the entire LRMA public school system. We see that on average the share of white students in charters was $\pm 17.2$ percentage points from the percent of white students enrolled in all area public schools, while on average the share of white students in LRMA TPSs and LRSD TPSs was $\pm 18.3$ and $\pm 20.2$ percentage points from the area average, respectively.

In row 5, however, we see that on average charters that enrolled a disproportionately large share of white students tended to have a 16.9 percentage point gap from the percent of white students in the area, while LRMA TPSs had a 16.3 percentage point gap and LRSD TPSs had a 14.7 percentage point gap. Finally, in row 6 we see that charters that enrolled a disproportion-

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