## Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area ${ }^{1}$ <br> Enrollment

- The share of white students enrolled in Boston's public schools declined by $16 \%$, from $81.4 \%$ in 1989-1990 to $68.3 \%$ in 2010-2011.
- The overall share of black student enrollment remained stable at around $8 \%$.
- The Asian share of enrollment increased by $73.0 \%$, from $3.7 \%$ to $6.4 \%$.
- The Latino share of enrollment increased by $107.3 \%$ from $6.9 \%$ in $1989-1990$ to $14.3 \%$ in 2010-2011.

Figure 1
Public School Enrollment by Race, Boston-Worcester-Lawrence-Lowell-Brockton Metro


Note: American Indian is less than $1 \%$ of total enrollment. Total CBSA enrollment in 1989 was 651,819 . In 2010, total enrollment was 766,898.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

[^0]- Overall enrollment in Boston increased from 1989-1990 to 2010-2011.
- Enrollment in urban, suburban, and other schools increased during both decades.

Table 1
Enrollment in Urban, Suburban, and Other Schools, Boston-Worcester-Lawrence-LowellBrockton Metropolitan Area

|  | Total <br> Enrollment | Urban <br> Schools | Suburban <br> Schools | Other <br> Schools |
| :--- | ---: | ---: | ---: | ---: |
| Boston-Worcester-Lawrence- |  |  |  |  |
| Lowell-Brockton Metro |  |  |  |  |
| $1989-1990$ | 500,564 | 111,797 | 339,112 | 49,655 |
| $1999-2000$ | 681,295 | 134,115 | 475,181 | 71,999 |
| $2010-2011$ | 766,898 | 149,794 | 540,286 | 76,818 |

Note: Urban schools refer to those inside an urbanized area and a principal city. Suburban schools refer to those inside an urbanized area but outside a principal city. Other schools refer to those in a town or rural area. Data comprises schools open 1989-2010, 1989-1999-2010, 1999-2010, and only 2010. We apply 2010 boundary codes to all years
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- The share of white enrollment in both urban and suburban schools has decreased since 19891990 while the share of Asian and Latino enrollment has increased.
- The share of black enrollment in suburban schools increased but in urban schools, the share of black enrollment increased from 1989-1990 to 1999-2000 and then decreased during the next decade.
- In 2010-2011, despite their overall declining enrollment, white students comprised the largest segment of the enrollment in both urban and suburban schools.
- In 2010-2011, the share of black students in urban schools was almost four times the share in suburban schools.
- In 2010-2011, the share of Latino students in urban schools was more than double the share in suburban schools.

Table 2
Public School Enrollment by Race in Urban and Suburban Schools, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area

|  | Urban Schools |  |  |  |  | Suburban Schools |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | White | Black | Asian | Latino | Other | White | Black | Asian | Latino | Other |
| Boston-Worcester-Lawrence-LowellBrockton Metro |  |  |  |  |  |  |  |  |  |  |
| 1989-1990 | 58.9\% | 21.4\% | 6.4\% | 13.1\% | 0.2\% | 89.5\% | 3.2\% | 3.0\% | 4.2\% | 0.1\% |
| 1999-2000 | 50.8\% | 22.3\% | 8.5\% | 18.0\% | 0.4\% | 84.3\% | 4.5\% | 4.4\% | 6.5\% | 0.2\% |
| 2010-2011 | 38.2\% | 21.1\% | 9.1\% | 28.2\% | 3.4\% | 73.6\% | 5.8\% | 6.3\% | 11.9\% | 2.4\% |

Note: Urban schools refer to those inside an urbanized area and a principal city. Suburban schools refer to those inside an urbanized area but outside a principal city. Other includes American Indian students and students who identify with two or more races. Data comprises schools open 1989-2010, 1989-1999-2010, 1999-2010, and only 2010. We apply 2010 boundary codes to all years.

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

## Concentration

- The percentage of multiracial schools in Boston-schools in which at least one-tenth of the students represent at least three racial groups-has increased over the last two decades and so has the percentage of minority schools.
- Majority minority schools-those in which $50-100 \%$ of the student enrollment is comprised of minority students-have more than doubled since 1989-1990 to about one quarter of the schools.
- In intensely segregated schools-those that are $90-100 \%$ minority-there was an even more extreme increase from $1.4 \%$ in 1989-1990 to $8.3 \%$ in 2010-2011, an increase of $492.86 \%$.

Table 3
Multiracial and Minority Segregated Schools, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area

|  | Total <br> Schools | \% of <br> Multiracial <br> Schools | \% of 50- <br> 100\% <br> Minority <br> Schools | \% of 90- <br> $\mathbf{1 0 0 \%}$ <br> Minority <br> Schools | \% of 99- <br> 100\% <br> Minority <br> Schools |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Boston-Worcester- <br> Lawrence-Lowell- <br> Brockton Metro |  |  |  |  |  |
| $1989-1990$ |  |  |  |  |  |
| $1999-2000$ | 1404 | $10.1 \%$ | $10.8 \%$ | $1.4 \%$ | NS |
| $2010-2011$ | 1421 | $16.6 \%$ | $17.9 \%$ | $4.5 \%$ | $0.4 \%$ |

Note: NS = No Schools. Minority school represents black, Latino, American Indian, and Asian students. Multiracial schools are those with any three races representing $10 \%$ or more of the total student enrollment.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- In 2010-2011 there was a larger share of low-income students in multiracial, majority minority, and intensely segregated schools than there was in 1999-2000.
- A larger share of students in minority schools are low-income than are those in multiracial schools; a minimum of $72.3 \%$ of students in minority schools were low-income in 2010-2011 as compared to $65.1 \%$ of students in multiracial schools.
- This data suggests that students in racially isolated schools are also far more likely to attend schools with higher percentages of low-income students, segregating students not only by race but also by class.

Table 4
Students Who Are Low-Income in Multiracial and Minority Segregated Schools, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area

|  | Overall \% LowIncome in Metro | \% Low- <br> Income in Multiracial Schools | \% Low- <br> Income in <br> 50-100\% <br> Minority <br> Schools | \% Low- <br> Income in <br> $\mathbf{9 0 - 1 0 0 \%}$ <br> Minority <br> Schools | \% Low- <br> Income in <br> 99-100\% <br> Minority <br> Schools |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Boston-Worcester-Lawrence-LowellBrockton Metro |  |  |  |  |  |
| 1999-2000 | 23.2\% | 52.6\% | 63.4\% | 70.9\% | 85.5\% |
| 2010-2011 | 32.1\% | 65.1\% | 72.3\% | 83.7\% | 81.3\% |

-Note: Minority school represents black, Latino, American Indian, and Asian students. Multiracial schools are those with any three races representing $10 \%$ or more of the total student enrollment.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- Over the last two decades, the share of black students who were enrolled in minority schools has steadily increased.
- In intensely segregated schools, the share of black students has almost doubled from $13.4 \%$ in 1989-1990 to $26 \%$ in 2010-2011.

Figure 2
Black Students in Minority Segregated Schools, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Note: Minority school represents black, Latino, American Indian, and Asian students.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- Over the last two decades, the share of Latino students who were enrolled in minority schools has steadily increased.
- The share of Latinos in intensely segregated schools almost quadrupled, from 7.1\% in 19891990 to $27.6 \%$ in 2010-2011.

Figure 3
Latino Students in Minority Segregated Schools, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Note: Minority school represents black, Latino, American Indian, and Asian students.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- Since 1989-1990, multiracial schools in Boston-those that have any three races representing at least one-tenth of the total student enrollment-have drawn much larger shares of black, Asian, and Latino students than white students.
- While the share of Latino and Asian students attending multiracial schools decreased in 2010-2011, the share of black students attending such schools continued to increase from 1989-1990 to 2010-2011.
- In 2010-2011, only $8.9 \%$ of white students attended multiracial schools, and black students attended multiracial schools at the highest rates.
- During the past two decades, nearly half of all black students attended multiracial schools.

Figure 4
Students in Multiracial Schools by Race, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Note: Multiracial schools are those with any three races representing $10 \%$ or more of the total student enrollment. Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

## Exposure

- White students continue to attend schools with overwhelmingly white classmates.
- White students are overexposed to other white students, and the disproportionality has widened instead of narrowed as white students have declined as an overall share of the enrollment.
- Over the last two decades, both the typical black and the typical Latino student have attended schools with shrinking shares of white students, from around $44-47 \%$ white students in 19891990 to around $36 \%$ in 2010-2011.
- The decrease in the overall white share of public school enrollment undoubtedly contributes to the decrease in exposure to white students; however, given the current proportion of white students in Boston's schools, the typical black and the typical Latino student are still underexposed to white students.

Figure 5
White Students in School Attended by Typical Student of Each Race, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- The racial composition of the school that a typical black student in Boston attends has shifted over the last two decades to become less white and black but more Latino.
- Despite the fact that the overall share of white enrollment in Boston is $68.3 \%$, the typical black student now attends a school where only $35.7 \%$ of his/her classmates are white.

Figure 6
Racial Composition of School Attended by Typical Black Student, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- The racial composition of the school that a typical Latino student in Boston attends has also changed considerably over the last two decades such that the typical Latino student now attends a school where he/she has fewer black and white classmates but more Latino classmates than in the past.
- Even though the overall share of the Latino enrollment is only $14.3 \%$ in Boston, the typical Latino student is exposed to more Latino students than to students of any other race.

Figure 7
Racial Composition of School Attended by Typical Latino Student, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- The typical white student attends a school that is predominantly white with small proportions of black, Asian, and Latino students.
- The typical black student is enrolled in a school that is more evenly split among white, black, and Latino students with a small proportion of Asian students.
- The typical Asian student tends to go to a school that is heavily white and has the largest share of other Asian students.
- Latino students tend to go to schools that are largely Latino with some white students and small shares of black and Asian students.
- The racial composition of schools attended by Asian students reflects the overall public school enrollment of Boston by race more closely than does the racial composition of schools attended by any other racial group, indicating that Asian students are the most integrated group in Boston.

Figure 8
Racial Composition of School Attended by Typical Student by Race, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


2010-2011

Note: Other includes American Indian students and students identifying with two or more races.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD),
Public Elementary/Secondary School Universe Survey Data

- Black and Latino students in Boston attend schools with two to three times as large a share of low-income students as white students.
- The typical white student goes to a school where only $21.9 \%$ of his/her classmates are lowincome.
- The typical black student attends a school where $58.7 \%$ of his/her classmates are lowincome.
- The typical Latino student attends a school in which $63.5 \%$ of his/her classmates are lowincome.
- This data shows the disproportionate distribution of low-income students to schools where black and Latino students are enrolled, which highlights the double segregation that black and Latino students experience by attending schools that are segregated not only by race but also by class.

Figure 9
Exposure to Low-Income Students by Race, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

## Evenness

- In 2010-2011, the average school is $31 \%$ less diverse than the entire intrastate metropolitan area, indicating a high degree of segregation (or uneven distribution of racial groups throughout the area's public schools).
- $90 \%$ of this unevenness or difference in diversity between the average public school and the entire metro area was due to segregation across district boundaries rather than within districts.
- The level of segregation between different school districts in the Boston metro has remained relatively stable and high at around $29 \%$.
- During the same time, the already low level of segregation within districts in the Boston metro has decreased.

Table 5
Entropy Index Values, Overall and Within and Between School Districts, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area

|  | $\mathbf{H}$ | $\mathbf{H}$ <br> Within <br> Districts | $\mathbf{H}$ <br> Between <br> Districts |
| :--- | :---: | :---: | :---: |
| Boston-Worcester-Lawrence- <br> Lowell-Brockton Metro |  |  |  |
| $1989-1990$ | 0.35 | 0.06 | 0.29 |
| $1999-2000$ | 0.35 | 0.04 | 0.30 |
| $2010-2011$ | 0.31 | 0.03 | 0.28 |

Note: H = Multi-Group Entropy Index or Theil's H. HW = the degree of un/evenness (H) that is within (W) districts. $\mathrm{HB}=$ the degree of un/evenness $(\mathrm{H})$ that is between $(\mathrm{B})$ districts.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

## Racial Transition in School Districts

- From 1989-1990 to 1999-2000, district changes created a metro area that had more diverse districts, slightly more predominantly nonwhite districts, and fewer predominantly white districts.
- There was even greater change from 1999-2000 to 2010-2011, when far more of the metro's districts became diverse and predominantly nonwhite and many fewer of the metro's districts were predominantly white.

Figure 10
Racial Transition by District, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Note: Diverse districts are those with more than $20 \%$ but less than $60 \%$ nonwhite students. Predominantly non-white districts are those with $60 \%$ or more nonwhite students. Predominantly white districts are those with $80 \%$ or more white students. $N=207$ districts for 1989,1999 and 2010 with greater than 100 students enrolled across the three time periods.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- All 10 of the highest enrolling districts in the Boston metro area had a smaller proportion of white students enrolled in 2010 than in 1989, and in three of those districts-Brockton, Lynn, and Lawrence-the white proportion of students in 2010 had dropped to half or less of what it had been two decades earlier.
- In 1989, three of the ten districts-Newton, Fall River, and Quincy-were predominantly white; however, by 2010 all three of those districts were diverse.
- Of the five districts that were diverse in 1989, four of them-Worcester, Brockton, Lowell, and Lynn-were predominantly nonwhite in 2010.
- The other two districts-Boston and Lawrence-which were predominantly nonwhite in 1989, remained predominantly nonwhite in 2010.
- By 2010, there were no longer any districts that were predominantly white, and the overall metro area shifted from being predominanty white in 1989 to diverse in 2010.

Table 6
White Proportion and Classification in Metropolitan Area and Top 10 Highest Enrolling Districts, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area

|  | White Proportion |  |  | Classification |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1989 | 1999 | 2010 | 1989 | 1999 | 2010 |
| Boston-Worcester-Lawrence-LowellBrockton Metro | 81.4\% | 76.4\% | 68.3\% | PW | D | D |
| BOSTON | 23.1\% | 14.8\% | 13.6\% | PNW | PNW | PNW |
| WORCESTER | 66.7\% | 53.4\% | 36.2\% | D | D | PNW |
| BROCKTON | 67.3\% | 44.3\% | 27.0\% | D | D | PNW |
| LOWELL | 55.2\% | 42.7\% | 35.4\% | D | D | PNW |
| LYNN | 64.5\% | 44.9\% | 24.8\% | D | D | PNW |
| NEW BEDFORD | 76.7\% | 69.7\% | 51.6\% | D | D | D |
| LAWRENCE | 26.9\% | 13.0\% | 5.8\% | PNW | PNW | PNW |
| NEWTON | 82.5\% | 82.0\% | 67.7\% | PW | PW | D |
| FALL RIVER | 94.2\% | 81.6\% | 67.5\% | PW | PW | D |
| QUINCY | 85.6\% | 70.8\% | 53.5\% | PW | D | D |

Note: $\mathrm{D}=$ Diverse area or districts with more than $20 \%$ but less than $60 \%$ nonwhite students. PNW=Predominantly non-white area or districts with $60 \%$ or more nonwhite students. PW=Predominantly white area or districts with $80 \%$ or more white students.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- Over the past decade, the majority of districts (90\%) were stable, some (8\%) were moderately changing, and a small share ( $2 \%$ ) were rapidly changing.
- By $2010,9 \%$ of the metro's districts were diverse, $2 \%$ were segregated nonwhite, $71 \%$ were segregated white, $15 \%$ were integrating nonwhite, and $3 \%$ were resegregating nonwhite.
- The districts that changed categories during this decade all became more nonwhite.

Figure 11
Degree and Type of Racial Transition, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area, 1999 to 2010


Note: $N=207$ districts for 1989,1999 and 2010 with greater than 100 students enrolled across the three time periods. For the degree of change categories: Rapidly changing districts are those with white $\%$ change 3 times greater than metro white $\%$ change. Moderately changing districts are those with white student $\%$ change 2 times but less than 3 times greater than metro white $\%$ change, or those that experienced a white $\%$ change less than 2 times the metro white $\%$ change but classified as predominantly white, nonwhite or diverse in the earlier time period and classified as a new category in the later period. Stable districts are those that experienced a white $\%$ change less than 2 times the metro white \% change. For the type of change: Resegregating districts are those classified as predominantly white, nonwhite or diverse in the earlier time period and classified as the other predominantly type in the later period. Integrating districts are those classified as predominantly white or nonwhite in the earlier time period and diverse in the later period. Segregated districts are those classified as predominantly white or nonwhite in both time periods. Diverse districts are those classified as diverse in both periods.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data

- In 1989, three of the seven of Boston metropolitan area's districts that would be rapidly or moderately transitioning districts over the next two decades had an enrollment of white students that was higher than the metro's white enrollment.
- All three of these districts-Fall River, Quincy, and Newton-were predominantly white in 1989 and have since been integrating.
- The other four districts-Brockton, Worcester, Lynn, and Lowell-had white enrollments lower than the metro's overall white enrollment in 1989 and have been resegregating over the last two decades.
- Of the seven districts, more (four) were resegregating than integregating (three) during these two decades.
- Three of the four resegregating districts had the greatest percent change in their white share of enrollment from 1989 to 2010-Lynn (-61.6\%), Brockton (-59.9\%), and Worcester (-45.7\%).

Figure 12
Rapid or Moderate Racial Transition by District Type for Top 10 Highest Enrolling Districts, Boston-Worcester-Lawrence-Lowell-Brockton Metropolitan Area


Note: Rapidly changing districts are those with white $\%$ change 3 times greater than metro white $\%$ change. Moderately changing districts are those with white student $\%$ change 2 times but less than 3 times greater than metro white $\%$ change, or those that experienced a white $\%$ change less than 2 times the metro white $\%$ change but classified as predominantly white, nonwhite or diverse in the earlier time period and classified as a new category in the later period. Resegregating districts are those classified as predominantly white, nonwhite or diverse in the prior year and classified as the other predominantly type in the latter year. Integrating are districts classified as predominantly white or nonwhite in the prior year and diverse in the latter year. Segregating districts are those classified as predominantly white or nonwhite in both periods but experienced a white $\%$ change greater than 2 times the metro white \% change.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data


[^0]:    ${ }^{1}$ From this point forward, we use "Boston" to refer to the Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH metropolitan area. In this report our data includes only the districts in this metropolitan area that are located in the Commonwealth of Massachusetts. The 1999 MSA boundaries included Bristol County, Essex County, Hampden County, Middlesex County, Norfolk County, Plymouth County, Suffolk County, Worcester County, and Rockingham County.

