

# LANDSCAPE OF DIVERSITY IN D.C. PUBLIC SCHOOLS

By Chelsea Coffin

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#### WHAT DOES SCHOOL DIVERSITY LOOK LIKE IN D.C.?

#### **ABSTRACT**

Shifting demographics in the District of Columbia are also changing the racial, ethnic, and economic composition of traditional public and public charter school students. However, increased diversity of the overall student body is not always reflected at the school level. Many schools still have extremely high concentrations of students from a single ethnic, racial, or income group.

This report examines the size of student groups (both racial and ethnic, and economic) to identify the most diverse public schools. The analysis finds that racial and ethnic diversity is low, even considering public school student demographics, while students are more mixed economically. Geographically, there is a lack of economic diversity in Wards 2 and 3 and a lack of racial and ethnic diversity in Wards 7 and 8. Very few schools manage to achieve diversity along both dimensions.

There is room for diversity to improve if students were distributed evenly across public schools. Given recent declining shares of both African American and atrisk students and the current composition of students, racial and ethnic diversity has more potential to increase than does economic diversity.



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# LANDSCAPE OF DIVERSITY IN D.C. PUBLIC SCHOOLS

#### WHAT DOES SCHOOL DIVERSITY LOOK LIKE IN D.C?

by Chelsea Coffin, Director of the Education Policy Initiative, D.C. Policy Center

#### **EXECUTIVE SUMMARY**

Racially and economically diverse schools are thought to offer various mechanisms — more financial resources or positive impacts from peer exposure, for example — that can improve outcomes for students of all backgrounds, particularly students of color and low-income students. Diverse schools can have life-long impacts on the lives of minorities and disadvantaged students: higher levels of educational attainment, improved adult health outcomes, and lower rates of incarceration (Johnson 2011). White students also benefit from school diversity, which can prepare them for diverse workplaces, lower their levels of prejudice, and build higher levels of cultural competence (Siegel-Hawley 2012) without loss in student performance (National Center for Education Statistics, IES 2015). However, it can be challenging to both attain a diverse student body and to integrate students within a school.

Schools provide potential opportunities to expose students to peers across lines of difference, including other races, ethnicities, and income levels. This report presents a snapshot of racial and ethnic diversity as well as economic diversity in D.C.'s public schools, characteristics of D.C.'s most diverse schools, and how diversity has changed in recent years. While diversity has many dimensions, this analysis focuses on race and ethnicity, and income as measured by students who are at-risk, which is a metric that captures a set of characteristics associated with low opportunities at home.

Looking at diversity in D.C.'s public schools reveals various trends. First, the District's public school students are less diverse than the school-age population. And many schools are less diverse than the overall student body, suggesting that some schools pool together students of similar racial, ethnic, and income backgrounds. This is partly the result of the extent to which students enroll in their in-boundary schools or schools close to home, and attend school together with other students from their neighborhoods in an economically

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<sup>&</sup>lt;sup>1</sup>The at-risk category includes students who receive Temporary Assistance to Needy Families (TANF) or Supplemental Nutrition Assistance Program (SNAP) benefits, are homeless, are involved with the foster care system, or over-age in high school.

and racially segregated city. But given the high share of enrollment at public charter schools and traditional public schools from out-of-boundary, there is potential for certain schools to reflect the same amount of diversity as exists across all public school students.

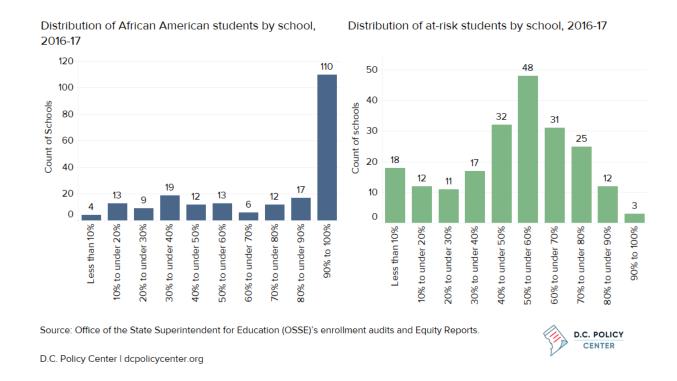
# **Background**

D.C.'s traditional public and public charter schools are more likely to expose students to different income groups than different racial or ethnic backgrounds. Overall, D.C.'s public school students<sup>2</sup> are more concentrated by race and ethnicity than economic status: in 2016-17, 68 percent of students were African American, 18 percent were Latino, and 10 percent were white. In contrast, public school students are more diverse by income levels: 47 percent of students were at-risk (Office of the State Superintendent for Education (OSSE) 2017). However, public schools as a whole are less diverse than the school-age population. African American students and low-income students are over-represented, and white students are under-represented in public school enrollment given demographics of the school-age population.

By school, a balance of students by economic status is common while racial and ethnic homogeneity is widespread. Over half of public schools had between 40 percent and 60 percent of students who were at-risk, meaning that about half of students attended schools with a balanced share of students from another economic group (see Executive Summary Figure 1). Only nine percent of schools (18 schools in total) have a student body was less than ten percent at-risk, compared to one percent of schools (three schools in total) with at least 90 percent of at-risk students. By comparison, the distribution of African American students was extremely imbalanced. Half of D.C.'s public schools with students in pre-kindergarten through grade 12 had a student body that was at least 90 percent African American, meaning that many students did not attend school with peers from other racial or ethnic groups.

<sup>&</sup>lt;sup>2</sup> Here and throughout, the term public schools refer to both traditional public (District of Columbia Public Schools, or DCPS) and public charter schools).

# EXECUTIVE SUMMARY FIGURE 1. DISTRIBUTIONS OF AFRICAN AMERICAN STUDENTS AND AT-RISK STUDENTS



**Public schools in D.C. were legally segregated until the** *Bolling v. Sharpe* and *Brown v. Board of Education* **Supreme Court decisions in 1954.** However, these decisions didn't lead to immediate integration in D.C. public schools and were accompanied by white flight: from 1954 to 1957, the school district lost 4,000 white students and gained 4,000 African American students each year (Orfield and Ee 2017). Legally, integration efforts continued with *Hobson v. Hansen*, which struck down the tracking system as inequitable in 1967, and found that the per-pupil funding in D.C. public schools was unjust in 1971. Along with this de jure progress, there have been small gains in desegregation: the percent of African American students attending schools with 90 to 100 percent of minority students decreased from 96 percent in 1992-93 to 88 percent in 2012-13 (Orfield and Ee 2017). And the population shifted in recent years: from 2010 to 2016, the city added more white residents (about 38,000) and Latino residents (about 19,000) than African American residents (about 15,000) on net (United States Census Bureau 2016).

This report provides a snapshot of diversity in D.C.'s public schools over 60 years after court-ordered desegregation at a time when enrollment in the city's public schools is growing and the demographics of the student body are changing. Between 2014-15 and 2016-17, public schools added over 4,500 pre-kindergarten to grade 12 students. Over this same period, the proportion of African American students decreased by four percentage points, the proportion of Latino students increased by three percentage points, and the atrisk student population declined by three percentage points (Office of the State Superintendent for Education 2015) and (Office of the State Superintendent for Education (OSSE) 2017).

# Measuring current diversity in D.C. schools

This report examines diversity in D.C.'s public schools<sup>3</sup> by developing a score for how exposed students are to those from other economic or racial and ethnic groups. A school's diversity score is the share of its non-plurality group (see Executive Summary Box 1). This gives a sense of the extent to which different groups are represented, which increases the potential for interaction between groups.

#### **EXECUTIVE SUMMARY BOX 1. MEASURING DIVERSITY**

This report measures diversity at the school level by the combined size of its non-plurality groups, regardless of the race and ethnicity or the economic status of the plurality group (or group with the most representation at a school).

#### Racial and ethnic diversity score

For this analysis, the students are identified as belonging to one of the four following groups: African American, Latino, white, or other. At each school, one of these four groups is established as the plurality group. The diversity score is the sum of the percentages of students in the remaining groups. The greater this sum, the more diverse the school. The median racial and ethnic diversity score is 10 percent, and the potential median score for the system would be 32 percent if all students were distributed at schools exactly as they are in the overall student body.

#### **Economic diversity score**

For economic diversity, this report uses "at-risk" status to represent economically disadvantaged students. Because there are two groups, the plurality group at each school will have a share at or above 50 percent. The diversity score is the share of the non-plurality group. The greater the score, the more diverse the school. The median economic diversity score is 34 percent, and the potential median score for the system would be 47 percent if all students were distributed at schools exactly as they are in the overall student body.

The analysis uses the sum of share of non-plurality groups among enrolled students to provide an absolute and intuitive measure of diversity. The larger the sum, the more diverse the school. The two diversity scores cannot be compared directly because the distributions of student demographics differ for the underlying data, which means the potential scores are not the same.

The diversity scores purposefully exclude information about the school's neighborhood characteristics, and intentionally measure diversity in absolute terms primarily because there is a high degree of public school choice in D.C. Just 27 percent of students attended their in-boundary traditional public school in 2016-17. This permits D.C.'s schools to be more integrated than their neighborhoods in theory. Other established methods did not allow for consideration of the three primary races and ethnicity of D.C.'s students, or were overly complicated to interpret (see Appendix II | Methodology).

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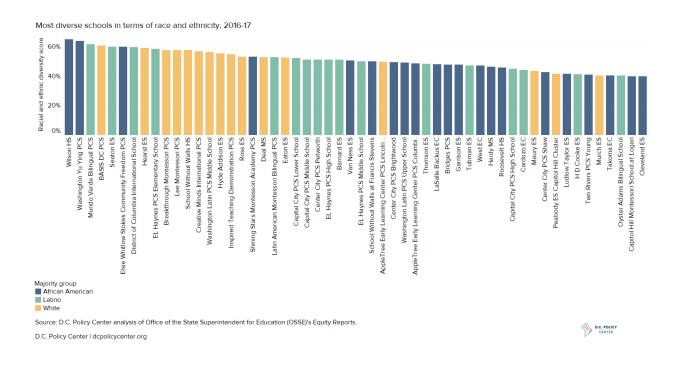
<sup>&</sup>lt;sup>3</sup> Here and throughout, the term public schools refer to both traditional public (District of Columbia Public Schools, or DCPS) and public charter schools).

The report intentionally analyzes both racial and ethnic diversity as well as economic diversity to provide a fuller picture of exposure to students from other groups. However, there are some limitations to interpreting economic diversity scores, which are based on the percentage of students who are at-risk. At-risk data provides the best information on economic status, as the percentage of economically disadvantaged students (or the percentage of students receiving free or reduced price lunch) is not available for the three-quarters of schools in D.C. given data complications.<sup>4</sup>

# **Key findings**

Racial and ethnic diversity is low, even considering the composition of D.C.'s students. The median racial and ethnic diversity score is ten percent compared to a potential median score of 32 percent, which would occur if all students were distributed as they are in the overall student body. A median score of ten percent means that half of schools have one group (usually African American students) representing 90 percent or more of all enrollment. The most racially and ethnically diverse schools are more likely to have a Latino or white plurality group (see Executive Summary Figure 2).

#### **EXECUTIVE SUMMARY FIGURE 2. MOST RACIALLY AND ETHNICALLY DIVERSE SCHOOLS**

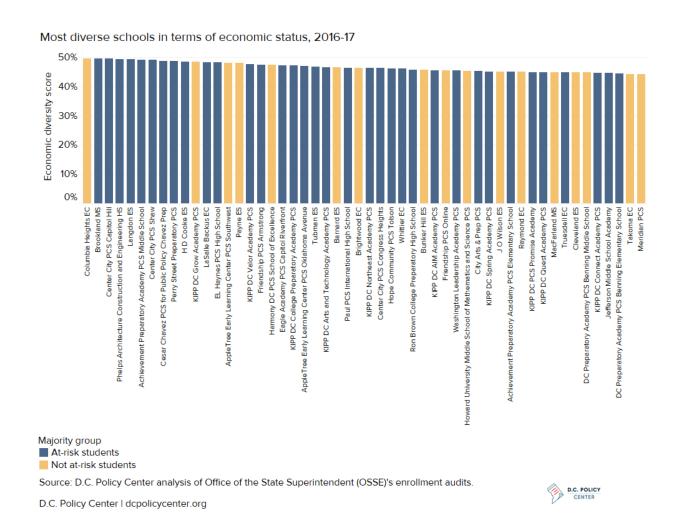


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<sup>&</sup>lt;sup>4</sup> In D.C., almost three-quarters of schools meet the requirements for the Community Eligibility Provision that provides all students with free lunches without submitting FARM applications. This means that data on economic disadvantage are limited. However, estimates are likely to be similar: 92 percent of students who are considered at-risk receive SNAP benefits (Office of the State Superintendent for Education (OSSE) 2018), which has an income eligibility of 200 percent of the federal poverty level. This is similar to the income eligibility requirements of reduced lunch, which is 185 percent of the federal poverty level.

Schools are more likely to have students from a mix of economic backgrounds. The median economic diversity score is 34 percent compared to a potential median score of 47 percent, which would occur if all students were distributed as they are in the overall student body. This means that half of schools have a student body with a concentration of students that is no more than 66 percent at-risk or not at-risk. The most economically diverse schools tend to have student bodies that are majority at-risk (see Executive Summary Figure 3).

#### **EXECUTIVE SUMMARY FIGURE 3. MOST ECONOMICALLY DIVERSE SCHOOLS**

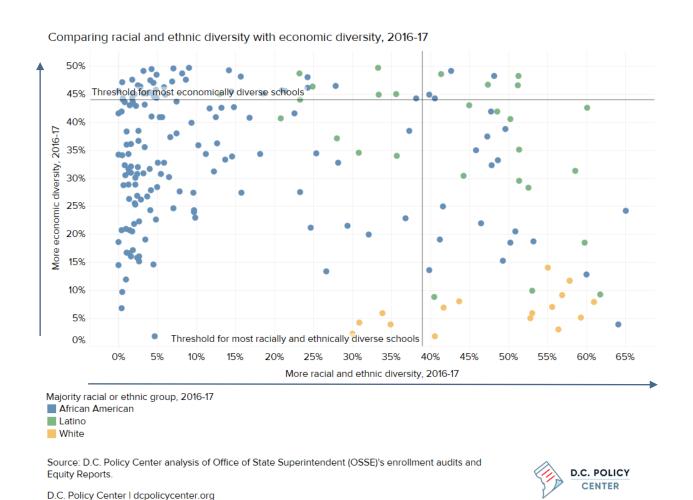


School choice tends to be accompanied by economic diversity, and attending neighborhood schools of right at high rates tends to go along with racial and ethnic diversity. Economic diversity is higher at public charter schools than at District of Columbia Public Schools, or DCPS (with a median score of 38 percent at public charter schools compared to a median score of 28 percent at DCPS schools). Racial and ethnic diversity is higher at DCPS schools than public charter schools (with a median score of 21 percent at DCPS schools compared to a median score of 5 percent among public charter schools). Racial and ethnic diversity is higher in a

subset of DCPS schools with higher in-boundary participation and lower percentages of at-risk students than other DCPS schools.

There is little overlap between two types of diversity at the majority of schools and in eastern and western Wards. Using the 75<sup>th</sup> percentile of scores in each category to highlight the schools that are most diverse, only eight schools are the most diverse in both categories: EL Haynes PCS High School, Barnard ES, LaSalle Backus EC, Tubman ES, Center City PCS Shaw, H D Cooke ES, Takoma EC, and Cleveland ES. None of these schools have a plurality of white students, and only one is a high school. All but one is located in Ward 1 or 4. Other patterns emerge: schools with a plurality of African American students vary in terms of economic diversity while schools with a plurality of white students have high racial and ethnic diversity but low economic diversity (see Executive Summary Figure 4). Geographically, there is a lack of economic diversity in Wards 2 and 3 and a lack of racial and ethnic diversity in Wards 7 and 8.

#### **EXECUTIVE SUMMARY FIGURE 4. OVERLAP IN RACIAL AND ETHNIC AND ECONOMIC DIVERSITY**



For the majority of schools, diversity has not changed in the short term, but some schools are experiencing large shifts. From 2014-15 to 2016-17, the median school saw a one percentage point increase in its racial and ethnic diversity score and no change in its economic diversity score. When change did occur, schools located east of the Anacostia River mostly became more economically diverse and schools located west of Rock Creek Park mostly became more racially and ethnically diverse. Changes in racial and ethnic diversity resulted from shifts in both white and Latino populations. A few schools switched their plurality group entirely: out of 194 schools, ten changed their plurality race or ethnicity and 13 changed their plurality economic group (see Executive Summary Table 1 and Executive Summary Table 2). No school shifted in both categories.

# EXECUTIVE SUMMARY TABLE 1. SCHOOLS THAT CHANGED PLURALITY RACIAL AND ETHNIC GROUP FROM 2014-15 TO 2016-17

Change in plurality race or ethnicity	Schools	Percentage point differ- ence in African American students
African American to white	AppleTree Early Learning Center PCS Lincoln Park	-18%
	BASIS DC PCS	-6%
	Hearst ES	-19%
	School Without Walls HS	-6%
African American to Latino	Barnard ES	-4%
	Cardozo EC	-11%
	EL Haynes PCS Elementary School	-4%
	EL Haynes PCS High School	-8%
	EL Haynes PCS Middle School	0%
Latino to African American	Center City PCS Brightwood	11%

# EXECUTIVE SUMMARY TABLE 2. SCHOOLS THAT CHANGED PLURALITY ECONOMIC GROUP FROM 2014-15 TO 2016-17

Change in plurality economic group	School	Percentage point differ- ence in at-risk students
At-risk to not at-risk	Bruce Monroe ES at Park View	-7%
	Burroughs ES	-10%
	Columbia Heights EC	-4%
	Harmony DC PCS School of Excellence	-13%
	Ideal Academy PCS	-21%
	Payne ES	-12%
	Raymond EC	-8%
	Seaton ES	-8%
Not at-risk to at-risk	Achievement Preparatory Academy PCS Wahler Place Elementary School	6%
	AppleTree Early Learning Center PCS Oklahoma Avenue	3%
	Center City PCS Capitol Hill	4%
	Center City PCS Shaw	4%
	Paul PCS International High School	5%

# **Implications**

The city's schools have a long way to go to achieve racial and ethnic diversity even given demographics of the current student body, but economic diversity has the potential to decrease as less students are identified as at-risk (meaning the balance between students from different economic groups will no longer be close to 50 percent). To maintain and increase diversity, schools that want to be diverse need to focus on both race and ethnicity and economic status, especially at the 18 schools with less than ten percent of students who are at-risk that tend to also have very high waitlists.

There is room for diversity to improve. if students were distributed across public schools as they are in the overall student body, the median racial and ethnic diversity score would be 32 percent (higher than the current value of 10 percent) and the median economic diversity score would be 47 percent (higher than the current value of 34 percent). As the student body is changing to become more diverse racially and ethnically and less diverse economically, there will be more opportunities to improve racial and ethnic diversity.

A diverse student body is not sufficient to realize the benefits from diversity – the right school-level approaches that involve staff, students, and families are necessary to enable true integration. If more diversity is achieved, schools need to commit to diversity as part of their missions, in ways that include equitable resource allocation within the school, strong relationships between students and staff, use of restorative justice, and teachers and staff that represent the student body (Potter and Quick 2018). For example, the RIDES project at Harvard University emphasizes the following ideal outcomes for all students: strong academic preparation, a sense of belongingness, commitment to dismantling racism and oppression, and appreciation of diversity (RIDES 2018). Locally, Kindred focuses on building authentic relationships between diverse groups of parents to improve equity within schools (Kindred 2018).

Better data with more details on economic status (free or reduced lunch, for example) would allow for a more informed discussion of economic diversity. The current measure of at-risk is binary and includes students along income-based criteria (receiving Temporary Assistance to Needy Families (TANF) or Supplemental Nutrition Assistance Program (SNAP) benefits) as well as those undergoing specific adverse experiences (homelessness or foster care) or those who are over-age in high school. The annual income thresholds for benefits program differ (approximately \$9,000 for TANF and \$49,000 for SNAP for a household of four in 2018-19), but data are not available on the number of students who receive one or the other.

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#### ONE | POTENTIAL FOR DIVERSITY

There is a national effort to increase racial and socioeconomic diversity in public schools due to benefits that can accrue to students from all backgrounds (U.S. Department of Education). African American students at more diverse schools may access better resources (lower class sizes or better teacher quality) if such schools have more advantaged students with families that are better positioned to advocate for their children's schools (Eaton 2010). There may also be positive peer exposure effects from being around higher-performing students (Harris 2010). Over the long term, attending diverse schools with these characteristics can lead to higher educational attainment, improved adult health outcomes, and lower rates of interaction with the criminal justice system for African American students (Johnson 2011). In addition, economic integration may reduce exposure to stress, and schools with lower poverty rates may also have more parental involvement or more experienced teachers (Schwartz 2010).

In addition to benefits for African American students, some studies show that school diversity may provide benefits for white students. Research shows that diversity can provide white students with social and psychological advantages, including better preparation for diverse workplaces, lower levels of prejudice, and higher levels of cultural competence (Siegel-Hawley 2012) without loss of learning. Controlling for student income and other teacher, school, and student characteristics, white students achieve the same National Assessment of Education Progress (NAEP) scores regardless of whether they attend a school that is predominantly or minority African American, whereas African American students performed better if they attended schools that had lower African American concentrations (National Center for Education Statistics, IES 2015). This means that diverse schools have the potential to increase achievement for African American students without affecting other groups.

Even if schools have a diverse student body, educators must take further steps to create an integrated community. Some best practices include intentionally cultivating strong interpersonal relationships between students in and outside of school, incorporating discussions of race within existing lesson plans, and enabling authentic relationships between parents of diverse backgrounds.<sup>5</sup> A holistic model that involves teachers, classroom activities, and parents is necessary to realize integration and benefits from diversity.

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<sup>&</sup>lt;sup>5</sup> For example, Reimagining Integration: Diverse & Equitable Schools (RIDES) identifies the ABCD's for integration that includes Academics, Belonging, Commitment to dismantling racism and oppression, and Diversity. RIDES provides curriculum resources to schools that want to bring the discussion into classrooms, but the organization also recognizes that in order to increase

# History of segregation in D.C.'s public schools

D.C.'s public schools were legally segregated as early as 1862, when the first school for African American students opened,<sup>6</sup> until two related Supreme Court decisions in 1954: *Brown v. the Board of Education* and *Bolling v. Sharpe*. *Bolling v. Sharpe* was a lawsuit with eleven D.C. plaintiffs, all African American students who were denied enrollment at the all-white John Phillip Sousa Junior High School in 1950 (Smithsonian National Museum of American History 2018). The legal team arguing for integration consisted of two Howard University School of Law graduates — Thurgood Marshall and George Hayes — and one faculty member, James Nabrit Jr. The *Bolling v. Sharpe* decision prohibited segregated schools in D.C. on the same day as the *Brown v. the Board of Education* established that separate but equal schools were unconstitutional.

However, these legal decisions did not lead to immediate integration in D.C. public schools. In year following the decisions, only District newcomers and students changing schools attended integrated schools. From 1954 to 1957, the school district lost 4,000 white students and gained 4,000 African American students each year (Orfield and Ee 2017). D.C.'s slow integration efforts were challenged in 1967 and 1971 with the *Hobson v. Hansen* cases that struck down the tracking system as inequitable and found that the per-pupil funding in D.C. public schools was unjust.

These decisions led D.C. public schools further down the path toward legal desegregation, and small gains in desegregation in practice. The percent of African American students attending schools with 90 to 100 percent of minority students decreased from 96 percent in 1992-93 to 88 percent in 2012-13 (Orfield and Ee 2017) almost 60 years after *Bolling v. Sharpe*. And there are some signs that school segregation in D.C. has been decreasing in recent years, especially in areas experiencing gentrification (Mordechay and Ayscue 2017). However, many students still attend public schools that are racially segregated, even when compared to surrounding jurisdictions (Orfield and Ee 2017). This pattern is not unique to D.C.: across the country, high schools in low-performing districts with more school choice enroll more African American students and fewer white

empathy and improve relations across racial lines, families and communities must also be on board so that they then can promote and encourage relationships among their children. Kindred, another organization leading the way in classroom integration, focuses solely on parent-to-parent relationships.

<sup>&</sup>lt;sup>6</sup> African American schools were even governed by a separate, segregated school board until the early 1900s.

students than expected given demographics of the population (Whitehurst, et al. 2017), which makes it more difficult to achieve exposure to other groups.<sup>7</sup>

# Characteristics of D.C.'s public school students

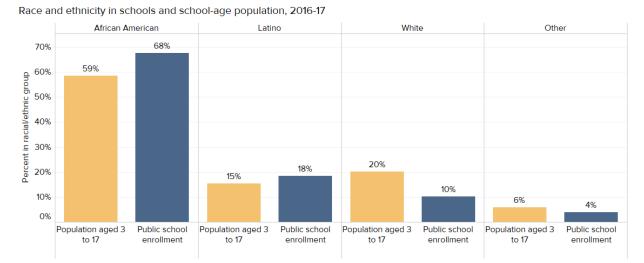
The majority of D.C.'s public school students are African American. in 2016-17, 68 percent of students were African American, 18 percent were Latino, 10 percent were white, and four percent identified as other<sup>8</sup> (see Figure 1). From 2014-15 to 2016-17, the proportion of African American students decreased by four percentage points and the proportion of Latino students increased by three percentage points (Office of the State Superintendent for Education (OSSE) 2017). African American students are over-represented in public school enrollment given demographics of the school-age population, which further limits the potential for each individual school to be diverse (see Figure 1). Differences between demographics of public school students and the school-age population are driven by which students enroll in private school, participate in homeschooling, or disengage from traditional education.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> A few schools west of Rock Creek Park follow this trend and under-enroll white students compared to their neighborhoods, 2 but several schools in the central corridor do enroll more white students than expected given their neighborhoods 2 (Whitehurst, Reeves, Joo; Rodrigue, 2017).

<sup>&</sup>lt;sup>8</sup> Other includes students who identify as Asian, Multiracial, Native American/Alaskan, and Pacific/Hawaiian.

<sup>&</sup>lt;sup>9</sup> Estimates of private school enrollment in D.C. vary, but approximately 16 percent of kindergarten through grade 12 students living in D.C. are enrolled in private schools (United States Census Bureau 2016). By the time students reached grade 12 in school year 2016-17, approximately 16.2 percent educationally disengaged (Office of the State Superintendent for Education (OSSE) 2017). By comparison, very few students are homeschooled – just 409 in school year 2017-18 (Office of the State Superintendent for Education (OSSE) 2018).

FIGURE 1. RACE AND ETHNICITY OF STUDENTS AND SCHOOL-AGE POPULATION



Source: Office of the State Superintendent for Education (OSSE)'s Equity Reports and American Community Survey (ACS) Public Use Microdata Sample (PUMS), 2016 1-Year Estimates.



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The share of students by economic status is more balanced. In 2016-17, 47 percent of pre-kindergarten through grade 12 students were at-risk<sup>10</sup> for academic failure, which includes students who receive Temporary Assistance to Needy Families (TANF) or Supplemental Nutrition Assistance Program (SNAP) benefits, are homeless, are involved with the foster care system, or over-age in high school (Office of the Deputy Mayor for Education 2017). D.C.'s public school students are becoming less disadvantaged: the percent of students who were considered at-risk decreased from 50 percent in 2014-15 to 47 percent in 2016-17 (Office of the State Superintendent for Education 2017) and (Office of the State Superintendent (OSSE) 2014).

Similar to African American students, disadvantaged students are over-represented in public schools.<sup>11</sup> Forty percent of the population under 18 receives SNAP, TANF, or Supplemental Security Income (SSI) benefits (United States Census Bureau 2016), which is lower than the percent of at-risk students. Although these two measures cannot be perfectly compared, SNAP is likely a widely shared benefit in each of these figures as it has the broadest eligibility requirements, and 92 percent of students who are considered at-risk receive SNAP benefits (Office of the State Superintendent for Education (OSSE) 2018). This could mean that students who do

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<sup>&</sup>lt;sup>10</sup> At-risk is a better metric of economic status than economically disadvantaged students (or the percent of students receiving free or reduced price lunch) in D.C. given data complications. In D.C., almost three-quarters of schools meet the requirements for the Community Eligibility Provision that provides all students with free lunches without submitting FARM applications. This means that data on economic disadvantage are limited.

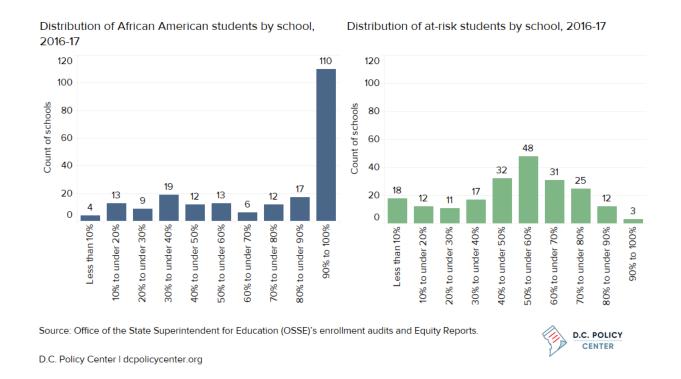
<sup>&</sup>lt;sup>11</sup> Data on the overlap between at-risk status and race are not publicly available.

not receive benefits are less likely to enroll in D.C.'s public schools, which diminishes the potential for economic diversity.

# School demographics

Students at public schools in D.C. have more exposure to peers from different economic groups than to peers in other racial and ethnic groups. Over half of schools have between 40 percent and 60 percent of students who are at-risk, meaning that many students are attending schools with a balanced share of students from another economic group (see Figure 2). However, 18 schools have very low proportions – less than ten percent – of at-risk students, while just three schools have more than 90 percent of at-risk students. By comparison, the distribution of African American students is extremely imbalanced. Half of D.C.'s public schools have a student body that is at least 90 percent African American, meaning that many students do not attend school with students from other racial or ethnic groups.

FIGURE 2. DISTRIBUTION OF STUDENTS BY PERCENT IN GROUP



# Neighborhood demographics

This analysis does not consider diversity in relationship to neighborhood demographics, but the residential segregation in Figure 3 below can explain some patterns in concentrations of African American and at-risk students, especially if students enroll at schools close to home. In theory, the distributions of students in D.C.'s schools are less likely to closely mirror neighborhood demographics because just 27 percent

of public school students attend the in-boundary school in their neighborhood (Office of the Deputy Mayor for Education 2017). However, in practice, students attend schools that are on average a 10- to 16-minute drive from home, depending on their grade (Blagg, et al. 2018). This means some of D.C.'s schools do reflect neighborhood demographics despite high levels of public school choice, which has been shown to constrain the potential for diversity. In terms of race, 46 percent of schools are similar to their neighborhoods (defined by a Census tract), with a difference of 10 percentage points or less between the proportion of students and residents who are African American. Economically, 34 percent of schools are similar to their neighborhoods, differing by 10 percentage points or less in terms of the percent of students who are at-risk and the percent of children living in the area and receiving SNAP, SSI, or cash benefits.

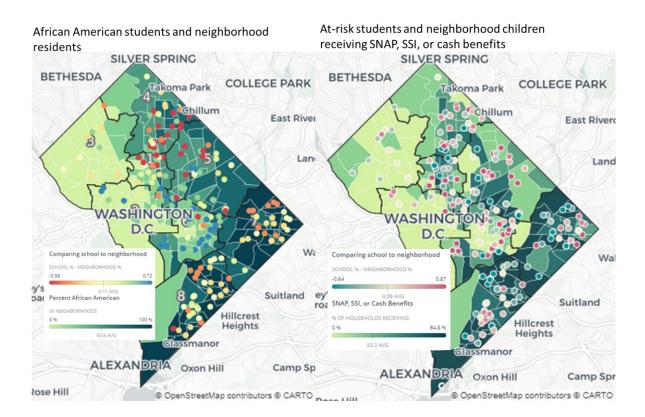


FIGURE 3. DIFFERENCES BETWEEN NEIGHBORHOOD AND SCHOOL DEMOGRAPHICS, 2016-17

# Measuring diversity

Given the demographics of D.C.'s students, how groups are distributed across schools, and the importance of diversity, this report presents a snapshot of racial and ethnic diversity as well as economic diversity in D.C.'s public schools, characteristics of D.C.'s most diverse schools, and how diversity has changed in recent years. The first step for this analysis, or deciding how to define diversity, is critical. Diversity can mean equal representation of all groups, which is not possible given the overall demographic proportions

of D.C.'s school-age population and public school student body. Diversity can also show how well the composition of a school reflects neighborhood demographics, but this approach is not as relevant in D.C. given the extent of public school choice, which in theory permits more integration in D.C.'s schools than its neighborhoods. In addition, D.C. is a small city geographically, which allows students to travel to schools in a large proportion of the city.<sup>12</sup> Or diversity can examine exposure or isolation of a certain group (the extent to which students from one group are around students from other groups or clustered in one school). For example, some research suggests that no group can represent more than 70 percent of the student body to enable a diverse learning environment (Potter and Quick 2018), and many districts use a threshold, instead of a goal for equal representation, to intentionally promote integration.<sup>13</sup>

Conceptualizing diversity in terms of an absolute threshold for the plurality group (or group with the highest percentage of students) as other districts do is more compatible with D.C.'s student demographics and public school choice than equal representation or schools' similarity to their neighborhoods. For this analysis, diversity is measured by how exposed students are to other groups in terms of race and ethnicity as well as economic status, or the percentage of students who are not in the plurality group<sup>14</sup> (for more information, see Appendix II, Methodology). When the plurality group is smaller, there is more of a mix of students from different groups.

# Racial and ethnic diversity score

To measure racial and ethnic diversity, the group with the plurality is identified and the percentages of students in the other groups are summed to calculate a measure of racial and ethnic diversity. Racial and ethnic groups include African American students, Latino students, white students, and others. Given the demographics of D.C.'s public school students, the racial and ethnic diversity score would have a maximum value across all schools of 32 percent (this would occur if each of the four groups were represented at each school exactly as they are in the student body) and a minimum value of zero. However, individual schools can have a score of up to 75 percent, which would occur if each group were represented evenly at a particular school.

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<sup>&</sup>lt;sup>12</sup> For example, a student traveling the average distance to school for charter school students of 2.1 miles has access to roughly 20 percent of the city's area (DC Public Charter School Board 2017).

<sup>&</sup>lt;sup>13</sup> For example, a Connecticut law to create magnet schools in Hartford to desegregate schools defined an integrated school as a school with a student population that is less than 75 percent African American and Latino (Nix 2017). Denver Public Schools reserves a third of seats at a new comprehensive high school for students who live in high poverty neighborhoods (Peretti and Parrott 2018).

<sup>&</sup>lt;sup>14</sup> This analysis does not use the exposure index because it only captures two groups and would leave out Latino or white students.

Diversity will be greatest when the score is highest, and the measure treats all groups equally without prioritizing a mix of historically advantaged and disadvantaged groups. For example, a school with a student body that is 50 percent Latino and 50 percent African American would be considered just as diverse as a student body that is 50 percent African American and 50 percent white. And a school that is 40 percent African American, 50 percent Latino, and 10 percent white would have the same diversity score (50 percent) as a school that is 50 percent white, 25 percent African American, and 25 percent Latino. Figure 4 highlights a few examples. A school where the majority of students (white students in the figure below) holds 60 percent of the student body would have a diversity score of 40 percent, or the sum of other groups, and be the most diverse out of the examples below. A school that is most representative of D.C.'s students overall would have a diversity score around 30 percent, as most public school students are African American. A school with only one group (likely African American students), which reflects half of D.C.'s public schools, would be the least diverse of these three examples.

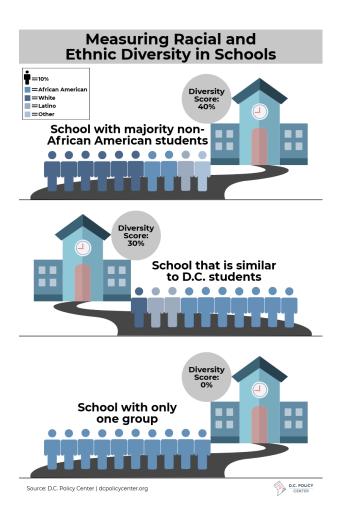


FIGURE 4. EXAMPLES OF RACIAL AND ETHNIC DIVERSITY SCORES

# **Economic diversity score**

To measure economic diversity, the analysis identifies whether students who are at-risk or not at-risk have a plurality, and uses the percentage of students in the other group as a score of economic diversity. The analysis uses the percentage of students who are at-risk, 15 which is a better metric than economically disadvantaged students (or the percentage of students receiving free or reduced price lunch) in D.C. given data complications. In D.C., almost three-quarters of schools meet the requirements for the Community Eligibility Provision that provides all students with free lunches without submitting Free and Reduced Meals (FARMs) applications. This means that data on economic disadvantage are limited. The economic diversity score has a maximum value of 47 percent across all schools if each group was represented at every school exactly as they are in the student body, and a minimum value of zero. However, individual schools can have a score of up to 50 percent if groups are evenly distributed at the school level.

The greater the economic diversity score, the more economic diversity at a particular school. Figure 5 shows examples of economic diversity. Schools with an economic diversity score of 50 percent will be the most diverse, as these schools will have the most parity between students who are at-risk and those who are not at-risk. A school with a plurality of at-risk students at 60 percent would be the next most diverse at 40 percent. A school with a high concentration of at-risk students would be less diverse with a score of 10 percent.

<sup>&</sup>lt;sup>15</sup> In D.C., pre-kindergarten through grade 12 students are considered to be at-risk if they receive TANF or SNAP benefits, are homeless, are involved with the foster care system, or over-age.

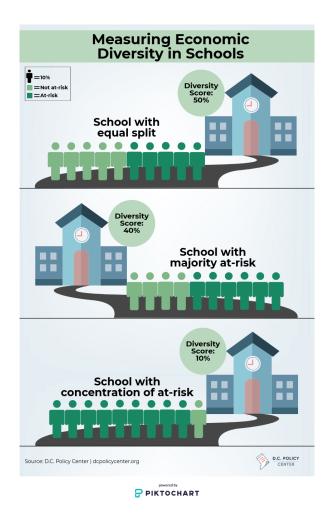


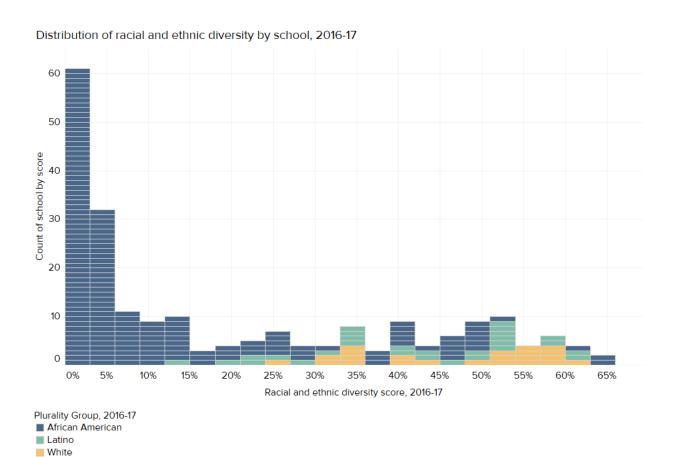
FIGURE 5. EXAMPLES OF ECONOMIC DIVERSITY SCORES

This analysis also examines common characteristics of the most diverse schools, identified as those with diversity scores above the 75th percentile in either category, as well as changes from 2014-15 to 2016-17 (at-risk data are not available before 2014-15).

# TWO I RACIAL AND ETHNIC DIVERSITY

Racial and ethnic diversity is low, even considering the demographics of D.C.'s public school students. The median racial and ethnic diversity score is 10 percent compared to the maximum median of 32 percent if all students were distributed equally. This means that at half of schools, 90 percent of students are in one racial group, which is African American for all schools with this high concentration (see Figure 6). However, many schools have scores above 32 percent, and are more diverse than they would be if all students were distributed equally.

#### FIGURE 6. RACIAL AND ETHNIC DIVERSITY BY SCHOOL



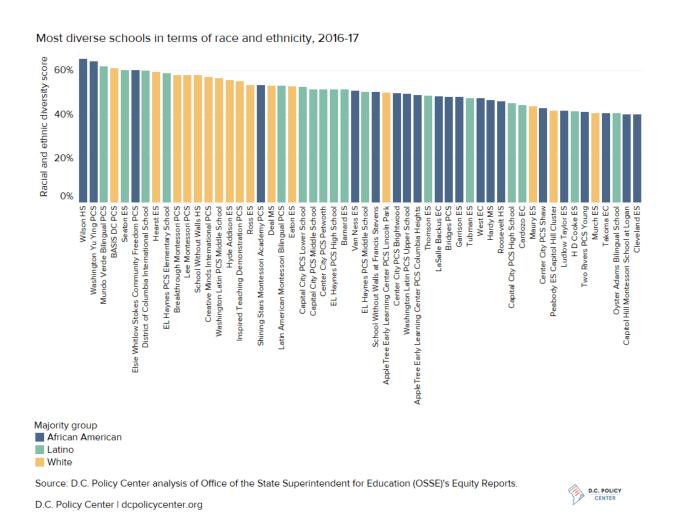
Source: D.C. Policy Center analysis of Office of the State Superintendent's Equity Reports.

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**Figure 7 shows the 54 most racially and ethnically diverse schools with scores in the highest quartile (above the 75th percentile).** <sup>16</sup> These schools have diversity scores above 39 percent, which means the plurality group in each school does not represent more than 61 percent of the student body. Their scores range from 40 percent to 65 percent, which indicates the percentage of the student body included in all non-plurality groups (the plurality group comprises no more than 35 percent to 60 percent of all students). Wilson High School is the most racially and ethnically diverse, with a score of 65 percent.

#### FIGURE 7. RACIALLY AND ETHNICALLY DIVERSE SCHOOLS

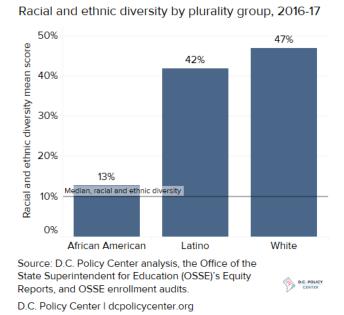


# Characteristics of racially and ethnically diverse schools

<sup>&</sup>lt;sup>16</sup> 215 schools have information on students' race and ethnicity.

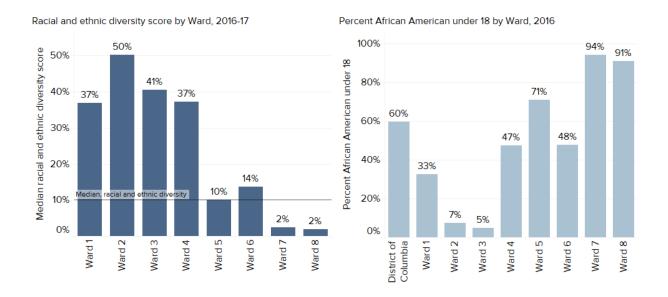
The most racially and ethnically diverse schools are more likely to have a plurality of white students than other schools. Schools with a plurality of white students have a median racial and ethnic diversity score of 47 percent, where white students comprise no more than 53 percent of students on average, followed by schools with a plurality of Latino students with a score of 42 percent. Schools with a plurality of African American students, which comprise 39 percent of the most diverse schools, are under-represented among diverse schools: 76 percent of all schools have a plurality of African American students and only 11 percent of schools have a plurality of white students.

#### FIGURE 8. DIVERSITY BY RACE AND ETHNICITY



Wards 1, 2, 3, 4, and 6 have median scores that indicate more racial and ethnic diversity than the system overall. These scores correspond with lower proportions of the child population that is African American (see Figure 9). Schools in Wards 2 and 3 have the highest racial and ethnic diversity scores, but the lowest percentages of the child population that is African American (the opposite is true in Wards 5, 7 and 8).

#### FIGURE 9. RACIAL AND ETHNIC DIVERSITY BY WARD



Source: D.C. Policy Center analysis of the Office of the State Superintendent for Education (OSSE)'s enrollment audits and Equity Reports; KidsCount Data Center and U.S. Census Bureau, 2016 American Community Survey (ACS) 5-Year Estimates.



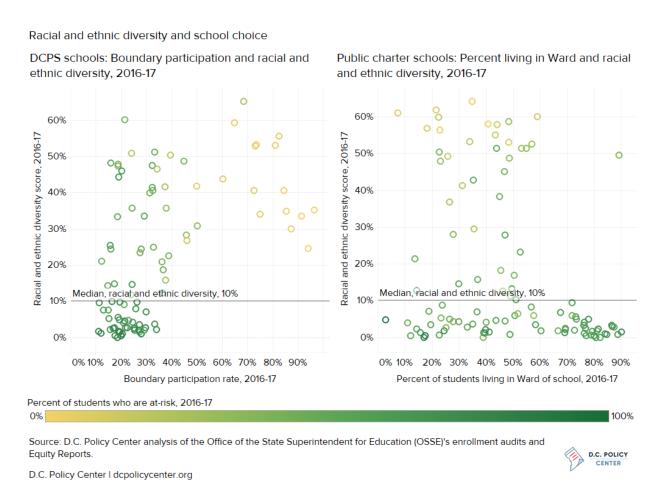
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By sector, DCPS schools are more diverse racially and ethnically than are public charter schools. The median racial and ethnic diversity score for DCPS schools is 21 percent compared to five percent at public charter schools. This means that the plurality race or ethnicity comprises at least 79 percent of the student body at half of DCPS schools. Taking a closer look, racial and ethnic diversity at DCPS schools tends to differ by boundary participation rate, or the percent of students living within a school's boundary who attend that school (see Figure 10).<sup>17</sup> Students attend their in-boundary schools at high rates if they live in the boundary for a racially and ethnically diverse school that has low percentages of students who are at-risk. If students live in the boundary for a school that is not racially and ethnically diverse and serves a high percentage of students who are at-risk, they are more likely to choose schools other than their in-boundary option. Public charter schools also tend to have higher racial and ethnic diversity if less students are at-risk, but a cluster of these schools tends to draw students from farther away (with less than 60 percent of students living in the Ward of the school).

<sup>&</sup>lt;sup>17</sup> A subset of DCPS schools with high boundary participation where more than half of students living in the boundary attend the school also have racial and ethnic diversity scores that are higher than the median, and low percentages of students who are at-risk. There is also a cluster of DCPS schools with low boundary participation where less than a third of students attend their in-boundary schools with low racial and ethnic diversity and high percentages of students who are at-risk. A third group of schools has a mix of at-risk students, boundary participation, and racial and ethnic diversity.

There is also a group of public charter schools that serves high concentrations of at-risk students without racial and ethnic diversity where a plurality of students live in the Ward of the school.

#### FIGURE 10. RACIAL AND ETHNIC DIVERSITY AND SCHOOL CHOICE

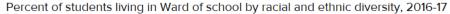


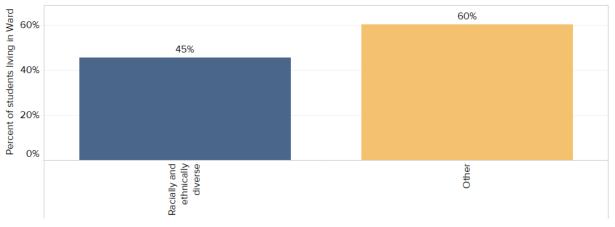
Across both sectors, students who attend racially and ethnically diverse schools tend to have different travel patterns than their peers at other schools. At the most racially and ethnically diverse schools, 45 percent of students live within the Ward of their school compared to 60 percent who live within the Ward at other schools (see Figure 11).

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<sup>&</sup>lt;sup>18</sup> Differences are only presented if they are statistically significant between the most diverse schools and other schools.

#### FIGURE 11. STUDENT TRAVEL AT MOST RACIALLY AND ETHNICALLY DIVERSE SCHOOLS





Source: D.C. Policy Center analysis of Office of the State Superintendent for Education (OSSE)'s enrollment audits and Equity Reports, school addresses in DCPS School Profiles and PCS School Directory, and DC Open Data transit stops.



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# Changes in racial and ethnic diversity

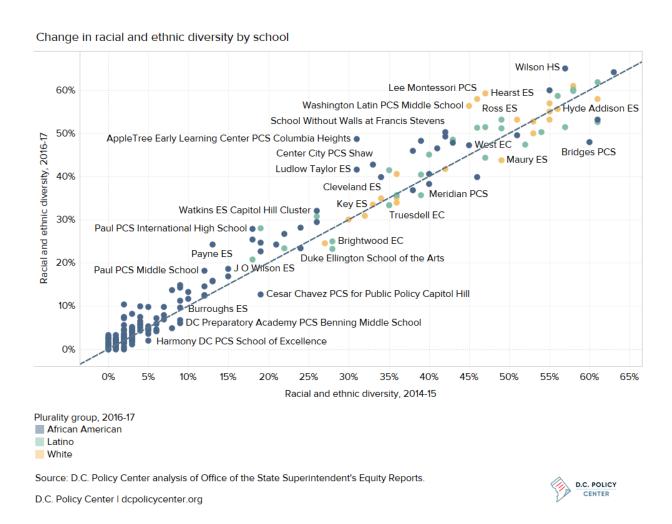
Schools in D.C. became slightly more racially and ethnically diverse from 2014-15 to 2016-17. The median school saw a one percentage point increase in its racial and ethnic diversity score, which is equivalent to the plurality group shrinking by the same amount (see Appendix Figure 6). Over this same period, the proportion of African American students decreased by four percentage points, the proportion of Latino students increased by three percentage points, and the proportion of white students did not change (Office of the State Superintendent for Education (OSSE) 2017).

From 2014-15 to 2016-17, 59 percent of schools<sup>19</sup> became more racially and ethnically diverse, 23 percent became less diverse, and 18 percent saw no change. On average, schools with positive changes increased their diversity score by 3.7 percentage points, which means that the plurality group became smaller by the same amount. Most of the schools that became more racially and ethnically diverse shifted to become less African American, and more Latino or white. The proportion of students who were African American at transitioning schools decreased by three percentage points, the proportion of students who were Latino increased by two percentage points, and the percentage of students who were white increased by one percentage point. As an example, AppleTree Early Learning Center PCS Columbia Heights saw the largest change in its racial and ethnic diversity score of 18 percentage points, which occurred because of a decrease of 18 percentage points

<sup>&</sup>lt;sup>19</sup> **195** schools have data in both years.

in the proportion of students who were African American and an increase of 23 percentage points in the proportion of students who were Latino (see Figure 12).

FIGURE 12. CHANGES IN RACIAL AND ETHNIC DIVERSITY, 2014-15 TO 2016-17



However, most schools keep the same plurality group from year to year: just ten schools changed their plurality group. Almost all changed from a plurality of African American students to white or Latino students (see Table 1).

TABLE 1. SCHOOLS THAT CHANGED PLURALITY RACIAL AND ETHNIC GROUP FROM 2014-15 TO 2016-17

Change in plurality race or ethnicity	Schools	Percentage point differ- ence in African American students
African American to white	AppleTree Early Learning Center PCS Lincoln Park	-18%
	BASIS DC PCS	-6%
	Hearst ES	-19%
	School Without Walls HS	-6%
African American to Latino	Barnard ES	-4%
	Cardozo EC	-11%
	EL Haynes PCS Elementary School	-4%
	EL Haynes PCS High School	-8%
	EL Haynes PCS Middle School	0%
Latino to African American	Center City PCS Brightwood	11%

By location, schools that are becoming more racially and ethnically diverse are spread throughout the city: in each Ward, at least half of the schools are shifting to become more diverse. The proportion of schools becoming more racially and ethnically diverse is even higher in Ward 2 and Ward 4 (see Figure 13).<sup>20</sup> The change in Ward 4 seems to be a result of changing neighborhood demographics: the proportion of the population under 18 who was African American in Ward 4 decreased from 53 percent in 2014 to 47 percent in 2016. In Ward 2, the change could be due to the families living out of boundary choosing DCPS schools in Ward 2 or more families who live in boundary attending their schools of right<sup>21</sup> as the proportion of the child population who was African American did not shift in Ward 2 (Kids Count 2014 and 2016).<sup>22</sup> In general, schools located west of Rock Creek Park mostly became more racially and ethnically diverse (see Appendix Figure 5).

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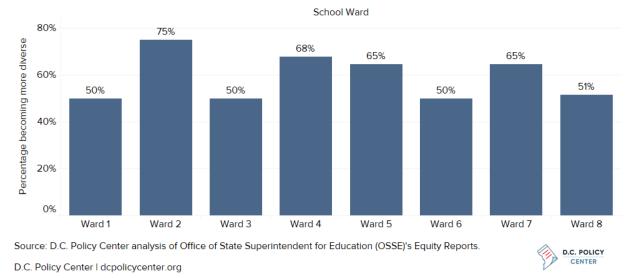
<sup>&</sup>lt;sup>20</sup> This represents a larger number of schools in Ward 4, where 21 out of 31 schools are becoming more diverse. In Ward 2, six out of eight schools are shifting.

<sup>&</sup>lt;sup>21</sup> Most of the schools in Ward 2 are DCPS schools where students living in the boundary have a guaranteed right to attend, but on average, just 42 percent of enrollments are from the boundary.

<sup>&</sup>lt;sup>22</sup> The proportion of the population under 18 who was African American in Ward 2 remained about the same, changing from 8 percent in 2014 to 7 percent in 2016.

#### FIGURE 13. CHANGE IN RACIAL AND ETHNIC DIVERSITY BY WARD





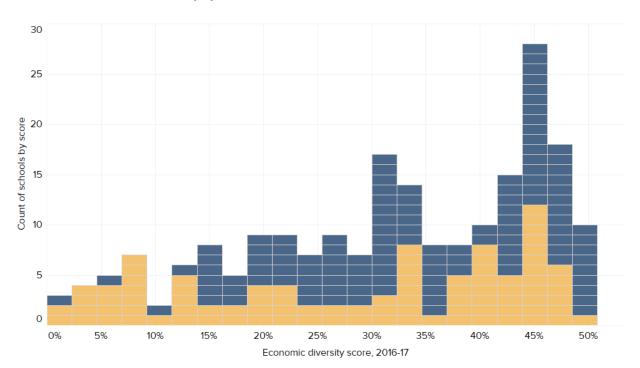
By school type, schools that became more racially and ethnically diverse are more likely to be DCPS schools. Sixty-four percent of DCPS schools became more racially and ethnically diverse compared to 53 percent of public charter schools. On average, DCPS schools are more likely to serve students from their Ward and neighborhood, so changes in diversity of neighborhoods could have more of an impact on DCPS schools than public charter schools.

# THREE | ECONOMIC DIVERSITY

Schools are more likely to have students from a mix of economic backgrounds. The median economic diversity score is 34 percent compared to a potential median of 47 percent if all students were distributed at schools as they are in the overall student body. This means that half of schools have a student body with a concentration of students that is no more than 66 percent at-risk or not at-risk. The most economically diverse schools tend to have student bodies that are mostly at-risk (see Figure 14).

#### FIGURE 14. ECONOMIC DIVERSITY, 2016-17

Distribution of economic diversity by school, 2016-17



Economic plurality group, 2016-17

At-risk students

Not at-risk students

Source: D.C. Policy Center analysis of Office of State Superintendent for Education (OSSE)'s enrollment audits and Equity Reports.

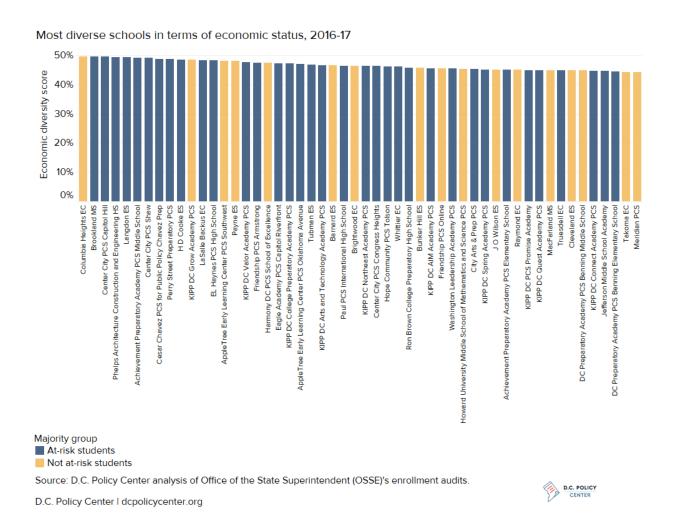
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# Characteristics of economically diverse schools

Figure 15 shows 52 schools<sup>23</sup> with economic diversity scores above the 75th percentile. Their scores range from 44 percent to 50 percent, which indicates the percent of the student body in the non-plurality group. At these schools, the plurality group (either at-risk students or not at-risk students) represents at least 46 percent and no more than 50 percent of all students. The most economically diverse schools are more likely to have a plurality of at-risk students than other schools: schools with mostly at-risk students comprise 67 percent of the most economically diverse schools, but only 55 percent of all schools.

#### FIGURE 15. ECONOMICALLY DIVERSE SCHOOLS



<sup>&</sup>lt;sup>23</sup> 209 schools have information on students' at-risk status In 2016-17. Six schools had too few at-risk students to report for privacy reasons.

By sector, public charter schools are more economically diverse on average. The median economic diversity score for DCPS schools is 28 percent compared to 38 percent at public charter schools. This means that the plurality economic group represents at least 62 percent of enrollment at half of public charter schools (and less than 62 percent at the other half).

# Changes in economic diversity

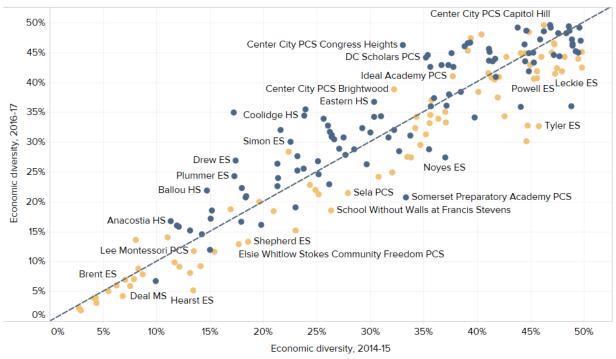
The proportion of students who are at-risk is declining, and economic diversity is decreasing or stabilizing at a majority of schools. The percent of students who were considered at-risk decreased from 50 percent in 2014-15 to 47 percent in 2016-17 (Office of the State Superintendent for Education 2017) and (Office of the State Superintendent (OSSE) 2014). The largest percentage of schools became less economically diverse (47 percent) or saw no change (12 percent) from 2014-15 to 2016-17 (see Figure 16). Schools that did have positive changes increased their economic diversity score by 4.7 percentage points, which means a decrease in the plurality group (whether at-risk or not) of 4.7 percentage points. Schools that became more economically diverse were more likely to begin with a plurality of at-risk students and experience a decrease in the proportion of at-risk students in their student population.<sup>24</sup> Roosevelt HS saw the greatest increase in economic diversity (18 percentage points) with a commensurate decrease of at-risk students, beginning as a plurality at-risk school in 2014-15 with 83 percent of students at-risk.

25

<sup>&</sup>lt;sup>24</sup> Out of the 109 schools that were majority at-risk in 2014-15, 61 percent became more diverse compared to 15 percent of schools that did not have a majority of at-risk students in 2014-15.

### FIGURE 16. MORE SCHOOLS ARE BECOMING LESS ECONOMICALLY DIVERSE





Economic majority group, 2016-17

At-risk students

Not at-risk students

 $Source: D.C.\ Policy\ Center\ analysis\ of\ Office\ of\ State\ Superintendent\ for\ Education\ (OSSE)'s\ enrollment\ audits.$ 

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Plurality groups are unlikely to change for economic status as well: just 13 schools changed their plurality economic group between at-risk and not at-risk. The bigger swings in the percentages of at-risk students occurred at schools that shifted their plurality group from at-risk to not at-risk (see Table 2).

TABLE 2. SCHOOLS THAT CHANGED PLURALITY ECONOMIC GROUP FROM 2014-15 TO 2016-17

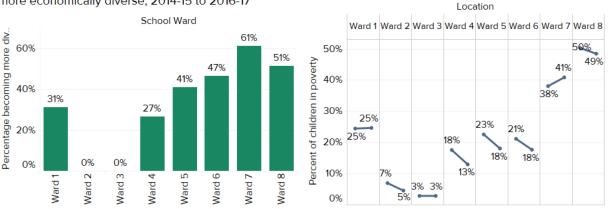
Change in plurality economic group	School	Percentage point differ- ence in at-risk students
At-risk to not at-risk	Bruce Monroe ES at Park View	-7%
	Burroughs ES	-10%
	Columbia Heights EC	-4%
	Harmony DC PCS School of Excellence	-13%
	Ideal Academy PCS	-21%
	Payne ES	-12%
	Raymond EC	-8%
	Seaton ES	-8%
Not at-risk to at-risk	Achievement Preparatory Academy PCS Wahler Place Elementary School	6%
	AppleTree Early Learning Center PCS Oklahoma Avenue	3%
	Center City PCS Capitol Hill	4%
	Center City PCS Shaw	4%
	Paul PCS International High School	5%

Schools that are becoming more economically diverse are concentrated in Wards 7 and 8. More than half of schools in these Wards are becoming more economically diverse (see Figure 17), which generally means that schools are serving a lower proportion of at-risk students. There haven't been large swings in child poverty over this time period: child poverty increased by three percentage points in Ward 7 and decreased by one percentage point in Ward 8. This could mean that different students are attending schools in Wards 7 and 8. Potentially, fewer not at-risk residents leave Wards 7 and 8 to attend school, or more at-risk students from other Wards commute to Wards 7 and 8. No schools are becoming more economically diverse in Wards 2 and 3.

### FIGURE 17. CHANGES IN ECONOMIC DIVERSITY AND CHILD POVERTY BY WARD

Percentage of schools in each Ward that became more economically diverse, 2014-15 to 2016-17

Percent children in poverty by Ward, 2014-16



Source: D.C. Policy Center analysis of Office of State Superintendent for Education (OSSE)'s enrollment audits and KidsCount Child poverty by ward data based on 5-year ACS estimates.



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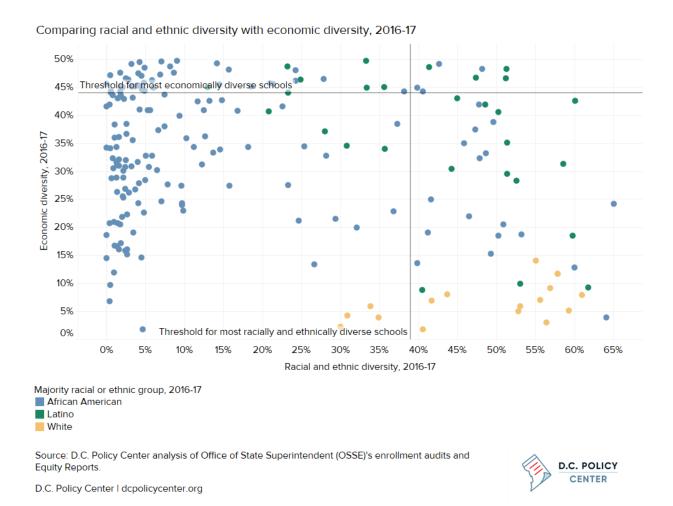
Schools that are becoming more economically diverse are more likely to be DCPS schools. Looking at DCPS schools, 45 percent became more economically diverse compared to 37 percent of public charter schools. DCPS schools, where students have a right to attend based on their address, are more responsive to family preferences for a neighborhood, whereas public charter schools are more responsive to preferences for a particular school.

# FOUR | OVERLAP IN DIVERSITY BY TYPE

There isn't much overlap in economic and racial and ethnic diversity at schools – only eight schools are considered to be the most diverse in both categories.<sup>25</sup> They include EL Haynes PCS High School, Barnard ES, LaSalle Backus EC, Tubman ES, Center City PCS Shaw, H D Cooke ES, Takoma EC, and Cleveland ES (see the upper right hand corner of Figure 18). None of these schools have a plurality of white students, and only one is a high school. All but one is located in Ward 1 or 4. About half of all schools (117 out of 215) are not diverse in either way.

<sup>&</sup>lt;sup>25</sup> Schools are considered to be the most diverse in either category if their score is above the 75<sup>th</sup> percentile of scores in each type.

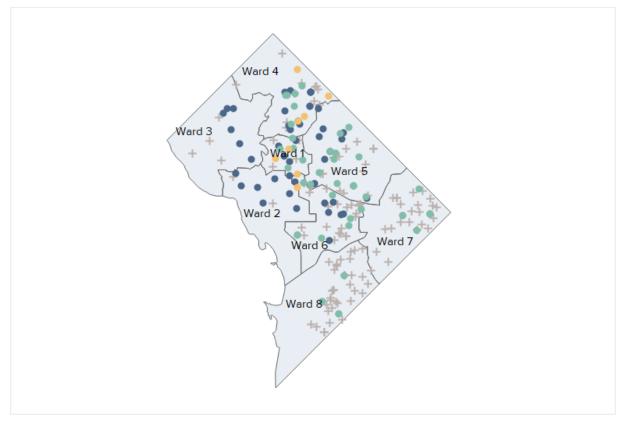
### FIGURE 18. OVERLAP BETWEEN ECONOMIC AND RACIAL AND ETHNIC DIVERSITY



Diverse schools can be found throughout the city, but there is a geographic divide. None of the most economically diverse schools are located west of Rock Creek Park and none of the racially and ethnically diverse schools are located east of the Anacostia River (see Figure 19).

### FIGURE 19. LOCATION OF MOST DIVERSE SCHOOLS





Type of school

Most diverse in both types

Most economically diverse

Most racially and ethnically diverse

■ Not most diverse

Source: D.C. Policy Center analysis of Office of the State Superintendent (OSSE)'s 2016-17 Equity Reports and 2016-17 enrollment audits.



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Schools experiencing the largest shifts in both types of diversity are located in the central corridor (see Figure 20). These seven schools are changing by more than three percentage points in both racial and ethnic and economic diversity (the 75<sup>th</sup> percentile of change for each type). Roosevelt HS is changing by the most in each category.

Change in

Change in racial

### FIGURE 20. LARGEST CHANGES IN BOTH TYPES OF DIVERSITY

Overlap in largest changes in racial and ethnic diversity and economic diversity by school, 2014-15 to diversity, 2014-15 to 2016-17 2016-17

Schools with greatest changes in both types of

7	School	economic diversity	and ethnic diversity
	Coolidge HS	11%	7%
Ward 4	Langdon ES	5%	5%
Ward 3 Ward 5	Langley ES	7%	6%
Ward 6 Ward 2 Ward 7	Mary McLeod Bethune Day Academy PCS	5%	3%
	Payne ES	8%	11%
Wedrd 8	Roosevelt HS	18%	8%
	Whittier EC	7%	3%

Schools with largest shifts in both types of diversity Other schools

Source: D.C. Policy Center analysis of Office of the State Superintendent (OSSE)'s 2016-17 Equity Reports and 2016-17 enrollment audits.



# **FIVE | CONCLUSIONS**

The District of Columbia's public school students have shifted in recent years to have lower proportions of African American and at-risk students (and higher proportions of Latino students). However, many schools have extremely high concentrations of some student groups, which reduces diversity, especially by race and ethnicity. This uneven distribution of students limits any benefits that D.C.'s students could receive at diverse schools, including more educational attainment, improved adult health outcomes, and lower rates of incarceration (Johnson 2011) for African American students as well as better preparation for diverse workplaces, lower levels of prejudice, and higher levels of cultural competence for white students (Siegel-Hawley 2012).

Racial and ethnic diversity is low, even considering the composition of D.C.'s students. Public school enrollment is concentrated by race and ethnicity (68 percent of students are African American). Schools are more likely to have students from a mix of economic backgrounds, which is in line with 47 percent of students considered to be at-risk.

There seems to be a trade-off between racial and ethnic and economic diversity, as only eight schools are the most diverse in both categories. None of these schools have a plurality of white students, only one is a high school, and almost all are located in Ward 1 or 4. There is a geographic divide as well. Wards 7 and 8 has some economic diversity, but no racial and ethnic diversity, while Wards 2 and 3 have racial and ethnic diversity, but no economic diversity.

Families may be more likely to opt into economic diversity when making school choices and more likely to choose racial and ethnic diversity if they attend their in-boundary school, linking their housing and school choices. This is relevant in an education system where just 27 percent of students attend their neighborhood school (Office of the Deputy Mayor for Education 2017). DCPS schools, where half of enrollment comes from students who live in the neighborhood, are more diverse racially and ethnically than public charter schools, which have open enrollment and are more diverse economically on average. Supporting this, public school students are more likely to attend their neighborhood DCPS school if it is one of the most racially and ethnically diverse that serves a low percentage of at-risk students.

Racial and ethnic diversity in D.C.'s schools is improving slightly as public school students become less African American. Economic diversity is not improving at most schools as students become less at-risk. Schools located east of the Anacostia River mostly became more economically diverse and schools located west of Rock Creek Park mostly became more racially and ethnically diverse. And most schools kept the same plurality group from year to year.

# **Implications**

The city's schools have a long way to go to achieve racial and ethnic diversity even given limitations of the current student body, but economic diversity has the potential to decrease as students become less at-risk. To maintain and increase diversity, schools that want to be diverse need to focus on both race and ethnicity and economic status (especially at the 18 schools with less than ten percent of students who are at-risk that tend to also have very high waitlists).

There is room for diversity to improve. if students were distributed evenly across public schools, the median racial and ethnic diversity score would be 32 percent (higher than the current value of 10 percent) and the median economic diversity score would be 47 percent (higher than the current value of 34 percent). As the student body is changing to become more diverse racially and ethnically and less diverse economically, there will be more opportunities to improve racial and ethnic diversity.

A diverse student body is not sufficient to realize the benefits from diversity – the right school-level approaches that involve staff, students, and families are necessary to enable true integration. If more diversity is achieved, schools need to commit to diversity as part of their missions, in ways that include equitable resource allocation within the school, strong relationships between students and staff, use of restorative justice, and teachers and staff that represent the student body (Potter and Quick 2018). For example, the RIDES project at Harvard University emphasizes ABCDs as ideal outcomes for all students: strong academic preparation, a sense of belongingness, commitment to dismantling racism and oppression, and appreciation of diversity (RIDES 2018). Locally, Kindred focuses on building authentic relationships between diverse groups of parents to improve equity within schools (Kindred 2018).

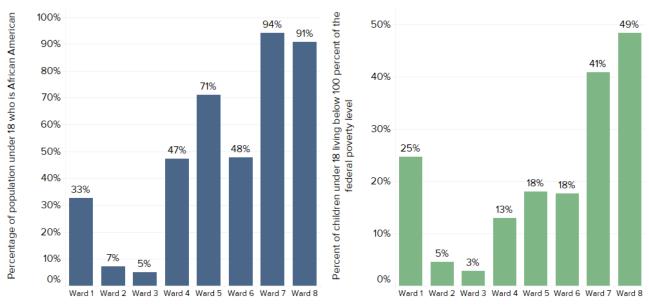
Better data with more details on economic status (free or reduced lunch, for example) would allow for a more informed discussion of economic diversity. The current measure of at-risk is binary and includes students along income-based criteria (receiving Temporary Assistance to Needy Families (TANF) or Supplemental Nutrition Assistance Program (SNAP) benefits) as well as those undergoing specific adverse experiences (homelessness or foster care) or those who are over-age in high school. The annual income thresholds for benefits program differ (approximately \$9,000 for TANF and \$49,000 for SNAP for a household of four in 2018-19), but data are not available on the number of students who receive one or the other.

# APPENDIX I I ADDITIONAL FIGURES AND TABLES

### APPENDIX FIGURE 1. DEMOGRAPHICS OF CHILD POPULATION BY WARD

African American population under 18 by Ward, 2016

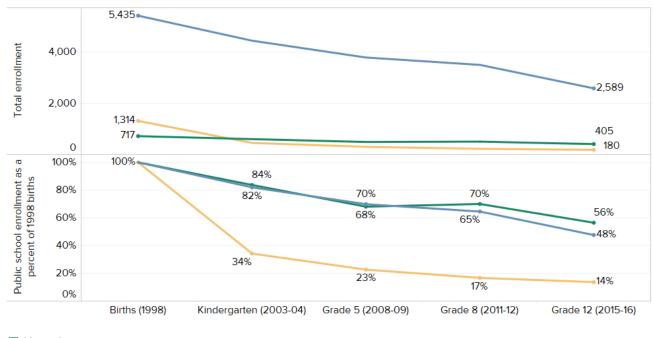
Child poverty rate by Ward, 2016



Source: KidsCount Data Center and U.S. Census Bureau, 2016 American Community Survey (ACS) 5-Year Estimates.



### APPENDIX FIGURE 2. RACE AND ETHNICITY BY GRADE OVER TIME



African American
Latino
White

Sources: Center for Disease Control (CDC), WONDER database; Office of the State Superintendent for Education (OSSE)'s enrollment audits and LearnDC data; and the National Center for Education Statistics (NCES)'s Public Elementary/Secondary School Universe Survey Data.



# **APPENDIX FIGURE 3. PROGRAM OFFERINGS AND DIVERSITY**

Programs offered by racially and ethnically diverse schools, Programs offered by economically diverse schools, 2016-17 2016-17 Inter-Extended national Blended JROTC Uniform Extended Extended Technical Montessori Uniform Learning Day Year Bacca-Learning Day Year 100% 91% 100% 96% 80% Percent of schools with program Percent of schools with program 77% 80% 60% 56% 60% 40% 40% 25% 23% 23% 17% 20% 15% 15% 20% 9% 9% 10% 10% 6% 6% 2% 2% 0% 0% 0% 0% Racially and ethnically Racially and ethnically Racially and ethnically Other diverse Other Other Other diverse Other **Economically diverse** Other Other Other Other diverse Racially and ethnically Racially and ethnically **Economically diverse Economically diverse Economically diverse Economically diverse Economically diverse Economically diverse** 

Source: D.C. Policy Center analysis of Office of the State Superintendent for Education (OSSE)'s enrollment audits and Equity Reports, My School DC total applications and results data.

Note: Programs are only presented if the difference between the percentage of most diverse and other schools offering was statistically significant.



# APPENDIX FIGURE 4. CHANGE IN STUDENTS LIVING IN THE WARD OF THEIR SCHOOL

Percentage of students living in Ward of their school over time

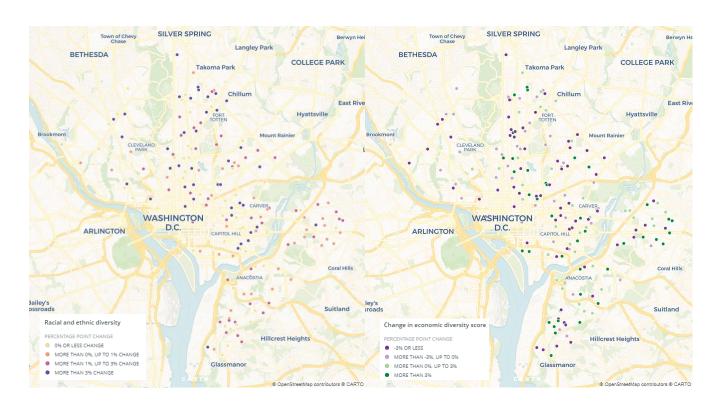


Source: Office of the State Superintendent for Education (OSSE)'s Performance Oversight responses, Question 2.

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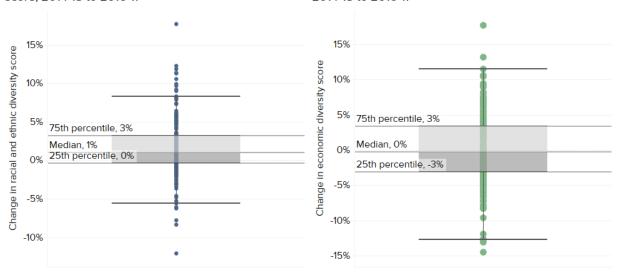
# **APPENDIX FIGURE 5. LOCATION OF CHANGING SCHOOLS**



# APPENDIX FIGURE 6. DISTRIBUTIONS OF CHANGES IN DIVERSITY

Distribution of change in racial and ethnic diversity score, 2014-15 to 2016-17

Distribution of change in economic diversity score, 2014-15 to 2016-17



Source: D.C. Policy Center analysis of Office of the State Superintendent for Education (OSSE)'s enrollment audits and Equity Reports.



# APPENDIX II | METHODOLOGY

In this report, we estimate racial and ethnic diversity as well as economic diversity. We identify the most diverse schools and compare their attributes to other schools. We also look at changes from 2014-15 (the first year that at-risk data are available) to 2016-17.

To measure diversity, we consider the size of the non-plurality share of a student group at a school. We do not focus on how this relates to the school's neighborhood because there is a high degree of public school choice (just 27 percent of students attend their in-boundary traditional public school). In theory, this permits D.C.'s schools to be more integrated than our neighborhoods. In addition, D.C. is a small city geographically, which allows students to travel to schools in a large proportion of the city. For example, a student traveling the average distance to school for charter school students of 2.1 miles has access to roughly 20 percent of the city's area.

# Measuring racial and ethnic representation

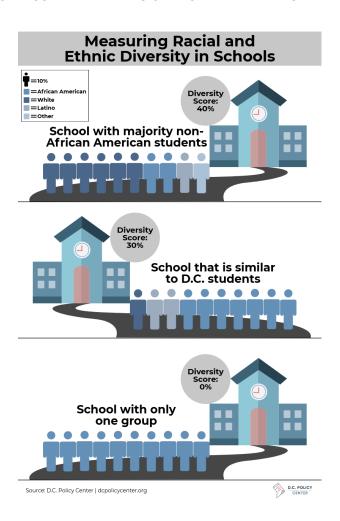
The substantial presence of three student groups in D.C. means that our measure cannot focus only on one majority and one minority group. We considered a few established methods to measure racial and ethnic representation, but none met our needs. The exposure index measures the extent to which students from one race are around students from other race, but this would ignore one of D.C.'s primary student groups. The isolation index measures how much a single race is clustered in one school, but this would highlight only one group and give an idea instead of which schools are the least diverse. The dissimilarity and divergence indices show how well the racial composition of a school relates to the neighborhood, but because of the student body at D.C.'s public schools, these measures would only identify schools with a majority African American enrollment as diverse. Lastly, the Theil index can compare multiple groups but is both complicated and difficult to interpret.

Simply looking at the share of the plurality group (or the group with the highest percentage of students) and non-plurality group(s) at each school will give the clearest idea of which schools have groups represented more equally. This also corresponds to the idea of a threshold of no more than 70 percent representation from one group to enable a diverse learning environment (Potter and Quick 2018). To measure racial and ethnic diversity, the group in the plurality is identified and the percentages of students in the other groups are summed to calculate a measure of racial and ethnicity diversity. Racial and ethnic groups include African American students, Latino students, white students, and others. The diversity score has a maximum value of 75 percent in theory, which would occur if each of the four groups were equally represented, and a minimum value of zero. However, given D.C.'s demographics, the median racial and ethnic diversity score would 32 percent in 2016-17 if all students were distributed equally.

Diversity will be greatest when the score is highest, and the measure treats all groups equally without prioritizing a mix of historically advantaged and disadvantaged groups. For example, a school with a student body that is 50 percent Latino and 50 percent African American would be considered just as diverse as a student body that is 50 percent African American and 50 percent white. And a school that is 40 percent African American, 50 percent Latino, and 10 percent white would have the same diversity score (50 percent) as a school that is 50 percent white, 25 percent African American, and 25 percent Latino.

**Methodology Figure 1** highlights a few examples. A school where the majority of students (white students in the figure below) holds 60 percent of the student body would have a diversity score of 40 percent, or the sum of other groups, and be the most diverse out of the examples below. A school that is most representative of D.C.'s students overall would have a diversity score around 30 percent, as most public school students are African American. A school with only one group (likely African American students), which reflects half of D.C.'s public schools, would be the least diverse of these three examples.

### METHODOLOGY FIGURE 1. EXAMPLES OF RACIAL AND ETHNIC DIVERSITY SCORES



# Measuring economic representation

To measure economic diversity, the analysis identifies whether students who are at-risk or not at-risk have a plurality, and uses the percentage of students in the other group as a score of economic diversity. In D.C., almost half (47 percent) of pre-kindergarten through grade 12 students are identified as at-risk. The percentage of students who are at-risk<sup>26</sup> is a better metric than economically disadvantaged students (or the percentage of students receiving free or reduced price lunch) in D.C. given data complications. In D.C., almost three-quarters of schools meet the requirements for the Community Eligibility Provision that provides all students with free lunches without submitting FARM applications. This means that data on economic disadvantage are limited. The economic diversity score has a maximum value of 47 percent if each group was represented at every school exactly as they are in the student body, and a minimum value of zero. However, individual schools can have a score of up to 50 percent if groups are evenly distributed at the school level.

The greater the economic diversity score, the more economic diversity at a particular school. Methodology Figure 2 shows examples of economic diversity. Schools with an economic diversity score of 50 percent will be the most diverse, as these schools will have the most parity between students who are at-risk and those who are not at-risk. A school with a plurality of at-risk students at 60 percent would be the next most diverse at 40 percent. A school with a high concentration of at-risk would be less diverse with a score of 10 percent.

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<sup>&</sup>lt;sup>26</sup> In D.C., pre-kindergarten through grade 12 students are considered to be at-risk if they receive TANF or SNAP benefits, are homeless, are involved with the foster care system, or over-age.

# Measuring Economic Diversity in Schools Diversity in Schools School with equal split Diversity Score: 40% School with majority at-risk Diversity Score: 10% School with concentration of at-risk Diversity Score: 10% School with majority at-risk Diversity Score: 10% Diversity Sc

### METHODOLOGY FIGURE 2. EXAMPLES OF ECONOMIC DIVERSITY SCORES

# Identifying diverse schools and their attributes

Once we have measures of racial and ethnic diversity and economic diversity, we will identify which schools are the most diverse and which characteristics they share. The most diverse schools will have distributions that represent student groups more equally, and the highest diversity scores as defined by the 75<sup>th</sup> percentile. We will then perform statistical tests of significance between the group of the most diverse schools and other schools to see if they are different across various school characteristics (separately in terms of race and ethnicity, and at-risk population). Specifically, we will use Welch's t-tests for samples with unequal variances and sample sizes. We are interested in school characteristics related to location, sector, enrollment, program offerings, proximity to transit, grade band, boundary participation distribution of students by ward (see

Methodology Table 1 for data sources on school characteristics). We will combine data from local education agencies (OSSE, DCPS, PCSB) to conduct this analysis.

# METHODOLOGY TABLE 1. SCHOOL CHARACTERISTICS DATA SOURCES, 2016-17

Characteristic	Source
Ward	DCPS School Profiles and PCS School Directory,
Sector	OSSE enrollment audit
Size	OSSE enrollment audit
Program offerings	My School DC Common Lottery data
Proximity to transit	Addresses from DCPS School Profiles and PCS School Directory and transit stops from DC Open Data
Grades offered	OSSE enrollment audit
Students by ward	SY16-17 from OSSE oversight

# **APPENDIX III | REFERENCES**

- Blagg, Kristin, Matthew Chingos, Sean P. Corcoran, Sarah A. Cordes, Joshua Cowen, Patrick Denice, Betheny Gross, et al. 2018. *The Road to School: How Far Students Travel to School in the Choice-Rich Cities of Denver, Detroit, New Orleans, New York City, and Washington, DC.* Washington: Urban Institute. doi:https://www.urban.org/research/publication/road-school-how-far-students-travel-school-choice-rich-cities-denver-detroit-new-orleans-new-york-city-and-washington-dc.
- Caldas, Stephen J, and Carl Bankston III. 1997. "Effect of School Population Socioeconomic Status on Individual Academic Achievement." *The Journal of Educational Research* 90 (5): 269-277. https://www.jstor.org/stable/27542104.
- DC Public Charter School Board. 2017. *Choosing Quality*. Washington: DC PCSB. https://www.dcpcsb.org/report/student-location-maps.
- District of Columbia Public Schools (DCPS). n.d. *District of Columbia Public Schools*. https://dcps.dc.gov/page/extended-day.
- Eaton, Susan. 2010. School Racial and Economic Composition. The National Coalition on School Diversity. http://www.school-diversity.org/pdf/DiversityResearchBriefNo1.pdf.
- Food and Nutrition Service. 2018. *Child Nutrition Programs: Income Eligibility Guidelines (July 1, 2018 June 30, 2019).* Federal Registrar, Washington, DC: United States Department of Agriculture. https://www.federalregister.gov/documents/2018/05/08/2018-09679/child-nutrition-programs-income-eligibility-guidelines.
- Harris, Douglas. 2010. "How do school peers influence student educational outcomes? Theory and evidence from economics and other social sciences." *Teachers College Record* 112 (4): 1163-1197. https://eric.ed.gov/?id=EJ888474.
- Johnson, Rucker C. 2011. *Long-run Impacts of Desegregation & School Quality on Adult Attainments*. Cambridge, MA: National Bureau of Economic Research.
- Kids Count. 2014 and 2016. Kids Count Data Center. https://datacenter.kidscount.org/.
- Kindred. 2018. *Our Approach*. Accessed December 3, 2018. https://kindredcommunities.org/what-we-do/our-approach/.
- Mordechay, Kfir, and Jennifer Ayscue. 2017. "White Growth: Persistent Segregation: Could Gentrification Become Integration." *The Civil Rights Project.* December. https://www.civilrightsproject.ucla.edu/research/k-12-education/integration-and-diversity/.

- National Center for Education Statistics, IES. 2015. *School Composition and the Black-White Achievement Gap.*Washington, DC: U.S. Department of Education.
- Nix, Naomi. 2017. What Defines a Segregated School? Debate Over Connecticut Integration Policy Heading to Court.

  The 74 Million. https://www.the74million.org/article/what-defines-a-segregated-school-debate-over-connecticut-integration-policy-heading-to-court/.
- Office of the Deputy Mayor for Education (DME). 2018. *UPSFF Working Group, Nov. 29 2018*. Washington: DME. https://osse.dc.gov/page/2018-19-uniform-student-funding-formula-upsff-working-group.
- Office of the Deputy Mayor for Education. 2017. "Citywide Factsheets." https://dme.dc.gov/node/1200485.
- Office of the State Superintendent (OSSE). 2014. 2014-2015 Enrollment Audit. Washington, DC: OSSE. https://osse.dc.gov/enrollment.
- Office of the State Superintendent for Education (OSSE). 2017. 2016-17 Enrollment Audit. Washington, DC: OSSE.
- —. 2017. 2016-17 School Year Equity Reports. https://osse.dc.gov/page/equity-reports.
- Office of the State Superintendent for Education (OSSE). 2017. DC 2017 Adjusted Cohort 4-Year Graduation Rate. Washington, DC: OSSE.
- Office of the State Superintendent for Education (OSSE). 2018. "OSSE FY17 Performance Oversight Responses, Question 5." https://osse.dc.gov/page/fy17-performance-oversight-questions.
- Office of the State Superintendent for Education. 2015. *District of Columbia, 2014-15 Equity report.* Washington, DC: OSSE. https://osse.dc.gov/sites/default/files/dc/sites/osse/publication/attachments/All%20-%20citywide.pdf.
- —. 2017. Enrollment Audit Data. https://osse.dc.gov/enrollment.
- Orfield, Gary, and Jongyeon Ee. 2017. *Our Segregated Capital: An Increasingly Diverse City with Racially Polarized Schools.* Los Angeles, CA: The Civil Rights Project. https://www.civilrightsproject.ucla.edu/research/k-12-education/integration-and-diversity/our-segregated-capital-an-increasingly-diverse-city-with-racially-polarized-schools.
- Peretti, Catherine B., and Aaron Parrott. 2018. *Giving At-Risk Students Preference in a Unified Lottery for Public Schools*. Washington, DC: My School DC. http://www.myschooldc.org/sites/default/files/dc/sites/myschooldc/page/MSDC%20At-Risk%20Preference%20in%20a%20Unified%20Lottery%204.26.2018\_Final.pdf.
- Potter, Halley, and Kimberly Quick. 2018. *Diverse-by-Design Charter Schools*. Washington: The Century Foundation. https://tcf.org/content/report/diverse-design-charter-schools/.
- RIDES. 2018. ABCDs. Accessed December 3, 2018. https://rides.gse.harvard.edu/abcds.

- Schwartz, Heather. 2010. *Housing Policy Is School Policy: Economically Integrative Housing Promotes Academic Success in Montgomery County, Maryland.* New York, NY: The Century Foundation, Inc.
- Siegel-Hawley, Genevieve. 2012. How Non-Minority Students Also Benefit from Racially Diverse Schools.

  Washington, D.C.: The National Coalition on School Diversity. http://school-diversity.org/pdf/DiversityResearchBriefNo8.pdf.
- Smithsonian National Museum of American History. 2018. *Washington, D.C.: A Challenge to Jim Crow in the Nation's Capital.* http://americanhistory.si.edu/brown/history/4-five/washington-dc-1.html.
- U.S. Department of Education. n.d. *Diversity & Opportunity*. https://www.ed.gov/diversity-opportunity.
- United States Census Bureau. 2016. American Community Survey 1-Year Estimates. https://factfinder.census.gov/.
- —. 2016. American Community Survey 5-year Estimates. https://www.census.gov/programs-surveys/acs/.
- Whitehurst, Grover J. "Russ", Richard V. Reeves, Nathan Joo, and Edward Rodrigue. 2017. *Balancing Act: Schools, Neighborhoods and Racial Imbalance*. Washington, D.C.: The Brookings Institution. https://www.brookings.edu/wp-content/uploads/2017/11/es\_20171120\_schoolsegregation.pdf.