Quality Schools, Healthy Neighborhoods, and the Future of DC

September 2008

POLICY REPORT
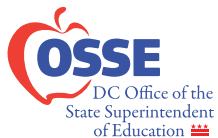
Authors

21st CENTURY SCHOOL FUND | IMPROVING URBAN PUBLIC SCHOOL FACILITIES

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About This Study

The Office of the State Superintendent of Education commissioned this study in late 2006, with original impetus from a federal directive for the city to study how quality public school options can retain and attract families to live in the District of Columbia. Three DC-based organizations — 21st Century School Fund, the Brookings Institution, and the Urban Institute — collaborated to conduct the research, bringing their distinct perspectives and expertise on education, housing, and neighborhood development in the District.

Three key factors differentiate this study from past research. First, it looks at all public schools and public school students — District of Columbia Public Schools (DCPS) and public charters — as part of different education sectors, but one public education system. Second, the analysis was done using a common set of indicators, reported for all schools and students, that allows for rigorous comparisons across sectors and geography. Finally, this study assesses school conditions and results in the context of housing market and neighborhood trends to better understand the interplay between the two policy domains.

This policy report draws on extensive quantitative analysis of student, school, and neighborhood-level data, focus groups with parents and high school dropouts, and meetings with city stakeholders and officials in both the education and housing sectors. A two volume companion study, with analysis, data tables, and detailed appendices on school supply, student enrollment patterns, and neighborhood characteristics, is being released concurrently with this policy report. Both reports are available on www. dc.gov and on the websites of the study team: www.21csf.org; www.brookings.edu; and www.urban.org.

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Executive Summary

By improving its public schools, expanding affordable housing, and revitalizing its neighbor-hoods, the District of Columbia has an opportunity to sustain its growth and become a more family-friendly city. It can retain and attract more families with children and increase the share of families that send their children to public schools. It can reverse the decline in public school enrollment *and potentially attract as many as 20,000 additional students to public schools by 2015.*

For this to happen, the city must strategically link its education policy and investments with development of affordable housing and neighborhoods to better serve the families already living here, attract new families with children to city neighborhoods, and encourage young couples with preschool-age children to stay. Today, serious challenges stand in the way.

Strong ties between neighborhood schools and their communities can benefit both children and neighborhoods. But in DC, disparities in school quality combine with housing patterns to limit both diversity and equity. *Every neighborhood should have quality schools and family-friendly housing options affordable for a range of income levels.* The city should make a major effort to improve school quality where the child population is already high or growing and expand affordable, family-friendly housing in all the city's neighborhoods. More specifically, poli-cies should:

1. Target increased educational and out-of-school time investment to neighborhoods of greatest need: where lots of families already live and do not have high-quality school op-tions.

2. Move quickly to preserve and expand affordable housing in neighborhoods that are cur-rently undergoing gentrification as well as in historically high-priced neighborhoods that are already served by quality schools; and promote a welcoming environment for racial, ethnic, and economic diversity in all schools.

Educational options can give families access to academic programs and school settings that best meet their children's needs. But in DC, many families do not have access to high-qual-ity schools, and the relationships among students, families, and their public schools are weak in all but the most affluent neighborhoods. *The city should have a public education system where families and students can make good school decisions and then build strong, last-ing relationships with schools so that schools meet families' and students' needs.* More specifically, policies should:

3. Ensure that the public education system supports parents and students in using options to their advantage.

4. Provide support for families and students to establish long-term commitments with schools and for schools to maintain a long-term presence in their communities.

Taking Advantage of a Key Moment for Change

Over the past decade, the District of Columbia has taken bold steps to improve its public schools — including recent governance and leadership changes by the mayor and city council. It has nurtured one of the most sweeping and well-funded public charter school systems in the nation, while simultaneously increasing funding for the traditional District of Columbia Public Schools (DCPS) system. Between 2000 and 2006, the city increased funding for public schools by 59 percent (adjusted for inflation, 2006 dollars), providing resources for deferred building maintenance, long-overdue pay increases for teachers and other key staff, services for special-needs students, and other essential improvements. The increased funding also paid for the creation of 62 public charter schools. These spending increases were possible because the District of Columbia's fortunes have been improving dramatically. Jobs and population are growing, the housing stock has expanded and improved, property values have risen, the city's fiscal health has been strong, and many long-neglected neighborhoods are reviving.

But even as the city's total population has increased, the child population (0–17 years old) remains essentially the same. Today, the number of children in DC as a share of total population (20 percent) ranks among the lowest of the 50 largest cities nationwide. Only five other cities rank as low or lower (Boston, Honolulu, Minneapolis, San Francisco, and Seattle).[1] While the District's child population has remained flat, its school-aged population has fallen, with total public school enrollment declining by 8 percent between 2000 and 2006.

Figure 1: DC total and child population, and public school enrollment, compared to percentage increase in schools and public education spending, 2000 to 2006
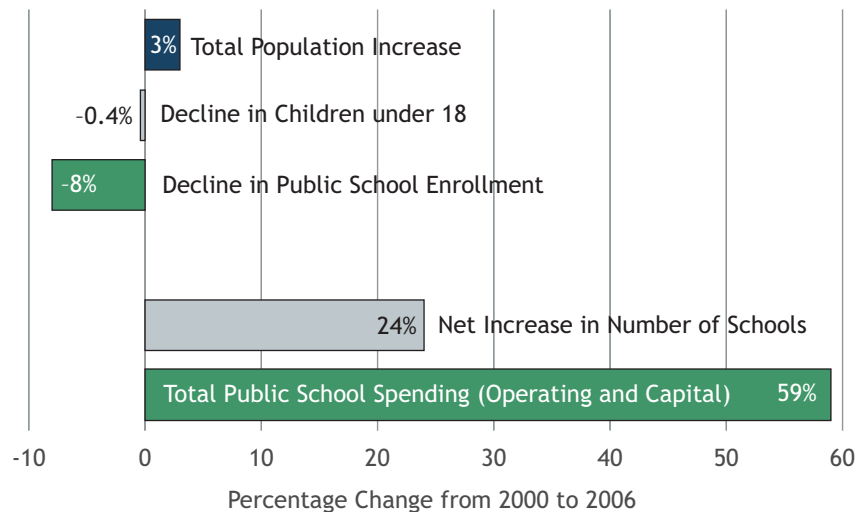
See Methodology for sources.

One explanation for the declining share of children in the population is the city's failure to pro-vide quality public schools in all neighborhoods. Another explanation is the steep increase in home prices and rents and the loss of affordable housing options (including subsidized housing), making it difficult for families with children to move into or stay in the city.[2]

The District of Columbia cannot sustain continuing declines in school enrollment in conjunction with expanding school supply and rising public investment. If these trends continue, DCPS will face pressure to close more schools — increasing instability and uncertainty for parents and communities — and all but the most popular DCPS and charter schools may experience diffi-culty meeting their enrollment targets and sustaining their programs.

As the city looks to sustain and accelerate its recent growth and prosperity, retaining and attract-ing families with children plays a critical role. A community's ability to retain and attract a diverse mix of residents is an indicator of public confidence in the future. By choosing to raise children in a community, people signal that they consider it a safe, desirable place they want their children to call "home."

Going Forward

Significant challenges currently stand in the way of attracting and retaining more families with children to the city and to public schools. The evidence summarized here shows that disparities in school quality combine with housing patterns to limit both diversity and equity. Despite the many school options offered, the current system of choice does not appear to be meeting family demand for quality schools and high mobility and chaotic feeder patterns weaken relationships among students, families, and their public schools in all but the most affluent neighborhoods.

To overcome these challenges, city leaders must align policy, budget, and practice to welcome and support families with children. More specifically, the city must act on two major priorities. It must:

1. Provide quality public schools and affordable housing for all neighborhoods: Every DC neighborhood should have both quality schools and family-friendly housing options that are affordable for a range of income levels.

2. Offer quality school options in a system that works for students and families: Families and students should be able to make good school decisions and then build strong, last-ing relationships with schools so that schools meet families' and students' needs.

These priorities do not represent "either/or" choices, but instead, they should be understood as mutually reinforcing goals. If the city succeeds in retaining and attracting more families with children and if a larger share of the families living in DC send their children to public schools, enrollment could potentially climb to about 93,000 students by 2015 — a gain of about 20,000 students over the 2006 total.

But even the boldest, most well-meaning efforts to improve our city and public schools will fail unless we also find ways to leverage the power of communities to improve schools and the power of schools to improve communities. The city should enter into a new partnership with parents and communities to make the District of Columbia a beacon for families and children in the Washington, DC, region.

This report points the way.

Priority 1: Provide Quality Public Schools and Affordable Housing for All Neighborhoods

Vision: Every DC neighborhood should have both quality schools and family-friendly housing options that are affordable for a range of income levels.

Creating a citywide system of high-quality neighborhood schools constitutes an important goal for DC, particularly at the elementary level. Attending school closer to home provides easier access for children and parents and fosters community investment and engagement, potentially benefiting both schools and communities. Shorter travel distances to school also bring the attendant benefits of less stress on the city's transportation grid and safer routes to school.

Key Finding: Most Neighborhoods Lack High-Quality Public Schools

Analyzing Public School Supply

To assess and compare the public schools–DCPS and charter–serving the city's children, we measured three key dimensions of school quality:

- *Resources* available in a school, including programmatic offerings;
- *Risks*, the characteristics of students that may undermine performance results or require supplemental resources; and
- *Results*, as measured by standardized test scores.

Analysis of school-level data for both DCPS and public charter schools in the 2006–07 school year reveals wide variation in *resources, risks,* and *results*. Disparities in both *risks* and *results* coincide with long-standing patterns of racial and economic segregation in the District of Columbia. In general, schools with higher *resources* achieve higher *results*, even when *risks* are high. Unfortunately, however, *resources* have not been allocated to compensate for *risks*. According to 2006–07 data, *resources* are low in the poorest wards of the city (where *risks* are high and *results* generally low), as well as in the most affluent (where *risks* are low and *results* high).

Public school resources vary widely across DC

Most DC schools — 83 percent of elementary schools and 72 percent of secondary schools — receive *moderate resources*, according to 2006–07 school year data. And among the remaining schools, the share receiving *high resources* is roughly the same as the share with *low resources*. However, closer analysis reveals significant disparities by school location. At the elementary level, Wards 3 and 8 have the largest shares of *low-resource* schools, followed closely by Ward 7. In contrast, Ward 1 has the largest share of *high-resource* schools, due to large numbers of both charter schools and English language learners (who receive supplemental dollars through the funding formula).

School Resource Index Factors
- Local funding per student
- Educational program
- Teacher quality (measured using No Child Left Behind requirements)
- Student-teacher ratio
- Facility condition

High-resource schools: Resource index in 4th quartile

Moderate-resource schools: Resource index in 2nd & 3rd quartile

Low-resource schools: Resource index in 1st quartile

Figure 2: Percentage of public schools in each resource category, by ward, 2006-07

Elementary

Legend:
- High-Resource Schools
- Moderate-Resource Schools
- Low-Resource Schools

Secondary

Legend:
- High-Resource Schools
- Moderate-Resource Schools
- Low-Resource Schools
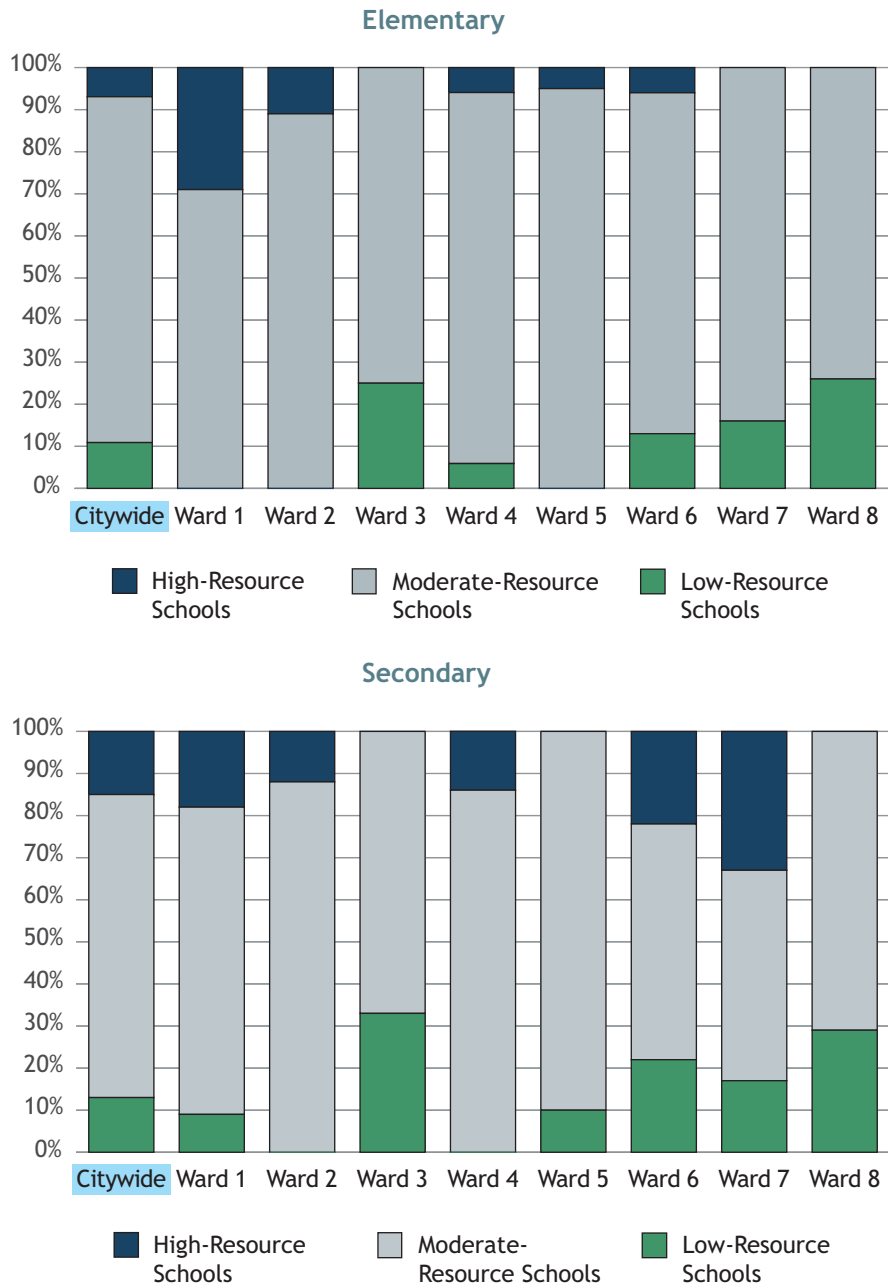
School Resource Index created by 21st Century School Fund. See Methodology for sources.

Secondary schools exhibit even greater variation in the distribution of *resources*: Almost one-third of schools in Wards 3 and 8 have *low resources*, and no schools in these wards have *high resources*. In contrast, Wards 6 and 7 have relatively high shares of both *low-* and *high-resource* schools.

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Public charter schools generally have higher resources than DCPS schools

According to 2006–07 data, most DCPS elementary schools have *moderate resources*; only a few schools have *low resources*, while a larger share of charter elementary schools receive *high resources*.[3] At the secondary level, DCPS schools receive significantly *lower resources* relative both to charter schools and elementary schools.

Figure 3: Percentage of schools at high-, moderate-, or low-resource levels by grade and education sector

School Resource Index created by 21st Century School Fund. See Methodology for sources.
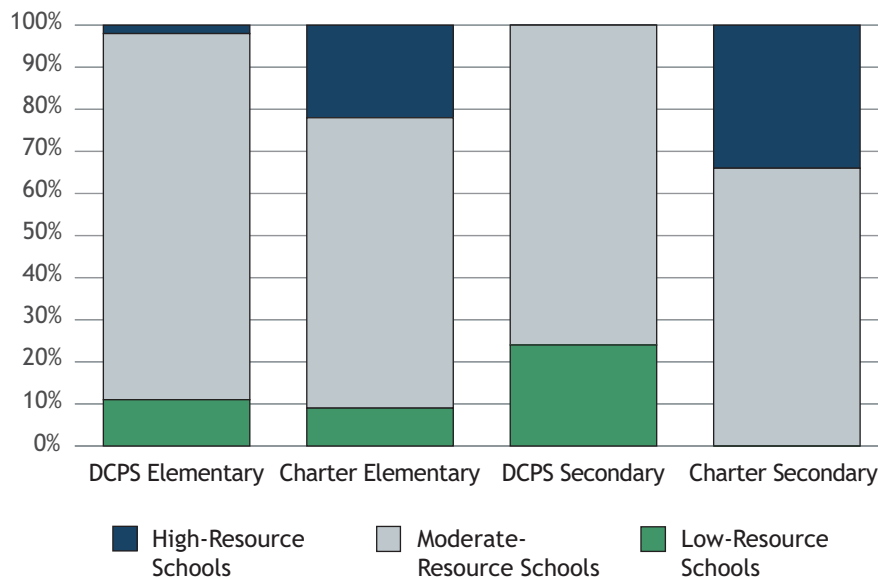
The relatively *low resource* levels at the DCPS secondary schools occur in part because, although the city provides more funding per high school student than per elementary student (in the Uniform per Student Funding Formula), in 2006–07, DCPS did not provide this higher level of funding to its high schools in the Weighted Student Formula. Since public charter schools have the benefit of higher funding for secondary school students, they have more funding per student at the secondary school level.

Resources reflect more than just dollars per student, however. The *higher resource* rankings in the charter sector also stems from the widespread use of educational programs that infuse a special theme or pedagogical approach in the school, as opposed to a basic grade-level educational program. Public charter schools also tend to have lower student-teacher ratios than DCPS schools. This may result from public charter schools hiring new teachers at lower salaries than DCPS pays its veteran staff, thereby enabling the public charter schools to get more instructional staff for the same Uniform per Student Funding. Public charters also have a higher share of highly qualified teachers, which are defined in No Child Left Behind as having full certification bachelor's degree and demonstrated competence in subject knowledge and teaching.

Overall, public charter school facilities are in better condition than DCPS schools, and because each charter school receives an equivalent share of capital funds through the facility allowance, there is less variation in facility condition among them.[4] In contrast, some DCPS schools are in excellent condition, according to a 2006 school system facilities assessment, but most are in poor condition. However, although the charter school facilities tend to be in better condition, they are far more likely to be crowded and to lack adequate educational spaces, such as a gymnasium, library, art room, or other specialty spaces. Many charter schools also lack outdoor space for athletics, play, or environmental education.

Many DC schools serve student populations with high levels of risk

Students arrive at school with varying levels of academic, social, and emotional preparation for learning. Indicators of *risk* levels among student populations reflect the challenges confronting many schools in the DC system. According to 2006–07 data, almost half of the city's elementary schools are *high-* or *moderately high-risk*. Fewer than one in five elementary schools are *low-risk*. The *risk* is somewhat more evenly distributed at the secondary level, where 40 percent of the city's schools are *high-* or *moderately high-risk* and 30 percent are *low-risk* schools.

Like school *resources*, *risk* levels vary across the city's eight wards. At the elementary level, three-quarters of Ward 3 schools serve *low-risk* student populations, while there are no *low-risk* schools in Wards 7 or 8 and only one each in Wards 1 and 6. The variation is even more pronounced at the secondary level, where all Ward 3 schools serve *low-risk* student populations, while all Ward 8 schools are *high-* or *moderately high-risk* schools.

School Risk Index Factors
- Students living in high-poverty neighborhoods
- Students eligible for free or reduce price lunch (elementary only)
- Students receiving special education services
- Students with limited or no English proficiency

High-risk schools: Risk index in 4th quartile

Moderately high-risk schools: Risk index in 3rd quartile

Moderately low-risk schools: Risk index in 2nd quartile

Low-risk schools: Risk index in 1st quartile

Figure 4: Percentage of public schools in each risk category by ward, 2006-07

Elementary

| | High-Risk Schools | Moderately High-Risk Schools | Moderately Low-Risk Schools | Low-Risk Schools |

Secondary

| | High-Risk Schools | Moderately High-Risk Schools | Moderately Low-Risk Schools | Low-Risk Schools |
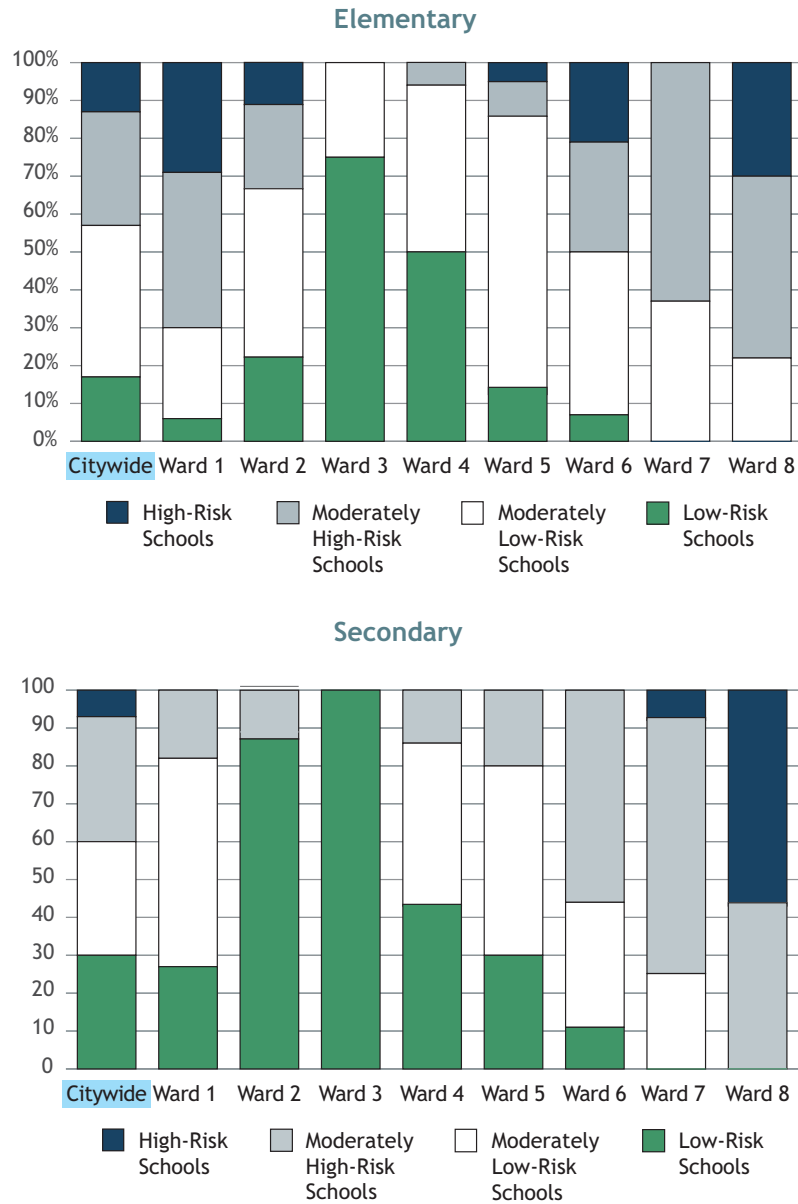
School Risk Index created by 21st Century School Fund. See Methodology for sources.

DCPS schools serve both the highest-risk and the lowest-risk student populations

Both DCPS and charter schools in the District of Columbia serve students who face significant challenges. But DCPS schools are much more likely than charters schools to serve student populations with the *highest risk* levels. In all, 16 DCPS elementary schools (serving 5,232

students) and only one charter (serving 193 students) have *high-risk* scores. Similarly, at the secondary level, all of the schools with *high-risk* scores (five schools serving 2,788 students) and a majority of those with *moderately high-risk* scores (12 of 22, serving 5,120 students) are DCPS schools. The 10 *moderately high-risk* charter secondary schools serve 3,026 students.

Interestingly, DCPS schools at both the elementary and secondary levels are more likely than charter schools to serve student populations with the *lowest risk* levels. In general, therefore, the charter schools are likely to be *moderately low-* to *moderately high-risk* schools, rather than either *high-risk* or *low-risk* schools.

Public school results range from excellent to very poor and vary greatly by ward

Although standardized test scores only provide a partial picture of student achievement, they offer a window into how well students are doing academically. The reading and math scores on the Spring 2007 District of Columbia Comprehensive Assessment System (DC-CAS) tests vary widely across the District's public schools. Some schools perform very well; the highest-performing schools on the Spring 2007 DC-CAS tests are Mann Elementary School at the elementary level and Banneker Senior High School at the secondary level, where almost 95 percent of students score proficient or advanced on reading and 82 and 90 percent, respectively, score proficient or advanced in math. In contrast, the lowest-performing schools are Webb Elementary School at the elementary level — where barely

School Results Index Factors
• Students READING at basic and above
• Students READING at proficient and advanced
• Students doing MATH at basic and above
• Students doing MATH at proficient and advanced
High-results schools: Results index in 4th quartile
Moderate-results schools: Results index in 2nd & 3rd quartile
Low-results schools: Results index in 1st quartile

10 percent of students score proficient and above in either reading or math — and Johnson Junior High School at the secondary level, where less than 7 percent of students score proficient or advanced in either reading or math. Across the city as a whole, 36 elementary schools and 19 secondary schools achieve *high results*; while 32 elementary schools and 18 secondary schools achieve *low results*.

Overall, a larger share of charter schools than DCPS schools achieve *high results*. For example, 31 percent of charter elementary schools achieve *high results*, compared to 27 percent of DCPS elementary schools. Regardless of the education sector, results vary by location. Ward 3 schools — both elementary and secondary — achieve the *highest result*s overall, while Ward 8 schools have the *lowest results*. Selective schools (including DCPS secondary schools with selective admission and charter schools with rigorous academic and/or behavioral standards) achieve *above-average results*.

Figure 5: Percentage of public schools in each results category by ward, 2006–07
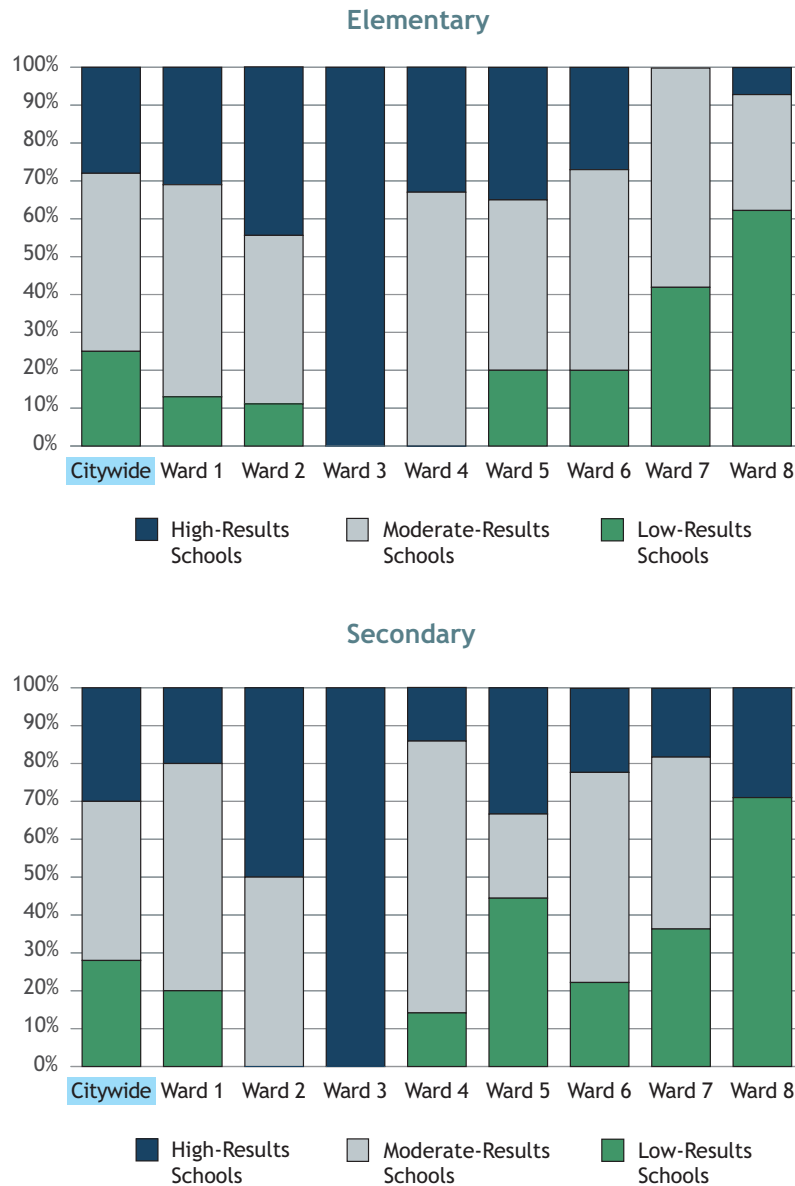
Elementary

	High-Results Schools	Moderate-Results Schools	Low-Results Schools

Secondary

	High-Results Schools	Moderate-Results Schools	Low-Results Schools

School Results Index created by 21st Century School Fund. See Methodology for sources.

There is a strong relationship between *risks* and *results* at both the elementary and secondary levels. Schools with the *highest risk* scores generally have the *lowest results*, and conversely, most of the *high-results* schools have *low-risk* levels. However, some schools (including both DCPS and charter schools) with *moderately-high* and *high-risk* levels do achieve *high results*. Cleveland Elementary School is the only public school in the city with the *highest risk* level that achieves *high results*.

Figure 6: Distribution of schools in each risk category by level of results, 2006-07

Elementary

| Low-Risk Schools | Moderately Low-Risk Schools | Moderately High-Risk Schools | High-Risk Schools |

Legend: ■ High Results ▢ Moderate Results ■ Low Results

Secondary

| Low-Risk Schools | Moderately Low-Risk Schools | Moderately High-Risk Schools | High-Risk Schools |

Legend: ■ High Results ▢ Moderate Results ■ Low Results

School Risk & School Results Indices created by 21st Century School Fund. See Methodology for sources.

School resources, risks, and results coincide with patterns of neighborhood segregation

Disparities in school *resources*, *risks*, and *results* across the city interact with residential patterns to limit access to quality schools. In particular, the persistence of both racial and economic segregation in DC neighborhoods influences both the composition and quality of public schools, with the city's poorest and most vulnerable neighborhoods served by the lowest-quality schools.

These disparities are reflected in both DCPS and charter schools, even though charter schools are open to all students, regardless of the neighborhood of residence.[5]

In particular, elementary schools located in predominantly black, high-poverty areas serve almost exclusively black students, and both DCPS and charter schools in these neighborhoods have *high-risk* scores, *low resources*, and *low results*. No DCPS elementary schools in the city's predominantly black, high-poverty neighborhoods have *low-risk* scores, none have *high resources*, and only one (Leckie in Ward 8) has *high results*.

The picture is equally dismal for charter elementary schools located in these neighborhoods: none have *low-risk* scores, none have *high resources*, and only one (Howard Road Academy in Ward 8) has *high results*. However, elementary schools located in predominantly black, low-poverty neighborhood clusters also are attended primarily by black students. But these schools — such as Shepherd, Langdon, and Whittier elementary schools — have relatively *low-risk* scores and *moderate* to *high results*.

Elementary schools in predominantly white neighborhood clusters (mostly located west of Rock Creek Park in Wards 2 and 3) are the city's most racially mixed. They include many of the city's highest-performing schools, including Eaton, Ross, and Murch elementary schools. In all, 69 percent of elementary schools in these neighborhoods have *low-risk* scores, and 85 percent have *high-results* scores.

Finally, elementary schools in the city's racially changing neighborhood clusters have lower black enrollment and higher Hispanic enrollment than the citywide average, but not higher white enrollment. More DCPS elementary schools in these neighborhoods have *high risks* and *moderate results* than the average for elementary schools citywide. An example is Tubman Elementary School in Ward 1. In contrast, charter elementary schools in these racially changing neighborhood clusters are relatively high quality: Almost one-third of these charters have *high resources*, and 46 percent have *high results*, compared to only 7 percent and 29 percent for all elementary schools. Examples include Capitol City, E.L. Haynes, and Elsie Whitlow Stokes public charter schools.

Schools with higher resources achieve higher results, when risk is high

Higher resources appear to improve results, especially at schools with *high-risk* levels. For example, elementary schools in Wards 1 and 8 have similar risk profiles. However, Ward 1 has a greater share of both *high-resource* schools and *high-results* schools than Ward 8.

Figure 7: Comparison of resources, risks, and results between Ward 1 and Ward 8 elementary schools
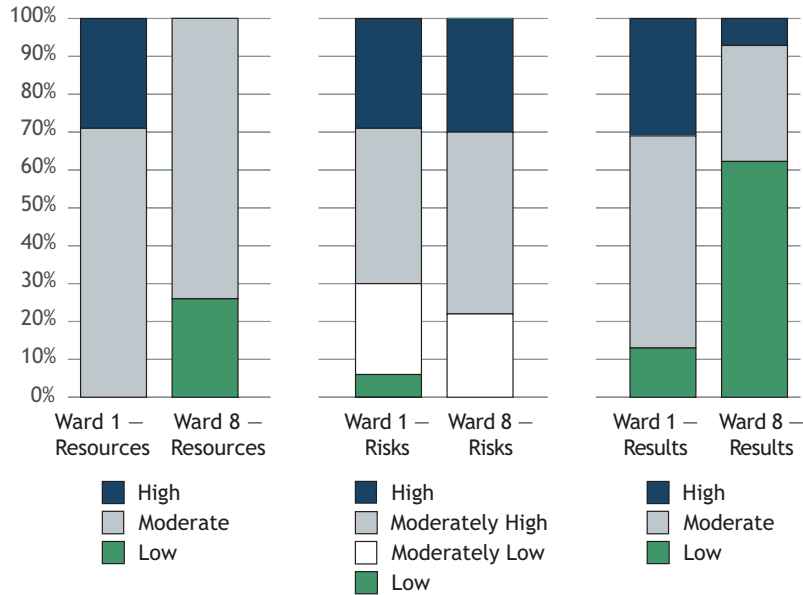
School resources, school risk, and school results indices created by 21st Century School Fund. See Methodology for sources.

Differences between DCPS and charter schools also seem to illustrate this finding. At the elementary level, more than 20 percent of charter schools have *high resources*, while almost no DCPS schools do. Correspondingly, 89 percent of charter elementary schools achieve either *moderate* or *high results*, compared to only 70 percent of DCPS schools.

Figure 8: Comparison of resources, risks, and results between DCPS and public charter schools
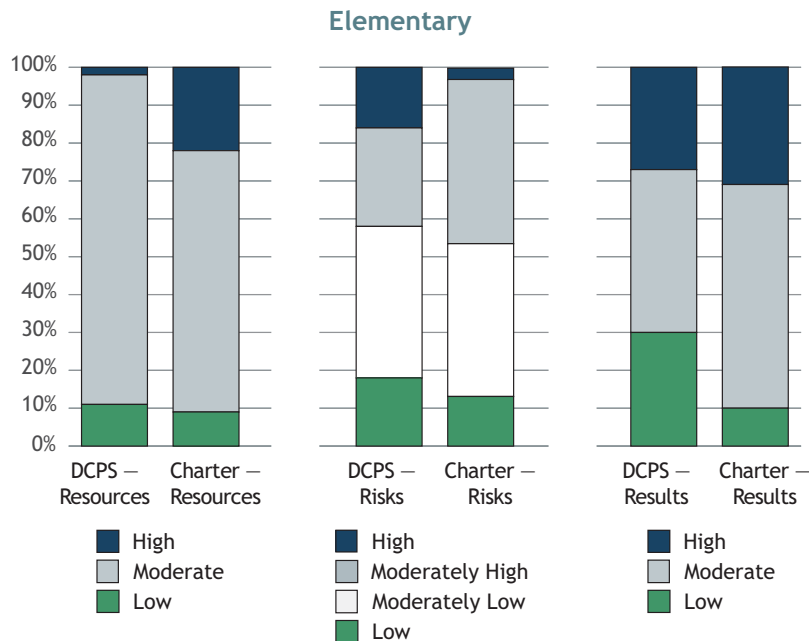
Elementary

15

Secondary

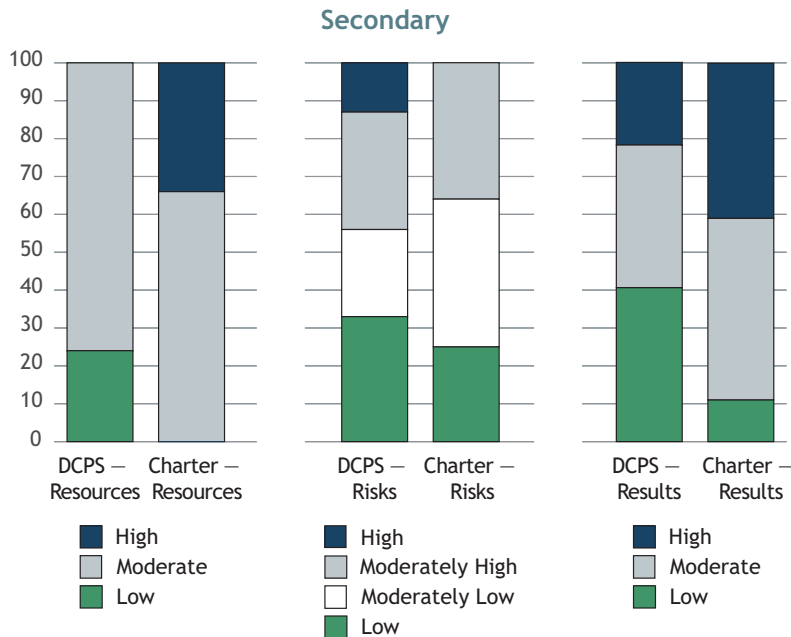**School Resources, School Risk, and School Results Indices created by 21st Century School Fund. See Methodology for sources.**

Substantial shares of both DCPS and public charter schools serve *moderately high-risk* or *high-risk* student populations, although no charter secondary schools serve a *high-risk* population (there are five *high-risk* DCPS secondary schools). More than one-third of charter secondary schools have *high resources* while no DCPS schools do, and nearly 90 percent of charters achieve *moderate* or *high results*, compared to only 60 percent of DCPS schools.

Unfortunately, only 11 of the city's 83 *moderately high-risk* or *high-risk* schools receive *high resources*. Schools with *low-risk* scores perform well even without *high resources*, probably because these students receive more support outside of school. These patterns of evidence suggest that increasing resources in *high-risk* schools in poorly served neighborhoods can help the city reduce serious disparities in school *results*.

Policy Objective 1: Increase Educational Investments in the Areas of Greatest Need

The city has the ability to change how its *resources*-programs, teachers, funding, and facilities-are allocated among schools and across neighborhoods. It can provide needed supports to neighborhoods that are economically distressed and to students who arrive in public schools with special challenges to overcome. The city should target more educational and out-of-school-time investments to schools with the *highest risks* and *lowest results*, especially those located in neighborhoods where many families already live and do not have high-quality school options. Specifically:

Recommendation 1.1: Increase resources for public schools in underserved neighborhoods

Policy options:

- Fully staff DCPS schools with highly qualified teachers to provide rich curricular offerings, including art, music, foreign language, science, and physical education;

- Partner with local colleges and universities, cultural and professional organizations, and nonprofits to develop and sustain high-quality innovative programs in the public schools;

- Prioritize the maintenance, planning, design, and construction of school facilities for DCPS in *low-resource*, *high-risk*, and *low-results* schools;

- Prioritize revenue bond financing, City Build grants, direct loans, and credit enhancement to public charter schools in neighborhoods with *high-risk* and *low-results* schools;

- Provide public charter schools low- or no-cost leases for city-owned space, including underutilized and vacant DCPS buildings, as a matter of right — both to existing schools and as part of the process of granting of a charter.

Recommendation 1.2: Provide help to students in schools with high-risk populations

Neighborhood Impact
The areas of the city that would be most affected include:

1) East of the Anacostia River, specifically neighborhoods such as Congress Heights, where a large proportion of *low-resource*, *high-risk*, and *low-results* schools are located;

2) New Communities projects in Northwest One, Barry Farms, Park Morton, and Lincoln Heights/Richardson Dwellings; and

3) Other neighborhoods that have schools with *low resources* serving *high-risk* student bodies.

Policy options:

- Co-locate high-quality social and student support services in schools following a community schools model — such as Beacon Schools, Children's Aid Society, Bridges to Success, Communities in Schools, or Schools of the 21st Century;

- Increase out-of-school-time academic, enrichment, recreation, and health programs for children and youth in *high-risk* schools;

- Build or renovate community centers, recreation facilities, and playgrounds within or adjacent to school facilities;

- Co-locate private special education providers currently serving DCPS students off-site into DCPS schools, and develop joint programs to help DCPS schools better serve their special education students;

- Open schools and expand programs to serve over-age and under-credited youth with high-quality programs.

Recommendation 1.3: Ensure that neighborhood redevelopment plans include school improvement as a major component

Policy options:

- Prioritize DCPS schools in neighborhood redevelopment areas for investments in facilities, staff, and academic programs;

- Provide more support to public charter schools with *high risks* and *low results* that are located in areas of redevelopment;

- Locate (or relocate) *high-results* charter school programs to these locations.

Key Finding: High Housing Costs Limit Access to Neighborhoods with Quality Schools

In recent years, home prices and rents have skyrocketed in the District of Columbia, making it difficult for many families to find housing they can afford. In addition, condominiums have dominated the new housing constructed, and these units generally have not attracted families with children. The District's quality schools are disproportionately located in neighborhoods with high-cost housing, while in the neighborhoods where many recent homebuyers have school-age children, quality schools are in short supply. Together, these challenges help explain why the number of children living in DC has declined, despite the city's total population gains. The good news, however, is that births (and the number of children under age 5) are rising, offering the potential for future public school enrollment gains.

Housing Market Types
- Hot-market clusters - neighborhoods with rising volume of sales and high price increases
- Growth clusters - neighborhoods with rising volume of sales and lower prices
- High-priced clusters - neighborhoods with little sales growth but historically high prices
- Weak market clusters - neighborhoods with little sales growth and lower prices

Housing costs have climbed out of reach for many families, and most new construction is targeted to smaller households

Since the end of the 1990s, home sales prices and rents in the District of Columbia have soared. In 2006, the median single-family home sold for $431,000, and the vast majority of sales are beyond the reach of moderate-and even middle-income working families. Rents have risen rapidly as well, with DC rentals averaging $1,380 in 2006 (based on apartments in buildings with more than five units). A family would need an income above $55,000 to make this rent affordable, according to federal standards. This is well beyond the reach of many households with children – nearly 60 percent of DC's public school students are eligible for free or reduced price lunch, which means their families' incomes fall below $35,000. Although home prices and rents are growing more slowly now, due to the national market downturn, the District's housing market remains robust, with persistently high sales prices and rents.[6]

During the first half of this decade, the District's growth and prosperity triggered a boom in housing construction. In 2005, for example, the city issued 2,860 residential building permits, 10 times the average number issued during the 1990s. But most of these new units are expensive, and many are condominiums. In fact, condominiums have accounted for a growing share of the District's sales market (49 percent in 2005), and historically, very few condominium residents have children enrolled in public schools. Specifically, condominiums generate only seven public school students per 100 housing units, compared with 24 for multifamily rental housing and 40 for single-family housing.[7]

Quality schools are disproportionately located in high-cost neighborhoods
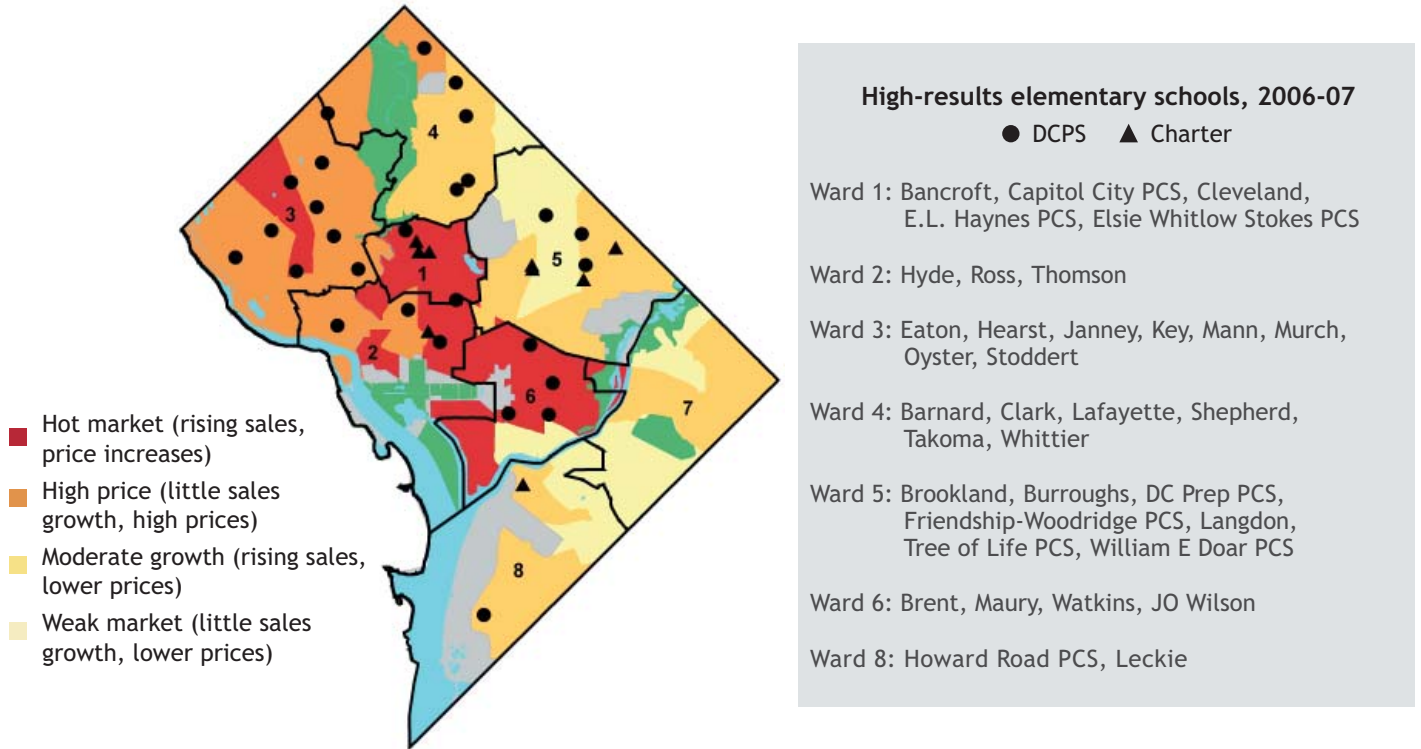
Elementary schools with *high resources* and *high results* are generally located in either hot market neighborhood clusters or historically high-priced neighborhood clusters.[8] The city's historically high-priced clusters, where home prices are the highest, have the largest share of elementary schools with *high results*. No charter elementary schools and only one charter secondary school — Washington Latin PCS — are located in neighborhoods of this type. Of the DCPS elementary schools in these high-priced neighborhood clusters, 90 percent have *high results*.

Hot market neighborhoods, where sales volumes and prices have risen the fastest in recent years, also have a disproportionate share of the city's high-quality schools. Specifically, 15 percent of elementary schools in these neighborhood clusters have *high resources*, and 38 percent have *high results*, compared to only 7 percent and 29 percent of all elementary schools citywide. Charter elementary schools in these neighborhood clusters have particularly *high resources* and *results*, but the share of DCPS schools with *high results* also is above the average for the city as a whole.

Families who can afford to live in these neighborhoods gain access to many of the city's highest-quality schools, and in fact, the quality of the schools may contribute to the high home prices and rents. But homes and apartments in these neighborhoods are beyond the reach of many families with children who live in the District now or might want to move here.

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Map 1: High-results elementary schools are concentrated in neighborhoods with historically high-priced housing

Hot market (rising sales, price increases)

High price (little sales growth, high prices)

Moderate growth (rising sales, lower prices)

Weak market (little sales growth, lower prices)

High-results elementary schools, 2006-07

● DCPS   ▲ Charter

Ward 1: Bancroft, Capitol City PCS, Cleveland, E.L. Haynes PCS, Elsie Whitlow Stokes PCS

Ward 2: Hyde, Ross, Thomson

Ward 3: Eaton, Hearst, Janney, Key, Mann, Murch, Oyster, Stoddert

Ward 4: Barnard, Clark, Lafayette, Shepherd, Takoma, Whittier

Ward 5: Brookland, Burroughs, DC Prep PCS, Friendship-Woodridge PCS, Langdon, Tree of Life PCS, William E Doar PCS

Ward 6: Brent, Maury, Watkins, JO Wilson

Ward 8: Howard Road PCS, Leckie

School Results index created by 21st Century School Fund; Housing Market Typology created by Urban Institute. See Methodology for sources.
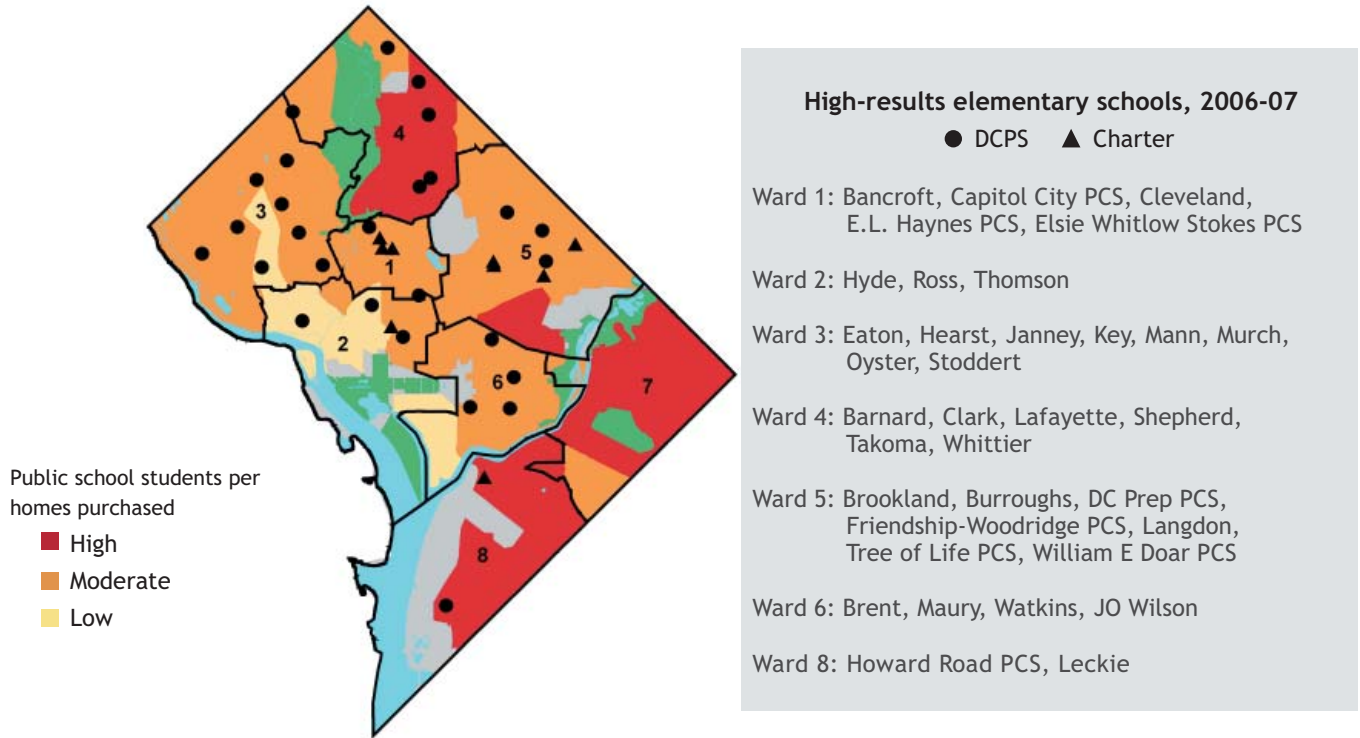
Neighborhoods where many recent homebuyers have children lack high-quality schools

Families with children who attend public school are generally not buying homes in the high-priced areas where high-quality elementary schools are located. Clusters with high numbers of students in recently purchased homes have moderate house prices; none fall into either the hot market or historically high-priced categories.[9] Elementary schools located in clusters with the most students per recent home purchased generally have *lower resources* and *results* than citywide averages, whereas clusters with only moderate numbers of students per recent home purchase have a significantly larger share of high-quality elementary schools. This finding applies to both DCPS and charter elementary schools. In other words, families with children seem to be buying homes despite the poor quality of most neighborhood schools, possibly because these neighborhoods are more affordable.

Map 2: Neighborhood clusters by number of public school students per recently purchased home and high-results elementary schools

High-results elementary schools, 2006-07
● DCPS ▲ Charter

Ward 1: Bancroft, Capitol City PCS, Cleveland, E.L. Haynes PCS, Elsie Whitlow Stokes PCS

Ward 2: Hyde, Ross, Thomson

Ward 3: Eaton, Hearst, Janney, Key, Mann, Murch, Oyster, Stoddert

Ward 4: Barnard, Clark, Lafayette, Shepherd, Takoma, Whittier

Ward 5: Brookland, Burroughs, DC Prep PCS, Friendship-Woodridge PCS, Langdon, Tree of Life PCS, William E Doar PCS

Ward 6: Brent, Maury, Watkins, JO Wilson

Ward 8: Howard Road PCS, Leckie

Public school students per homes purchased
■ High
■ Moderate
■ Low

School Results index created by 21st Century School Fund; neighborhood generation rates created by Urban Institute. See Methodology for sources.

Although DC's population is growing, the number of school aged children and the share enrolled in public schools have declined

After decades of decline, the District's population turned around in the late 1990s and started to rebound. Between 2000 and 2006, total population grew by an average of 1,515 residents per year. This growth has been accompanied by increasing racial and ethnic diversity. From 2000 to 2006, the District's non-Hispanic white population grew by 14 percent, the number of Hispanics stayed steady, and the Asian population, though still small, increased by 20 percent. This trend presents opportunities for the city and its schools to become more diverse, but it also poses challenges as families from different backgrounds get to know one another.

While the city's population has grown, the number of school-aged children has dropped 4 percent. Most of the city's growth, therefore, has come from singles and childless couples, not from families with children. In fact, the size of the average household in DC appears to be declining.[10] Although many factors account for this trend, the fact that high-quality schools are scarce — especially in the city's more affordable neighborhoods — certainly contributes.

To make matters worse, the share of children under 18 who attend public schools — including either DCPS or public charter schools — also has declined since 2000, from 68.5 percent

to 63.3 percent. This trend suggests that a growing share of DC families choose to send their children to private schools or to teach them at home. In addition, too many students simply drop out of the DC schools (a problem discussed further below).

Figure 9: Change in school-age population and public school enrollment, 2000 and 2006
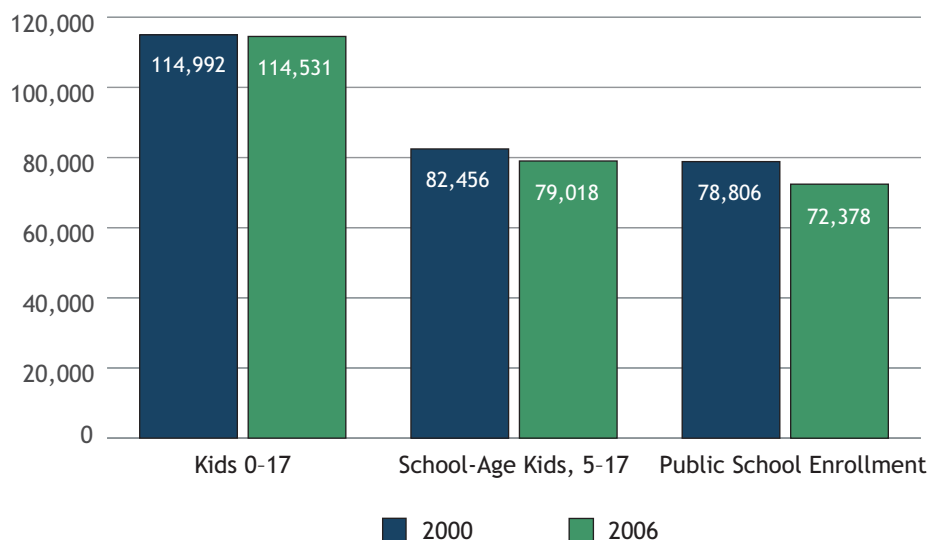
DC births are rising, but this has not yet translated into increased school enrollment

Birth rates are on the rise in DC, and as of 2006, 2,977 more children under age 5 lived in the city than in 2000, a 9 percent increase. Rising births offer an opportunity for the city; if it can retain these young families and attract their children to the public schools, total population growth can be more easily sustained, and school enrollment will rise.

Neighborhoods with the biggest increases in births between 2001 and 2005 have relatively *high-resource* and *high-results* elementary schools.[11] This suggests that some young families may be choosing their neighborhoods in anticipation of childbearing or are working to improve their neighborhood schools as their children reach school age. By expanding early childhood offer-ings in these neighborhood schools, the District could potentially increase the enrollment of new families in the public schools.
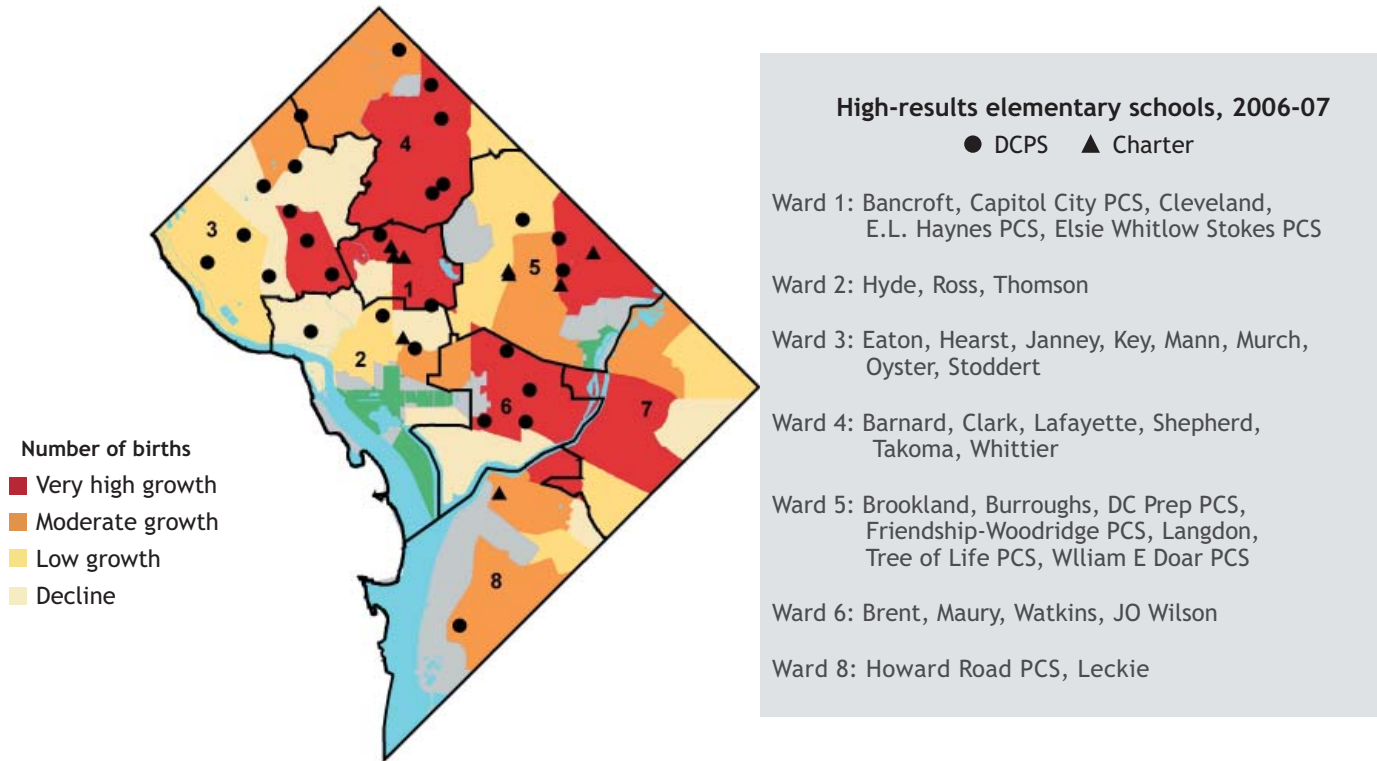
Neighborhoods that experienced moderate growth in births have lower-quality elementary schools compared to neighborhoods that experienced either low growth or a decline in births. Seven of the 10 clusters in the moderate growth in births category also experienced low to moderate housing price increases, and many of the schools in these neighborhoods are *high*

risk. In other words, some of the young families fueling the city's rising birth rate are fortunate enough to live in neighborhoods with high-quality schools, but many others live in more afford-able neighborhoods with much lower school quality. The city should ensure that all families with school-aged children have access to quality neighborhood schools.

Map 3: Neighborhood clusters by change in birth rates and high-results elementary schools

High-results elementary schools, 2006-07

● DCPS   ▲ Charter

Ward 1: Bancroft, Capitol City PCS, Cleveland, E.L. Haynes PCS, Elsie Whitlow Stokes PCS

Ward 2: Hyde, Ross, Thomson

Ward 3: Eaton, Hearst, Janney, Key, Mann, Murch, Oyster, Stoddert

Ward 4: Barnard, Clark, Lafayette, Shepherd, Takoma, Whittier

Ward 5: Brookland, Burroughs, DC Prep PCS, Friendship-Woodridge PCS, Langdon, Tree of Life PCS, Wlliam E Doar PCS

Ward 6: Brent, Maury, Watkins, JO Wilson

Ward 8: Howard Road PCS, Leckie

Number of births

■ Very high growth
■ Moderate growth
■ Low growth
■ Decline

School Results Index created by 21st Century School Fund; birth rate typology created by Urban Institute. See Methodology for sources.

Policy Objective 2: Preserve and Expand Housing Affordability and Welcome New Families to Schools

The city must move quickly to preserve the affordable, family-friendly housing that remains in neighborhoods with high-quality schools, which will help minimize displacement of families with children; and it should reach out to new families in areas where rising births offer the opportunity for rising enrollments. At the same time, the city should expand the availability of affordable, family-friendly housing near quality schools by targeting new affordable housing development and increasing school capacity in neighborhoods already served by quality schools. Moreover, as the city and its schools become more racially, ethnically, and economically diverse, it needs to ensure that all families feel welcome in the public schools. Specifically:

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Recommendation 2.1: Preserve housing with expiring federal subsidies in neighborhoods with quality schools

Policy options:

- Identify projects with expiring subsidies that currently serve families with children and are located in neighborhoods with quality schools;
- Give priority to these projects in rankings for preservation funding and technical assistance resources.

Recommendation 2.2: Allow families facing displacement to stay in neighborhoods where their children attend high-quality schools

Policy options:

- Create a special pool of housing assistance resources for these families — like the city's homeless prevention programs;
- Give these families priority for locally funded housing vouchers.

Recommendation 2.3: Create a welcoming environment that helps parents of diverse backgrounds work together in their children's schools

Neighborhood Impact
The areas of the city that would be most affected include gentrifying, "hot-market" neighborhoods such as Union Station/ Capitol Hill, Columbia Heights, Adams Morgan, and Shaw — where birth rates are rising and communities are changing in their composition, often becoming less racially and economically isolated.

Policy options:

- Invest in community-building efforts that enable parents at different income levels and from different racial and ethnic groups to work together;
- Encourage young families to get involved in their neighborhood public schools — whether DCPS or public charter;
- Ensure availability of specialized in-school early childhood programs where new families are settling and advertise them to parents.
- Ensure policies in Title V of District of Columbia Municipal Regulations include rights and processes for parental and community involvement in public school decisions.

Recommendation 2.4: Ensure that new developments incorporate housing options for a mix of income levels and household types

Policy options:

- Use new inclusionary zoning mandates, capital subsidies, and project-based housing vouchers — like Montgomery County's inclusionary program;

- Increase capacity at high-demand, high-performance schools when planning and designing new housing developments.

Recommendation 2.5: Allow families with housing vouchers to use them in neighborhoods that already have high-quality schools

Neighborhood Impact
The areas of the city that would be most affected include Ward 3, which has the greatest concentration of *high-results* schools, as well as neighborhoods with *high-results* schools and little affordable housing, such as Shepherd Park.

Policy options:

- Encourage rental housing providers to accept portable housing vouchers;

- Assist voucher recipients in finding rental housing in neighborhoods with quality schools — like assisted housing mobility programs in Baltimore, Boston, and Chicago.

Priority 2: Offer Quality School Options in a System that Works for Students and Families

Vision: A system where families and students can make good school decisions and then build strong, lasting relationships with schools so that schools meet families' and students' needs.

DC families have a wide array of school options. Students can attend their assigned neighborhood DCPS school, apply to another DCPS school through an out-of-boundary process, apply to a citywide magnet high school or academy through a select admissions process, enter a lottery to attend a public charter school, or apply for a publicly financed scholarship to a private school (voucher).

Analyzing the Demand for Schools
To understand patterns of public school choice, the study team interviewed parents in nine focus groups in neighborhoods across the city. We also developed an index that ranks the level of *demand* for individual public schools.

This variety of public school options can give families access to academic programs and school settings that best meet their children's needs and may allow families to stay in or move to neighborhoods that are affordable but have low-quality public schools. While having a range of choices is advantageous, schools and students also benefit from building strong and lasting relationships. Student mobility has been well documented as a barrier to success and a predictor of alienation from school, leading to increased dropout levels.[12] Mobility also is a problem for schools. Teachers and principals benefit from knowing students and families, but when students enter and exit frequently, they do not create the bonds necessary to solve problems together.

Key Finding: The Current System of Choice Leaves Many Families' Demands for Quality Schools Unmet

In the District of Columbia, 56 public charter schools opened between 2000 and 2006, with another 13 scheduled to open by 2008. Nonetheless, parents express frustration with the options available to them and do not feel that they can rely on gaining access to schools that they consider high quality. The schools with the strongest *demand* from families generally have *high results* and *low risk* levels. But these *high-demand* schools are not located where most public school students live. Consequently, a majority of public school students in DC attend schools other than their in-boundary DCPS schools. Although families are exercising considerable choice, few are achieving the desired results

School Demand Index Factors
- Three-year enrollment change (adjusted for schools adding grades and building utilization)
- Student mobility, measured by the share of students who change to another DC public school before completing all grades offered ("early exits")
- Share of public school students who attend schools within their attendance boundary ("neighborhood capture")
- Travel distances from home to school

High-demand schools: Demand Index in 4th quartile

Moderate-demand schools: Demand Index in 2nd & 3rd quartile

*Low-demand* schools: Demand Index in 1st quartile

of quality schools for their children — as evidenced by the large number of schools with *low results* and the high levels of mobility as families and students continue to seek better schools.

Parents demonstrate highest demand for schools with high results and low risk

Parents want high-quality schools for their children. Schools with *high results* are generally in *high demand*, and most *low-results* schools have *low demand*, especially at the elementary level. At the secondary level, four *low-results* schools nonetheless are in *high demand* — Anacostia Senior High School (Ward 8), Ballou Senior High School (Ward 8), Luke Moore Senior High School (Ward 5), and Young America Works Public Charter School (Ward 4). The *high demand* for Anacostia and Ballou High Schools may reflect the lack of alternatives east of the Anacostia River and problems with transportation to higher-performing schools. Luke Moore and Young American Works serve over-age and under-credited youth in alternative education programs, which are in short supply in DC.

Most schools that evidence *high demand* from parents also have relatively *low-risk* student populations, and conversely, many of the schools that serve the most at-risk student populations have *low demand*. This is particularly true at the elementary level, where more than 70 percent of *high-demand* schools have *low-* or *moderately low-risk* scores, and more than half the *low-demand* schools have *moderately high-* or *high-risk* scores. Twice as many *moderately high-* or *high-risk* elementary schools have *low demand* as have *high demand*. All the elementary schools that perform well despite *high risks* are in *high* or *moderate demand*. At the secondary level, the relationship between demand and risk is somewhat murkier, but most *high-demand* schools (67 percent) have *low-* or *moderately low-risk* scores.

Figure 10: Distribution of schools in each demand category by level of risk

Elementary

Secondary

Low-Demand Schools	Moderate-Demand Schools	High-Demand Schools

Legend: ■ High Risk ▨ Moderately High Risk □ Moderately Low Risk ■ Low Risk
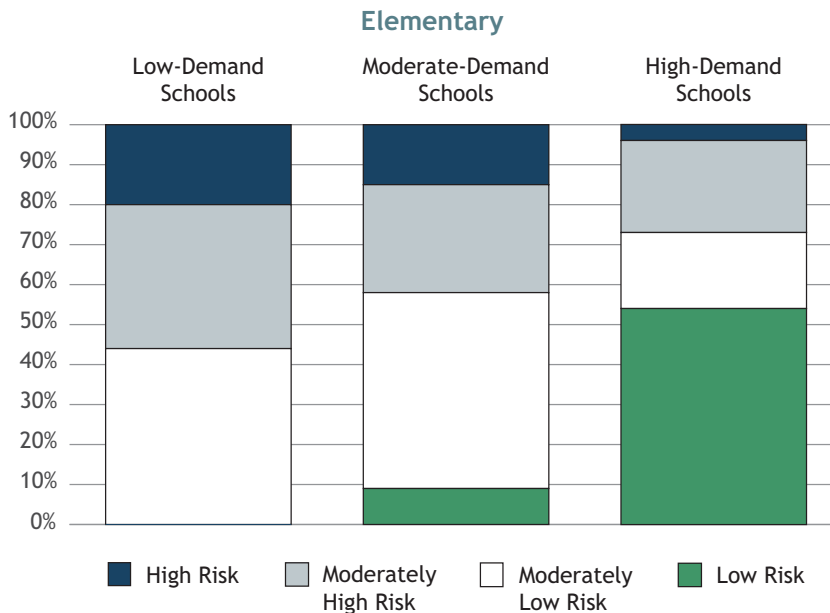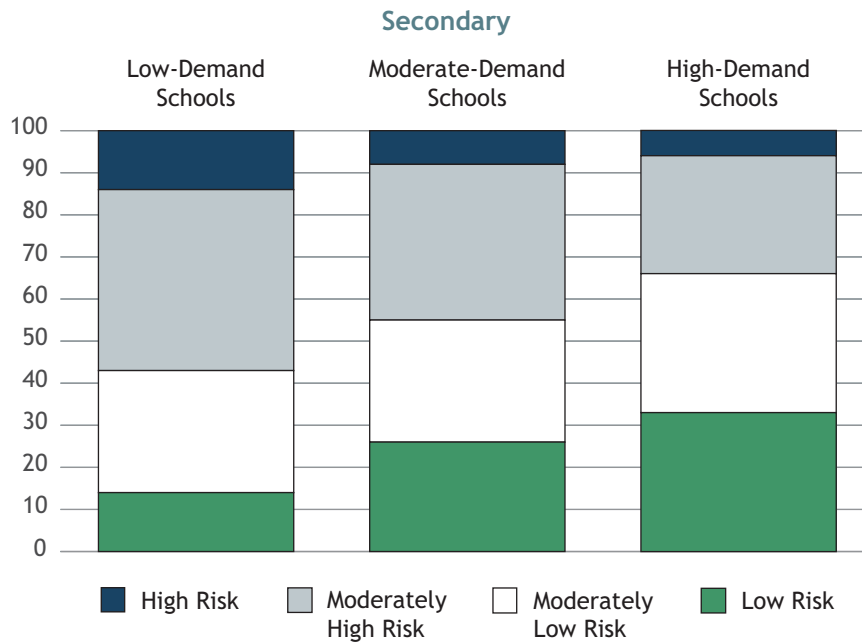
School Demand Index created by 21st Century School Fund. See Methodology for sources.

Interestingly, *high resources* alone do not translate into *high demand* for schools. Specifically, at the elementary level, *high-demand* schools are no more likely to have *high resources* than *low-demand* schools. The relationship is somewhat more pronounced at the secondary level, although still far weaker than the relationships between *demand* and *risk* and *demand* and *results*. In part, this may be a consequence of *low resources* at several *high-results*, *low-risk* schools at both the elementary and secondary levels, for example at Janney and Murch elementary schools and Deal Junior High School in Ward 3.
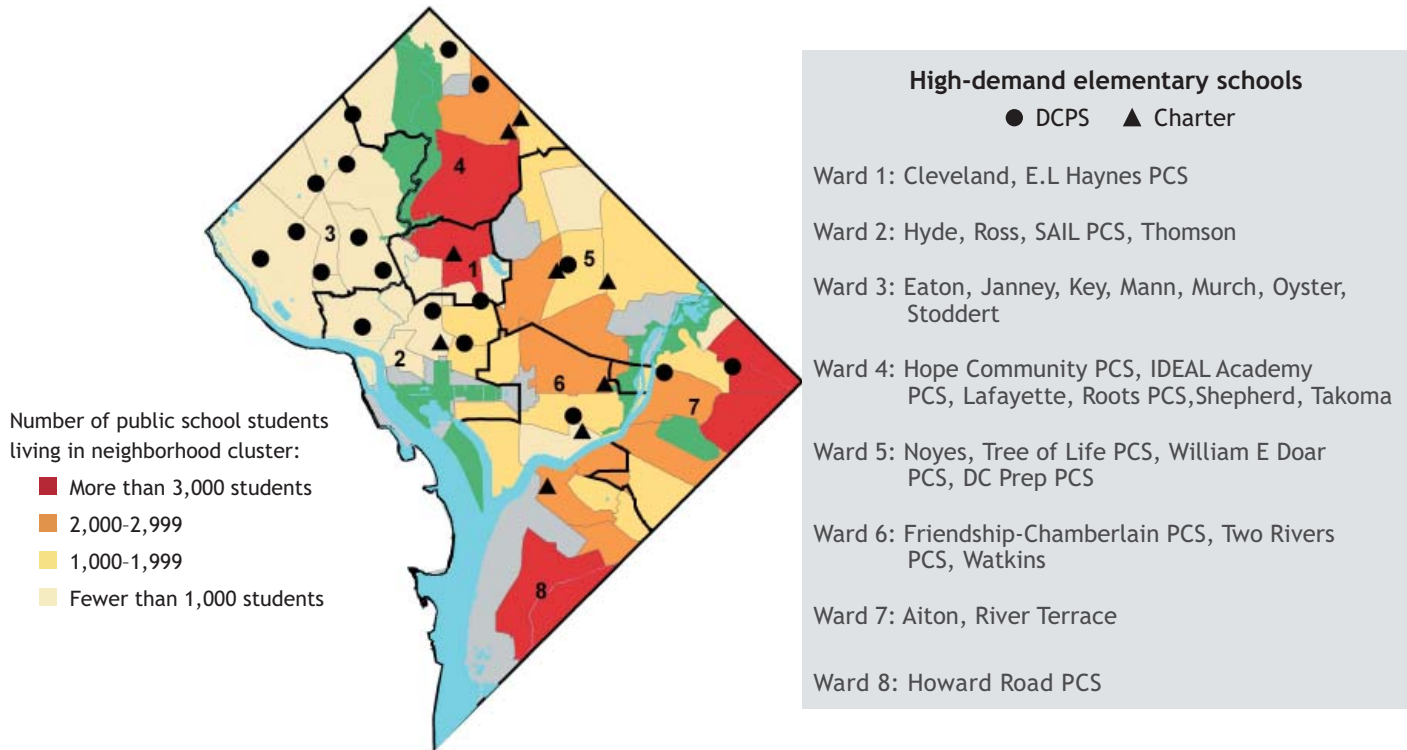
Schools in greatest demand are not located where most students live

Of the city's 135 elementary schools, only 29 are in *high demand*, and only three of these are located east of the Anacostia River.[13] Twenty-four percent of the city's *high-demand* elementary schools are located in Ward 3, although Ward 3 has only 6 percent of all elementary schools and 7 percent of elementary public school children. And these schools are nearly full to capacity or in some cases crowded with in-boundary neighborhood children. Neighborhoods where the largest numbers of public school children live offer few *high-demand* elementary schools nearby. The elementary schools in Ward 8 — where 20 percent of the city's public elementary school students live — exhibit the *lowest demand*. At the secondary level, schools in Ward 4 and Ward 5 are in the *least demand*.

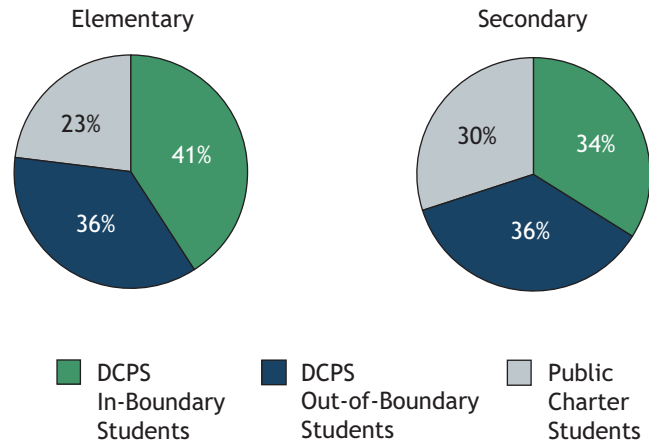**Map 4: Population of public school students by neighborhood cluster and high-demand elementary schools**

High-demand elementary schools

● DCPS ▲ Charter

Ward 1: Cleveland, E.L Haynes PCS

Ward 2: Hyde, Ross, SAIL PCS, Thomson

Ward 3: Eaton, Janney, Key, Mann, Murch, Oyster, Stoddert

Ward 4: Hope Community PCS, IDEAL Academy PCS, Lafayette, Roots PCS,Shepherd, Takoma

Ward 5: Noyes, Tree of Life PCS, William E Doar PCS, DC Prep PCS

Ward 6: Friendship-Chamberlain PCS, Two Rivers PCS, Watkins

Ward 7: Aiton, River Terrace

Ward 8: Howard Road PCS

Number of public school students living in neighborhood cluster:

■ More than 3,000 students
■ 2,000-2,999
■ 1,000-1,999
■ Fewer than 1,000 students

Sources: 2006-07 DCPS, PCSB and BOE October student enrollment files (pre-audit) and school demand index created by 21st Century School Fund. See Methodology for additional sources.

Parents seek high-quality schools by exercising choice

With few *high-demand* schools located in the communities where most public school students live, parents are seeking a wide variety of options other than their assigned DCPS schools According to 2006–07 data, more than half of DC public school children attend a school other than their DCPS in-boundary school. About one-third attend out-of-boundary DCPS schools, and more than one-fourth attend charter schools.

Figure 11: Share of in-boundary, out-of-boundary, and public charter school students, 2006-07

Elementary

23%
41%
36%

Secondary

30%
34%
36%

- ■ DCPS In-Boundary Students
- ■ DCPS Out-of-Boundary Students
- ■ Public Charter Students

The share of students selecting charter schools has risen steadily since their introduction in the District, from 5 percent in 1998–99 to 27 percent in 2006–07. It is highest for the middle grades and lowest for grades 1 through 5. More than one-third of public school students in 6th grade through 8th grade attend charters, according to 2006–07 data, compared with only 22 percent of students in 1st grade through 5th grade.

One key sign of strong *demand* for a school is whether it attracts a large share of the age-appropriate students living within its boundaries or — in the case of public charter schools — living nearby. This is referred to as "neighborhood capture."[14] The average DCPS elementary school captures only 44 percent of its in-boundary students, according to 2006–07 school year data, in effect attracting less than half of the students who could attend by right. A small group of elementary schools have capture rates over 80 percent — all of these schools are high performing and located in the city's most affluent neighborhoods: they are Hyde in Ward 2; Eaton, Janney, Key, Mann, Murch, Oyster, and Stoddert in Ward 3; and Lafayette in Ward 4.

Neighborhood capture rates are much lower for charter elementary schools, not surprising given the lack of neighborhood preference in charter admissions. The average public charter elementary school attracts only 7 percent of its student body from within half a mile.

Figure 12: Average percentage of student population at each DCPS school living in boundary, by ward, 2006-07
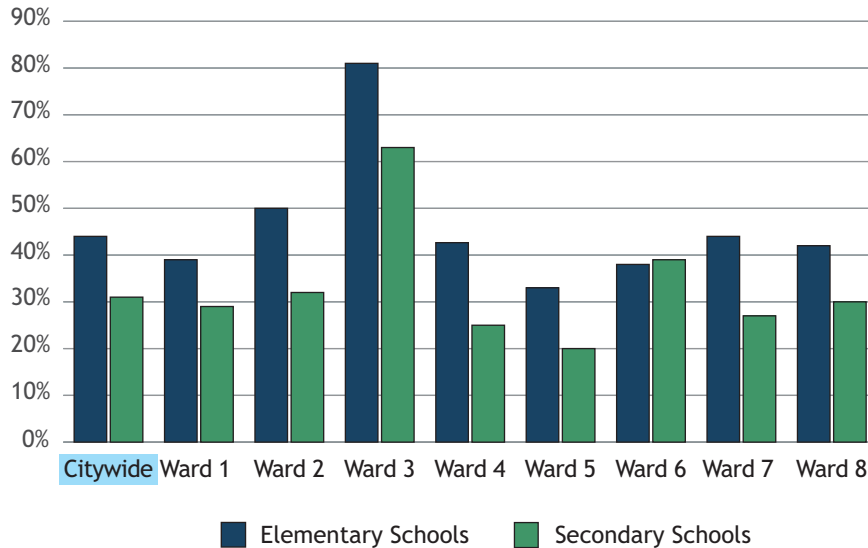
Neighborhood capture rates are lower for secondary schools; the average DCPS secondary school captures only 31 percent of the public school students living within its boundary, and the average charter secondary school captures only 4 percent of the age-appropriate public school students living nearby (one mile for middle or junior high school and two miles for senior high school).

Elementary schools that capture high shares of nearby students generally have *low risk* levels and *high results* compared to citywide averages. Specifically, 32 percent of the schools with the strongest neighborhood ties have *low risk* scores, and 45 percent have *high results*, compared to only 18 percent and 28 percent of schools citywide. The neighborhood clusters where these schools are located have a larger share of white residents and lower poverty rates than the rest of the District. For example, 93 percent of the public elementary school students who live within its boundary attend Janney Elementary School. Among the *high-risk* schools that nevertheless achieve *high results*, support from the community and stable school leadership appear to play an important roles.

Demand is higher for charter schools than DCPS schools, with many public charter students traveling far from home

On average, public charter schools are in greater demand than DCPS schools, especially at the elementary levels. Over one-third of charter elementary schools are in *high demand*, compared with less than one in five DCPS elementary schools, and only 10 percent of charter schools are in *low demand*, less than half the rate for DCPS elementary schools (23 percent). At the second-

ary level, distribution of *high-demand* schools is more equal, with 33 percent of charter schools and 26 percent of DCPS schools in *high demand*.

However, charter attendance varies by ward. Only 5 percent of the public school students living in Ward 3 attend charters, compared with 30 and 29 percent in Wards 5 and 7, respectively. Charter enrollment also varies with race and ethnicity, with 28 percent of black public school students and 24 percent of Hispanic students attending charter schools, compared with only 14 percent of white students (for a total of only 479 white charter students).

Citywide, the median distance traveled for all public elementary students is .43 miles from home to school, while middle school children travel a median distance of .97 miles, and high school children travel 1.68 miles. Among DCPS students, those living in Ward 5 travel the farthest, while among charter students, those living in Ward 8 travel farthest. Even though most DCPS students do not attend their in-boundary schools, they stay relatively close to home, and in every ward and grade level travel shorter distances to school than public charter students. Nearly two-thirds of DCPS students in kindergarten through 5th grade attend school within half a mile of their home, compared to less than one in five charter students.

Figure 13: All public school students (elementary and secondary) travel distance by ward and education sector, 2006-07
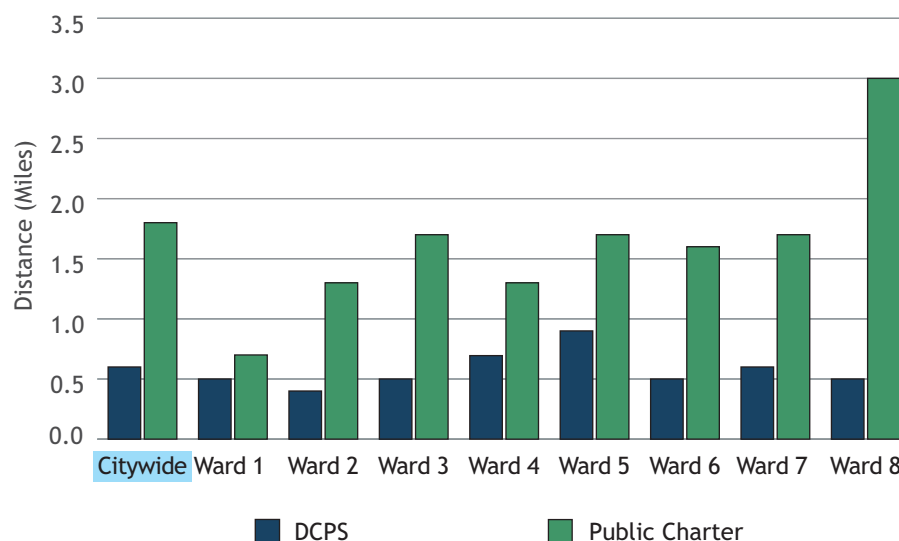
Despite the wide variety of choices, few students attend high-quality schools

Only 25 percent of elementary and 40 percent of secondary students citywide attend *high-demand* schools, and parents express considerable frustration with the choices available to them. In focus groups conducted with public school parents across the city, most parents said

they have few good choices. Some parents observed that while the public system offers some good schools, it is very difficult to access them. One elementary school parent observed:

> "There are a lot of public schools that I would actually send my daughter to, but **it's a matter of whether or not you get in there. Most of those schools that are really high in academics, they're full and overcrowded** (emphasis added), and they don't allow any more students to come in." -Focus Group Participant, Ward 5-

Even students who travel far to attend either DCPS or charter elementary schools are only slightly more likely to attend high-quality schools than those who attend nearby schools.[15] Over one-quarter of the DCPS students who travel far attend schools with *low-risk* scores, and 38 percent attend schools with *high results*, compared to only 18 percent and 30 percent of all elementary school students citywide, respectively. Students who travel far to attend charter elementary schools attend schools with moderate *risk* scores, but also *high resources* and *high results*. Specifically, 16 percent of these students attend schools with *high resources*, and 35 percent attend schools with *high results*, compared to only 5 percent and 30 percent of all elementary students citywide.[16]

Policy Objective 3: Ensure that the Public Education System Supports Parents and Students in Using School Options to Their Advantage

At the same time that the District invests in high-quality schools for every neighborhood, it also should help parents navigate and benefit from the complex array of options available. With better options more widely available, it will be easier to help parents make good choices. The city should provide parents with information on all the available public school options and how to access them so that families can more confidently select the schools that are best for their children. In addition, the District should adjust its student assignment policies to increase the range of educational options that parents can reliably access. And for families who choose to send their children to distant schools, safe and reliable transportation is essential. Specifically:

Recommendation 3.1: Make the DCPS out-of-boundary placement and public charter lottery processes more understandable and certain

Policy options:

- Better advertise the out-of-boundary and lottery application processes and conduct public outreach to make information about all public school options widely available;
- Provide assistance to help parents and guardians understand their public school options;
- Reconcile staffing *and* building capacity when setting enrollment capacities and out-of-boundary or lottery placement availability;

- Increase awareness and simplify parent access to choice by aligning the enrollment season for DCPS out-of-boundary placements with charter school enrollment deadlines so that all public schools hold simultaneous lotteries and parent notification;
- Change DCPS and public charter school policies to strengthen protections for students accepted to out-of-boundary or charter schools;
- Establish feeder relationships in public schools that give families "by-right" acceptance into middle and high schools without going through an out-of-boundary or lottery process.

Recommendation 3.2: Allow students to attend nearby DCPS or public charter schools by right

Policy options:

- Give students access, by right, to elementary public charter schools that are in their neighborhood, especially in neighborhoods where DCPS schools have been closed;
- Make proximity a factor in ordering waiting lists for charter schools that are oversubscribed;
- Where updated boundaries leave families living closer to an out-of-boundary school than their in-boundary school, provide flexibility to attend the nearest DCPS school.

Impact
Those most affected will be:

1) Neighborhoods where DCPS recently closed schools, especially Ward 4 and Ward 5 — which already have the highest charter participation;

2) Families who are considering using a public school other than their assigned school; and

3) Public school students who have fewer options because of the high cost of travel outside of their community.

Recommendation 3.3: Make travel to school affordable, safe, and efficient

Policy options:

- Provide discounted or free Metro fare passes to students;
- Increase pedestrian safety and ensure safe routes to schools;
- Plan Metrobus routes to align with school attendance patterns — including increased availability of dedicated bus routes from central pickup points that take students directly to school; for example, the Deal "charter" buses from Mount Pleasant and 16th and Kennedy streets.

Key Finding: High Mobility and Chaotic Feeder Patterns Weaken Connections among Families, Communities, and Schools
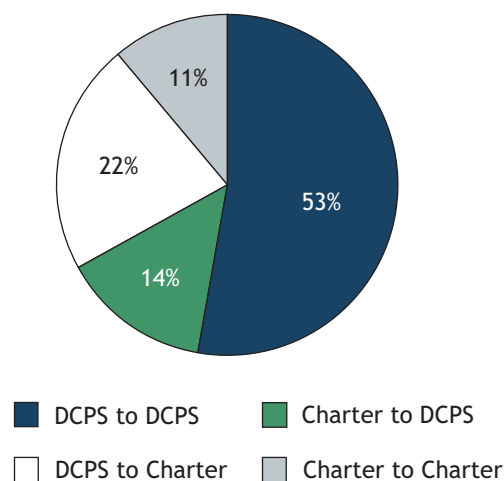
Access to varied school options can offer important advantages to families, but students and schools also benefit from stability. However, in DC, a substantial share of students — including both DCPS and charter students — change schools before completing all the grades offered. Other students leave schools during the school year and far too many students leave school altogether without a high school diploma.

When students change schools repeatedly or drop out of school, it puts both students and schools at risk. Frequent school changes weaken the connections among families, communities and schools. The feeder patterns between schools contribute to these weak connections. Further challenging school and family relationships is the fact that not only do students and families change, but schools in DC change location frequently as well.

There is high student mobility in the District's public schools

Current enrollment policies allow for relatively easy exit and entrance to schools, and almost one-third of all DC students change public schools from one year to the next. Many of these switches occur naturally at the end of the grade progression offered by a school. However, data from the 2005–06 and the 2006–07 school years show that 8,100 students are "early exiters" — switching to a different public school in DC, even though their original school offers continuing grades. Approximately half of these early exits (53 percent) involve movement from one DCPS school to another, while 22 percent are switches from DCPS to charter schools, 14 percent are switches from charters to DCPS, and 11 percent are switches between charters.

Figure 14: Shares of "early exits" to and from DCPS and public charter schools

Pie chart showing: 53% DCPS to DCPS (dark blue); 22% DCPS to Charter (white); 14% Charter to DCPS (green); 11% Charter to Charter (gray).

Legend:
- DCPS to DCPS
- Charter to DCPS
- DCPS to Charter
- Charter to Charter

Source: Office of State Superintendent of Education, multi-year enrollment automated database.

Rates of early exits vary somewhat by ward. In three of the eight wards, the share of students exiting early exceeds the city average (14 percent), with the highest early exit rate in Ward 5 (18 percent) followed closely by Wards 7 and 8 (17 percent each). Ward 3 has the lowest early exit rate of only 5 percent.

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Schools where most students remain enrolled through the final grade have *higher results* than those with larger shares of early exits. There is a strong relationship between *high results* and a stable or "loyal" school population. Over 70 percent of elementary schools and 80 percent of secondary schools with high loyalty also are high performing.

Figure 15: Distribution of schools in each results category by level of "early exits"
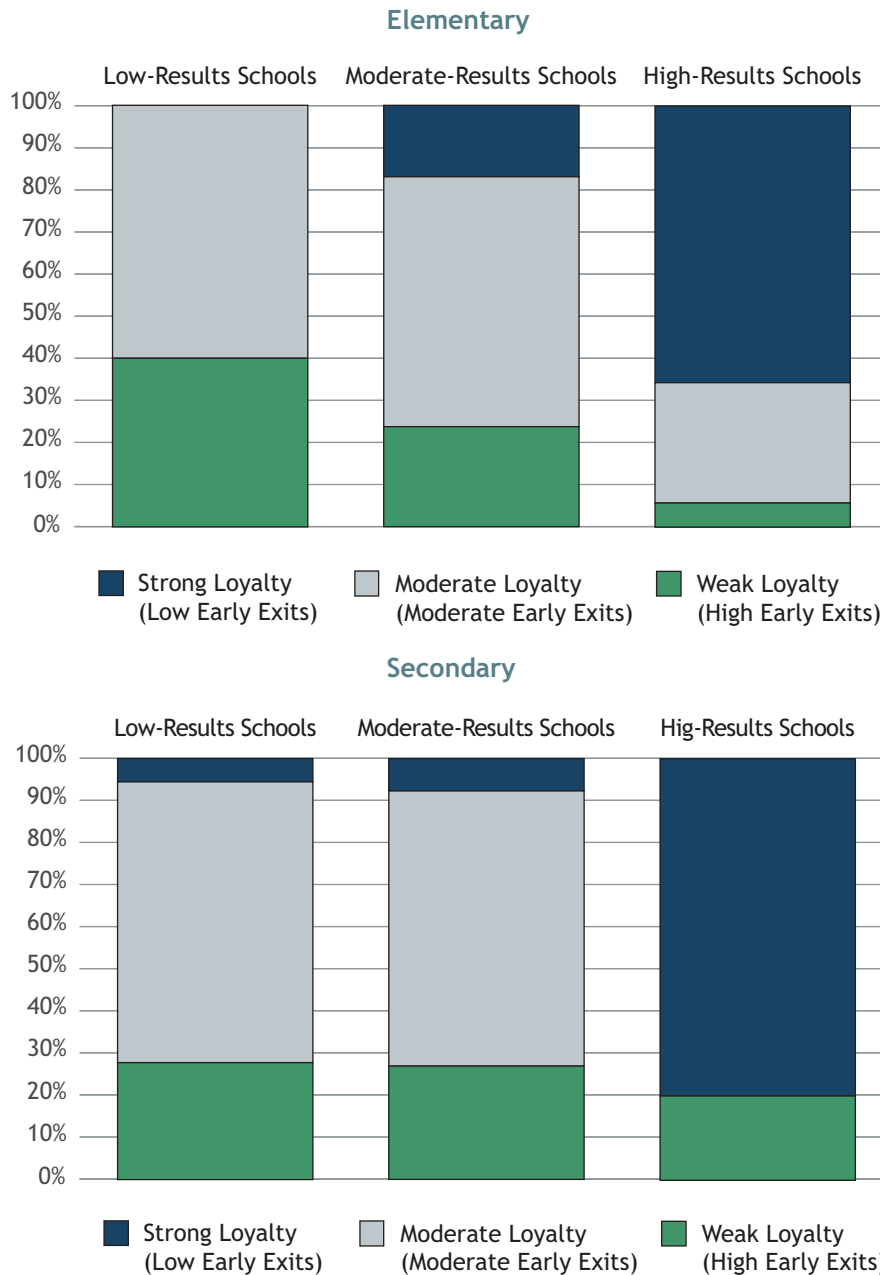
Elementary

Secondary

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Quality Schools, Healthy Neighborhoods, and the Future of DC

In addition to school changes between years, substantial numbers of students also change or leave schools during the school year. Ten percent of students enrolled in a DCPS or Board of Education charter school in October 2006 left that school by April 2007. Similar data was not available for PCSB charter school students. Rates of departure from these schools were highest in Ward 8 (12 percent) and lowest in Ward 3 (5 percent). Highest withdrawal rates occur among high school students, especially African American and Hispanic students, with nearly 17 percent of 9th graders changing schools during the school year. Students who traveled further to attend school were more likely to withdraw after January, traveling on average over double the distance of students who remained in the same school throughout the year.

On average, schools in neighborhoods with lower housing prices have higher levels of early exit than high price neighborhoods. This is true in both weak market and growth neighborhood clusters.

Figure 16: Percentage of public schools with very high "early exits" by housing market type, 2006-07
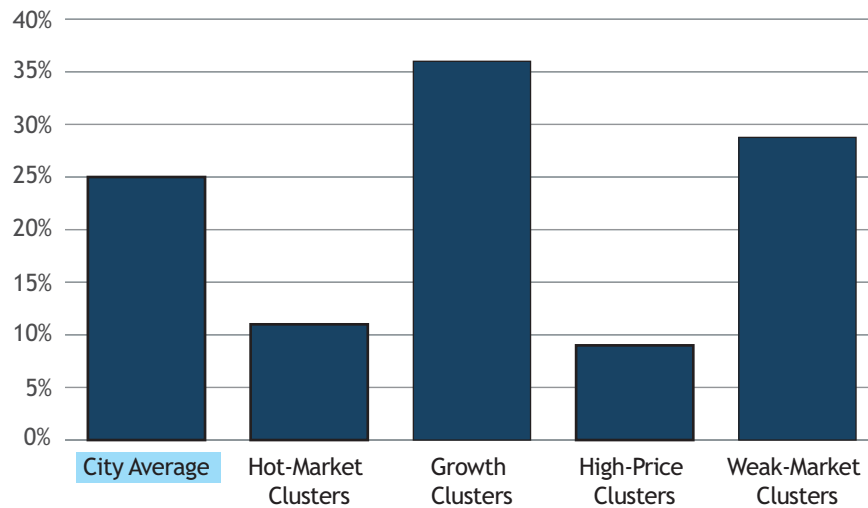
This study did not examine the reasons for early exit, but other research has shown that one of the most important factors contributing to school mobility is students' residential mobility, with between 60 and 70 percent of school changes attributable to residential changes.[17] However these findings may be different in a public education system with so many options and a system of easy entrances, but also easy exit. For example, although public charter schools have to accept any student if there is space, they do not need to keep a student who does not conform to high social or academic standards. In addition, since there is excess space in most DCPS schools, moving from one school to another is relatively easy.

Weak feeder patterns further undermine school connections and stability

Sensible and easy-to-understand feeder patterns can help families plan for students' educational progress, allow schools to teach students with common educational experiences and expectations, and enable schools to form relationships across grade levels to more systematically deliver programs and services. However, student enrollment transitions in the District vary widely, and few established feeder patterns exist. In 2006–07, ninth graders in the average comprehensive DCPS high school came from 60 elementary schools, posing the challenge of educating students with a huge range of experiences, such as different curricula and behavioral expectations.

Figure 17: Number of different elementary schools attended by 9th graders, by senior high school, 2006-07
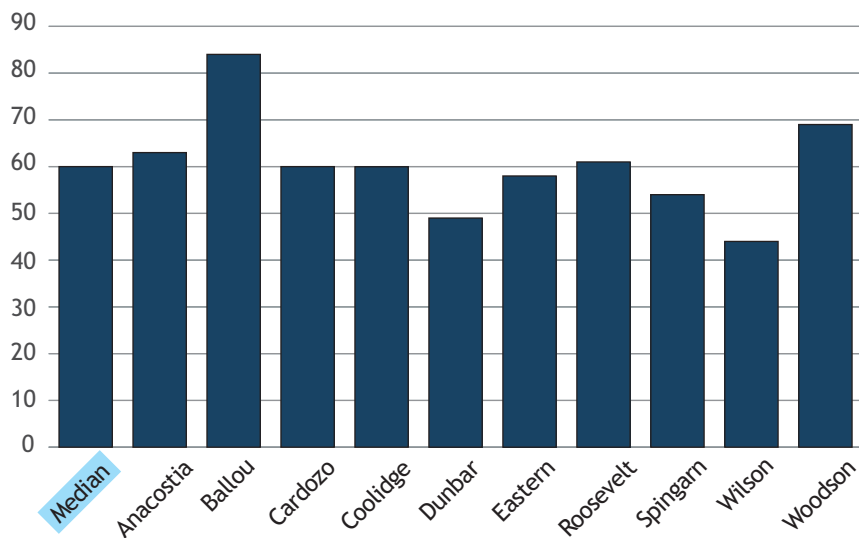
Source: Office of State Superintendent of Education, multi-year enrollment automated database.

Even transitions from elementary school to middle school or middle school to high school reflect a wide array of enrollment choices. The median number of elementary schools feeding into a middle or junior high school is 41, and only three middle schools or junior high schools have even 60 percent of their students coming from five elementary schools. The Capitol Hill Cluster School — which includes Peabody, Watkins, and Stuart-Hobson — provides the strongest formalized feeder pattern in the District from early childhood through middle school; Stuart-Hobson is the only middle school in the city with over half its students from a single elementary school.

Many teenagers opt out altogether

An estimated 3,000 children between ages 12 to19 have left the public schools altogether without completing high school or obtaining a GED.[18] These dropouts have essentially lost all connection to schools. Unfortunately, reliable student-level data on dropouts are unavailable. However, analysis of data for students still enrolled in school points to a continued pipeline of

dropouts. Nearly 25 percent of 9th graders (800 students) enrolled in DCPS high schools are 16 years or older;[19] 18 percent of students (more than 1,500 students) enrolled in the city's 10 comprehensive high schools in 2006–07 receive special education services; and approximately one-quarter of 10th graders (more than 1,000 students) score "below basic" in reading.[20] Moreover, focus group discussions with dropouts reveal that students who left had made multiple changes in their schools over the course of their enrollment. All these findings suggest that without significant educational and social interventions, thousands of current DC students will continue to leave school without diplomas.[21]

Changes in schools' locations may compound instability

Not only do students change schools, but schools change locations with surprising frequency. Many public charter schools lease temporary space from private owners, in part because of difficulties securing excess DCPS space. A number of the public charter schools have been in temporary locations while they purchased and improved new space. Between the 2003–04 and 2005–06 school years, 16 public charter schools changed their locations. During that same period, 12 DCPS schools occupied temporary "swing" space (while renovation or new construction was underway) or moved into new facilities. Moreover, declining enrollment in DCPS schools has resulted in school closings; between 2003–04 and 2006–07, seven DCPS schools were closed, and their students were consolidated into other schools. For the 2008-2009 school year, another 23 DCPS schools will be closed. Five charter schools closed between 2003-04 and 2006-07, with another three campuses closed during the 2007-08 school year.

Policy Objective 4: Provide Support for Families and Students To Establish Long-Term Commitments with Schools and for Schools To Maintain a Long-Term Presence in Their Communities

Public policies can and should encourage greater stability and commitment to DC schools while still allowing families to select the schools they think are right for their children. The city should provide greater support for parents and students to find appropriate school settings and then promote school stability and the development of long-term trusting relationships between families and schools. For example, helping parents and community members to have a voice in policy change, both at the individual school level and citywide, will encourage them to invest in their schools and help solve problems rather than leave. Specifically:

Recommendation 4.1: Support students and families in making school choices that promote school stability

Policy options:
- Contact families affected by school closures and relocation and provide them with high-quality counseling on making school choices and building relationships with their new schools;
- Identify and provide counseling assistance to families making frequent school switches;

- Provide counseling to families relocated by housing redevelopment investments, modeled after a program at John A. Johnson Elementary School in St. Paul, MN;

- Provide school choice assistance and counseling on building relationships with schools to families that receive city-funded homeownership counseling;

- Launch a public education campaign about the advantages of making a good school choice and sticking with it — and then support such a campaign through the city's new educational ombudsman;

- Create alternative high schools in underused and/or closed middle or junior high schools to recapture dropouts.

Recommendation 4.2: Create strong mechanisms for parent and community involvement in local schools and in major decisions about public education

Policy options:

- Encourage DCPS schools to strengthen, support, and train Local School Restructuring Teams, which can play a positive role in school improvement efforts;

- Strengthen or create opportunities to train DCPS and public charter school parents to participate in school decisions, modeled after the Parent Leadership Institute of the Pritchard Committee.

- Grant greater autonomy to DCPS schools so that they can be more responsive to the challenges and opportunities to solve educational and administrative problems in their schools;

- Develop District of Columbia Municipal Regulations that govern the rights of parents and communities concerning public education decisions affecting reconstitution, restructuring, opening and closing charter schools, and building modernization;

- Establish early and broad public discussion of revisions proposed to Title V chapter areas, including student assignment policies and boundaries, attendance and transfers, student rights, school calendar, and principal selection;

- Strengthen and publicize the role of the ombudsman for DCPS and charter schools.

Recommendation 4.3: Provide schools with stable locations, sufficient space, and support so that they can stay in place rather than move, consolidate, or close

Policy options:

- Implement public and collaborative processes for Educational Facility Master Planning that take into account the needs of DCPS schools, public charters, and other city agencies;

- Create an asset management office in DCPS that works with local schools to help them plan efficient and educationally appropriate use of space and also manages co-location planning and leasing of DCPS occupied but underutilized facilities;

- Create clear policies and guidelines for closing, consolidating, moving to swing space, or disposing of public school space from DCPS, as well as for shared facilities, joint development, public-private partnerships, and partnerships between public charter schools and DCPS schools;

- Work with public charter schools with short-term leases to locate them in public space, and eliminate duplicative costs and loss of real estate tax revenue from use of private real estate;

- Address cost of underutilized facilities by reducing the school building size and sharing staff to keep schools open and serving their communities;

- Minimize the disruption caused to school communities by moving students in and out of swing space. Provide support to families at schools undergoing modernizations both before and during the process to help them stick with their school.

DC's Future: A Family-Friendly City with Quality Education and Healthy Communities

The District faces serious challenges to the quality of its public schools, the affordability of its housing, and the long-term health of all its neighborhoods. These problems result, in part, from education and housing policies that have concentrated low-income families, allowed affordable rental housing to be lost or converted to high-priced condominiums, underfunded schools with *high risks* and *low results*, and failed to coordinate services for children and families so that even schools serving primarily *high risk* students have the supports needed to succeed.

However, if the District of Columbia addresses these problems systematically — improving schools, expanding affordable housing, and revitalizing neighborhoods — it can become a more family-friendly city and a beacon to families in the region. If the city succeeds in retaining and attracting more families with children and if a larger share of the families living in DC send their children to public school, enrollment could potentially climb to about 93,000 students by 2015 — a gain of about 20,000 students more than the 2006 total, but still far fewer the districts peak public school enrollment in 1967 of 147,000 students.

This ambitious target assumes that the city's total population continues to grow (at the rate projected by the DC Office of Planning), the share of children in the District rises by 2 percent-age points to 21.6 percent,[22] and the share of DC children choosing public schools returns to the level it was in 2000 (68.5 percent). Even if the share of children in the District remains low, improvements in school quality and equity that reduce the number of dropouts and attract more of the city's children into public schools (including the young children from the city's recent baby boom) could increase enrollment by more than 11,000 students by 2015.

Figure 18: Adult and child population trends, with alternative future scenarios

	Historic				
	Total District of Columbia Population	**Children under 18**	**Children under 18**	**Total Public School Enrollment (DCPS and Charter)**	**Percentage of Children Under 18 in Public Schools**
2000	572,059	114,992	20.1%	78,806	68.5%
2006	585,459	114,531	19.6%	72,378	63.2%

Source: See Methodology

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Alternative Futures						
	Future Scenario	Total District of Columbia Population	Percentage of Population, Children under 18	Children under 18	Percentage of Children under 18 in Public Schools	Total Public School Enrollment (DCPS and Charter)	Increase in Public School Enrollment
2015	Current trends continue	626,455	19.6%	122,786	63.2%	77,601	5,223
2015	Quality schools attract more students	626,455	19.6%	122,786	68.5%	84,108	11,730
2015	Quality schools and housing attract more families	626,455	21.6%	135,314	68.5%	92,690	20,312

Family-Friendly Policies, Practices, and Funding

To some, it might seem acceptable (or even ideal) for DC to become a city largely composed of singles, couples without children, and empty nesters. However, many others believe that cities need families with children to thrive. Families with children tend to be highly motivated and economically successful.[23] Families also bring diversity to cities, use and encourage expansion of public spaces, and help create strong communities.

To achieve the policy objectives recommended here and increase demand for public education, city leaders must align policies, practices, and budgets. Maximizing the benefit to all residents (current and future) requires coordinated and collaborative planning, budgeting, and programming — involving both DCPS and the public charter school sector, as well as the city's planning, housing, and neighborhood development agencies.

Better coordination between the DCPS and charter school sectors can help the city reduce the existing duplication

Consequences of Inaction

Further declines in school enrollment will leave DCPS and public charter schools competing for a shrinking pool of students. This will put DCPS under pressure to close more schools, increasing instability and uncertainty for parents and communities. Since there are virtually no constraints on how many schools the Public Charter School Board can authorize,[24] and no requirement to manage public charter school capacities in coordination with DCPS,[25] continued growth in the number of charters and their approved capacities will mean that all but the most popular public charter schools will have difficulty meeting their enrollment target goals.

in funding for school facilities: the cost to the DCPS budget for maintaining vacant and underutilized school buildings, the city allocation of per capita funding for charter schools' facility costs, and the tax deduction to private landlords who lease space to public charter schools. And schools do not exist as islands but are inextricably affected by a city's housing and economic conditions. Appropriate, forward-looking housing policies can go a long way toward strengthening families' connections to their neighborhood schools and, in the process, strengthening neighborhoods, schools, and families alike.

The current city administration is well positioned to tackle this undertaking, given its commitment to investments in education and affordable housing and centralized responsibility in the Office of the State Superintendent of Education, the Office of the Deputy Mayor for Education, and the Office of the Deputy Mayor for Planning and Economic Development. With these offices formally working together — and increased cooperation between the executive and legislative branches, as well as between state and local education agencies — the District can develop and implement the specific policy changes needed to move from the bottom of cities in child population to a healthier mix of young singles and couples, families with children, empty nesters, and seniors. And once this process is underway, the indicators presented in this report can help the city measure its progress. Because few cities have focused on the interconnections between quality schools, affordable housing, and healthy neighborhoods, the District of Columbia has an excellent opportunity to become a model for the nation. The choices are ours.

Endnotes

1 The average child share of total population among these 50 largest cities is 25 percent, and six cities have child shares of 30 percent or higher. Brookings Institution Metropolitan Policy Program and the Population Reference Bureau. *Kids in the City: Indicators of Child Well-Being in Large Cities from the 2004 American Community Survey*. Washington, DC: The Brookings Institution. 2006.

2 A study of public school enrollment in schools associated with HOPE VI projects is currently in planning.

3 The funds from the public charter school Facilities Allowance were omitted from the local school funding analysis and comparisons.

4 For the 2006–07 school year, public charter schools received $3,100 per student as a Facilities Allowance in addition to the per student funding for educational programs and operations.

5 For details on factors used to classify the city's 39 neighborhood clusters based on racial composition and poverty levels, see the technical report.

6 For the most current analysis of housing market conditions and trends in DC and the region as a whole, see Turner, M.A. et al. 2007. *Housing in the Nation's Capital: 2007*. Washington, DC: The FannieMae Foundation.

7 For more details, see Turner, M.A. et al. 2006. *Housing in the Nation's Capital: 2006*. Washington, DC: The FannieMae Foundation.

8 For details on factors used to classify the city's 39 neighborhood clusters based on housing market conditions, see the technical report.

9 For details on factors used to classify the city's 39 neighborhood clusters based on the share of recent home sales going to families with public school students, see the technical report.

10 See Turner, M.A. et al. 2006. *Housing in the Nation's Capital: 2006*. Washington, DC: The FannieMae Foundation.

11 For details on factors used to classify the city's 39 neighborhood clusters based on growth in the number of births, see the technical report.

12 Rumberger, Russell W., "The Causes and Consequences of Student Mobility," The Journal of Negro Education, Vol 72, No. 1 (Winter, 2003)

13 Five elementary schools lacked sufficient data to be categorized.

14 For DCPS schools, the "neighborhood capture" rate is defined by the share of public school students who live within the school's boundary and attend the school. For public charter schools, the capture rate is defined by the share of public school students who live within a certain distance (.5 mile for elementary, 1 mile for middle, and 2 miles for high school) and attend the school.

15 Students who attend in-boundary DCPS schools or another DCPS or charter schools within half a mile of home are classified as attending nearby schools. Those who do not attend in-boundary DCPS schools and travel

more than half a mile from home to school are classified as attending distant schools. Almost half of all elementary school students (46 percent) attend distant schools.

16 Interestingly, we find no significant differences in the characteristics of the neighborhoods to which these students travel, except that these neighborhoods have a higher share of African-American residents.

17 Kerbow, D. (1996). Patterns of urban student mobility and local school reform. Journal of Education of Students Placed at Risk, 1(2), 147-169. EJ 531 794; Rumberger, R. W., Larson, K. A., Ream, R. K., & Palardy, G. J. (1999). The educational consequences of mobility for California students and schools. Berkeley, CA: Policy Analysis for California Education. ED 441 040.

18 This estimate is based on a pooled three-year, microlevel sample of American Communities Survey (ACS) date, 2004–06.

19 Students who begin kindergarten at age 5 and progress one grade per year should be 14 years old at the start of 9th grade.

20 Research shows that overage students, special education students, and low-performing students are more likely to drop out and not graduate than other students. (Gleason, P., & Dynarski, M. (2002). Do we know whom to serve? issues in using risk factors to identify dropouts. Journal of Education for Students Placed at Risk, 7(1), 25-41; Rumberger, R. W. (2001). Why students drop out of school and what can be done. Santa Barbara, CA: University of California–Santa Barbara.)

21 The problem of serving dropouts and the existence of a continued pipeline of students at risk is another major challenge facing the District of Columbia. Additional data and policy recommendations can be found in the forthcoming study, Reconnecting Disconnected Youth, a joint project of the Urban Institute and the Office of the Deputy Mayor for Education.

22 The ratio of children to total population exceeds 21 percent in 41 of the 50 largest cities nationwide, including Chicago, New York, Memphis, Baltimore, and Philadelphia.

23 "The Rise of Family Friendly Cities"; *The Wall Street Journal*, November 27, 2007, Joel Kotkin.

24 Changes to the chartering process, such as limiting the number of schools authorized each year, will require amending the 1995 federal law that established the city's charter school system.

25 In the authorizing legislation each public charter authority could authorize up to 10 schools per year. No limits were set for how many students a charter could be granted for.

Methodology

This policy report is based on extensive analysis in a technical report available separately. The specific cut points used to determine the school and neighborhood rankings are presented below the source list.

Sources

Figure 1: Census 2000, 2006 Census population estimates; Office of State Superintendent of Education, October audited student enrollment. DC government public education budget, 2000 & 2006; DCPS capital budget, 2000 & 2006.

Figure 18: Census 2000, 2006 Census population estimates. DC Office of Planning, Office of the State Superintendent of Education, October audited student enrollment.

Each of the school and neighborhood attributes is constructed from multiple sources:

School Resources: 2006-07 DCPS, PCSB, and BOE October student enrollment files (pre-audit); 2006-07 DCPS local schools budget; CFO's Report on Schedule of Payments to Charter Schools, FY99-07; DCPS Office of Facilities Management; public charter schools survey; DCPS Division of Educational Accountability; DCPS 2006 facilities assessment from Facilities Master Plan.

School Risks: 2006-07 DCPS, PCSB, and BOE October student enrollment files (pre-audit); Census 2000

School Results: DCPS Division of Educational Accountability

Housing Market Types: District of Columbia Real Property Database from the D.C. Office of Tax and Revenue provided by the Office of the Chief Technology Officer (OCTO).

Race/Poverty Typology: District of Columbia Real Property Database from the D.C. Office of Tax and Revenue provided by the Office of the Chief Technology Officer (OCTO); Census 2000; Home Mortgage Disclosure Act 2000 and 2005 provided by DataPlace.

Birth Rate Typology: District of Columbia Department of Health, State Center for Health Statistics Administration, 2000 and 2005

School Demand: 2006-07 DCPS, PCSB, and BOE October student enrollment files (pre-audit); DCPS Office of Facilities Management; public charter school survey; OSSE Multi-Year Enrollment Automated Database

School Resource Index

Schools are ranked in quartiles on each of these key factors, and the index is a combined average of these ranks. For our analysis, the middle two quartiles are combined, and these are considered *moderate-resource* schools. Schools in the bottom quartile are considered *low resource*, and those in the top quartile are *high resource*. Quartile cut-points:

Funding per student:
- Elementary: Low <$9,144; Moderately Low $9,144-$9,786; Moderately High $9,787–$10,798; High >$10,798
- Secondary: Low <$9,359; Moderately Low $9,359-$10,660; Moderately High $10,661–$12,256; High >$12,256

Educational program: Themed or traditional curriculum

Share of highly qualified teachers, as measured under No Child Left Behind:
- Elementary: Low <68.4%; Moderately Low 68.4–78.6%; Moderately High 78.7–89.0%; High >89.0%
- Secondary: Low <41.0%; Moderately Low 41.0–68.2%; Moderately High 68.3–88.2%; High >88.2%

Student/teacher ratio:
- Elementary: Low <9.8; Moderately Low 9.8–11.2; Moderately High 11.3–13.2; High >13.2
- Secondary: Low <9.8; Moderately Low 9.8–12.3; Moderately High 12.4–14.2; High >14.2

Facility condition: Unsatisfactory, Poor, Fair, or Good

School Risk Index

The School Risk Index is based on three (or four for elementary schools) factors. Schools are ranked in quartiles on each of these key factors, and the index is a combined average of these ranks, with schools assigned as *low*, *moderately low*, *moderately high*, or *high risk*.

Share of students who live in the highest poverty census tracts:
- Elementary: Low <10%; Moderately Low 10–21%; Moderately High 22–55%; High >55%
- Secondary: Low <22%; Moderately Low 22–34%; Moderately High 35–49%; High >49%

Share of students receiving special education services:
- Elementary: Low <8%; Moderately Low 8–9%; Moderately High 10–13%; High >13%
- Secondary: Low <10%; Moderately Low 10–15%; Moderately High 16–21%; High >21%

Share of English language learners is 15% or more of the student body

Share of students eligible for free or reduced-price lunch (elementary only):
- Low <60%; Moderately Low 60–74%; Moderately High 75–83%; High >83%

School Results Index

The School Results Index is based on four factors. Schools are ranked in quartiles on each of these key factors, and the index is a combined average of these ranks. For our analysis, the middle two quartiles are combined and these are considered *moderate-results* schools. Schools in the bottom quartile are considered *low-results*, and those in the top quartile are *high-results*. Thus, the *high-*, *moderate-*, and *low-results* categories represent measures of relative, not absolute, performance. Using this approach, some schools that did not meet adequate yearly progress may nonetheless be characterized as *high-results*.

Share of students READING at basic and above:
- Elementary: Low <76.7%; Moderately Low 76.7–83.0%; Moderately High 83.1–90.2%; High >90.2%
- Secondary: Low <70.2; Moderately Low 70.2–81.6%; Moderately High 81.7–94.4%; High >94.4%

Share of students READING at proficient and advanced:
- Elementary: Low <27.3%; Moderately Low 27.3–36.4%; Moderately High 36.5–49.1%; High >49.1%
- Secondary: Low <17.2%; Moderately Low 17.2–29.4%; Moderately High 29.5–52.2%; High >55.2%

Share of students doing MATH at basic and above:

• Elementary: Low <63.4%; Moderately Low 63.4–75.0%; Moderately High 75.1–82.6%; High >82.6%

• Secondary: Low <58.2%; Moderately Low 58.2–71.3%; Moderately High 71.4–87.4%; High >87.4%

Share of students doing MATH at proficient and advanced:

• Elementary: Low <18%; Moderately Low 18–25.9%; Moderately High 26–40.6%; High >40.6%

• Secondary: Low <15; Moderately Low 15-25.4%; Moderately High 25.5-47.2%; High >47.2%

Race/Poverty Typology

Neighborhood clusters are classified into four categories that reflect both the extent of racial and economic segregation and recent trends in neighborhood diversity. Using information on the race of recent homebuyers and 2000 census date on racial composition, we identify:

• Racially Changing Clusters: With increasing numbers of white homebuyers (10 clusters)

• Predominantly White Clusters: More than 88 percent white in 2000 (9 clusters)

• Predominantly Black, Low-Poverty Clusters: More than 73 percent black and less than 22 percent-poor in 2000 (8 clusters)

• Predominantly Black, High-Poverty Clusters: More than 89 percent black and more than 26 percent-poor in 2000 (12 clusters)

School Demand Index

The School Demand Index is based on four factors. Schools are ranked in quartiles on each of these key factors, and the index is a combined average of these ranks. For our analysis, the middle two quartiles are combined and these are considered moderate-demand schools. Schools in the bottom quartile are considered low-demand, and those in the top quartile are high-demand.

Three-year enrollment trends (adjusted for schools adding grades and building utilization):

• Elementary: Low <-19.3%; Moderately Low -19.3 to -9.6%; Moderately High -9.5 to 2.3%; High >2.3%

• Secondary: Low <-18.2%; Moderately Low -18.2 to 0.9%; Moderately High 1 to 12%; High >12%

Student mobility, measured by the share of students who change to another DC public school before completing all grades offered ("early exits"):

• Elementary: Low <11%; Moderately Low 11-15.2%; Moderately High 15.3-18.3%; High >15.3%

• Secondary: Low <9.7%; Moderately Low 9.7-12.4%; Moderately High 12.5-16.7%; High >16.7%

Public school students who attend schools within their attendance boundary ("neighborhood capture"):

• Elementary: Low <27%; Moderately Low 27-36.6%; Moderately High 36.7-48.3%; High >48.3%

• Secondary: <2.9%; Moderately Low 2.9-20.4%; Moderately High 20.5-29.1%; High >29.1%

Travel distances from home to school (miles):

• Elementary: Low <.31; Moderately Low .31-.39; Moderately High .40-.87; High >.87

• Secondary: Low <1.1; Moderately Low 1.1-1.8; Moderately High 1.9-2.6; High >2.6

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