

Memorandum

To: Abigail Smith, DCPS Office of Transformation Management;
Stefan Huh, Office of the State Superintendent of Education

From: 21st Century School Fund, Urban Institute, Brookings Institution

Date: March 17, 2009

Re: Analysis of the Impact of DCPS School Closings for SY2008-2009

Overview

This memo examines the enrollment patterns resulting from the DCPS 2008-2009 school closings. The enrollment patterns resulting from grade configuration changes from the same reorganization effort are discussed in a separate memo dated February 21, 2009. Although this memo focuses on the impact of the closings on student enrollment, we also lay out key questions for the school system to consider as it evaluates the impact of the closings on educational program quality and on budget pressures.

Impetus for the Closings

Public school enrollment is never static. Births, children advancing through grades, migration of families into and out of the city, dropouts, and families' school sector choices—DCPS, charter or private education-- all directly impact PK-12th grade enrollment levels and patterns. The public school student population in the District has been in decline for decades. The District of Columbia Public School (DCPS) enrollment peaked at 146,000 students in 1967. The total public school enrollment—DCPS and public charter schools – is down to only about half of that number today. Much of this public school enrollment decline parallels population decline in the city overall, as large numbers of families left the District for surrounding jurisdictions, especially following the 1968 riots and continuing for several decades. However, since 2000, the trend lines between overall city population and public school student population have diverged. The District has experienced slow but steady total population growth in recent years, while the city's school-age population continued to decline. With rising birth rates, the 0-5 year old population increased 9 percent between 2000 and 2006, but the school-age population declined by 4 percent during this time period, and the number of public school students went down by 8 percent.¹

¹ *Quality Schools, Healthy Neighborhoods, and the Future of DC*, Brookings Institution, Urban Institute, and 21st Century School Fund, October 2008

This shrinking number of public school students is distributed over an ever-growing number of schools. The expansion of school supply has been driven by the rapid expansion of the public charter sector, which started with two schools in 1997 and has increased to 60 schools on 96 campuses in the current 2008-09 school year. This dramatic increase in public charter school options has resulted in a redistribution of public school students from DCPS schools to public charter schools, so that in 2008-09 one third of all public school students were enrolled in a public charter school. The combined result of these two trends – declining overall student population and rapid expansion of charter schools – is that DCPS has experienced significant enrollment decline over the past decade.

Table 1: DCPS Enrollment Change 1997-2008²

<i>School Year</i>	Total DCPS Enrollment (Excluding Non-Graded Students)	Percent Change From Previous Year
<i>1997-98</i>	73,244	-2.35%
<i>1998-99</i>	68,045	-7.64%
<i>1999-2000</i>	67,002	-1.56%
<i>2000-01</i>	64,757	-3.47%
<i>2001-02</i>	64,130	-0.98%
<i>2002-03</i>	62,884	-1.98%
<i>2003-04</i>	60,654	-3.68%
<i>2004-05</i>	57,617	-5.27%
<i>2005-06</i>	54,888	-4.97%
<i>2006-07</i>	52,668	-4.22%
<i>2007-08</i>	49,017	-6.93%
<i>2008-09</i>	45,181	-7.82%

These enrollment declines, coupled with the dramatically expanded supply of schools, have left DCPS with significant excess public school facility space in all areas of the city except Ward 3.

² DCPS official October enrollment counts, 1997-2008

Table 2: Gross Square Feet per Student by Ward, 2006-2007 School Year (Before Closings)

	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
Building Sq Footage	1,936,453	996,900	709,887	1,775,600	2,708,711	1,758,500	2,030,200	3,091,308
GSF per Student, 2006-07	341	283	145	287	378	275	269	286
DCPS Standard Sq Ft/Student	170	170	170	170	170	170	170	170

As a result, in 2006 the DCPS Board of Education voted to eliminate 3 million gross square feet (GSF) of school space from their inventory. For the 2006-2007 school year, the BOE closed 1 million GSF of space, which included Fletcher-Johnson, McGogney, RH Terrell, Merritt, Van Ness, Webb, and Shadd.³

Following the mayoral takeover of DCPS and the hiring of Chancellor Michelle Rhee, DCPS announced its intention to close another 2 million GSF of excess space. The administration cited the challenge of providing a full complement of quality programs, services, and staffing at so many small schools as a major reason behind its decision to close 23 schools for the 2008-09 school year. The other primary reason for accelerating the closings was cost: there are significant inefficiencies in paying to clean, maintain, and make capital improvements in underutilized space.

As part of DCPS’s vision for organizing its schools, changes in grade configuration were also made. The start of the following school year, 2007-08, marked the beginning of a transformation of grade configurations at the middle grades, with the elimination of 9th grade in the city’s eight junior high schools (all rising 9th graders now attend high school). Further reorganization of the middle grades was carried out as part of the 2008-09 reorganization process, with the creation of 15 new PK-8 education campuses and 6th grade transferred out of 29 elementary schools. These changes are discussed in the February 21 memo.

³ All but one of these closed schools – RH Terrell, which was demolished – has been re-opened for alternative use by DCPS or the city: Fletcher-Johnson (swing space), McGogney (parent center), Merritt (DC program space), Van Ness (special education administration), Webb (swing space), Shadd (Transition Academy and parent center).

School Closing Process

The DCPS Master Education Plan proposed closing schools and increasing school enrollments as part of its plan for improving the delivery of public education in the District, predicting that such changes would create a school system where:

“space and staff are allocated efficiently in support of high-quality educational programs and services [creating] a school system that is better balanced, in which students in larger schools are not penalized with less funding just to maintain schools that are too small to independently provide an adequate education.”⁴

Using the policies and strategies of the MEP as a guide, in fall 2007 DCPS and the Deputy Mayor for Education worked together with three local independent organizations – 21st Century School Fund, Urban Institute, and the Brookings Institution – to develop a set of criteria to identify which schools should be considered for closing. Student level enrollment data and neighborhood demographic and housing changes were analyzed to inform the reorganization choices. DCPS schools were grouped by level (elementary, middle/junior high, and senior high) and analyzed to determine which schools had enrollment declines greater than the 5-year median change and enrollment size below the median. Since accelerated enrollment decline and need for greater numbers of students at each school were driving the need to close schools, the analysis looked at which schools were heavily impacted by both factors. These were the first level criteria used to identify schools as candidates for closure or other reorganization. The initial list of schools was then further analyzed to consider geographic isolation, neighborhoods with anticipated student growth, and attendance patterns. Joint working sessions between the nonprofit study team and staff from DCPS, the Office of the Deputy Mayor for Education, the Office of the State Superintendent of Education, and the Office of Planning utilized an interactive, collaborative approach to combine local knowledge with data analysis, maps, and city planning information to better understand enrollment patterns and projections at each school considered for closure.

A preliminary list of schools to be closed was announced by the Mayor and the Deputy Mayor for Education in November 2007, along with a schedule for public hearings. Three hearings each were held in three different neighborhoods around the city, a total of nine hearings, where parents and community members were invited to comment on the proposed school closings. Each group of three hearings was structured sequentially, so that DCPS could try to provide answers to questions raised at the previous hearing during the next one. The City Council also held a hearing on the closings, and DCPS held a city-wide hearing before the final list of 23 schools and programs was announced. A handful of changes were made between the initially announced list and the final list of closings. Once the final decisions were announced, DCPS began meeting with the affected communities – both at schools scheduled to close and those

⁴ *All Students Succeeding: A Master Education Plan for a System of Greater Schools*, Master Education Plan, District of Columbia Public Schools, February 2006

identified as receiving schools. Capital improvements were made at the receiving schools over the summer, with particular attention to those schools becoming PK-8 education centers, and DCPS established a critical response team to smooth the transition for families and schools.

Impact of the Closings

The most direct impact from the reorganization is felt by the students previously attending the schools that were closed or reconfigured. In the 2007-08 school year, there were 4,846 students (plus 92 12th graders, who would be expected to graduate out of the system) enrolled in the 23 schools and programs selected for closing.⁵ In addition, 1,094 rising 6th graders were assigned to move into middle schools rather than staying in elementary school, and 350 6th graders were assigned to 7th grade in new PK-8 education centers rather than moving to middle schools. In total, 6,413 students were directly impacted by the reorganization. Other students and staff at the assigned receiving schools, consolidated schools and in schools adding grades were also affected by the school closings. Forty-two of the city's public schools (34 DCPS schools and 8 charter schools) each received at least 25 students from the closed schools—a full classroom's worth. Only half of these DCPS schools were designated receiving schools, and two charter schools each received over 60 students from the closed schools.

Method of Analysis

In order to analyze the impact of the closings on enrollment levels and choices, the study team has analyzed where the 4,846 students (PS-11th grade) from the closed schools in 2007-08 attended school in 2008-09, the year immediately after their school closed. We also examined the current year's enrollment patterns (2008-09) of students who attended the non-closed DCPS schools in 2007-08. Detailed tables with the results of this analysis are available as an appendix to this memo.

Under a Memorandum of Agreement with DCPS and the Public Charter School Board, which protects students' privacy, we used student-level data from the 2007-08 and 2008-09 October un-audited enrollment counts to follow students between the two years. We worked with the DC Office of the Chief Technology Officer (OCTO) to match all DCPS students in 2007-08 to the universe of ALL public school students in 2008-09, in both DCPS schools and in public charter schools—including special education schools or non-public placement. OCTO used their standard algorithm to match the public school students from the two years. (This algorithm was developed for their longitudinal student database, MEAD.)

⁵ The schools and programs closed in 2008-09 are: Backus MS, Benning ES, Bowen ES, Bunker Hill ES, CHOICE Academy at Douglass and Taft (Middle and SHS consolidated into single program), Clark ES, Gage-Eckington ES, Garnett-Patterson MS, Gibbs ES, Green ES, Hine JHS, JF Cook ES, Meyer ES, Merritt MS, MM Washington SHS, Parkview ES, PR Harris EC, Rudolph ES, Slowe ES, Stevens ES, Wilkinson ES, and Young ES.

When matching the students between 2007-08 and 2008-09, if we found the same students in public school between the two years we had a “match.” Matched students were those who were enrolled in DCPS or public charters in 2007-08 and could still be found in either a DCPS or public charter school in 2008-09. Matches were determined using student names, ID, date of birth, and race. The matches were categorized on a scale of 1-49, with the reliability of match decreasing as the scale increased. For instance, matches categorized as a “1” had exactly the same data in all fields while matches with “49” had virtually nothing in common. Matches that were rated 1-9 were deemed reliable matches (OCTO’s standard), as the only differences in the data fields were things like was the inclusion of a middle initial or the reversal of two letters (an input error). More than half (56 percent) of all students had a single reliable (rated 1-9) match between the two time periods.

Some students from 2007-08 had no match in the 2008-09 files, while others had multiple possible matches. When students had multiple matches, we selected the match that was rated a 1-9 and disregarded the other erroneous match(es). There were only a small number of matches that had multiple 1-9 matches or highly reliable matches. These occurred because the same student was enrolled in multiple schools in 2008-09. We were not able to determine where these students were enrolled in 2008-09 and the students were removed from the analysis.

The students with no match and multiple matches of 10 and above) were considered as non-matching and removed from the analysis. Interestingly, 15% of students from closed schools and 14% of students from non-closed schools could not be found in either DCPS or in public charter schools in 2008-09. Although we do not know exactly how many students cannot be matched because they have left the public school system altogether (either by moving from the District, dropping out of school, attending private school, or being home schooled) and how many cannot be matched because of administrative data problems, there are some patterns:

- The share of students who could not be matched was higher at the senior high school level for both closed and non-closed schools. Banneker, Ellington, and McKinley senior highs all had high rates of matching (over 90 percent), while the most of the comprehensive high schools had matching rates below 75 percent. This suggests that some of these non-matches are students who dropped out of school, but we cannot be certain without further analysis.
- Of the 16 closed elementary schools, only one (Benning) had over 90 percent of students matched to public school in 2008-09 and two schools had under 80 percent of students match - JF Cook (77.8%) and Stevens (75.7%).
- Matching rates were highest at middle school level for both closed and non-closed schools; 97.1% of Garnet-Patterson students matched and 92% of students from Hine matched. The high rate at Garnet-Patterson is likely because such a high share of students remained at the same building, reducing the possibility of administrative/data

keeping problems. 94% of students from Francis, where students also remained in the same building, matched from 2007-08 to 2008-09.

We do know that since the total public school enrollment did not change to any extent between 2007-08 and 2008-09, although some students are leaving public schools entirely, new students are entering public schools throughout the system.

Findings

Impact on Overall Enrollment Patterns

The total DCPS enrollment including non-graded students (different than Table 1 totals, which EXCLUDE non-graded students) declined by 4,299 students (8.1%), from 52,945 students in 2007-08 to 48,646 students in 2008-09, while public charter enrollment increased by 3,957 students (19.5%), from 20,291 students in 2007-08 to 24,248 students in 2008-09.⁶ The large charter increase can be partly attributed to the conversion of seven Catholic schools into public charter schools, which enrolled a total of 1,147 students in 2008-09. Overall, enrollment in the city's public schools stayed relatively stable, decreasing by only 342 students (0.46%) from 2007-08 to 2008-09.

Of the 4,846 students attending the closed schools in grades PS-11 in 2007-08, 4,109 students (or 84.8%) could be matched to records of public school students (attending either DCPS or public charter schools) in the 2008-09 school year, but 737 students (15.2%) for whom there were student records in 2007-2008 could not be found in either DCPS or public charter schools in 2008-2009. This is a similar rate compared with the non-closed DCPS schools, where 85% of students (35,169 students) from 2007-08 could be matched to public school records in 2008-09, but 6,105 (14.8%) were not matched. This does not mean that 737 students, or 15% of those enrolled in the closed schools in 2007-08, necessarily left the public school system in DC. While it is likely that some students did leave District public schools to attend private school, be home schooled, dropout or moved out of the District entirely, many of these students simply did not have sufficiently good data matches to track them across the two years. The highest share of non-matches occurred at the high school level, with over 20% of 2007-08 records not matching a 2008-09 record, followed by students in pre-kindergarten in 2007-08, where 19% did not match. A similar pattern was seen for students in all other DCPS schools, suggesting that there may be higher rates of exit out of the public school system at both the youngest and oldest grades.

The share of students attending DCPS and public charter schools varied significantly between the students from the closed and non-closed schools. ***Students from closed schools attended charters at more than double the rate of students from non-closed schools.***

⁶ Enrollment figures are from the pre-audit October 6 count; total enrollment may therefore differ slightly from final reported audit counts.

Table 3: Enrollment Pattern of Students from Closed Schools⁷

	Students Enrolled in DCPS, 2007-08	Students Enrolled in DCPS, 2008-09	Students Enrolled in Public Charter School, 2008-09	Students Who Could Not be Matched in 2008-09
Closed Schools: ALL	4,846	3,306 (68.2%)	803 (16.6%)	737 (15.2%)
Closed Schools: Elementary	3,726	2,510 (67.4%)	654 (17.6%)	562 (15.1%)
Closed Schools: Middle	781	579 (74.1%)	117 (15.0%)	85 (10.9%)
Closed Schools: Senior High ⁸	210	140 (66.7%)	30 (14.3%)	40 (19.0%)

Table 4: Enrollment Pattern of Students from Non-Closed Schools⁹

	Students Enrolled in DCPS, 2007-08	Students Enrolled in DCPS, 2008-09	Students Enrolled in Public Charter School, 2008-09	Students Who Could Not be Matched in 2008-09
Non-Closed Schools: ALL	41,274	32,291 (78.2%)	2,878 (7.0%)	6,105 (14.8%)
Non-Closed Schools: Elementary	25,062	19,718 (78.7%)	2,146 (8.6%)	3,198 (12.8%)
Non-Closed Schools: Middle	4,676	3,717 (79.5%)	390 (8.3%)	569 (12.2%)
Non-Closed Schools: Sr High	10,157	8,023 (79.0%)	247 (2.4%)	1,887 (18.6%)

In addition to the 23 closed schools and programs, DCPS closed five special education centers¹⁰ - one of these, Washington Center, was located in a closed school, and two, Moten Center and

⁷ See Tables A-1 and A-2, C-1 and C-2, D-1 and D-2, and E-1 and E-2 for school-specific detail.

⁸ The closed high schools analysis includes only MM Washington, not the two CHOICE programs. The CHOICE programs are included in the analysis of all closed schools.

⁹ See Tables H-1 and H-2, I-1 and I-2, J-1 and J-2, K-1 and K-2 for school-specific detail.

Browne Center, were located in consolidated schools. Of the 299 students enrolled in these schools, 71.2% were still enrolled in a DCPS school in 2008-09, slightly higher than the overall rate for students from the closed schools. Only 14 of these students, 4.7% enrolled in charter schools, but nearly one-quarter of the students (72 students, or 24.1%) could not be matched in 2008-09. The largest single share of students (80 students, 26.8%) from these 5 closed programs enrolled in the Transition Academy at Shadd, and 19 students left the closed programs for non-public placement.

Impact on Individual Schools

The enrollment behavior of the students from the closed schools varied significantly from school-to-school, in terms of the share who remained enrolled at a DCPS school and the share who enrolled at their assigned receiving (or consolidated) school. For example, the share of students from closed schools remaining enrolled at DCPS ranged from a high of 96.3% of students from Bowen to a low of only 44.4% of students from JF Cook, and the share of students attending their assigned receiving school ranged from a high of 88.1% of students from Garnet-Patterson to a low of 10.1% of students from Clark. Despite these differences, some results suggest that certain factors increased the likelihood that students would stay in DCPS.

In general, **more students attended their assigned receiving schools in consolidations than where multiple receiving schools were assigned.** Table 6 shows that of the 12 closed schools that were consolidated into only one receiving school, in 9 of those cases over 50 percent of the students enrolled in the consolidated school, and in 10 of those cases over 80 percent of the students remained enrolled in a DCPS school.

Table 5: Level of Student Participation from Students Enrolled in DCPS Consolidated Schools¹¹

Ward	New 2008-09 Consolidated Schools	2007-08 Schools Designated for Consolidation (bold = program closed)	% Students Attending Consolidated School 2008-09	% Students Attending Any DCPS School 2008-09
1	Bruce Monroe/Parkview ES	Park View ES	72.1%	87.7%
		Bruce Monroe ES	71.4%	89.9%
1 / 2	Shaw/Garnet-Patterson MS	Garnet Patterson MS	88.1%	95.1%

¹⁰ The five special education centers closed in 2008-09 are: Browne Center, Moten Center, Spingarn Center, Taft Center, and Washington Center

¹¹ See Tables A-7, A-8, A-9, A-16, A-17, A-18, A-20, A-23, A-26, A-29, A-30, B-4, B-5, B-6, B-7, B-8, B-9, and B-10 for school-specific detail.

		Shaw JHS	62.0%	90.0%
2	Francis/Stevens EC	Francis JHS	83.6%	97.0%
		Stevens ES	53.9%	84.9%
5	Brookland/Bunker Hill EC	Bunker Hill ES	63.3%	84.5%
		Brookland ES	71.0%	80.8%
5	LaSalle/Backus EC	LaSalle ES	78.0%	87.9%
		Backus MS	58.8%	80.4%
5/6	Browne/Young/Gibbs EC	Browne JHS	79.1%	89.5%
		Young ES	65.6%	91.0%
		Gibbs ES	29.9%	79.2%
6	Eliot/Hine MS	Eliot JHS	87.1%	96.8%
		Hine JHS	34.1%	84.8%
6	Amidon/Bowen ES	Amidon ES	72.3%	87.5%
		Bowen ES	67.9%	96.3%
7	Smothers/Benning ES	Smothers ES	68.5%	88.1%
		Benning ES	27.3%	61.7%
8	Turner/Green ES	Turner ES	48.6%	82.5%
		Green ES	57.8%	81.7%
8	Moten/Wilkinson ES	Moten ES	32.8%	75.8%
		Wilkinson ES	70.0%	90.5%

The three consolidations that appear to have been least successful are Benning ES, where only 27.3% consolidated into Smothers; Gibbs ES, where only 29.9% of its students transferred into the consolidated Young/Browne; and Hine JHS, where only 34.1% when on to attend Eliot. All three of these closings generated significant community concern during the public engagement process following the initial proposed closing list.

For Benning and Gibbs students, the major obstacle to the successful consolidation appears to have been geography. ***Students from Benning and Gibbs faced geographical barriers to their consolidated schools.*** Benning students would have to cross busy Benning Road to reach Smothers. Instead, nearly a quarter of Benning students (24.2%) chose to enroll at Nia Public Charter School, which moved into the Benning building for the 2008-09 school year. Students from Gibbs would also have to cross Benning Road, a busy multi-lane thoroughfare at a spot made even more treacherous by ongoing road work, to reach Browne/Young. Instead of attending Browne/Young en masse, students from Gibbs scattered to 43 different schools, with 22.7% enrolling at nearby Miner ES.¹²

The Hine/Eliot consolidated was one of the most contentious, with many Hine parents objecting to the closure of their school in favor of one that was poorer performing. A sizable share of students enrolled instead at Jefferson JHS (17.4%), while nearly a quarter of students enrolled at middle schools east of the River (23.2% at Johnson, Kramer, and Hart), which earlier analysis suggests are schools closer to home.

However, even with the challenges at these three consolidations, overall 85.3% of the students from these 12 schools stayed with DCPS and 57.1% actually attended the consolidated school.

In contrast, for the 8 closed schools that were assigned to multiple receiving schools, only half of them had more than 50 percent of students enroll at their receiving schools combined. Only one of the 21 designated receiving schools (Tubman ES) had more than 50 percent of the students from its sending (closed) school (Meyer ES). In the closed schools with multiple designated receiving schools, the rate of participation in other DCPS schools was also particularly low at the elementary school level. While 10 of the 12 consolidated closed schools had 80 percent or more of their students remain enrolled at DCPS schools, only 2 of the 8 closed schools with multiple receiving schools did so, and one school (JF Cook) had less than half of its students remain in the DCPS system in 2008-09.

¹² For a complete set of individual school maps which identify natural and transportation barriers to walkability, see our January 2009 submission to DCPS on enrollment planning; or see maps posted on www.21csf.org at *Closeups*, on the “map” tab.

Table 6: Level of Participation of Students in Assigned Receiving Schools¹³

Ward	Closed School 2007-08	Designated Receiving Schools 2008-09	% Students from closed school enrolled in receiving school 2008-09	% Students from Closed School Enrolled in Any DCPS School, 2008-09
1	Meyer ES	HD Cooke	1.7%	
		Garrison	12.5%	
		Tubman	55.0%	
		ALL	69.2%	80.0%
1	Gage-Eckington ES	Emery	18.4%	
		Garrison	0.7%	
		Seaton	10.3%	
		Shaed	2.2%	
		ALL	31.6%	77.2%
4	Clark ES	Powell	5.8%	
		Raymond	4.3%	
		ALL	10.1%	65.5%
4	Rudolph ES	Truesdell	22.0%	
		Whittier	22.6%	
		ALL	44.6%	75.6%
5	JF Cook ES	Emery	4.5%	
		Walker-Jones	10.5%	
		ALL	15.0%	44.4%
5	Slowe ES	Burroughs	22.9%	

¹³ See Tables A-13, A-14, A-15, A-19, A-21, A-22, A-24, A-25, and A-28 for school-specific detail.

		Noyes	32.9%	
		ALL	55.8%	68.6%
7	Merritt MS	Ron Brown	45.5%	
		Kelly Miller	13.6%	
		ALL	59.1%	75.0%
8	PR Harris	Hart MS	23.2%	
		Hendley	14.7%	
		Leckie	2.6%	
		Patterson	28.8%	
		ALL	69.3%	90.9%

At Clark and JF Cook 85 percent or more of the students enrolled at schools other than their designated receiving schools. Several factors can help explain these extreme cases. The popular Clark principal moved to Truesdell ES, taking more than a fifth (21.6%) of his students with him. Two of the transformed Catholic schools nearby (Center City – Petworth PCS and Center City – Brightwood PCS) captured another 16.6 percent of the Clark student body.

Students from JF Cook exhibited similar behavior as those from Benning. Rather than crossing North Capitol Street to attend Emery or New York Avenue to attend Walker-Jones, nearly half the students (42.1%) enrolled at Community Academy PCS at Armstrong, across the street from the JF Cook building. Students from Slowe made a similar choice, with almost a quarter (24.3%) enrolling in M.M. Bethune PCS, which moved into the Slowe building. On the flip side, the proximity of Tubman to Meyer was likely an important factor driving the high share of Meyer students who enrolled there.

A number of public charter schools saw significant enrollment increases as a result of the school closings, and there were 71 public charter schools that received at least 1 student from the closed schools.

Table 7: Public Charter Schools Receiving More than 20 Students from Closed Schools

School Name	Ward	# of Students from DCPS Closed Schools Enrolled in 2008-09	Share of 2008-09 Enrollment made up of students from DCPS Closed Schools
Friendship – Blow Pierce	7	68	9.9%
Community Academy – Armstrong	5	60	29.9%
Nia Community PCS	7	36	20.8%
Paul PCS	4	30	5.2%
Cesar Chavez – Hayes	7	28	3.8%
Potomac Lighthouse	5	27	10.7%
Community Academy – Riggs Road	5	26	7.4%
Center City PCS – Petworth	4	25	10.7%
Meridian PCS	1	23	4.5%
MM Bethune – Brookland	5	23	12.6%

Impact on Student Travel Distance from Residence to School

During the school closing decision-making process, efforts were made to avoid isolating students and to retain walkability at the elementary school level as much as possible. This objective appears to have been realized. ***While the median travel distance for elementary school students from closed schools did increase, most students were still only traveling 1/2 mile or less to school.*** The median travel distance for elementary students from non-closed schools stayed essentially the same between 2007-08 and 2008-09, increasing slightly from 0.38 miles to 0.46 miles.¹⁴ Median travel distances actually decreased for middle and high school students from closed schools, opposite the trends for students from non-closed middle and high schools

¹⁴ See Table I-5: Median Distance Traveled to School, Non-Closed Elementary Schools, for greater detail.

(median travel distance for these students increased slightly at both grade levels).¹⁵ At the middle school level, this decrease may be driven by students from Hine JHS attending schools closer to their home, and the large share of students from Merritt MS attending Ron Brown.¹⁶ At the high school level, the decrease is because MM Washington was a specialty city-wide school, and nearly two-thirds of its students enrolled in neighborhood comprehensive high schools after the closing. Travel distances increased elementary and middle school students from the closed schools who enrolled in charter schools in 2008-09, but decreased for high school students who enrolled in charters.

Table 8: Distance Traveled from Residence to School in SY2007 and in SY2008 by Students from Closed Schools¹⁷

Grade Level of Students	School Sector 2007	School Sector 2008	Median Travel Distance in 2007-08 (Miles)	Median Travel Distance in 2008-09 (Miles)
Elementary (3,164 students)	DCPS	DCPS	0.31	0.45
	DCPS	Charter	0.30	0.97
	All Elementary		<i>0.31</i>	<i>0.50</i>
Middle (696 students)	DCPS	DCPS	1.24	1.18
	DCPS	Charter	1.42	1.69
	All Middle		<i>1.29</i>	<i>1.23</i>
High School (170 students)	DCPS	DCPS	2.75	1.57
	DCPS	Charter	2.04	1.76
	All Senior High		<i>2.67</i>	<i>1.66</i>

¹⁵ See Tables J-5 and K-5, Median Distance Traveled to School, Non-Closed Middle and High Schools, for greater detail.

¹⁶ Hine JHS enrolled a large share of students who lived in neighborhoods east of the Anacostia River, a significant distance from the school. When Fletcher-Johnson closed in 2006-07, students were assigned to Merritt and Ron Brown, skipping over Kelly Miller, which was closer. Thus, some of the students from Merritt who enrolled in Kelly Miller in 2008-09 may have been selecting the school closer to their home.

¹⁷ See Tables C-5, D-5, and E-5, Median Distance Traveled to School, Closed Elementary, Middle, and High Schools, for greater detail.

Other Factors Affecting Enrollment Patterns

While the closing and consolidating of schools is a major change with significant affects on enrollment patterns, the team also looked at other factors that may affect a family’s choices about where children attend school. Using the student level database, which includes students’ home address, we were able to determine whether the home address of students changed between the 2007 and 2008 school years. In addition, we were interested in whether the promise of program and staffing changes appeared to attract students to the receiving schools.

Student Residential Change

While the school closings have created uncertainty in the lives of many public school families, it is not just our schools that are changing. There is tremendous neighborhood change across the city as well. Neighborhood change, particularly redevelopment that lowers availability of affordable rental housing to families, is a major factor reducing enrollment in DCPS schools. Overall, the students from the closed schools were slightly less likely than students from the non-closed schools to remain at the same home address in 2007 and 2008. While greater mobility was observed at all grade levels for students from the closed schools, the greatest variation can be seen at the senior high level, where less than 70% of students from the closed schools were at the same address, compared with 83.6% of students at non-closed schools. If the higher mobility at the closed schools is driven by residential pressures, particularly loss of affordable housing, this could have contributed to the school’s declining enrollment which put it on the closing list in the first place, demonstrating the importance of coordinated public policy considering housing and educational interventions together.

Table 9: Residential Mobility of Students from Closed and Non-Closed Schools¹⁸

	Students enrolled in public school (records matched), 2008-09	Number of students NOT at same home address 2007-08 and 2008-09	Percent of students not at same home address 2007-08 and 2008-09
Closed Schools: ALL	4,109	1,048	25.5%
Closed Schools: Elementary	3,164	818	25.9%
Closed Schools: Middle	696	155	22.3%
Closed Schools: Senior	170	54	31.8%

¹⁸ See Tables A-1, C-1, D-1, E-1, H-1, I-1, J-1, and K-1, Students Enrolled in DCPS Closed and Non-Closed Schools (All, Elementary, Middle, and High Schools) 2007 Who Enrolled in Public School in 2008, for school-specific detail.

High			
Non-Closed Schools: ALL	35,169	6,820	19.4%
Non-Closed Schools: Elementary	21,864	4,302	19.7%
Non-Closed Schools: Middle	4,107	769	18.7%
Non-Closed Schools: Sr High	8,270	1,360	16.4%

Among closed and non-closed schools, there is a wide range of mobility levels, with the most stable schools having less than 10% of their students change home address and the least stable schools having more than 30 percent of their students change their home address. Of the closed schools, those with the highest mobility are: Benning ES (33.3% changed their home address, Cluster 32), Gage-Eckington ES (35.8% changed their home address, Cluster 03), Gibbs ES (31.3% changed their home address, Cluster 25), Hine JHS (31.2% changed their home address, Cluster 26), and MM Washington (31.8% changed their home address, Cluster 21).

The neighborhoods around Gage, Gibbs, and Hine have all experienced high sales volume and rapid price increases in recent years, which could be driving some of the student mobility. Both Benning and MM Washington are located in neighborhoods with increasing sales, but still moderate prices, although public housing units have been closing rapidly near MM Washington.¹⁹ Meyer ES is the only closed school where less than 10 percent (8.2%) of its students changed residential address between the two years. This high stability is likely because many of the Meyer students live in public housing in the immediate neighborhood and their designated receiving schools included Tubman ES, another nearby school.

The mobility patterns observed at the non-closed schools strengthens the evidence that high student mobility levels, more than 30 percent of students changing home address from one year to the next, are related to instability in the housing market. Higher student mobility appears to be greatest in rapidly gentrifying or redeveloped communities where affordable rental units are being converted to condos; where residential density is decreasing; and once affordable home prices are rapidly rising.

The non-closed schools with the highest mobility are: Emery ES (30.6%, Cluster 21), Garfield ES (30.6%, Cluster 36), Leckie ES (41.1%, Cluster 39), Scott Montgomery ES (30.2%, Cluster 07), Orr ES (31.5%, Cluster 34), Turner ES (36.2%, Cluster 38), Walker-Jones EC (40.8%, Cluster 08), MC

¹⁹ The housing market typology used is from *Quality Schools and Healthy Neighborhoods*, Brookings Institution, Urban Institute, and 21st Century School Fund, October 2008

Terrell ES (33.3%, Cluster 39), and Eliot JHS (32.9%, Cluster 25). The neighborhoods around Scott Montgomery, Walker-Jones, and Eliot have all experienced high sales volume and rapid price increases in recent years; and the public housing immediately surrounding Walker-Jones is in the process of being demolished as part of a city-led revitalization project.

The neighborhoods around Garfield, Leckie, Turner, and MC Terrell are all high-poverty. In addition, there has been significant mixed-income redevelopment, including two major HOPE VI projects at Wheeler Creek and Henson Ridge, in the neighborhoods surrounding Garfield, Turner, and MC Terrell. These projects have likely created tumult for low-income residents that could help explain the high residential mobility at these schools, especially Turner, where almost 40% of students changed address between 2007-08 and 2008-09.

The non-closed schools with the greatest stability (less than 10 percent of students changing their home address between the 2007 and 2008 school years) are: Eaton ES (9.7%, Cluster 15), Janney ES (3.2%, Cluster 11), Lafayette ES (6.8%, Cluster 10), Shepherd ES (4.7%, Cluster 16), West ES (10%, Cluster 18), Banneker SHS (8.2%, Cluster 02), and Wilson SHS (8.9%, Cluster 11). The majority of these schools are located in neighborhoods with historically high levels of owner occupancy and are attended primarily by students from high-income families.

Programs and Staffing

One of the primary reasons given for the closing and consolidation of so many schools at once was to better concentrate students and thus ensure more equal access to resources at all DCPS schools. Richer programmatic offerings and enhanced staffing allocation are important elements of higher-resource schools. As part of the school closing process, DCPS promised to implement new thematic educational programs, as well as a comprehensive staffing model for all receiving and consolidated schools. The kinds of programs that were to be introduced include: Science, Technology, Engineering and Math (STEM) programs; arts magnet; bilingual education; and special education inclusion, using the SAM (School-wide Application Model). DCPS introduced eight pilot SAM schools in 2008-09, but most of the other new programs are in planning this year.

Other programmatic changes that accompanied school reorganization were the expansion of PS-8th grade education centers; the consolidation of the city's two CHOICE programs for suspended students; the introduction of two new programs for 9th graders--Youth Engagement Academy at Eliot Middle School and Woodson Academy, located at Ron Brown Middle School; and establishment of the Twilight Academy at Ballou SHS and credit recovery programs throughout the senior high schools to help more students graduate.

In her March 11, 2009 testimony, Chancellor Rhee indicated that all of the receiving, consolidated and transformed schools were now offering art, music, and physical education classes in 2008-09 following the comprehensive staffing model. While the expanded offerings and the increased staff may improve the quality of the education of the students in the schools that benefited, it is entirely unclear that these additional resources had an impact on the

choices parents from the closed schools made. Barely one third of the 21 receiving schools attracted more than 20% of the students from their designated sending school. The consolidated schools were more successful in attracting students from their closed school, but where geographic barriers existed or community frustration with the change was high, the promise of enhanced programs and staffing could not overcome other concerns.

Impact on Savings and Efficiencies

Another important goal of the reorganization was to generate budget savings and efficiencies for DCPS to help provide additional funds to support school-level improvements. We provide a basic analysis of changes to building utilization below, and provide a framework for evaluating the impact of the closings on the DCPS budget.

Buildings

DCPS closed 2.3 million square feet of building space, leaving 13 million square feet of building space in operating schools in 2008-09. The gross square footage (GSF) per student in the DCPS inventory was reduced from 313 GSF/student in 2007-08 to 288 GSF/student in 2008-09. These figures include all buildings with students in programs—including swing space. They do not include schools in construction; space leased to charters; administrative space; or officially closed schools that house parent centers or other programs that do not provide direct education to students. One reason for the relatively small reduction in GSF per student change is that DCPS's enrollment continued to decline and in fact experienced its greatest rate of decline in the past ten years. In addition, a large new school was opened at Phelps and the huge open-space Fletcher-Johnson building was reopened to serve as swing space for Woodson High School, adding several hundred thousand square feet to the total inventory.

Eliminating 2.3 million GSF of space reduces the long term capital obligation for the modernizations now proposed in the Office of Public Education Facilities Management (OPEFM)'s Master Facilities Plan. The proposed estimate for Phase 1, 2, and 3 modernizations is \$110 per gross square foot in 2010 dollars. A reduction of 2.3 million GSF of space reduces the capital budget obligation for the closed schools by \$253 million. In addition, an industry standard estimate for the ongoing cost of cleaning, maintenance and utilities in a school is \$5 per GSF. This represents a potential \$11.5 million annual reduction in the operating budget obligations of 2.3 million GSF. However, since all of these buildings are currently still in the city inventory, many of the costs previously borne by DCPS are still being paid for with public funds. In just three cases recently closed schools are being utilized by public charter schools²⁰; the others are now the responsibility of the Office of Property Management. An RFP was issued to find new occupants for the closed schools, but final agreements are not yet announced.

²⁰ Of the 23 closed schools or programs, only Benning ES, Slowe ES, and Douglass JHS (Choice Academy) were leased to public charter schools in 2008-2009.

While there should be savings to DCPS and the city over the long run, by more intensively using its public land and buildings, the closing generated the need for additional short and medium term costs for moving and making building improvements to support added grades. In particular, a PS-8th grade configuration model is expensive from a capital perspective since science labs, gymnasium, and other specialty spaces are required for a relatively small number of middle grade students. Where elementary schools are converted to PK-8th grade schools, many building and site improvements are required. \$39.4 million was expended on the 15 new PK-8th grade schools for building improvements, furniture and other expenses. In total, \$104 million was expended for building improvements and furniture for the 30 receiving schools (\$29.7 million of which was spent on the 11 receiving schools that were new PK-8 schools).

District Funding

Since we see that out-migration of students from DCPS to public charter schools was twice as high for students from the closed schools as for students in non-closed schools, it appears from the analysis that closing 23 schools accelerated the decline in enrollment in DCPS. This increased enrollment decline has a per pupil cost to DCPS of roughly \$10,000 per student. If students from the closed schools had left for charter schools at the same rate as students from the non-closed schools, only 335 students would have switched sectors—a difference of 468 students less than the 803 students from closed schools who switched from DCPS to public charter schools. This differential decline cost DCPS an estimated \$4.7 million in Uniform per Pupil Funding in 2008-2009.

Conclusion on Enrollment Patterns and School Closing

It is difficult to know exactly how the process and communication around closing schools affected the participation of families from closed schools in DCPS the following year. However, the variation from school to school suggests that it is not just the closing, per se, that affects future participation, but also the experience of parents and communities in the process of making change. For example, it is likely that the dialogue and accommodation between the consolidating schools may have helped address families' concerns and made them more willing to accept the change. The low participation in receiving schools compared to most of the consolidations suggests that offering more options with less support reduces retention in the system. One reason for low participation in a number of the receiving schools may have been that some of the assigned receiving schools were changed between the initial announcement in February, the letters that went home to families in the spring, and the final school assignment described in August. This lack of clarity might also have contributed to families making different choices than the final DCPS assignments. It also appeared that the leadership and personal relationships in the individual schools mattered and affected the cooperation and communication between sending and receiving schools.

The analysis of student level data suggests that several factors played an important role in determining enrollment patterns of students from the closed schools.

- Where closed schools were consolidated into a single receiving school, greater shares of students attended the receiving school and remained in DCPS overall than when multiple receiving schools were designated.
- Where there were major transportation safety barriers to attending the assigned receiving or consolidated school, families chose to attend other schools.
- Where a public charter school offering the same grades was located in the immediate vicinity of a closed school, particularly if it moved into the closed building, large shares of students enrolled there rather than moving to a DCPS school further away.
- Receiving schools in proximity to a closed school had much higher shares students enrolling there.
- Neighborhood redevelopment is affecting enrollment patterns.

The response to the reorganization – with a significant share of students leaving DCPS and many families not following receiving school assignments, resulting in a wide dispersal of students - suggests that postponing the boundary changes to avoid imposing additional changes on families may have been a wise decision. Variations in families’ responses to the closings also reveal that the school specific communications, as well as the overall processes used when enrollment policies are changed, are critical.

Looking forward, a comprehensive updating and revisions to attendance boundaries, feeder patterns and enrollment policy could create further enrollment decline, because of the extent of the changes and new uncertainties for families. This could be mitigated by a process that includes careful and intensive communication and engagement with parents and local schools to reduce uncertainty and work together to solve the challenging problems of student assignment. Whether or not a comprehensive process to update student boundaries and assignment policy is undertaken, DCPS must resolve the ambiguities that remain from the school closings, specifically questions about boundaries and feeder patterns from the areas that were previously the attendance zones for closed schools.