

2021-22 School Selection: Summary of Lottery Outcomes for 8th Grade SDP Applicants to Criteria-Based Schools

Many staff in the Office of Evaluation, Research, and Accountability contributed to collecting, analyzing, and summarizing the information that appears in this brief. Major contributions were made by Theodore Wills, Ph.D., Joy Lesnick, Ph.D., and Jonathan Vitale, Ph.D.

Key Findings

- **3,993 District 8th graders submitted at least one fully eligible application to a CB schools**, and 85.7% of those students received at least one lottery-based offer to a CB school.
- At four CB schools, the percent of **offers extended to students residing in one of six prioritized zip codes was higher** than in prior years in which those zip codes were not prioritized.
- **Lottery offers were randomly distributed, as expected.** Eligible applicants belonging to different student groups were equally likely to receive admission offers through the lottery.

Introduction

During the annual School Selection Process (SSP), the School District of Philadelphia allows students to apply to attend schools of their choice. While students in all grades have this opportunity, the largest share of applications are submitted by 8th graders, in anticipation of transitioning to high school.

Students may apply to as many as five different schools or programs, and many 8th grade students choose to apply to one (or more) of the 21 criteria-based (CB) high schools and programs (formerly known as Special Admission schools and programs). These schools and programs all have minimum requirements for prior grades in core courses (English, math, science, and social studies) and attendance. In addition, some schools have specialized requirements (e.g., an audition as part of an application to a specialized performing arts program, prior course completion, or a minimum score on a writing test).

In the fall of the 2021-22 school year, offers of admission to incoming 9th graders at all SDP criteria-based high schools and programs were assigned through a combination of targeted, priority access for specific student groups, and a lottery system.¹ The lottery process for each CB school/program

¹ This was the first time SDP used this particular process.

was conducted centrally by the District, and the results were used by to assign initial offers of admission. Both the priority access and main lottery processes included only students who met the eligibility requirements for that school or program.

The admission process followed three main steps:

1. First, all criteria-based schools and programs reserved seats for students who are receiving special education services, have a physical disability plan, or are English Learners. Eligible applicants in these student groups were placed into an initial lottery phase restricted to the reserved seats. Students who were entered into this phase of the lottery, but who did not receive an offer, were then entered into the main phase of the lottery (see step 2 below). At four schools an additional layer of priority was given to students residing in one of six zip codes. These zip codes were chosen because students who live in them have had the lowest enrollment rate at those four schools in recent years.² All eligible applicants residing in these zip codes (19133, 19140, 19134, 19132, 19121, 19135) received an initial offer of admission.
2. Second, the District conducted the main phase of the lottery. For each school/program, the number of initial offers was determined in advance. The number of initial offers varied by school, and was informed by projections of the number of seats the school will have available in the fall of 2022 and by the estimated yield rate for that school (or the number of students who will likely accept an offer based on historical trends). The lottery results then determined which Eligible Applicants received an initial offer; and all remaining eligible applicants were placed on that school's waitlist in random order.
3. Third, after the lottery was complete, many students who did not receive initial offers received secondary offers through the waitlist process.

This brief focuses strictly on the outcomes of the lottery process and the distribution of initial offers of 9th grade admission across all criteria-based high schools and programs (steps 1 and 2), and uses data only from rising 9th graders who were enrolled in District schools as 8th graders at the close of the application window (November 21, 2021). This represents students for whom we have sufficient data to assess qualifications, and to reliably identify important demographic information. In addition, in this brief we do not consider results within each lottery sub-phase; we consider only whether a student submitted an application, whether they met the eligibility requirements, and whether they ultimately received an initial offer of admission.

² For more information about student home zip codes and high school enrollment, see: <https://www.philasd.org/research/wp-content/uploads/sites/90/2022/02/HS-Enrollment-by-Zip-Code-Research-Brief-February-2022.pdf>

A previous brief provided information about 8th grade student qualifications and applications to 9th grade.³ Future briefs will address later stages of the 2021-22 School Selection Process, including results from analyses of admissions offers extended through the waitlist processes, as well as student responses to those offers, and student enrollment in criteria-based schools in 2022-23.

Box 1. Key Terms

Criteria-Based (CB) Schools and Programs: Schools with entry criteria that students must meet in order to be entered into the admission lottery (see Box 2 for details about these criteria). In addition, there are two schools with neighborhood attendance boundaries that also have embedded programs with entry criteria. Some of these schools may have additional requirements beyond those for grades and attendance.

Eligible Applicant: A student who applies to a criteria-based school or program, and meets all of the criteria for that specific school or program. A student might be an *applicant*, but not an *eligible applicant* if they do not meet one or more criteria.

Zip Code Prioritization: 8th Grade students with a home address located in one of six priority zip codes were given admission priority at four targeted CB schools where they were eligible applicants. This means that if an applicant met the criteria for those specific schools, the student was given an initial admission offer. The six zip codes were determined by identifying the home zip codes with the lowest percentage of students attending those four criteria-based schools (19133, 19140, 19134, 19132, 19121, 19135).^a

^a For more information about student home zip codes and high school enrollment, see:

<https://www.philasd.org/research/wp-content/uploads/sites/90/2022/02/HS-Enrollment-by-Zip-Code-Research-Brief-February-2022.pdf>

³ See <https://www.philasd.org/research/wp-content/uploads/sites/90/2022/03/School-Selection-Qualifications-and-Applications-2021-22-Research-Brief-March-2022.pdf>

Research Questions

This brief extends our previous reports,⁴ and explores four sets of related research questions about District 8th graders who participated in the 2021-22 School Selection lottery:

1. For each criteria-based high school and program, how many District 8th graders applied, how many were placed into the lottery, and how many received an initial offer via that lottery?
2. Were lottery offers assigned to eligible members of different student groups proportionally? Were offers proportional for groups of schools with different qualification criteria?
3. Among 8th grade students who attended the four criteria-based middle-high schools, how many received an initial offer to remain at the same site for 9th grade?
4. How many offers of admission were extended to students from priority zip codes, at those schools that used zip code prioritization?

⁴ Previous reports can be found here: <https://www.philasd.org/research/category/school-selection/>

Box 2. Tiered Qualification Levels for 2021-2022

All criteria-based schools and programs had an eligibility requirement of 95 percent attendance or better; and all had minimum, but varied, requirements for grades in the four core subject areas (English, math, science and social studies). Three qualification tiers (High, Medium, and Minimum) were established to correspond with groups of schools with the same course grade requirements. This is a change from previous years, is detailed in a Research Brief titled [“2021-22 School Selection: 8th Grade Student Qualifications and Applications to 9th Grade.”](#)

High Qualifications: Students must have a grade of A or B in each of the four core content areas. There were 5 schools with this requirement. These same five schools also required students to meet a minimum threshold on a timed Writing Sample (WS), and one also required applicants to complete Algebra I prior to enrollment. These additional considerations result in the following sub-tiers:

High-17: High qualifications, plus a minimum score of 17 on the WS (rounded)

High-22: High qualifications, plus a minimum score of 22 on the WS (rounded)

High-22 Algebra: Meets requirements for High-22, and is on track to complete Algebra I by the end of 8th grade

Medium Qualifications: Students must have a grade of A or B in three of the four core content areas, and a grade of A, B, or C in the fourth. There were five schools with this requirement.

Minimum Qualifications: Students must have a grade of A, B, or C in the four core content areas. There were nine schools with this requirement (as well as specialty programs embedded within schools with neighborhood attendance boundaries).

These qualification levels are hierarchical, such that a student who meets the High requirements would, by definition, also meet the Medium and Minimum requirements.

Some schools had additional requirements reflecting their unique models. For example, a project portfolio, or an audition for a specialized performing arts program.

See Appendix A for a list of criteria-based schools and programs, and their respective requirements.

Findings

RQ1: For each criteria-based high school and program, how many District 8th graders applied, how many were placed into the lottery, and how many received an initial offer via that lottery?

Overall, there were 3,993 District 8th graders who submitted at least one fully eligible application to a criteria-based school or program; of those, 3,423 (85.7%) received at least one initial offer of admission to a CB school or program (Table 1)⁵ (Note: an initial offer refers to offers that occurred before the waitlist process began). Although this brief analyzes applications only from District 8th graders, it is important to note that there were also 3,432 non-District 8th grade applicants, including 2,941 non-District 8th graders who applied to at least one CB school/program. Those 2,941 non-District 8th graders submitted a total of 10,107 applications (students can apply to up to five schools).

Table 1. Number of 8th grade District CB applicants, eligible CB applicants, and eligible CB applicants who received at least one CB admission offer.

	Number of 8 th Graders Submitting at Least One CB Application (including those not meeting criteria)	Number of Applicants Fully Eligible for at Least One CB Lottery	Number of Eligible Applicants Receiving at Least One Offer	Percent of Eligible Applicants Receiving at Least One Offer
All District 8 th Graders (Unique Applicants)	5,696	3,993	3,423	85.7%

Table Note: There were 8,770 District 8th Graders as of the close of the application window on November 21, 2022. Of those 8,770, 5,696 submitted at least one application to a criteria-based school (65%) regardless of their qualification level. More details about student qualifications and applications can be found in the Research Brief titled: “2021-22 School Selection: 8th Grade Student Qualifications and Applications to 9th Grade” (link in footnote 5).

The 3,993 District 8th grade applicants fully eligible for at least one CB lottery submitted a total of 10,427 eligible applications to criteria-based schools and programs, of which, 6,497 (62.3%) resulted in an initial offer (Table 2). The percent of eligible applicants who received an initial offer varied across schools (Table 2). Schools with very high acceptance rates might have additional criteria that would restrict the number of eligible applicants, and/or a low number of eligible applicants compared with the number of offers required to fill the projected capacity for Fall 2022.

⁵ See also Figure 1 in the Conclusions section of the Research Brief [“2021-22 School Selection: 8th Grade Student Qualifications and Applications to 9th Grade”](#) for this information.

Table 2. School-level summaries of 8th grade District applications and initial offers.

Criteria-Based School or Program	Number of Total Applications (including those not meeting criteria)	Number of Applications Fully Eligible for Lottery	Number of Eligible Applications Receiving an Offer	Percent of Eligible Applications Receiving an Offer
Academy at Palumbo*	1,440	980	609	62.1%
Arts Academy at Benjamin Rush	560	160	159	99.4%
Carver (High School of Engineering and Science)*	1,193	852	515	60.4%
Central High School*	2,608	1,129	611	54.1%
Creative and Performing Arts (CAPA)	1,027	213	162	76.1%
Franklin Learning Center	1,085	649	392	60.4%
George Washington High School	123	110	88	80.0%
Girard Academic Music Program	215	102	102	100.0%
Hill-Freedman World Academy	432	339	242	71.4%
Julia R. Masterman School*	900	437	111	25.4%
Lankenau High School	357	284	277	97.5%
Motivation High School	293	204	129	63.2%
Northeast High School	1,964	1,629	840	51.6%
Parkway Center City Middle College	900	537	291	54.2%
Parkway Northwest High School	385	284	198	69.7%
Parkway West High School	263	166	151	91.0%
Philadelphia High School for Girls	835	686	677	98.7%
Science Leadership Academy (SLA)	960	383	146	38.1%
Science Leadership Academy (SLA) at Beeber	325	189	177	93.7%
Walter B. Saul High School	460	341	288	84.5%
William W. Bodine High School	861	753	332	44.1%
All District 8 th Graders (Total Applications)	17,186	10,427	6,497	62.3%

* These schools admitted some students through the zip code priority process (see Table 5). These students are included in the *Fully Eligible for Lottery* totals for those schools.

Source: Data from Qlik [School Selection – Builder V2.0.6] Data retrieved [2/3/2022].

Note: Offers received from the waitlist are not provided in this table or brief; a future report will contain this information.

RQ2: Were lottery offers assigned to eligible members of different student groups proportionally? Were offers proportional for groups of schools with different qualification criteria?

Each school's lottery, conducted centrally, used a random process to determine which eligible applicants would receive an initial admission offer, with each eligible applicant possessing an equal chance of receiving an offer. Analyses of offers by student group are completely consistent with this expectation (Tables 3 and 4). Though the acceptance rates for some student groups may appear to be significantly higher than for others, these cases reflect nuances in the underlying data, rather than a non-random lottery process. For example, in aggregate the Minimum Qualification schools appeared to show a significant advantage for students who are Black/African American (Table 3; 71.9% receiving offers, compared with 58.3% to 65.8% of applicants in other groups). However, this is driven by a larger number of Black/African American applicants to a small number of schools with exceptionally high offer rates. For example, at Parkway West, 91.0% of eligible applicants received an offer, and 135 of 168 those eligible applicants were Black/African American. As another example, there was an apparent significant advantage for students identifying as girls (70.3%) over those identifying as boys (60.9%) in the overall results for the Minimum Qualification schools.⁶ However, this was completely due to the effects of Philadelphia High School for Girls. When Philadelphia High School for Girls is removed from the analyses, there is no evidence that any school/program had a non-random lottery outcome as a result of the centrally-conducted lottery process.⁷

⁶ Chi-square = 10.688, $p < .05$

⁷ With Philadelphia High School for Girls removed, the chi-square value is 0.250 ($p > .10$).

Table 3. Distributions of initial offers to District 8th grade students, disaggregated by student groups, at schools with Minimum (A's, B's and C's) and Medium (A's, B's, and one C) Qualification requirements.

Student Group	Minimum Qualification Schools			Medium Qualification Schools		
	Fully Eligible Applicants	Offers Received	Percent of Eligible Applicants Receiving an Offer	Fully Eligible Applicants	Offers Received	Percent of Eligible Applicants Receiving an Offer
Race/Ethnicity						
Asian	936	546	58.3%	157	103	65.6%
Black/African American	2,429	1,747	71.9%	323	246	76.2%
Hispanic/Latinx	932	601	64.5%	120	86	71.7%
Multi Racial/Other*	313	206	65.8%	83	58	69.9%
White	835	514	61.6%	364	253	69.5%
Gender						
Female	3,177	2,233	70.3%	632	468	74.1%
Male	2,268	1,381	60.9%	415	278	67.0%
English Learner Status						
Non-EL	4,763	3,173	66.6%	993	697	70.2%
EL	682	441	64.7%	54	49	90.7%
Receiving Special Education Services						
Non-Special Education	4,833	3,156	65.3%	978	690	70.6%
Special Education	612	458	74.8%	69	56	81.2%
Overall						
All District 8 th Graders	5,445	3,614	66.4%	1,047	746	71.3%

* Includes students identifying as American Indian/Alaskan Native and Native Hawaiian/Pacific Islander

Table 4. Distributions of initial offers, disaggregated by student groups, at schools with High (A's and B's) Qualification requirements.

Student Group	High-17 Schools (Palumbo*, Carver*, Parkway Center City)			High- 22 School (Central*)			High- 22 Algebra School (Masterman*)		
	Fully Eligible Applicants	Offers Received	Percent of Eligible Applicants Receiving an Offer	Fully Eligible Applicants	Offers Received	Percent of Eligible Applicants Receiving an Offer	Fully Eligible Applicants	Offers Received	Percent of Eligible Applicants Receiving an Offer
Race/Ethnicity									
Asian	659	378	57.4%	365	201	55.1%	169	46	27.2%
Black/African American	698	433	62.0%	248	141	56.9%	51	15	29.4%
Hispanic/Latinx	349	217	62.2%	141	77	54.6%	33	12	36.4%
Multi Racial/Other**	172	103	59.9%	77	38	49.4%	31	6	19.4%
White	491	284	57.8%	298	154	51.7%	153	32	20.9%
Gender									
Female	1,249	747	59.8%	651	354	54.4%	236	61	25.8%
Male	1,120	668	59.6%	478	257	53.8%	201	50	24.9%
English Learner Status									
Non-EL	2,194	1,304	59.4%	1,068	560	52.4%	424	102	24.1%
EL	175	111	63.4%	61	51	83.6%	13	9	69.2%
Receiving Special Education Services									
Non-Special Education	2,303	1,372	59.6%	1,115	597	53.5%	433	108	24.9%
Special Education	66	43	65.2%	14	14	100.0%	4	3	75.0%
Overall									
All District 8 th Graders	2,369	1,415	59.7%	1,129	611	54.1%	437	111	25.4%

* These schools admitted some students through the zip code priority process (see Table 5). These students are included in the *Fully Eligible Applicants* totals for those schools.

** Includes students identifying as American Indian/Alaskan Native and Native Hawaiian/Pacific Islander.

RQ3: Among 8th grade students who attended criteria-based middle-high schools (5 schools), how many 8th grade students received an initial offer to remain at the same site for 9th grade?

There are five criteria-based middle-high schools that serve both 8th and 9th grades (Table 5). At these schools, 323 students submitted applications to continue at the same site, and 152 of those received an initial offer in the lottery.

Table 5. Continuing applicants at criteria-based middle-high schools.

School	Number of Continuing Applicants for 9 th Grade	Number of Eligible Continuing Applicants	Number of Offers Extended to Eligible Continuing Applicants	Percent of Eligible Continuing Applicants who Received an Offer	Total Offers Extended to All SDP 8 th Grade Applicants	Percent of Offers Extended to Continuing Students
Carver (High School of Engineering and Science)*	61	57	34	59.6%	515	6.6%
Girard Academic Music Program	84	61	61	100.0%	102	59.8%
Hill-Freedman World Academy	66	60	39	65.0%	242	16.1%
Julia R. Masterman School *	181	170	43	25.3%	111	38.7%
Science Leadership Academy (SLA) at Beeber	46	35	14	40.0%	146	9.6%
Total	438	383	191	49.9%	1116	17.1%

* These schools admitted some continuing students through the zip code priority process (see Table 5). These students are included in the *Number of Eligible Continuing Applicants* totals for those schools.

RQ4: How many offers of admission were extended to students from priority zip codes, at those schools that used zip code prioritization?

For the first time, in 2021-22 four criteria-based high schools gave priority to students residing in one of six Philadelphia zip codes.⁸ Across those four schools, the percent of offers that were allocated to students from those zip codes ranged from 11.1% at Central to 13.5% at Masterman (Table 6). For comparison, those same zip codes accounted for less than 1% of total enrollment at these four schools from 2017-18 through 2020-21.

Table 6. Offers of admission to students residing in priority zip codes.

Criteria-Based School or Program	Total Number of Offers Extended to District 8 th Graders	Number of Offers Extended to District 8 th Grade Applicants from Priority Zip Codes	Percent of Offers Extended to District 8 th Grade Applicants from Priority Zip Codes
Carver (High School of Engineering and Science)	515	64	12.4%
Central High School	611	68	11.1%
Julia R. Masterman School	111	15	13.5%
Academy at Palumbo	609	70	11.5%
Total (across all four schools)	1,846	217	11.8%

Conclusions and Next Steps

In 2021-22, SDP shifted to a lottery-based system to allocate offers of 9th grade admission to criteria-based schools and programs. Students could apply to up to five schools during the School Selection Process. Of the 8,770 students who were in 8th Grade in District schools as of November 21, 2021 (the close of the application window), 3,993 District 8th graders submitted over 10,000 fully eligible applications to criteria-based schools, and 85.7% of those applicants received at least one initial offer from a CB school or program. Lotteries for each criteria-based school/program operated as expected, with offers distributed proportionally to eligible applicants. At four criteria-based schools, the

⁸ For more information about high school enrollment and home zip codes see our brief located here: <https://www.philasd.org/research/wp-content/uploads/sites/90/2022/02/HS-Enrollment-by-Zip-Code-Research-Brief-February-2022.pdf>

percent of offers extended to students residing in one of six prioritized zip codes were higher than in prior years in which those zip codes were not prioritized.

Future briefs will address later stages of the 2021-22 School Selection Process, including results from analyses of admissions offers extended through the waitlist processes, as well as student responses to those offers.

Appendix A: Qualification Levels of Criteria-Based Schools and Programs

Criteria-Based School or Program	Required Qualification Level	Performance or Portfolio Requirement
Julia R. Masterman School**	High-22 Algebra	No
Central High School**	High-22	No
Academy at Palumbo**	High-17	No
Carver (High School of Engineering and Science) **		No
Parkway Center City Middle College		No
Arts Academy at Benjamin Rush		Yes
Creative and Performing Arts High School (CAPA)	Medium	Yes
Girard Academic Music Program		Yes
Science Leadership Academy (SLA)		Yes
Science Leadership Academy (SLA) at Beeber		Yes
Franklin Learning Center		Yes (some programs)
George Washington High School*	Minimum	No
Hill-Freedman World Academy		No
Lankenau High School		No
Motivation High School		No
Northeast High School*		No
Parkway Northwest High School		No
Parkway West High School		No
Philadelphia High School for Girls		No
Walter B. Saul High School		No
William W. Bodine High School		No

* Qualification level refers to criteria-based programs embedded within non-CB schools

** These schools offered priority admission to students with home addresses in one of six zip codes