

Representativeness of the 2019-20 District-Wide Student and Parent/Guardian Survey Results

Adrienne Reitano, Senior Research Associate

The District-Wide Survey Program in Philadelphia

The School District of Philadelphia (SDP) District-wide Survey (DWS) program began in 2014-15 and is administered annually each spring by the Office of Research and Evaluation (ORE).¹ The DWS program consists of a series of four related surveys for both the District and Charter sectors. These surveys (separate versions for students, parent/guardians, teachers, and principals) measure five key topics related to school improvement—climate, instruction, leadership, professional capacity, and parent/guardian-community ties.² The surveys give respondents the opportunity to share their perspectives and provide feedback about how they experience and perceive their schools.

Research Questions

This research brief answers two questions about the representativeness or external validity of the student and parent/guardian responses from the 2019-20 school year (SY):

- 1) How closely do student respondents to the DWS reflect the demographic and educational characteristics (ethnicity/gender/grade) of all students enrolled in grades 3-12 in District and Charter schools?
- 2) How closely do students of parent/guardian respondents reflect the demographic and educational characteristics (ethnicity/gender/ grade) of students enrolled in grades K-12 in District and Charter schools?³

This is an updated version of a report that answered these same questions using data from the 2017-18 DWS surveys. Due to the COVID-19 pandemic, school buildings were closed on March 13,

Why is “external validity” and “representativeness” important?

External validity is the extent to which scientific conclusions can be generalized across settings or samples. A sample which is representative has strong external validity in relationship to the target population it is intended to represent.

In collecting and analyzing DWS response data, it is important to consider the extent to which survey respondents are representative of characteristics of the larger population to ensure that certain groups’ opinions are not magnified while others are understated.

¹ ORE carefully plans the timing and duration of the administration windows for each of the surveys to optimize participant access and response rates across the district and charter sectors. For more information please see ORE’s [District-Wide Survey website](https://philasd.org/dws) (<https://philasd.org/dws>) and the [DWS Technical Report](#).

² These constructs draw on Bryk and colleagues’ (2010) work in Chicago, which identified five essential supports for school improvement. The original names of the five essential supports identified by Bryk and his colleagues are school leadership, parent-community ties, professional capacity, student-centered learning climate, and instructional guidance.

³ Because SDP does not collect data on parent/guardian demographics in the DWS, student demographics are used as a proxy variable for parent demographics.

2020, and students transitioned to digital learning for the remainder of the school year. This was in the middle of the DWS administration window. Given these unique circumstances, and the decrease in student and parent/guardian response rates in 2019-20 (which are likely connected), we repeated the previous analyses to determine if those who responded to the 2019-20 survey were representative of the overall population. By comparing the characteristics of survey respondents to the overall population, we can assess the external validity of the survey results, which is particularly important given the lower-than-usual response rates in 2019-20.

Findings: Student Survey Representativeness

High school students who responded to the District-Wide Survey in 2019-20 were slightly underrepresented compared to their elementary and middle school peers.

Among District and Charter students in grades 3-12, a slightly lower percentage of high school students responded to the DWS as compared to the overall population of students (within three percentage points). Elementary and middle school students responded to the DWS in higher percentages as compared to the overall population (Table 1). This is consistent with the findings in the report that examined 2017-18 DWS respondents.⁴

Table 1. Enrollment of all grade 3-12 students in District and Charter schools compared to students who completed the DWS, 2019-20

Grade	District Students in Grades 3-12 (n=96,866)			Charter Students in Grades 3-12 (n=51,074)		
	% of total students enrolled (a)	% of student respondents (b)	Difference (% points) (c)	% of total students enrolled (d)	% of student respondents (e)	Difference (% points) (f)
3	11%	10%	-1	11%	9%	-2
4	11%	11%	0	10%	11%	+1
5	10%	11%	+1	11%	14%	+3
6	10%	12%	+2	12%	14%	+2
7	10%	11%	+1	11%	13%	+2
8	9%	11%	+2	11%	11%	0
9	11%	9%	-2	10%	9%	-1
10	10%	8%	-2	9%	6%	-3
11	9%	7%	-2	8%	6%	-2
12	8%	9%	+1	8%	7%	-1

How to Read this Table: This table allows you to compare the percentage of total students enrolled (columns a and d) to the percentage of student respondents (columns b and e). The percentage point differences between the columns are in columns c and f. When the difference is positive, that means there is a higher percentage of students in that grade who completed the survey compared to the percentage of students who are enrolled in that grade. When the difference is negative, the reverse is true. For example, grade 5 Charter students represent 11% of all grade 3-12 Charter students and 15% of grade 3-12 Charter DWS responses. On the other hand, 9th grade District students represent 11% of grade 3-12 District students and 9% of District DWS responses.

Note: Enrollment is based on an October 1, 2019 snapshot of enrollment.

⁴ See prior report that examined 2017-18 DWS data [here](#).

Black/African American Charter students who responded to the District-Wide Survey in 2019-20 were underrepresented compared to their peers of other races/ethnicities.

Overall, among 147,940 students in grades 3-12 in 2019-20,⁵ 32% (47,439) responded to the DWS.⁶ When looking at the response rates by race/ethnicity, we found some variations, particularly for Charter school students. While 59% of Charter students in grades 3-12 in 2019-20 were Black/African American, 40% of Charter student respondents were Black/African American (a difference of 19 percentage points). For District students, there was a two-percentage point difference in the overall grade 3-12 Black/African American student population and the Black/African American student respondent population (Table 2). These findings are consistent with those from 2017-18, when there was a 12 and two percentage point difference in Black/African American students and Black/African American Charter and Districts students who completed the survey, respectively.

Hispanic/Latinx and White Charter students were overrepresented in the population of student survey respondents when compared to the overall population of Charter students (by four and 10 percentage points, respectively). For both District and Charter students, a slightly higher percentage of female students (five percentage points) were represented in the DWS compared to male students (Table 2). In 2017-2018, female District students were slightly overrepresented as well (two percentage points) but there was no disproportionality in gender for Charter students.

⁵ Based on the October 1 snapshot. Students in grades K-2 do not participate in the DWS.

⁶ See [District-Wide Survey response rates](#).

Table 2. Demographic characteristics of grade 3-12 students enrolled in District and Charter schools compared to students who completed the DWS in 2019-20

	District Students in Grades 3-12 (n=96,866)			Charter Students in Grades 3-12 (n=51,074)		
	% of total students enrolled (a)	% of student respondents (b)	Difference (% points) (c)	% of total students enrolled (d)	% of student respondents (e)	Difference (% points) (f)
Race/Ethnicity						
Black/African American	49%	47%	-2	59%	40%	-19
Hispanic/Latinx	22%	19%	-3	20%	24%	+4
White	14%	16%	+2	13%	23%	+10
Asian	9%	13%	+3	3%	6%	+3
Multi-racial/Other*	6%	6%	0	6%	6%	0
Gender						
Male	51%	46%	-5	51%	56%	-5
Female	49%	54%	+5	49%	54%	+5

*Includes American Indian/Alaskan Native and Native Hawaiian/Pacific Islander

How to Read this Table: This table allows you to compare the % of total students enrolled (columns a and d) to the percentage of student respondents (columns b and e). The percentage point differences between the columns are in columns c and f. When the difference is positive, that means there is a higher percentage of students of that race/ethnicity or gender who completed the survey compared to the percentage of students of that race/ethnicity or gender who are enrolled. When the difference is negative, the reverse is true. For example, 49% of grade 3-12 District students were Black/African American in 2019-20 and 47% of all District DWS respondents were Black/African American. On the other hand, 59% of grade 3-12 Charter students in 2019-20 were Black/African American and 40% of the Charter DWS responses were from Black/African American students.

Findings: Parent/Guardian Survey Representativeness

In 2019-20, 14% (n=27,611) of K-12 students enrolled in a District or Charter school had a parent or guardian who responded to the DWS. Parent/guardians completing the DWS are not asked to provide demographic information. Therefore, to examine whether the parent/guardian survey responses are representative of all parent/guardians, we used student demographic information as a proxy for their parent/guardian's information. Although student and parent/guardian demographic information does not always match, because we use the same assumption for parent/guardians who completed the survey and for the overall population of parents/guardians, the findings provide an estimate of how well parent/guardian survey respondents represent the overall parent/guardian population.

Elementary and middle school parent/guardians responded to the District-Wide Survey in higher rates than did high school parent/guardians.

Consistent with student respondents to the DWS, an overall slightly lower margin of high school students was represented by parent/guardian survey respondents (one to three percentage points) compared to elementary school and middle school students (zero to two percentage points). District and Charter school students in grades K-3 were more highly represented by their

parents/guardians than those of students in higher grades (Table 3). This is consistent with the findings from the 2017-18 survey responses.

Table 3. Grade-level enrollment of grade K-12 students in District and Charter schools compared to students with parent/guardians who completed the DWS in 2019-20

Grade	District Students in Grades K-12 (n=127,391)			Charter Students in Grades K-12 (n=67,145)		
	% of total students enrolled (a)	% of students of parent/guardian respondents (b)	Difference (% points) (c)	% of total students enrolled (d)	% of students of parent/guardian respondents (e)	Difference (% points) (f)
K	8%	10%	+2%	8%	10%	+2%
1	8%	10%	+2%	8%	9%	+1%
2	8%	10%	+2%	8%	8%	0%
3	8%	9%	+1%	8%	9%	+1%
4	8%	10%	+2%	8%	8%	0%
5	8%	9%	+1%	8%	10%	+2%
6	8%	9%	1%	9%	9%	0%
7	8%	7%	-1%	9%	8%	-1%
8	7%	6%	-1%	8%	8%	0%
9	8%	6%	-2%	7%	7%	0%
10	8%	5%	-3%	8%	5%	-3%
11	7%	4%	-3%	7%	6%	-1%
12	6%	4%	-2%	6%	5%	-1%

How to Read this Table: This table allows you to compare the % of total students enrolled (columns a and d) to the percentage of students whose parent/guardian responded to the survey (columns b and e). The percentage point differences between the columns are in columns c and f. When the difference is positive, that means there is a higher percentage of students in that grade whose parent or guardian completed the survey compared to the percentage of students who are enrolled in that grade. When the difference is negative, the reverse is true.

A lower percentage of parent/guardians with Black/African American students responded to the District-Wide Survey in 2019-20 when compared to the overall population.

Black/African American Charter students represented 59% of the K-12 school population compared to 51% of Black/African American students who were represented by the sample of parent and guardian respondents (a difference of eight percentage points). Similarly, Black/African American District students were also underrepresented (by eight percentage points) in the parent/guardian survey respondents. Although White students represented 14% of the student population in District schools, 21% of White students were represented by the sample of District parent and guardian respondents (seven percentage points). Parents/guardians of White students were also overrepresented among Charter parent/guardian respondents (four percentage points; see Table 4). This is consistent with the findings from the 2017-18 report, which also found that lower percentage of parent/guardians with Black/African American students responded to the DWS when compared to the overall population. The difference for District students in 2017-18 was eight percentage points, while the difference for Charter students was 18 percentage points, meaning there was a reduction in disproportionality for parent/guardians of Charter students in 2019-20 compared to 2017-18.

Table 4. Demographic characteristics of all grade K-12 students enrolled in District and Charter schools compared to students with parents/guardians who completed the DWS in 2019-20

	District Students in Grades K-12 (n=127,391)			Charter Students in Grades K-12 (n=67,145)		
	% of total students enrolled (a)	% of students of parent/guardian respondents (b)	Difference (% points) (c)	% of total students enrolled (d)	% of students of parent/guardian respondents (e)	Difference (% points) (f)
Race/Ethnicity						
Black/African American	48%	40%	-8%	59%	51%	-8%
Hispanic/Latinx	23%	22%	-1%	18%	21%	+3%
White	14%	21%	+7%	13%	17%	+4%
Asian	9%	11%	+2%	3%	5%	+2%
Multi-racial/Other*	6%	5%	-1%	6%	6%	0
Gender						
Male	49%	52%	+3%	49%	51%	+2%
Female	51%	48%	-3%	51%	49%	-2%

*Includes American Indian/Alaskan Native and Native Hawaiian/Pacific Islander

How to Read this Table: This table allows you to compare the % of total students enrolled (columns a and d) to the percentage of students whose parent/guardian responded to the survey (columns b and e). The percentage point differences between the columns are in columns c and f. When the difference is positive, that means there is a higher percentage of students of that race/ethnicity or gender whose parent or guardian completed the survey compared to the percentage of students of that race/ethnicity or gender who are enrolled. When the difference is negative, the reverse is true.

Conclusion

Findings showed Black/African American Charter students were underrepresented in the survey sample (by 19 percentage points) and White students were overrepresented (by 10 percentage points). An examination of parent/guardian respondent populations showed that Black/African American District and Charter students were equally underrepresented in the parent/guardian survey sample (eight percentage points). When looking at DWS respondents by grade level, students in high school (grades 9-12) were slightly underrepresented compared to their middle school or elementary school (grades K-8) counterparts in both the student and parent/guardian survey responses. With regards to students' gender, a larger proportion of District and Charter student survey respondents were female, compared to the proportion of female students enrolled in District and Charter schools (five percentage points). These trends were consistent with the trends identified in the report that examined 2017-18 DWS data.

To explore survey results for the student, parent/guardian, teacher, and principal surveys, visit our interactive tool at: <https://dashboards.philasd.org/extensions/district-wide-surveys/index.html#/home>.