

Representativeness of the 2020-21 District-Wide Student and Parent/Guardian Survey Results

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The District-Wide Survey Program in Philadelphia

The School District of Philadelphia (SDP) District-Wide Survey (DWS) program began in 2014-15 and the four related surveys are administered each spring by the Office of Research and Evaluation (ORE) to Philadelphia schools in both the District and Charter sectors.¹ 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 2020-21 school year:

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

This is an updated version of a report that answered these same questions using data from the 2019-20 DWS. By comparing the characteristics of survey respondents to the overall population, we can assess the external validity of the survey results.

Why are external validity and representativeness important?

External validity is the extent to which scientific conclusions can be generalized across settings or samples. A *representative* sample 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](https://www.philasd.org/research/wp-content/uploads/sites/90/2021/10/DWS-Technical-Report-2020-21-October-2021-1.pdf) (<https://www.philasd.org/research/wp-content/uploads/sites/90/2021/10/DWS-Technical-Report-2020-21-October-2021-1.pdf>).

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.

Findings: Student Survey Representativeness

High school students who responded to the District-Wide Survey in 2020-21 were underrepresented compared to elementary and middle school students.

Among District and Charter students in grades 3-12, a slightly lower percentage of high school students responded to the DWS compared to the overall population of students (within three percentage points). Elementary and middle school students responded to the DWS in higher percentages compared to the overall population (Table 1). This is consistent with the findings in our 2019-20 report.⁴

Table 1. Enrollment of all grade 3-12 students in District and Charter schools compared to student DWS respondents, 2020-21⁵

Grade	District Students in Grades 3-12 (n=96,019)			Charter Students in Grades 3-12 (n=52,217)		
	% 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	10%	12%	+2	11%	11%	0
4	10%	12%	+2	11%	11%	0
5	10%	12%	+2	11%	12%	+1
6	10%	11%	+1	12%	13%	+1
7	10%	10%	0	12%	12%	0
8	10%	11%	+1	11%	12%	+1
9	11%	9%	-2	9%	8%	-1
10	11%	8%	-3	9%	8%	-1
11	10%	7%	-3	8%	8%	0
12	9%	8%	-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 a higher percentage of students in that grade completed the survey compared to the percentage of students enrolled in that grade. When the difference is negative, the reverse is true. For example, grade 5 District students represent 10% of all grade 3-12 District students and 12% of grade 3-12 District DWS responses. On the other hand, grade 10 District students represent 11% of grade 3-12 District students and 8% of District DWS responses.

⁴ See prior report that examined 2019-20 DWS data, Representativeness of the 2019-20 District-Wide Student and Parent/Guardian Survey Results, [here](#).

⁵ District and Charter enrollment is based on the October 1, 2020 snapshot of enrollment. District-Wide Survey response rates are based on May 1, 2021 enrollment, because this date is within the survey administration window. Students in grades K-2 do not participate in the DWS.

Black/African American Charter respondents were underrepresented in 2020-21 compared to their peers of other races/ethnicities.

Overall, among 147,494 District and Charter students in grades 3-12 in 2020-21,⁶ 42% (62,353) responded to the DWS.⁷ 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 2020-21 were Black/African American, only 50% of Charter student respondents were Black/African American (-9 percentage points). For District students, there was a -3-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 2019-20, when there was a -19 and -2-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 compared to the overall population of Charter students (+3 and +5 percentage points, respectively). Among both District and Charter students, a slightly higher percentage of female students (+5 percentage points) were represented in the DWS compared to male students (Table 2). This trend was also apparent in 2019-20.

Table 2. Demographic characteristics of grade 3-12 students enrolled in District and Charter schools compared to students who completed the DWS in 2020-21

	District Students in Grades 3-12 (n=96,019)			Charter Students in Grades 3-12 (n=52,217)		
	% 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%	46%	-3	59%	50%	-9
Hispanic/Latinx	22%	21%	-1	19%	21%	+3
White	14%	16%	+2	13%	18%	+5
Asian	9%	12%	+3	3%	5%	+2
Multiracial/Other*	5%	5%	0	6%	6%	0
Gender						
Male	52%	47%	-5	51%	46%	-5
Female	48%	53%	+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 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 a higher percentage of students of that race/ethnicity or gender completed the survey compared to the percentage of students of that race/ethnicity or gender enrolled. When the difference is negative, the reverse is true. For example, 49% of grade 3-12 District students were Black/African American in 2020-21 and 46% of all District DWS respondents were Black/African American.

⁶ Based on May 1 enrollment. Students in grades K-2 do not participate in the DWS.

⁷ See District-Wide Survey response [rates](#).

Findings: Parent/Guardian Survey Representativeness

In 2020-21, 16% (n=24,313) of households with K-12 students enrolled in a District or Charter school had a parent or guardian who responded to the DWS. Parents/guardians completing the DWS are not asked to provide demographic information. Therefore, to examine whether the parent/guardian survey responses are representative, 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 parents/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 parents/guardians responded to the District-Wide Survey in higher rates than high school parents/guardians.

District and Charter school students in grades K-4 were more highly represented by their parents/guardians than those of students in higher grades (Table 3). Moreover, a lower margin of District high school students were represented by parent/guardian survey respondents (0 to -2 percentage points) compared to elementary school students (+1 to +3 percentage points). This is consistent with findings from 2019-20.

Table 3. Grade-level enrollment of grade K-12 students in District and Charter schools compared to students with parent/guardian DWS respondents in 2020-21

Grade	District Students in Grades K-12 (n=122,448)			Charter Students in Grades K-12 (n=68,364)		
	% 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	6%	9%	+3	7%	8%	+1
1	8%	10%	+2	8%	9%	+1
2	8%	9%	+1	8%	8%	0
3	8%	9%	+1	8%	9%	+1
4	8%	9%	+1	8%	8%	0
5	8%	8%	0	8%	8%	0
6	7%	7%	0	9%	8%	-1
7	8%	7%	-1	9%	7%	-2
8	8%	7%	-1	8%	8%	0
9	8%	8%	0	7%	7%	0
10	8%	6%	-2	7%	6%	-1
11	8%	6%	-2	6%	7%	+1
12	7%	5%	-2	6%	6%	0

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 parents/guardians with Black/African American students responded to the District-Wide Survey in 2020-21 compared to the overall population.

Black/African American Charter students represented 60% of the K-12 school population compared to 52% of Black/African American students who were represented by the sample of parent and guardian respondents (-8 percentage points). Similarly, Black/African American District students were also underrepresented (-7 percentage points). Although white students represented 15% of the District student population, 22% of white students were represented by the sample of District parent and guardian respondents (+7 percentage points). Parents/guardians of white students were slightly overrepresented among Charter respondents (+2 percentage points; see Table 4). This is consistent with findings from our 2019-20 analysis and report, which also found that lower percentages of parents/guardians with Black/African American students responded to the DWS compared to the overall population. The difference for District students in 2019-20 was -8 percentage points, while the difference for Charter students was -8 percentage points, meaning there was similar disproportionality in responses for parents/guardians of District and Charter students in 2020-21 compared to 2019-20.

Table 4. Demographic characteristics of all grade K-12 students enrolled in District and Charter schools compared to students with parent/guardian DWS respondents in 2020-21

	District Students in Grades K-12 (n=122,448)			Charter Students in Grades K-12 (n=68,364)		
	% 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%	41%	-7	60%	52%	-8
Hispanic/Latinx	23%	20%	-3	19%	22%	+3
White	15%	22%	+7	13%	15%	+2
Asian	10%	12%	+2	3%	5%	+2
Multiracial/Other*	5%	5%	0	6%	6%	0
Gender						
Male	52%	51%	-1	51%	50%	+2
Female	48%	49%	+1	49%	50%	-2

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

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 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, a higher percentage of students of that race/ethnicity or gender had a parent or guardian 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.

Conclusion

Findings showed Black/African American Charter students were underrepresented in the survey sample (-9 percentage points) and white students were overrepresented (+5 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 (-7 and -8 percentage points, respectively). When looking at DWS respondents by grade level, students in high school (grades 9-12) were slightly underrepresented compared to their elementary school 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 (+5 percentage points). These trends were consistent with the trends identified in the report that examined 2019-20 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#