

## Representativeness of the 2017-18 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 is administered annually each spring by the Office of Research and Evaluation (ORE).<sup>1</sup> 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.<sup>2</sup> 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 2017-18 school year (SY):

- 1) How closely does the DWS sample of student 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 does the DWS sample of the 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?<sup>3</sup>

By comparing the characteristics of survey respondents to the overall population, we can assess the external validity of the survey results.

#### **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 group’s opinions are not magnified while others are understated.

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<sup>1</sup> 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](#).

<sup>2</sup> 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.

<sup>3</sup> 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 2017-18 were 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. Elementary and middle school students responded to the DWS in higher percentages as compared to the overall population. (Table 1).

Table 1. Enrollment of all grade 3-12 students enrolled in District and Charter schools compared to students who completed the DWS, 2017-18 SY<sup>4</sup>

Grade	District Students in Grades 3-12 (n=97,983)			Charter Students in Grades 3-12 (n=49,213)		
	% 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	12%	13%	+1	10%	11%	+1
4	12%	14%	+2	10%	11%	+1
5	11%	13%	-2	11%	13%	+2
6	10%	10%	0	12%	14%	+2
7	9%	11%	+2	11%	12%	+1
8	9%	10%	+1	11%	11%	0
9	11%	8%	-3	10%	8%	-2
10	10%	7%	-3	9%	7%	-2
11	9%	6%	-3	8%	7%	-1
12	9%	9%	0	8%	6%	-2

**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 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, 5<sup>th</sup> grade Charter students represent 11% of all grade 3-12 Charter students and 13% of grade 3-12 Charter DWS responses. On the other hand, 9<sup>th</sup> grade District students represent 11% of grade 3-12 District students and 8% of District DWS responses.

*Black/African American students who responded to the District-wide Survey in 2017-18 were underrepresented compared to their peers of other races/ethnicities.*

Overall, among 147,196 students in grades 3-12 in 2017-18,<sup>5</sup> 54% (80,101) responded to the DWS.<sup>6</sup> 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 2017-18 were Black/African American, 47% of Charter student respondents were Black/African American (-12

<sup>4</sup> Enrollment is based on a May 31, 2018 snapshot of enrollment.

<sup>5</sup> Students in grades K-2 do not participate in the DWS.

<sup>6</sup> See [District-wide Survey Response Rates Summary](#).

percentage points). For District students, there was a -2 percentage point difference in the overall grade 3-12 Black/African American student population and the Black/African American student respondent population. (Table 2).

Hispanic/Latino and White Charter students were overrepresented in the population of student survey respondents when compared to the overall population of Charter students (+6 and +5 percentage points, respectively). For District students, a slightly higher percentage of female students (+2 percentage points) were represented in the DWS compared to male students (Table 2).

Table 2. Demographic characteristics of Grade 3-12 students enrolled in District and Charter schools compared to students who completed the DWS in 2017-18

	District Students in Grades 3-12 (n=97,983)			Charter Students in Grades 3-12 (n=49,213)		
	% of total students enrolled (a)	% of student respondents (b)	Difference (% points) (c)	% of total students enrolled (d)	% of student respondents (e)	Difference (% points) (f)
<b>Race/Ethnicity</b>						
Black/African American	51%	49%	-3	59%	47%	-12
Hispanic/Latino	21%	21%	0	19%	24%	+5
White	13%	14%	+1	14%	19%	+5
Asian	9%	10%	+1	3%	5%	+2
Multiracial/Other*	6%	6%	0	5%	5%	0
<b>Gender</b>						
Male	51%	49%	-2	50%	50%	0
Female	49%	51%	+2	50%	50%	0

\*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 e. 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, 51% of grade 3-12 District students were Black/African American in 2017-18 and 49% of all District DWS respondents were Black/African American. On the other hand, 59% of grade 3-12 Charter students in 2017-18 were Black/African American and 47% of the Charter DWS responses were from Black/African American students.

## Findings: Parent/Guardian Survey Representativeness

Seventeen percent (n=33,334) 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 District student respondents to the DWS, an overall lower margin of high school students were represented by parent and guardian survey respondents (-2 to -3 percentage points) compared to elementary school and middle school students (0 to +3 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. District students in grades 6-8 were equivalently represented by the parent/guardian DWS respondents, as were Charter students in grades 4 and 10. (Table 3).

Table 3. Grade-level enrollment of grade K-12 students enrolled in District and Charter schools compared to students with parent/guardians who completed the DWS in 2017-18

Grade	District Students in Grades K-12 (n=131,902)			Charter Students in Grades K-12 (n=63,884)		
	% 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%	11%	+3%	7%	10%	+3%
1	9%	11%	+2%	8%	9%	+1%
2	9%	10%	+1%	8%	9%	+1%
3	9%	11%	+2%	8%	9%	+1%
4	9%	11%	+2%	8%	8%	0%
5	8%	9%	+1%	8%	9%	+1%
6	7%	7%	0%	9%	8%	-1%
7	7%	7%	0%	9%	7%	-2%
8	7%	7%	0%	9%	6%	-3%
9	8%	5%	-3%	8%	7%	-1%
10	7%	4%	-3%	7%	7%	0%
11	6%	4%	-2%	6%	4%	-2%
12	6%	4%	-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 parent/guardians with Black/African American students responded to the District-wide Survey in 2017-18 when compared to the overall population.*

Black/African American Charter students represented 59% of the K-12 school population compared to 41% of Black/African American students who were represented by the sample of parent and guardian respondents (-18 percentage points). To a lesser degree, Black/African American District students were also underrepresented (-7 percentage points) in the parent and guardian survey respondents. Although White students represented 14% of the student populations for both Charter and District schools, 27% of White students were represented by the sample of Charter parent and guardian respondents (+13 percentage points) and 17% in the sample of District parents and guardians (+3 percentage points) (Table 4).

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 2017-18

	District Students in Grades K-12 (n=131,902)			Charter Students in Grades K-12 (n=63,884)		
	% 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)
<b>Race/Ethnicity</b>						
Black/African American	50%	43%	-7%	59%	41%	-18%
Hispanic/Latino	21%	23%	+2%	18%	21%	+3%
White	14%	17%	+3%	14%	27%	+13%
Asian	9%	9%	0	3%	5%	+2%
Multiracial/Other*	6%	6%	0%	5%	6%	+1%
<b>Gender</b>						
Male	51%	48%	-3%	50%	47%	-3%
Female	49%	52%	+3%	50%	53%	+3%

\*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 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.

## Conclusion

When looking at DWS respondents overall (Charter and District combined), students in high school were slightly underrepresented compared to their middle school or elementary school counterparts in both the student and parent/guardian survey sample, particularly for District students. The demographic characteristics of the student and parent/guardian respondents in

2017-18 were within 5 percentage points of the demographic characteristics of students enrolled in all District and Charter schools in all but two cases. The two exceptions were both in the parent/guardian survey, which showed that Black/African American students were less represented (-9 percentage points) than students of other races, particularly white students (+7 percentage points). An examination of Charter and District student and student and parent/guardian respondent populations separately shows that Black/African American Charter students were more underrepresented by the DWS compared to Black/African American District students in 2017-18.

To explore survey results for the student, parent/guardian, teacher, and principal surveys, visit our interactive tool at: <https://philasd.org/dwsresults>