

Representativeness of the 2020-21 District-Wide Teacher, Principal, Assistant Principal, and Support Staff 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 five related surveys are administered each spring by the Office of Research and Evaluation (ORE) to Philadelphia schools.¹ These surveys (separate versions for students, parent/guardians, teachers, support staff, and principals/assistant 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 teacher, principal/assistant principal, and support staff responses from the 2020-21 school year³:

- 1) How closely do teacher, principal/assistant principal, and support staff DWS respondents reflect the demographic characteristics (race/ethnicity and gender) of all teachers, principals, assistant principals, and support staff employed at District schools?
- 2) How closely does the distribution of teacher, principal/ assistant principal, and support staff DWS respondents across school levels (elementary, middle, and high) reflect the

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](#).

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 This report only examines District data and not Charter school data.

distribution of all teachers, principals, assistant principals, and support staff employed at District schools?

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

Findings: Teacher Survey Representativeness

When it comes to the school levels of teachers, respondents to the surveys are representative of the overall teacher population.

Overall, out of 8,091 District teachers eligible to take the survey in 2020-21,⁴ 76.2% (6,164) responded to the DWS.⁵ Among District teachers at schools serving elementary-middle, elementary-middle-high, and high school grades, there are no differences in the percentage of teachers that completed the survey and those that work at those schools. Teachers at schools serving only elementary or only middle school grades also responded to the DWS at similar rates (+1 or -1) compared to the overall population (Table 1).

Table 1. School level of all District teachers compared to teacher DWS respondents, 2020-21⁶

School Level (Grades served)	District Teachers (n=6,164)		
	% of total teachers (a)	% of teacher respondents (b)	Difference (% points) (c)
Elementary (K-2, K-4, K-5, K-6, 3-5)	20%	21%	+1
Elementary-Middle (K-8)	44%	44%	0
Elementary-Middle-High (K-12)	<1%	<1%	0
Middle (5-8, 6-8, 7-8)	6%	7%	+1
Middle-High (5-12, 6-12, 7-10, 7-12)	4%	3%	-1
High (9-12)	25%	25%	0

How to read this table: This table allows you to compare the percentage of total teachers (column a) to the percentage of teacher respondents (column b). The percentage point differences between the columns are in column c. When the difference is positive, that means a higher percentage of teachers from schools in that grade level completed the survey compared to the percentage of teachers from schools in that grade level overall. When the difference is negative, the reverse is true.

⁴ Based on May 1 employment status. See the [District-Wide Survey Technical Report](#) for more details about how response rate is calculated.

⁵ See District-Wide Survey response [rates](#).

⁶ District employment is based on a May 1, 2021 snapshot of employment, because this date is within the survey administration window.

Teacher respondents to the surveys are demographically representative of the overall teacher population.

When looking at the response rates by race/ethnicity, we found some very small variations, all within one percentage point. While 24% of District teachers in 2020-21 were Black/African American, 23% of teacher respondents were Black/African American (-1 percentage point). While 66% of District teachers in 2020-21 were white, 67% of teacher respondents were white (+1 percentage point). (Table 2).

Table 2. Demographic characteristics of teachers employed at District schools compared to teachers who completed the DWS in 2020-21

	District Teachers (n=6,164)		
	% of total teachers (a)	% of teacher respondents (b)	Difference (% points) (c)
Race/Ethnicity			
White	66%	67%	+1
Black/African American	24%	23%	-1
Hispanic/Latinx	4%	4%	0
Asian/Pacific Islander	3%	3%	0
Multi-Racial/Other*	4%	3%	-1
Gender			
Male	27%	26%	-1
Female	73%	74%	+1

*Includes American Indian/Alaskan Native and Prefer not to disclose

How to read this table: This table allows you to compare the percentage of total teachers (column a) to the percentage of teacher respondents (column b). The percentage point differences between the columns are in column c. When the difference is positive, that means a higher percentage of teachers with that demographic characteristic completed the survey compared to the percentage of teachers with that demographic characteristic overall. When the difference is negative, the reverse is true.

Findings: Principal and Assistant Principal Survey

Representativeness

Elementary and elementary-middle school principals and assistant principals responded to the District-Wide Survey at slightly higher rates than high school principals and assistant principals.

In 2020-21, 46% (n=183) of District principals and assistant principals responded to the DWS. District principals and assistant principals of elementary and elementary-middle schools were slightly more highly represented than those of principals and assistant principals of high schools (Table 3).

Table 3. School level of all District principals and assistant principals compared to principal and assistant principal DWS respondents, 2020-21

School Level (Grades Served)	District Principals and Assistant Principals (n=183)		
	% of total principals and assistant principals (a)	% of principal and assistant principal respondents (b)	Difference (% points) (c)
Elementary (K-2, K-4, K-5, K-6, 3-5)	19%	21%	+3
Elementary-Middle (K-8)	41%	43%	+2
Elementary-Middle-High (K-12)	1%	0%	-1
Middle (5-8, 6-8, 7-8)	7%	8%	+1
Middle-High (5-12, 6-12, 7-10, 7-12)	4%	2%	-2
High (9-12)	28%	26%	-2

How to Read this Table: This table allows you to compare the percentage of total principals and assistant principals (column a) to the percentage of principal and assistant principal respondents (column b). The percentage point differences between the columns are in column c. When the difference is positive, that means a higher percentage of principals and assistant principals from schools serving those grade levels completed the survey compared to the percentage of principals and assistant principals from schools serving those grade levels overall. When the difference is negative, the reverse is true.

A lower percentage of Black/African American principals and assistant principals responded to the District-Wide Survey in 2020-21 compared to the overall population.

Black/African American principals and assistant principals constituted 50% of the principal and assistant principal population and 43% of the survey respondents (-7 percentage points). Additionally, although white principals and assistant principals constituted 39% of the District principal and assistant principal population, 43% of the sample of District survey respondents were white (+4 percentage points; see Table 4).

Table 4. Demographic characteristics of principals and assistant principals employed at District schools compared to principals and assistant principals who completed the DWS in 2020-21

	District Principals and Assistant Principals (n=183)		
	% of total principals and assistant principals (a)	% of principal and assistant principal respondents (b)	Difference (% points) (c)
Race/Ethnicity			
Black/African American	50%	43%	-7
Hispanic/Latinx	6%	8%	+2
White	39%	43%	+4
Asian/Pacific Islander	2%	3%	+1
Multi-Racial/Other*	3%	4%	+1
Gender			
Male	33%	33%	0
Female	67%	67%	0

*Includes Prefer not to disclose

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Findings: Support Staff Survey Representativeness

In regards to the grade levels served by the support staff, respondents to the surveys are representative of the overall support staff population.

In 2020-21, 42% (n=1,449) of District support staff responded to the DWS. Based on the school level served, the support staff that responded to the survey were representative of support staff overall (within one percentage point) (Table 5).

Table 5. School level of all District support staff compared to support staff DWS respondents, 2020-21

School Level (Grades Served)	Support Staff (n=1,449)		
	% of total support staff (a)	% of support staff respondents (b)	Difference (% points) (c)
Elementary (K-2, K-4, K-5, K-6, 3-5)	21%	20%	-1
Elementary-Middle (K-8)	47%	46%	-1
Elementary-Middle-High (K-12)	1%	1%	0
Middle (5-8, 6-8, 7-8)	6%	7%	+1
Middle-High (5-12, 6-12, 7-10, 7-12)	3%	3%	0
High (9-12)	22%	23%	+1

How to Read this Table: This table allows you to compare the percentage of total support staff (column a) to the percentage of support staff respondents (column b). The percentage point differences between the columns are in column c. When the difference is positive, that means a higher percentage of support staff from schools in those grade levels completed the survey compared to the percentage of support staff from schools in those grade levels overall. When the difference is negative, the reverse is true.

A lower percentage of Black/African American support staff responded to the District-Wide Survey in 2020-21 compared to the overall population.

Black/African American support staff constituted 61% of the support staff population compared to 57% of survey respondents (-4 percentage points). Moreover, white support staff constituted 24% of the District support staff population but 30% of survey respondents (+6 percentage points; see Table 6).

Table 6. Demographic characteristics of support staff employed at District schools compared to support staff who completed the DWS in 2020-21

	Support Staff (n=1,449)		
	% of total support staff (a)	% of support staff respondents (b)	Difference (% points) (c)
Race/Ethnicity			
Black/African American	61%	57%	-4
Hispanic/Latinx	8%	8%	0
White	24%	30%	+6
Asian/Pacific Islander	2%	2%	0
Multi-Racial/Other*	3%	4%	+1
Gender			
Male	13%	12%	-1
Female	87%	88%	+1

*Includes Prefer not to disclose and American Indian/Alaskan Native.

How to Read this Table: This table allows you to compare the percentage of total support staff (column a) to the percentage of support staff respondents (column b). The percentage point differences between the columns are in column c. When the difference is positive, that means a higher percentage of support staff with that demographic characteristic completed the survey compared to the percentage of support staff with that demographic characteristic overall. When the difference is negative, the reverse is true.

Conclusion

Findings showed that teacher respondents to the District-Wide Survey were representative of the overall teacher population, both in terms of demographic characteristics and school levels served. Black/African American principals and assistant principals were underrepresented in the survey sample (-7 percentage points) and white principals and assistant principals were overrepresented (+4 percentage points). Black/African American support staff were also slightly underrepresented among the support staff survey respondents (-4 percentage points).

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