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Technical Documentation for the Fifth American School District Panel Survey

The American School District Panel (ASDP) is part of the RAND American Educator Panels (AEP). The AEP also includes the American Teacher Panel (ATP) and the American School Leader Panel (ASLP). A survey panel consists of individuals who agree to take a series of surveys over time. The AEP began in 2014 and expanded significantly during the 2016–2017 and 2017–2018 school years (Robbins and Grant, 2020).

The ASDP, which is the newest panel in the AEP, includes more than 1,000 school districts as of June 2022. The ATP, meanwhile, includes more than 25,000 teachers, and the ASLP includes more than 7,000 school principals.

We recruit AEP members using probabilistic sampling methods from the most-comprehensive lists of teachers, principals, and school districts available. This sampling method allows us to weight survey results to generalize to the national populations of these educators and school districts. The panels are designed to generate samples of sufficient size to facilitate national-level analyses, including analyses of prevalent subgroups. Sampling for each panel is done independently; although there might be overlap between districts, schools, principals, and teachers in the AEP, it is incidental.

About the American School District Panel

The ASDP consists of traditional K–12 public school districts and charter management organizations (CMOs). We send the initial invitation to enroll in the ASDP to district superintendents and CMO directors. As part of the enrollment process, these leaders have the opportunity to designate a point of contact for the district or CMO to receive future survey requests.

Of the 3,864 districts and CMOs that we sampled and invited to join the ASDP between fall 2020 and spring 2022, 1,032 agreed to become members, which is a recruitment rate of 26.7 percent. The 1,032 ASDP members consist of 937 traditional public school districts and 95 CMOs, which are located across the 50 states and the District of Columbia. More information about how we recruited ASDP members is available on the ASDP website (RAND Corporation, undated).

Survey Sample and Administration

We developed the fifth ASDP survey in consultation with our sponsor, the Bill & Melinda Gates Foundation, and our four project partners: the Center on Reinventing Public Education, Chiefs for Change, the Council of the Great City Schools, and Kitamba. The sponsor provided feedback on the survey; however, we maintained final editorial control of the survey items. The survey had an approximate administration time of 10 to 15 minutes. We fielded it online from February 28, 2022, through April 10, 2022.

Participation in ASDP surveys, including this spring 2022 survey, is limited to ASDP member districts and CMOs. We emailed survey requests to the district's or CMO's designated point of contact (most commonly the superintendent), who might share the survey with others to determine the most appropriate person(s) to complete the survey on behalf of the district or CMO. For each section of the survey, we recommended job titles of people who are best suited to complete the questions in that section. For example, we recommended that the section on staffing needs be completed by someone in the Human Resources department and that the section on math curriculum be completed by an academic director. Thus, we expect that it was common for multiple people in a district or CMO to work together to complete the spring 2022 survey. However, to obtain a rough approximation of who completed the survey, we included an item in the final section of the survey asking the job title of the person completing the survey at that time. According to data from this survey item, 83 percent of surveys were completed by superintendents or executive directors, 5 percent were completed by assistant or associate superintendents, 6 percent were completed by research directors, and 6 percent were completed by people with other job titles.

As in previous survey cycles, we invited those districts and CMOs in our ASDP sample that had not yet enrolled in the ASDP to become a member. For those districts, after a district superintendent or their designee consented and completed the ASDP enrollment process, we immediately requested that

they complete the spring 2022 survey. We do not use incentives to encourage districts to complete the surveys or join the panel.¹

Of the 1,032 districts and CMOs that enrolled in the panel between fall 2020 and spring 2022, 291 participated in this survey, for a survey completion rate of 28.2 percent.² Among the respondents, 43 were districts that had newly enrolled in the ASDP, while 248 had previously enrolled and participated in one or more ASDP surveys. Table 1 provides weighted descriptive statistics for survey respondents. The weights, which we describe in the next section, are intended to ensure that the sample reflects the national population of school districts and CMOs.

To see the full set of the spring 2022 survey responses disaggregated by several different characteristics, including district type (traditional public school district versus CMO), locale (urban, suburban, rural), student racial and ethnic composition (majority white versus majority students of color), and district poverty level (high poverty versus low poverty), please visit our interactive Survey Results tool at www.americanschooldistrictpanel.org/survey-results (RAND Corporation, 2022).

Method for Creating the Sample and Survey Weights

We created weights to produce estimates that reflect the national population of public school districts and CMOs in the United States. The weighting process accounts for the probability of selection of districts sampled for the survey and for the probability that a district or CMO responded to the survey after receiving our invitation.

To create the weights, we multiplied the selection and participation probabilities and calibrated them to reproduce the population distribution of public school districts and CMOs in the United States. The nonresponse adjustment is important to eliminate known sources of bias and ensure that the weighted sample matches the characteristics of districts and CMOs nationally. This weighting approach is widely used for probability sample surveys (Deville and Särndal, 1992), including U.S. Department of Education surveys, such as the Teacher Follow-Up Survey

TABLE 1
Descriptive Statistics for Spring 2022 Survey Respondents

Survey Respondent Characteristics	Percentage		
	Sample, Unweighted	Sample, Weighted	Population
District type			
Traditional public school district	95	97	97
CMO	5	3	3
District enrollment size			
Small (fewer than 3,000 students)	43	72	73
Medium (3,000 to 9,999 students)	23	19	19
Large (10,000 or more students)	34	9	7
Locale			
Urban	29	9	9
Suburban	32	26	25
Town	14	19	20
Rural	25	46	46
Region			
Northeast	17	21	21
Midwest	32	37	36
South	23	24	25
West	27	18	18
Percentage of students eligible for a free or reduced-price meal			
0–24 percent	19	21	25
25–49 percent	36	40	36
50–74 percent	31	30	28
75–100 percent	14	10	11
Percentage of white students			
0–24 percent	24	13	12
25–49 percent	22	14	11
50–74 percent	19	16	19
75–100 percent	35	57	59

NOTE: This survey sample consists of 291 survey respondents, while the population sample consists of U.S. public school districts (approximately 13,000 districts) in the original sampling frame for ASDP recruitment. We obtained district and CMO characteristics from the Common Core of Data files; these data are from the 2020–2021 school year (National Center for Education Statistics, 2022). Weighted proportions were calculated using survey weights, which were calibrated to match national averages. Because of rounding, columns do not necessarily sum to 100 percent.

(Goldring, Taie, and Riddles, 2014), and to adjust for nonresponse (Kott, 2006). The main analysis weights are the product of the following two interim weights:

1. **the sample selection weight:** This is the inverse probability of selection into this survey sample using a comprehensive list of K–12 public school districts. Large urban districts were oversampled because we included member districts of the Council of the Great City Schools and CMOs, which tend to be located in cities.
2. **the survey response weight:** This is the inverse of the modeled probability of a district or CMO completing this survey.

We subsequently recalibrated the products of these weights as necessary. Recalibration ensures that the weights recover the population estimates after selection and nonresponse adjustments are applied. The sampling and weighting approach was designed to ensure a representative sample. We used the inverse of the selection probabilities (p_{si}) as the sample selection weight; the selection probability of the districts was set to be proportional to the square root of the enrollment size of the district. We estimated the response weights by modeling the likelihood (p_{ri}) that a selected district or CMO would respond to the survey, conditional on district- or CMO-level characteristics (including enrollment size, geographic region, locale, district type, and free or reduced-price meal eligibility) obtained from the National Center for Education Statistics' Common Core of Data (National Center for Education Statistics, 2022). For convenience, we used a variable-selection method to choose the model that best fit the data. We estimated the main weight as the product of the sampling selection frame weight ($1/p_{si}$) and the response weight ($1/p_{ri}$), as follows:

$$\text{main weight} = \frac{1}{p_{si}} \times \frac{1}{p_{ri}}$$

Because there is no guarantee that this main weight will sum to the total of the population characteristics, the weight was calibrated again based on district- or CMO-level characteristics to obtain the final weight. If some of these final weights were

extreme, we used a trimming process (at the 95th percentile) to reduce the outliers, and the trimmed weights were reallocated for the population totals to remain the same after trimming.

Notes

¹ Financial incentives have consistently been shown to improve response rates, and we provide them for our teacher and principal surveys. We do not use them for the school district panel for a couple of reasons. First, some districts do not allow district staff to receive gifts, and survey incentives could be perceived as a gift. Second, it is not always clear who should receive the incentive, because ASDP surveys are sometimes completed by different people over time or are each potentially completed by multiple people in the same district.

² The completion rate is calculated by dividing the number of completed surveys by the number of panelists invited to complete this survey; the denominator does not include screened-out panelists who were deemed ineligible to participate. Completion rates do not include the recruitment rate when panelists were invited to join the ASDP.

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About This Report

The American Educator Panels (AEP) are nationally representative samples of teachers, school leaders, and school districts across the country. The American School District Panel (ASDP) is a partnership among the RAND Corporation, the Center on Reinventing Public Education, Chiefs for Change, the Council of the Great City Schools, and Kitamba. For more information, please visit the ASDP website at www.americanschooldistrictpanel.org.

This report provides information about the sample for a survey administered to superintendents and other district leaders in spring 2022 via RAND's ASDP. This report is an update of the technical documentation from a previous ASDP survey cycle (Grant et al., 2022). The results of this survey are intended to inform policy and education practice related to educators' and students' needs during the coronavirus disease 2019 (COVID-19) pandemic.

RAND Education and Labor

This research was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through post-secondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decision-making. This report is based on research funded by the Bill & Melinda Gates Foundation. The findings and conclusions presented are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation. For more information and research on these and other related topics, please visit gatesfoundation.org.

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