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Technical Documentation for the Third American School District Panel Survey

The RAND American Educator Panels (AEP) consist of three standing panels of educators: the American Teacher Panel, the American School Leader Panel, and the American School District Panel (ASDP). A survey panel comprises 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). All AEP surveys are conducted online.

The newest panel in the AEP, the ASDP includes more than 860 school districts as of July 2021. The American Teacher Panel, meanwhile, includes more than 25,000 teachers, and the American School Leader Panel 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. Sampling for each panel is done independently, so although there might be overlap between districts, schools, and teachers in the AEP, it is incidental.

Information about how we recruited ASDP panel members is available on the ASDP website (RAND Corporation, undated). The panels are designed to generate samples of sufficient size to facilitate national-level analyses, including of prevalent subgroups.

The ASDP Survey Sample and Administration

The ASDP sample consists of traditional K–12 public school districts and charter management organizations (CMOs) in the United States. Survey participation is limited to district superintendents, CMO leaders, or their designees.¹ Throughout this document, we refer to both districts and CMOs as *K–12 public school districts* or as *districts* for simplicity. We do not use incentives to encourage districts to join the panel or to complete the surveys that we administer to panelists.²

We developed the third 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 research design; however, we maintained final editorial control of the survey

items. The survey had an approximate administration time of ten minutes; we fielded it from June 1, 2021, through July 2, 2021.

For this survey, we invited districts that had joined the ASDP in fall 2020 or winter 2021, and we also recruited additional districts and CMOs to enroll in the ASDP. After a district superintendent or their designee consented and completed the ASDP enrollment process, we immediately requested that they complete the survey.

Of the 3,864 districts or CMOs that we invited to join the ASDP panel in fall 2020, winter 2021, or summer 2021, 869 agreed to become members, which is a recruitment rate of 23 percent. The 869 panelists consist of district leaders from 778 traditional public school districts and 91 CMOs, which are located across the 50 states and the District of Columbia. Of the 869 districts and CMOs that agreed to be in the panel, 292 participated in this survey for a survey completion rate of 34 percent.³ The completion rate for this survey was lower than for our two previous ASDP surveys, which were conducted in fall 2020 (84 percent survey completion rate) and winter 2021 (59 percent survey completion rate).

Table 1 provides weighted descriptive statistics for survey respondents. The weights, which are described in the next section, are intended to ensure that the sample reflects the national population of school districts.

To see the full set of the June 2021 survey responses disaggregated by several different characteristics including district type (traditional public school district versus CMO), locale (urban, suburban, and 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.

Method for Creating the Sample and Survey Weights

We created weights to produce estimates that reflect the national population of public school districts 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 (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 urban areas.
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 and reduced-price meal eligibility). For convenience, we used a variable-selection method to choose the model that best fit the data. We estimated the main weight as the

TABLE 1
Weighted Descriptive Statistics for 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)	48	67	73
Medium (3,000 to 9,999 students)	27	23	19
Large (10,000 or more students)	25	10	7
Locale			
Urban	19	9	9
Suburban	37	29	25
Town	17	21	20
Rural	27	41	46
Region			
Northeast	20	22	21
Midwest	26	32	36
South	26	27	25
West	28	19	18
Percentage of students eligible for a free or reduced-price meal			
0–24 percent	14	17	25
25–49 percent	37	41	36
50–74 percent	31	29	28
75–100 percent	17	14	11
Percentage of white students			
0–24 percent	22	15	12
25–49 percent	23	17	11
50–74 percent	23	21	19
75–100 percent	33	47	59

NOTE: This survey sample consists of 292 survey respondents, while the population sample comprises 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 2019–2020 school year (National Center for Education Statistics, 2021). Weighted proportions were calculated using survey weights, which were calibrated to match national averages.

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 re-located for the population totals to remain the same after trimming.

Notes

¹ The initial invitation to enroll in the ASDP is sent to superintendents or CMO leaders. When a district enrolls in the panel, it has an opportunity to designate a point of contact for the district who will receive future survey requests. Future survey requests are emailed to the district's point of contact who may share the survey with others in the district to determine who is the most appropriate person to complete the survey. We generally do not ask which representative completed the survey on behalf of the district. However, one survey item on this third ASDP survey included the response option "[not applicable]—I am not a superintendent," which 49 respondents selected. Therefore, we estimate that roughly 80 percent of surveys were completed by a superintendent or CMO leader and 20 percent were completed by a designee.

² Financial incentives have consistently been shown to improve response rates, and we always provide them in our teacher and principal surveys. We do not use them for the school district panel for a couple reasons. First, some districts do not allow district staff to receive gifts, and survey incentives may be perceived as a gift. Second, because different people in the same district may complete an ASDP survey, it is not clear who would be the appropriate person to receive the incentive.

³ The completion rate is calculated by dividing the number of completed surveys by the number of panelists invited to complete the 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 district leaders 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 June 2021 via RAND's ASDP. The results are intended to inform policy and education practice related to educators' and students' needs during the coronavirus disease 2019 (COVID-19) pandemic.

This research was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. 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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