Supports for Social and Emotional Learning in American Schools and Classrooms

Findings from the American Teacher Panel—Technical Appendixes

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Preface

This document contains the technical appendixes to a report on social and emotional learning in U.S. K–12 schools, *Supports for Social and Emotional Learning in American Schools and Classrooms: Findings from the American Teacher Panel* (Laura S. Hamilton and Christopher Joseph Doss, Santa Monica, Calif.: RAND Corporation, RR-A397-1, 2020).

RAND Education and Labor

This study 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 study was sponsored by The Wallace Foundation, which seeks to support and share effective ideas and practices to improve learning and enrichment opportunities for children. For more information and research on these and other related topics, please visit its Knowledge Center at www.wallacefoundation.org.

If you are interested in using American Educator Panel (AEP) data for your own analysis or reading other AEP-related publications, please email aep@rand.org or visit www.rand.org/aep. More information about RAND can be found at www.rand.org. Questions about this report should be directed to laurah@rand.org and cdoss@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.

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Abbreviations

AEP	American Educator Panel
AES	Affective Experiences Scale
ATP	American Teacher Panel
CASEL	Collaborative for Academic, Social, and Emotional Learning
CCD	Common Core of Data
CMO	charter management organization
EFA	exploratory factor analysis
LPM	linear probability model
NCES	National Center for Education Statistics
PBIS	positive behavior intervention and support
PD	professional development
PSELI	Partnerships for Social and Emotional Learning Initiative
SEL	social and emotional learning
YCEI	Yale Center for Emotional Intelligence

Appendix A. Sample, Data, and Methodology

Sample and Data

The American Teacher Panel (ATP) is a nationally representative panel of U.S. public school teachers who are recruited by probabilistic sampling methods. For the 2019 social and emotional learning (SEL) survey, we sampled teachers in a way that would facilitate overall estimates for K–12 U.S. teachers, along with estimates specifically for teachers from urban elementary schools.[1] Thus, recruiting occurred within three groups: urban elementary schools, nonurban elementary schools, and secondary schools (grades 6–12). In total, 1,998 teachers were invited to participate in the survey, and 1,238 teachers completed the survey, for an overall completion rate of 62 percent. Completion rates were consistent across each recruitment group, with approximately 62 percent of each group responding. This consistency is by design; the surveys closed once the target number of completed responses for a recruitment group was achieved. The samples are of sufficient size to produce national estimates and estimates for prevalent subgroups at the national level (e.g., teachers in elementary schools, teachers in urban schools, and teachers in higher-poverty schools). When comparing results across subgroups, standard errors range between 3 and 4 percentage points, allowing us to detect differences in responses of about 6 to 8 percentage points.

One main weight was created to ensure national representation of the analytic sample. The main weight accounts for the probability that a teacher was selected to participate in the panel and the probability that the teacher responded to the survey. Thus, the main weight accounted for the group-level recruitment scheme (i.e., membership in one of three recruiting groups: urban elementary, nonurban elementary, and secondary) and for potential bias from nonresponses. The weighted final sample of teachers matches the known national distribution of teachers on individual characteristics (e.g., professional experience, education level, gender) and school characteristics (e.g., percentage of students receiving free or reduced-price lunch, percentage of students of color, school size, urbanicity). Additional technical documentation about the AEP sampling, weighting, and administration methods is available in Robbins and Grant, 2020.

Survey responses were merged with the 2015–2016 Common Core of Data (CCD) to obtain demographic information on schools and districts. Using the National Center for Education Statistics (NCES) definitions, we designated a school as *higher poverty* if 75 percent or more of its student body is eligible for free or reduced-price lunch. Furthermore, we used the urbanicity variable in the CCD to identify urban schools. Table A.1 presents selected characteristics of

[1] The emphasis on urban elementary schools was designed to facilitate a separate set of analyses not included in this report.

teachers and the schools in which they worked, weighted to be nationally representative. On average, teachers have about 15 years of experience and are primarily female (74 percent) and white (80 percent). A majority of teachers (57 percent) have a master's degree or higher. The schools in which they work are composed of about 50 percent White students, 17 percent Black students, and 23 percent Hispanic students. Schools, on average, enrolled 841 students. Student and teacher demographics varied by context. Urban and high-poverty schools employed more teachers of color and served more students of color compared with nonurban or lower-poverty schools. Elementary schools employed more female teachers and enrolled fewer students compared with secondary schools.

Table A.1. Characteristics of Participating Teachers and Schools

Demographic Variables	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher Poverty	Lower Poverty
Teacher characteristics (*n*)	1,238	812	426	507	731	352	886
Years of teaching (average)	14.76	14.58	14.93	13.95	15.02	14.74	14.76
Percentage female	74	85	63	77	73	75	73
Percentage White	80	79	80	63	85	75	82
Percentage Black	7	8	7	17	4	9	7
Percentage Hispanic	6	7	6	12	5	10	5
Percentage Asian	3	2	3	5	2	5	2
Percentage has masters' degree or higher	57	54	60	51	59	57	57
School characteristics							
Percentage White	50.49	48.24	52.73	18.29	60.88	32.23	57.67
Percentage Black	17.28	17.84	16.72	34.04	11.88	24.74	14.35
Percentage Hispanic	23.14	24.04	22.24	40.23	17.63	32.14	19.60
Percentage Asian	4.49	4.64	4.35	2.29	5.20	6.31	3.78
Enrollment (average)	840.95	547.19	1,133.04	723.04	878.97	900.78	817.43

NOTES: School background characteristics were obtained from the 2015–2016 CCD. Means were calculated using survey weights, which were calibrated to match the national average for teachers. Following the NCES definition, a school is defined as *higher poverty* if at least 75 percent of its student body is eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). The definition of urban schools is obtained from CCD files. Teacher characteristics are self-reported. The rate of missingness for characteristics is, at most, 2.2 percent. Missing indicator variables are imputed with a zero and missing continuous variables were imputed with the sample mean.

Survey Questions

Most of the questions on the survey were drawn from surveys that RAND Corporation researchers administered to teachers as part of research on The Wallace Foundation's Partnerships for Social and Emotional Learning Initiative (PSELI; see Schwartz et al., forthcoming). The questions addressed the five contextual factors that are discussed in the main report (teacher beliefs, well-being, professional development [PD], school context, and standards and data use) and a variety of classroom and school SEL practices, including use of SEL

curricula, integration of SEL into academic instruction, and practices to create positive schoolwide climate. Because the PSELI research included only elementary schools, we added some questions to this survey that were more relevant to teachers of older students. Additionally, we partnered with researchers at the Yale Center for Emotional Intelligence (YCEI) to include their measure of well-being, the Affective Experiences Scale (AES). Using theoretical and empirical analyses, YCEI identified the following three domains of well-being measured by the AES (Floman, 2019):

- social well-being: social connectedness with and concern for others at school
- emotional well-being: experiences of pleasant and unpleasant emotions at school
- eudaimonic well-being: purposeful and creative engagement in the work of education.

We also asked a set of questions about job satisfaction and burnout, which were drawn from the University of Chicago Consortium on School Research (undated). All survey questions are provided in the tables that appear later in this appendix.

Estimation Strategy

We report the results of several types of analyses. In some instances, we present tabulations of responses. In those cases, the tabulations are weighted to ensure national representation of the results. We describe other types of statistical analyses in the following sections.

Comparing Results of Subgroups of Teachers

In some cases, we compared responses across teachers in subgroups of interest (teachers in elementary versus secondary schools, urban versus nonurban schools, and higher-poverty versus lower-poverty schools).[2] In these analyses, we employ the following model:

$$Y_{is} = \beta_0 + \beta_1 X_{is} + \varepsilon_{is}. \quad \text{(Eq. 1)}$$

In Equation 1, Y_{is} is the survey response of teacher i in school s dichotomized to be an indicator variable (e.g., agree or strongly agree versus disagree or strongly disagree), and X_{is} is an indicator for the subgroup of interest (teachers in elementary schools, urban schools, or higher-poverty schools). Thus, Equation 1 is a linear probability model (LPM). β_0 is the constant and represents the average response of the reference group (teachers in secondary schools, nonurban schools, or lower-poverty schools), while β_1 is the estimate of the average difference in responses of teachers in the subgroup of interest. The significance of β_1 indicates whether the responses of the subgroup of interest are significantly different than those of the reference group.

[2] As an additional way to explore potential disparities, we also examined differences between schools with a majority of students of color and majority White schools. We found few differences between those groups, and the differences we observed largely mirrored differences seen between higher- and lower-poverty schools, so we do not report the findings from this comparison.

The average response of the subgroup of interest is $\beta_0 + \beta_1$. Linearized standard errors and survey weights were used in all regressions.

To ensure that any differences seen in Equation 1 were not driven by teacher or school characteristics, we also employed supplementary models of the following form:

$$Y_{is} = \beta_0 + \beta_1 X_{is} + \boldsymbol{W_{is}\beta_2} + \varepsilon_{is}. \quad \text{(Eq. 2)}$$

Equation 2 is identical to Equation 1, except that we included the vector of school and educator characteristics, $\boldsymbol{W_{is}}$. $\boldsymbol{W_{is}}$ includes indicators for elementary school, urban school, and high-poverty school (if not already a subgroup of interest), as well as total school enrollment, teacher experience, and indicators for teacher gender (female), race/ethnicity (being a minority teacher), and education (master's degree or higher). We chose to control for a parsimonious set of variables to avoid controlling for variables that were highly correlated to the subgroup of interest. For example, controlling for student race/ethnicity, English language learner status, free or reduced-price lunch enrollment, or Title I status might account for characteristics that are highly correlated to urban and higher-poverty schools.[3] For ease of interpretability, we report results from unconditional LPMs but denote that differences are statistically significant only if they are robust to our supplementary analyses.

Comparing Results by Policy Context

We were also interested in how teacher responses varied by either actual state SEL policies or perceived state and local SEL policies. To investigate the actual state policy context, we denoted a state as having SEL standards, just SEL guidance, or neither SEL standards nor guidance, as reported by the Collaborative for Academic, Social, and Emotional Learning (CASEL) in 2018 (Dusenbury, Dermody, and Weissberg, 2018). CASEL has updated these reports in subsequent years, but the fall 2018 information was most relevant to the responses to our survey, which was administered in spring 2019. We then estimated the following model:

$$Y_{ibs} = \beta_1 Standards_s + \beta_2 Guidance_s + \beta_3 Neither_s + \varepsilon_{ibs}, \quad \text{(Eq. 3)}$$

where Y_{ibs} is the dichotomized survey response of teacher i in school b in state s, and $Standards_s$, $Guidance_s$, and $Neither_s$, are indicators for teaching in a state having SEL standards, just guidance, or neither standards nor guidance, respectively. Equation 3 does not have a constant, and β_1, β_2, and β_3 estimate the average response for teachers in each respective policy context. We performed tests of the null hypothesis that pairs of coefficients are equal and a test that all three coefficients are equal. We also performed a supplementary analysis by including the same

[3] Title 1 refers to schools that receive supplemental federal funding because they serve a greater proportion of students from low-income families. Schools are typically denoted as Title I eligible if 35 percent or more of students are from low-income families, although exceptions are possible.

vector of covariates $\boldsymbol{W_{ibs}}$ in Equation 2. We report responses as significantly different if we can reject the null hypothesis that all three coefficients are equal in both the unconditional and supplemental analyses. Linearized standard errors and survey weights were used in all regressions.

In addition to understanding how responses differ by state policy context, we investigated whether responses differed by *perceived* state and local policy context. Teachers were asked whether their state, district, or charter management organization (CMO) had adopted SEL standards. Teachers responded "yes," "no," or "I don't know." To understand whether teacher responses varied by answers to this question, we performed parallel analyses to those in Equation 3 but replaced the three indicators for state policy context with the three response options. We once again performed supplementary analyses and indicate responses as different if we can reject the null hypothesis that all three coefficients are equal in both unconditional and supplemental models.

Analysis of the Affective Experiences Scale

As part of this survey, we partnered with YCEI to field a set of teacher well-being questions called the AES. The AES presents teachers with a set of 48 emotions and asks them to denote how often they experience each emotion *at school*. Response options ranged from 1 ("none of the time") to 5 ("all of the time"), with 3 denoting "some of the time." Because each scale contains negative and positive emotions, we reverse-coded the negative emotions such that an increase in the Likert scale denotes an increase in well-being for all items. As stated in the main report, YCEI grouped these questions into three mutually exclusive categories: social well-being, eudaimonic well-being, and emotional well-being. In all of our analyses, we averaged emotions within each category to create one measure for each type of well-being. Before conducting analysis using these scales, we investigated internal consistency by calculating Cronbach's alpha and item-rest correlations for each of the three types of well-being scales. Alphas ranged from 0.87 to 0.92 and item-rest correlations ranged from 0.51 to 0.62. These results suggest that the scales exhibited high internal consistency.

We then performed three analyses on the three well-being scales. First, we performed pair-wise correlations to understand how different aspects of teacher well-being are related to each other. Second, we correlated each well-being scale to teacher responses to questions on their SEL instruction. In both correlational analyses, we used the full five-point Likert scale in the AES and question responses. No responses were dichotomized. Third, we looked at how average responses to each well-being scale differ by subgroups of interest (teachers in elementary versus secondary schools, urban versus nonurban schools, and higher- versus lower-poverty schools). In these analyses, we employ models in Equation 1, with the full five-point Likert scale as the outcome. We once again performed the supplementary analyses described in Equation 2 and report results as significantly significant only if they are significant in the unconditional and supplementary models.

Finally, in a last set of analyses, we explored how items that address a certain construct, such as SEL-supporting practices, are related to either teacher well-being or the perceived policy context. The first step in these analyses was to create a scale for that construct. We started by using exploratory factor analysis (EFA) to understand which items load on a common factor. We then took the items loading on the common factor, averaged the Likert scale responses, and checked the internal consistency by calculating Cronbach's alpha. After confirming that the internal consistency was acceptable, we used these average scale scores in regression models. Average scale scores were regressed on the three policy perception options or on the YCEI well-being scales.

We ran two regression models for each of the three well-being scales. The first model included the well-being scale and a set of school and teacher covariates (see note in Table A.2). The second model was the same, except that we added a measure of school SEL supports to explore whether the inclusion of this measure changed the relationship between well-being and SEL practices. The dependent variable for all regressions was a scale created by averaging the teachers' responses to the items shown in Figure 10 in the main report.[4] We created the school supports scale by averaging each teacher's responses to the following items: "my school has developed a clear vision for SEL," "my school has a clear set of instructional practices or roadmap for getting to specific SEL outcomes," "the culture of my school or program supports the development of children's social and emotional skills," and "staff use student input to inform school improvement."[5] The regression results that are relevant to the discussion in the main report are shown in Table A.2, and full results are provided in Appendix B.

[4] The resulting scale had an internal consistency reliability (coefficient Alpha) of 0.865.

[5] "Supports for writing lesson plans" had a low factor loading and was therefore omitted from the analysis. The resulting scale had an internal consistency reliability (coefficient Alpha) of 0.817.

Table A.2. Relationships Between SEL Instruction and Teacher Well-Being, With and Without Controls for School Supports for SEL

Scale	Model 1	Model 2
Social well-being	0.285**	0.058
School supports		0.580**
Eudaimonic well-being	0.308**	0.089**
School supports		0.567**
Emotional well-being	0.202**	0.026
School supports		0.589**
School and teacher covariates included in models	Yes	Yes
School support covariate included in models	No	Yes

NOTES: Each set of rows presents the results of a separate regression of teacher and school approaches to SEL instruction on the respective well-being variable and covariates. Covariates in model 1 include indicators for higher-poverty schools and elementary schools, as well as teacher experience, gender, race, and education. Model 2 adds the school support scale as an additional covariate. The outcome is the average Likert score of items describing approaches to SEL instruction, detailed in Figure 10 in the main report. The supports variable is the average Likert score of school-level supports.
** $p < 0.01$. $N = 1{,}219$.

Appendix B. Supplementary Tables

Table B.1. AES Items and Subscales

Well-Being Scale	Emotion
Social well-being	Feeling accepted, included, valued, compassionate, empathetic, sympathetic, grateful, appreciative, thankful, isolated, alone, excluded, embarrassed, ashamed, humiliated
Eudaimonic well-being	Feeling inspired, creative, passionate, amazed, moved, awed, determined, motivated, focused, accomplished, proud, successful, bored, disconnected, disengaged, exhausted, tired, burned out
Emotional well-being	Feeling excited, enthusiastic, joyful, content, satisfied, fulfilled, angry, annoyed, frustrated, anxious, nervous, worried, sad, down, depressed

NOTES: *N* = 1,219–1,224.
The original question was "This scale consists of a number of words that describe different feelings and emotions. Please indicate how frequently you have experienced each feeling and emotion over the past few weeks at school." Response options were "none of the time," "a little of the time," "some of the time," "much of the time," and "all of the time."

Table B.2. Cronbach's Alpha and Average Item-Rest Correlations of AES Well-Being Scales

Well-Being Scale	Cronbach's Alpha	Item-Rest Correlation
Social well-being	0.87	0.51
Eudaimonic well-being	0.91	0.58
Emotional well-being	0.92	0.62

NOTES: *N* = 1,219–1,224. Cronbach's alpha and item-rest correlation analyses were performed with all items in each of the three scales denoted above.
The original question was "This scale consists of a number of words that describe different feelings and emotions. Please indicate how frequently you have experienced each feeling and emotion over the past few weeks at school." Response options were "none of the time," "a little of the time," "some of the time," "much of the time," and "all of the time." Negative emotions were reverse coded.

Table B.3. Correlations Among AES Well-Being Scales and Teachers' Reports of Feeling Burned Out from Their Work

	Social Well-Being	Eudaimonic Well-Being	Emotional Well-Being	Burnout
Social well-being	1			
Eudaimonic well-being	0.74	1		
Emotional well-being	0.72	0.81	1	
Burnout	–0.41	–0.60	–0.62	1

NOTES: Each well-being scale is the average of the underlying emotions. Teachers were asked about 48 feelings. *N* = 1,224.
The well-being survey question was "This scale consists of a number of words that describe different feelings and emotions. Please indicate how frequently you have experienced each feeling and emotion over the past few weeks at school." Response options were "none of the time," "a little of the time," "some of the time," "much of the time," and "all of the time." Negative emotions were reverse coded.

Table B.4. Percentage of Teachers Reporting Participating in SEL PD

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
Took a course, workshop, or seminar that explicitly addressed SEL	37	39	35	42*	35*	39	36
Made visits to other schools to observe or learn about their SEL practice	4	4	4	5	4	5	3
Participated in a network of staff specifically about SEL (for example, professional learning communities or grade-level meetings)	39	43**	35**	40	39	40	39
Received coaching or mentoring on SEL topics	27	27	27	30	26	27	27
Gave coaching or mentored others on SEL topics	10	10	10	12	9	13	9
Had informal dialogue with colleagues about SEL	63	66	61	68*	61*	56**	66**
Participated in other professional learning activities related to SEL	14	14	14	16	13	10*	15*

NOTES: Following the NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its student body is eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$. N = 1,179–1,235. The original question was "Did you participate in any of the following kinds of professional learning activities about social and emotional learning (SEL) during this school year (2018–2019), including summer 2018?" Response options were "yes" and "no."

Table B.5. Percentage of Teachers Reporting How Much of Their SEL-Related PD Focused on Various Topics a Moderate Amount or a Great Deal

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
Definitions and overview of SEL	44	46	41	41	45	44	43
Developing, practicing, or learning specific SEL programs, lessons, or activities to use in class	38	41	35	39	37	43	36
Strategies to integrate SEL into academic instruction	37	40	33	37	37	42	35
Strategies to adapt SEL practices to students from different cultures or linguistic backgrounds	28	28	28	33	25	35	26
Strategies to adapt SEL practices to students with different learning needs	33	38	29	33	34	32	34
Reviewing and using student data that relate to their SEL skills	27	31	24	28	27	32	26
General overview of trauma and/or how trauma can affect students in school	41	42	41	43	40	38	42
Strategies to build your own SEL skills	32	35	29	34	31	35	31

NOTES: Responses were dichotomized (a moderate or great deal versus not at all or a small amount). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. Linearized standard errors and survey weights were used in all models. No differences were statistically significant. N = 927–929.
The original question was “Think about the SEL-related professional development you have received this school year (2018–2019, including summer 2018). How much has your professional learning focused on the following topics?” Response options were “not at all,” “a small amount,” “a moderate amount,” and “a great deal.”

Table B.6. Percentage of Teachers Reporting a Large Need for Additional PD on a Variety of SEL Topics

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
Definitions and overview of SEL	21	23	19	21	21	27**	19**
Developing, practicing, or learning specific SEL programs, lessons, or activities to use in class	39	40	39	36	41	46*	38*
Strategies to integrate SEL into academic instruction	42	44	41	43	42	50**	40**
Strategies to adapt SEL practices to students from different cultures or linguistic backgrounds	38	40	36	38	38	43	36
Strategies to adapt SEL practices to students with different learning needs	41	44	39	42	41	48*	39*
Reviewing and using student data that relates to their SEL skills	36	39	33	35	36	41	34
General overview of trauma and/or how trauma can affect students in school	35	38	32	33	35	40	33
Strategies to build your own SEL skills	37	40	34	37	37	45**	34**

NOTES: Responses were dichotomized (a large need versus a small need, no–sufficient PD, or work not related). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$. N = 1,229–1,230.
The original question was “How much do you need additional SEL-related professional development (PD) on the following topics to support your work?” Response options were “no need: my work is not related to this topic,” “no need: I have sufficient PD on this topic,” “a small need,” and “a large need.”

Table B.7. Percentage of Teachers Agreeing or Strongly Agreeing with Statements About Self-Efficacy and Responsibility for SEL

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
If I try really hard, I can get through to even the most difficult student.	85	89**	80**	85	85	86	84
Factors beyond my control have a greater influence on my students' social and emotional competencies than I do.	79	75**	83**	77	80	80	79
I am good at helping all of the students in my classes make significant improvement in social and emotional competencies.	81	87**	75**	84	80	81	81
There is little I can do to ensure that all my students make significant progress in social and emotional competencies this year.	12	9	15	13	12	14	12
I can deal with almost any SEL problem.	51	55**	46**	54	49	53	50
I feel overwhelmed by the social and emotional problems some of my students have.	55	58	51	52	56	58	54
I cannot teach my students effectively unless I also consider their SEL needs.	83	87	79	84	83	83	83
I think professionals other than myself, such as school counselors, should take primary responsibility for my students' social and emotional needs.	37	34	41	40	36	41	36
Pressure to improve student academic achievement makes it hard to focus on social and emotional learning.	80	81	79	79	80	83	79
I always find ways to address SEL in my instruction, even when I am focusing on academic content.	56	63**	49**	60	54	59	55
My efforts to promote SEL will improve my students' academic achievement.	92	94	89	93	91	90	92

NOTE: Responses were dichotomized (agree or strongly agree versus disagree or strongly disagree). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. The sum of "agree and strongly agree" in Figure 1 of the main report does not always exactly match values in the table because of rounding. Linearized standard errors and survey weights were used in all models. ** $p < 0.01$. N = 1,212–1,214.
The original question was "How much do you agree or disagree with the following statements about your work with students this year (2018–2019)?" Response options were "strongly disagree," "disagree," "agree," and "strongly agree."

Table B.8. Percentage of Teachers Agreeing or Strongly Agreeing with Statements About Their Experiences at School

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
I usually look forward to each working day at this school.	84	86	82	83	84	76**	87**
I wouldn't want to work in any other school.	68	71*	64*	65	69	57**	71**
I feel loyal to this school.	87	88	86	85	88	82	89
I would recommend this school to parents seeking a place for their child.	80	82	78	75	82	63**	85**
I feel burned out from my work.	47	47	47	50	46	53	45

NOTES: Responses were dichotomized (agree or strongly agree versus disagree or strongly disagree). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. Linearized standard errors and survey weights were used in all models. The sum of "agree and strongly agree" in Figure 2 of the main report does not always exactly match values in the table because of rounding. * $p < 0.05$; ** $p < 0.01$. N = 1,212–1,213.
The original question was "How much do you agree or disagree with each of the following statements about your experience at school during this current school year (2018–2019)?" Response options were "strongly disagree," "disagree," "agree," and "strongly agree."

Table B.9. Teacher Self-Reported Well-Being as Measured by the Affective Experiences Scale

Item	Full Sample	Elementary	Secondary	Urban	Nonurban	Higher-Poverty	Lower-Poverty
Social well-being	3.91	3.96	3.87	3.91	3.91	3.85*	3.93*
Eudaimonic well-being	3.40	3.45**	3.35**	3.44	3.39	3.34	3.42
Emotional well-being	3.57	3.58	3.56	3.57	3.57	3.46**	3.61**

NOTES: Values represent the average Likert scale response of items within each well-being category. See Table B.1 for a list of the items in each category. Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Ordinary Least Squares regressions were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-Poverty schools. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$. N = 1,224.
The original question was "This scale consists of a number of words that describe different feelings and emotions. Please indicate how frequently you have experienced each feeling and emotion over the past few weeks at school." Response options were "none of the time," "a little of the time," "some of the time," "much of the time," and "all of the time." Negative emotions were reverse coded.

Table B.10. Percentage of Teachers Agreeing or Strongly Agreeing with Statements About Their School's SEL Practices

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
My school has developed a clear vision for social and emotional learning.	36	40**	32**	35	37	37	36
My school has a clear set of instructional practices or roadmap for getting to specific student SEL outcomes.	29	34**	24**	29	29	33	27
I would like more guidance about how to use SEL lesson plans and/or curricula in my school.	80	81	79	80	80	81	79
The culture in my school or program supports the development of children's social and emotional skills.	67	71*	64*	65	68	55**	71**
Staff use student input to inform school improvement.	52	49	55	55	51	46*	54*

NOTES: Responses were dichotomized (agree or strongly agree versus disagree or strongly disagree). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. The sum of "agree and strongly agree" in Figure 5 of the main report does not always exactly match values in the table because of rounding. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$.
N = 1,224–1,228.
The original question was "How much do you agree or disagree with the following statements about social and emotional learning in your school during the current school year (2018–2019)?" Response options were "strongly disagree," "disagree," "agree," and "strongly agree."

Table B.11. Percentage of Teachers Agreeing or Strongly Agreeing with Statements About Their School's SEL Environment

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
The school administration's behavior toward the staff is supportive and encouraging.	78	81*	75*	73	80	72*	80*
School administration and staff collaboratively develop norms and routines that support SEL.	55	60**	50**	54	55	52	56
My principal enforces school rules for student conduct and backs me up when I need it.	74	78**	70**	71	75	69	75
Teachers in this school feel responsible for promoting students' social and emotional skills.	75	81**	68**	73	75	71	76
At this school, teachers and students get along really well.	84	86	82	81	85	77**	87**
Students treat teachers with respect in this school.	72	75*	69*	69	73	59**	76**
Students treat students with respect in this school.	68	73**	64**	66	69	55**	73**
Students in this school care about each other.	77	82**	72**	71	79	67**	80**

NOTES: Responses were dichotomized (agree or strongly agree versus disagree or strongly disagree). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. The sum of "agree and strongly agree" in Figure 6 of the main report does not always exactly match values in the table because of rounding. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$.
N = 1,206–1,212.
The original question was "How much do you agree or disagree with the following statements about your school this school year (2018–2019)?" Response options were "strongly disagree," "disagree," "agree," and "strongly agree."

Table B.12. Percentage of Teachers Reporting Receiving SEL Data a Few Times per Year or More

Item	Full Sample	Elementary	Secondary	Urban	Nonurban	Higher-Poverty	Lower-Poverty
Data on my school's climate or culture	33	32	35	39*	31*	37	32
Staff assessments of student SEL	25	26	23	25	25	24	25
Student self-reports or skills assessments related to SEL	21	24*	19*	22	21	19	22
Observational data from a peer, manager, or coach about my own SEL practices	23	24	22	23	23	25	22
Teacher self-reports or skills assessments related to SEL	19	22*	17*	19	19	21	19

NOTES: Responses were dichotomized (a few times per year or monthly or more often versus never or once a year). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. The sum of "a few times a year and monthly or more often" in Figure 8 of the main report does not always exactly match values in the table because of rounding. Linearized standard errors and survey weights were used in all models. * $p < 0.05$. $N = 1{,}230$. The original question was "In general, how frequently do you receive or collect the following types of information related to SEL?" Response options were "never," "once a year," "a few times a year," and "monthly or more often."

Table B.13. Percentage of Teachers Who Reported Receiving or Collecting Various Types of SEL Data, by State-Level SEL Policy Environment

Question	Overall	No Standards or Guidance	Standards	Just Guidance
School climate or culture	33	33	33	35
Staff assessments of student SEL	25	25	25	24
Student SEL self-reports or skills assessments	21	21	21	22
Observational data from a peer, manager, or coach about my own SEL practices	23	21	24	27
Teacher SEL self-reports or skills assessments	19	20	19	18

NOTES: Linear probability models were used to estimate whether all three responses ("no standards or guidance," "standards," or "just guidance") were equal. Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linearized standard errors and survey weights are used in all models. $N = 1{,}230$. No significant differences were found.

Table B.14. Percentage of Teachers Reporting That Their School Used Approaches to Promote SEL to a Moderate or Great Extent

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
Align instruction with state, district, or charter management organization (CMO) SEL standards	22	28**	16**	20	23	23	21
Implement social and emotional learning programs or curricula (e.g., Second Step, RULER)	26	33**	20**	28	26	28	26
Implement technology-based games or other software that support SEL	12	15**	9**	13	12	15	11
Integrate social and emotional learning into extracurricular activities	27	31*	24*	26	28	27	28
Provide students with opportunities to engage with community-based organizations (e.g., through community service or internships)	31	24**	38**	32	31	31	31
Offer advisory periods or other regular opportunities for students to check in with a teacher or other adult	40	33**	47**	40	40	36	42
Provide students with opportunities to contribute to school decisionmaking (e.g., through participating in student government or youth advisory councils)	33	26**	40**	30	35	30	34
Provide peer mentoring opportunities	30	26	34	30	30	24**	32**
Engage family members in SEL instruction (e.g., by sending SEL instructional resources home with students)	19	23**	16**	20	19	22	18

NOTES: Responses were dichotomized (a moderate or great extent versus not at all or a small extent). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. The sum of "a moderate or great extent" in Figure 10 of the main report does not always exactly match values in the table because of rounding. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$.
N = 1,216–1,220.
The original question was "To what extent have you or your school used the following approaches to promote SEL during the current school year (2018–2019)?" Response options were "not at all," "to a small extent," "to a moderate extent," and "to a great extent."

Table B.15. Percentage of Teachers Who Reported Using SEL-Supporting Practices Sometimes or Often

Item	Full Sample	Elementary	Secondary	Urban	Non-urban	Higher-Poverty	Lower-Poverty
Project-based learning, where students work for an extended period to investigate a complex question, problem, or challenge	63	60	66	63	63	55**	66**
Guided inquiry, where educators support students who decide on an inquiry question and describe the concepts that support their investigation	58	59	57	56	59	52*	60*
Cooperative learning, where small, heterogeneous groups of students work together to achieve a common goal	89	92*	87*	86	90	87	90
Student-led discussions	73	78**	68**	73	73	71	74
Using routines or rituals to preview or review the day and discuss SEL concepts (e.g., morning meetings or other welcoming rituals)	67	78**	55**	66	67	67	67
Using mindfulness practices (e.g., yoga, meditation, breathing exercises)	32	45**	20**	38**	30**	30	33
Using written lesson plans about SEL (e.g., teaching a lesson plan from an SEL curriculum)	23	28**	19**	28	22	27	22
Making connections to SEL competencies through your academic instruction (e.g., perseverance in solving math problems or describing characters' emotions in a book)	52	60**	44**	54	51	55	51
Making connections to SEL competencies through informal conversations with students (e.g., at the beginning or the end of the day)	64	68*	61*	67	63	63	64

NOTES: Responses were dichotomized (sometimes or often versus not at all or rarely). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. The sum of "sometimes or often" in Figure 11 of the main report does not always exactly match values in the table because of rounding. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$. N = 1,215–1,218.
The original question was "How frequently do you use the following instructional practices in your work with students during the current school year (2018–2019)?" Response options were "not at all," "rarely," "sometimes," and "often."

Table B.16. Percentage of Teachers Who Reported Schools Using Various Strategies to Improve School Climate and Safety to a Moderate or Great Extent

Item	Full Sample	Elementary	Secondary	Urban	Nonurban	Higher-Poverty	Lower-Poverty
Use a schoolwide positive behavior intervention and support (PBIS) system	61	72**	50**	62	61	66	59
Use point systems, rewards, or another type of schoolwide behavior management system other than PBIS	46	60**	32**	50	44	55	43
Use targeted behavioral interventions (e.g., Good Behavior Game, Conscious Discipline)	39	50**	28**	41	38	45	37
Use restorative practices (e.g., restorative circles for conflict resolution, restorative justice)	34	37*	31*	41**	32**	39	33
Implement visual signs of security (e.g., metal detectors, school resource officers, security cameras)	57	50**	64**	53	58	52	58
Use clearly defined discipline policies that are sensitive to students exposed to trauma	37	36	37	38	36	37	37
Train staff in skills for interacting with and supporting traumatized students (e.g., deescalation, referral)	31	34	29	32	31	32	31

NOTES: Responses were dichotomized (a moderate or great extent versus not at all or to a small extent). Following NCES definitions, a school is defined as *higher poverty* if 75 percent or more of its students are eligible for free or reduced-price lunch and as *lower poverty* if fewer than 75 percent are eligible for free or reduced-price lunch (Hussar et al., 2020). Linear probability models were used to estimate differences among teacher responses in elementary and secondary, urban and nonurban, and higher- and lower-poverty schools. The sum of "a moderate or great extent" in Figure 12 of the main report does not always exactly match values in the table because of rounding. Linearized standard errors and survey weights were used in all models. * $p < 0.05$; ** $p < 0.01$. N = 1,217–1,219. The original question was "To what extent have you or your school relied on the following strategies to improve school climate and safety during the current school year (2018–2019)?" Response options were "not at all," "to a small extent," "to a moderate extent," and "to a great extent."

Table B.17. Percentage of Teachers Reporting That Their School Used Approaches to Promote SEL to a Moderate or Great Extent, by State Policy Context

Item	Overall	Standards	Just Guidance	No Standards or Guidance
Align instruction with state, district, or charter management organization (CMO) SEL standards	22	19	21	24
Implement social and emotional learning programs or curricula (e.g., Second Step, RULER)	26	27	27	26
Implement technology-based games or other software that support SEL	12	11	10	15
Integrate social and emotional learning into extracurricular activities	27	22*	29*	31*
Provide students with opportunities to engage with community-based organizations (e.g., through community service or internships)	31	27	35	33
Offer advisory periods or other regular opportunities for students to check in with a teacher or other adult	40	40	44	39
Provide students with opportunities to contribute to school decisionmaking (e.g., through participating in student government or youth advisory councils)	33	30	39	33
Provide peer mentoring opportunities	30	29	33	30
Engage family members in SEL instruction (e.g., by sending SEL instructional resources home with students)	19	19	21	19

NOTES: Responses were dichotomized (a moderate or great extent versus not at all or a small extent). Asterisks indicate that all three responses are statistically different from each other in a linear probability model of the dichotomized outcome regressed on the policy contexts. Linearized standard errors and survey weights were used in all models. * $p < 0.05$. N = 1,216–1,220.
The original question was "To what extent have you or your school used the following approaches to promote SEL during the current school year (2018–2019)?" Response options were "not at all," "to a small extent," "to a moderate extent," and "to a great extent." State policy context was taken from CASEL categorizations (Dusenbury, Dermody, and Weissberg, 2018).

Table B.18. Percentage of Teachers Who Reported Schools Using Various Strategies to Improve School Climate and Safety to a Moderate or Great Extent, by State Policy Context

Item	Overall	Standards	Just Guidance	No Standards or Guidance
Use a schoolwide positive behavior intervention and support (PBIS) system	61	57	60	64
Use point systems, rewards, or another type of schoolwide behavior management system other than PBIS	46	46	47	46
Use targeted behavioral interventions (e.g., Good Behavior Game, Conscious Discipline)	39	32	40	43
Use restorative practices (e.g., restorative circles for conflict resolution, restorative justice)	34	34	34	35
Implement visual signs of security (e.g., metal detectors, school resource officers, security cameras)	57	51**	47**	65**
Use clearly defined discipline policies that are sensitive to students exposed to trauma	37	33	36	39
Train staff in skills for interacting with and supporting traumatized students (e.g., deescalation, referral)	31	34	26	32

NOTES: Responses were dichotomized (a moderate or great extent versus not at all or to a small extent). Asterisks indicate whether all three responses are statistically different from each other in a linear probability model of the dichotomized outcome regressed on the policy contexts. Linearized standard errors and survey weights were used in all models. ** $p < 0.01$. N = 1,217–1,219.
The original question was "To what extent have you or your school relied on the following strategies to improve school climate and safety during the current school year (2018–2019)?" Response options were "not at all," "to a small extent," "to a moderate extent," and "to a great extent." State policy context was taken from CASEL categorizations (Dusenbury, Dermody, and Weissberg, 2018).

Table B.19. Relationships Between SEL Instruction and Teacher Social Well-Being

Variable	Model 1	Model 2
Social well-being	0.285**	0.058+
	(0.035)	(0.031)
School supports		0.580**
		(0.027)
High-poverty school	–0.023	0.023
	(0.044)	(0.035)
Elementary school	0.019	–0.036
	(0.044)	(0.037)
Urban school	–0.010	–0.028
	(0.038)	(0.031)
Total enrollment	0.000+	0.000*
	(0.000)	(0.000)
Teacher experience	–0.008**	–0.006**
	(0.002)	(0.002)
Teacher female	–0.130**	–0.092*
	(0.043)	(0.036)
Teacher White	0.043	0.023
	(0.057)	(0.047)
Teacher Black	0.230**	0.167*
	(0.084)	(0.068)
Teacher Hispanic	0.075	0.100
	(0.078)	(0.062)
Teacher Asian	0.058	0.046
	(0.106)	(0.075)
Teacher education higher than bachelor's	0.030	0.022
	(0.037)	(0.030)
Constant	–0.074	–0.013
	(0.145)	(0.117)
R-squared	0.082	0.365

NOTE: Linearized standard errors in parentheses. Outcome is average Likert score of items describing approaches to SEL instruction, detailed in Figure 10. The supports variable is the average Likert score of school-level supports. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$. $N = 1{,}219$.

Table B.20. Relationships Between SEL Instruction and Teacher Eudaimonic Well-Being

Variable	Model 1	Model 2
Eudaimonic well-being	0.308**	0.089**
	(0.031)	(0.028)
School supports		0.567**
		(0.027)
High-poverty school	–0.017	0.026
	(0.044)	(0.035)
Elementary school	0.002	–0.041
	(0.044)	(0.037)
Urban school	–0.020	–0.031
	(0.037)	(0.031)
Total enrollment	0.000+	0.000*
	(0.000)	(0.000)
Teacher experience	–0.010**	–0.007**
	(0.002)	(0.002)
Teacher female	–0.095*	–0.084*
	(0.043)	(0.036)
Teacher White	0.057	0.025
	(0.057)	(0.047)
Teacher Black	0.225**	0.163*
	(0.085)	(0.068)
Teacher Hispanic	0.053	0.089
	(0.075)	(0.061)
Teacher Asian	0.039	0.041
	(0.109)	(0.076)
Teacher education higher than bachelor's	0.020	0.018
	(0.037)	(0.030)
Constant	0.005	–0.062
	(0.122)	(0.099)
R-squared	0.103	0.369

NOTES: Linearized standard errors are shown in parentheses. Outcome is average Likert score of items describing approaches to SEL instruction, detailed in Figure 10. The supports variable is the average Likert score of school-level supports. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$. $N = 1{,}219$.

Table B.21. Relationships Between SEL Instruction and Teacher Emotional Well-Being

Variable	Model 1	Model 2
Emotional well-being	0.202**	0.026
	(0.030)	(0.026)
School supports		0.589**
		(0.026)
High-poverty school	–0.019	0.022
	(0.045)	(0.036)
Elementary school	0.023	–0.035
	(0.045)	(0.037)
Urban school	–0.009	–0.028
	(0.038)	(0.031)
Total enrollment	0.000+	0.000*
	(0.000)	(0.000)
Teacher experience	–0.008**	–0.006**
	(0.002)	(0.002)
Teacher female	–0.092*	–0.084*
	(0.044)	(0.036)
Teacher White	0.062	0.028
	(0.059)	(0.048)
Teacher Black	0.252**	0.172*
	(0.088)	(0.069)
Teacher Hispanic	0.070	0.103+
	(0.078)	(0.061)
Teacher Asian	0.027	0.042
	(0.111)	(0.076)
Teacher education higher than bachelor's	0.022	0.021
	(0.037)	(0.030)
Constant	0.290*	0.101
	(0.125)	(0.102)
R-squared	0.066	0.363

NOTE: Linearized standard errors in parentheses. Outcome is average Likert score of items describing approaches to SEL instruction, detailed in Figure 10. The supports variable is the average Likert score of school-level supports. + indicates $p < 0.10$; * $p < 0.05$; ** $p < 0.01$. $N = 1{,}219$.

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