The Promise of Summer as a Time for Teacher Professional Learning

Technical Appendixes

ELIZABETH D. STEINER, LAURA STELITANO, ANDY BOGART, SOPHIE MEYERS

Sponsored by BellXcel

EDUCATION AND LABOR

For more information on this publication, visit www.rand.org/t/RRA196-1

Published by the RAND Corporation, Santa Monica, Calif.

Preface

Helping teachers improve their instructional practice through high-quality professional learning opportunities is a key strategy for improving student academic and social and emotional outcomes. Most studies about teacher professional learning focus on discrete activities or workshops that occur during the school year; little is known about the professional learning activities teachers participate in over the summer. This project begins to fill that gap by presenting data from the first nationally representative survey of teachers about their summer professional learning opportunities and survey and qualitative data from a group of teachers participating in a specific summer learning program, BellXcel Summer (BXS).[1]

In the main report, *The Promise of Summer as a Time for Teacher Professional Learning: Findings from a National Survey and Implications from the BellXcel Program* (Steiner et al., 2021), we present data from a descriptive study of BellXcel Summer (BXS), an academic-focused summer program for students that provides teachers with numerous professional learning opportunities, and compare BXS teachers' perceptions of their summer professional learning experiences with those of teachers nationally. Exploring the possibilities of utilizing summer as a time for teacher professional learning will be especially imperative following the coronavirus disease 2019 (COVID-19) crisis, which has disrupted opportunities for educators' school-year professional learning. The findings in the report can help district and school leaders, professional learning providers, and other support providers understand teachers' perceptions of their summer professional learning opportunities and explore the extent to which summer could be utilized as a time for teacher professional learning.

This volume provides more detail about the methods used in this research, which were discussed briefly in the main report. Appendixes A and B describe the data, analyses, methodology, and limitations of the research. The remaining appendixes present the full results of the nationally representative American Teacher Panel survey that was conducted as part of this project and the regression-adjusted comparisons of results from the American Teacher Panel survey and the BXS fall survey. We do not reference all these results in the main report but include them for completeness.

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 work was sponsored by BellXcel. A national nonprofit, BellXcel partners with youth organizations and schools to license

[1] Throughout these appendixes, BXS refers to BellXcel's specific summer program, while *BellXcel* refers to the organization more generally. BellXcel has several other programs that are not described in this report.

its K–8 summer and afterschool programming. With nearly 30 years of experience innovating education solutions, BellXcel empowers educators and youth development staff to reach tens of thousands of scholars and families each year. BellXcel's work is made possible through the support of national and local investors, including Ballmer Group, Edna McConnell Clark Foundation, The Deerbrook Charitable Trust, New York Life Foundation, and the Charles and Lynn Schusterman Family Foundation, among others. For more information, visit www.bellxcel.org.

For more information about the RAND American Educator Panels, please email aep@rand.org or see www.rand.org/aep. More information about RAND can be found at www.rand.org. Questions about this volume should be directed to esteiner@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.

Contents

Tables

Abbreviations

ATP	American Teacher Panel
BXS	BellXcel Summer
CBO	community-based organization
ELA	English language arts
N/A	not applicable
PL	professional learning
SY	school year

Appendix A. Survey Analysis Methods

Survey Development and Administration

Surveys of BellXcel Summer Program Staff

BellXcel Summer (BXS) staff were invited to participate in two web-based surveys in 2019. The first survey was conducted in summer 2019 in the last few weeks of the BXS program; we refer to this as the *summer survey*. The second survey was conducted in October and November 2019, at the end of the fall semester; we refer to this as the *fall survey*. BellXcel staff administered the summer and fall surveys. These surveys were designed to elicit teachers' perceptions of the professional learning experiences they participated in over the summer and of the professional learning experiences their schools and districts provided. Survey respondents were assigned unique identifiers to enable linking of summer and fall responses. In the following subsections, we describe the administration and development process for each survey and the approach used to link summer and fall responses.

BellXcel Summer Survey

The purpose of the BXS summer survey was twofold. First, the survey gathered systematic information about teachers perceptions of their BXS professional learning for this study and second, it was part of BellXcel's yearly efforts to monitor summer program implementation. Therefore, all BXS staff—program managers; instructional coaches; and academic, assistant, and enrichment teachers—were invited to participate in the summer survey. The BXS summer survey was administered to BXS staff on a rolling basis throughout summer 2019, beginning in the last two weeks of each site's summer program (BXS sites operate at different times throughout the summer) and remaining open for staff from all sites through the end of August 2019. In keeping with our focus on teacher professional learning, our analyses focused on teachers—those who held academic or assistant teacher roles. Staff who held other roles were excluded from our analyses.

BellXcel staff worked with summer program site managers to gather email addresses for BXS staff—each program site managed its own staff, and BellXcel did not hold staff contact information centrally. BellXcel received staff contact information from 159 of the 163 summer program sites. BellXcel staff sent a personalized survey link to the email addresses of all summer program staff. BellXcel staff also created a nonpersonalized link that they sent to program managers at sites that did not provide staff email addresses with a request that the program manager distribute the link to their staff. The nonpersonalized link was sent to staff in four sites. The survey included a question requesting that respondents enter their email address to aid identification of respondents who received a nonpersonalized link. BellXcel staff deidentified the

data by assigning each respondent a randomly generated study identifier prior to sharing it with us through the secure file-sharing site Kiteworks. BellXcel staff maintained the linking file and did not share this file with us. We used deidentified data for analysis.

In total, 1,810 staff from all 163 BXS sites responded to the summer survey. Our analyses included the 1,201 teachers—those who held the roles of academic and assistant teachers—who responded to the survey and met our criteria for analysis (see Table A.1). We were unable to calculate an exact response rate for the summer survey because BellXcel did not receive staff contact information from every summer program site, and we do not know how many staff received the nonpersonalized survey link. We received complete staff contact information for 154 BXS sites and used responses from these sites, which represent a majority of the responses received, to estimate a response rate. Using this subsample, we observed 1,722 completions out of a total of 2,427 confirmed invitations for an estimated response rate of 71 percent (95% confidence interval: 69.10–72.75 percent).

Table A.1. Survey Sample Sizes

Respondent Group	Starting Sample (*N*)	Excluded (*N*)	Analytic Sample (*N*)
BXS summer survey	1,810	609	1,201
BXS fall survey	1,002	442	560
BXS summer and fall surveys	721	325	396
National survey (American Teacher Panel [ATP])	647	2	645

NOTES: As we describe in the "Analytic Methods" section of this appendix, respondents were excluded from the analytic sample if they did not hold a teaching position during BXS or if they did not hold a teaching position during the 2019–2020 school year. Respondents were excluded from the ATP sample if they had ever taught in a summer program managed by or affiliated with BellXcel or if they did not respond to the question about teaching in a BellXcel-affiliated summer program.

The summer survey gathered systematic information about teachers' perceptions about various aspects of BXS professional learning, including the types of professional learning opportunities they participated in and the extent to which the teachers found these opportunities helpful for improving their instruction, perceptions of training and support activities, use of the instructional strategies BXS emphasizes, and perceptions of working conditions and instructional resources. The survey also included questions about respondents' background characteristics, such as gender, race/ethnicity, years of teaching experience, years of summer teaching experience, and type of degree program. The survey took approximately 30 minutes to complete, and respondents were sent a $10 electronic gift card to thank them for their time. Although many of the survey items were developed specifically for this study, several were adapted from other RAND surveys (including those used in Hamilton, Doss, and Steiner, 2019, and Steiner et al., 2017) and from the U.S. Department of Education's National Teacher and Principal Survey (National Center for Education Statistics, 2017), and the University of Chicago Consortium on

School Research's 5 Essentials Teacher Survey (University of Chicago Consortium on School Research, 2017).

BellXcel Fall Survey

The purpose of the BellXcel fall survey was to gather information about teachers' perceptions of the professional learning they received from their schools and districts and the resources and materials that their schools and districts provided. The questions also followed up on many of the topics addressed in the summer survey, such as use of BXS key instructional practices during the school year and school-year working conditions and instructional resources. The BellXcel fall survey was administered in October and November 2019, at the same time as the ATP survey (described in the next section). BellXcel staff sent a personalized survey link to all BXS staff for whom they had email addresses. In keeping with the study's focus on teacher professional learning and instructional practices, the survey included screener questions to enable us to identify respondents who were not working (full or part time) in a K–12 school setting, not responsible for instruction for at least one student, and not in a teacher or a paraprofessional role in fall 2019. A total of 1,002 staff provided fall survey responses out of 2,598 confirmed invitations, resulting in a response rate of 39 percent (95% confidence interval: 36.69–40.47 percent).

BellXcel staff assigned each fall survey respondent the same randomly generated study identifier as for the summer survey. BellXcel staff deidentified the data, omitting names and contact information but retaining the study identifier, prior to sharing it with us using the procedures described earlier. We used the study identifier to link summer and fall survey responses and used only deidentified data for analysis.

As in the summer survey, the fall survey included questions about respondents' background characteristics, such as gender, race/ethnicity, years of teaching experience, years of summer teaching experience, and type of degree program. The survey took approximately 30 minutes to complete, and respondents were sent a $10 electronic gift card to thank them for their time. Thus, respondents who completed both summer and fall surveys received a total of $20 in appreciation of their time. As with the summer survey, many of the survey items were developed specifically for this study, and several were adapted from the same source material as the summer survey.

Survey of RAND's American Teacher Panel

The ATP consists of more than 25,000 full-time public school teachers, and RAND maintains it to aid understanding of teachers' experiences and to gain feedback on a variety of educational issues. ATP participants are randomly selected. For this research, we administered a stand-alone survey to gather nationally representative, systematic information about K–12 teachers' summer professional learning experiences, school- and district-provided professional learning experiences, and perceptions of these experiences. Throughout this report, we refer to this survey as the *ATP survey* to distinguish the sample of this survey from that of BellXcel

surveys described earlier. The ATP survey consisted of many of the same questions that appeared in the BXS surveys with a few edits to remove specific references to BXS.

The ATP survey was administered in the same timeframe as the BellXcel fall survey: October and November of 2019. The survey was distributed electronically to 1,200 randomly selected ATP members who taught grades K–12 in fall 2019. We received 647 responses, for a response rate of 54 percent. We included a question asking respondents if they had ever worked for a BellXcel-affiliated summer program to ensure that we did not include BXS teachers in the ATP sample. Two respondents who did not answer this question about previous BellXcel affiliation were removed from the analytic sample (see Table A.1).

The ATP survey included questions about respondents' background characteristics, such as gender, race/ethnicity, years of teaching experience, years of summer teaching experience, and type of degree program. The survey took approximately 30 minutes to complete and respondents were sent a $25 electronic gift card to thank them for their time.

Analytic Methods

Analytic Sample Inclusion Criteria

As we have described here and in the main report, our analysis focused on the 396 BXS teachers who responded to both the summer and fall surveys. We first restricted the summer survey sample to teaching staff, specifically to the 1,201 respondents who reported being employed in 2019 as an academic teacher, an academic and enrichment teacher (both roles), or as an assistant teacher. We then restricted the fall BellXcel sample to the 560 respondents who reported a fall 2019 job title of teacher or provided a write-in response that indicated close contact with students, endorsed teaching any K–12 grades in the 2019–2020 school year, and reported being directly responsible for providing instruction or assisting in classroom instruction for at least one student. We then excluded respondents who responded to only one of the summer or fall surveys. Our final analytic sample consisted of the 396 BellXcel participants who met the analytic inclusion criteria for both the summer and fall surveys and appeared in both summer and fall data sets (see Table A.1).

The ATP was weighted to represent the nation using various baseline and demographic characteristics, including subject, school level, region, size, minority percentage, geographic locale, and free/reduced-price lunch eligibility. For additional information on weighting, please refer to Robbins and Grant (2020). The ATP survey response data, which served as a national benchmark against which to compare the survey responses from BXS survey participants, was limited to 645 respondents who reported not having ever taught in a summer program sponsored by or affiliated with BellXcel (see Table A.1).

We also created two subgroups of ATP respondents—those who responded that they worked in an academic-focused summer program and those who did not work in a summer program but

who did report participating in at least one professional learning activity in summer 2019. Sample sizes and respondent demographic characteristics of these subsamples are reported in Appendix E, Table E.1.

Producing Summary Statistics

We produced descriptive tables of responses from the BellXcel summer and fall surveys using simple one-way frequency tables. We also produced summer and fall descriptive statistics for the subset of 396 BXS participants who met eligibility criteria for analyses on both surveys.

To produce summary statistics for the ATP survey responses, we created similar univariate descriptive tables. We accounted for the weighting of the data so that the summary statistics are interpretable as nationally representative. Each record in the ATP data was weighted to convey the number of teachers each response represents. The sum of the weights totaled more than 3 million, so we rescaled these weights to sum to 645, the sample size of our ATP data set. This rescaling protects our analyses from large design effects and inappropriately large standard error estimates when conducting statistical tests and does not change the interpretation of the descriptive statistics. Statistical comparisons of survey item distributions across demographic categories used an extension to the Pearson Chi Square test that appropriately accounts for survey weighted data (Rao and Scott, 1984). We also produced descriptive tables for two subgroups of ATP responders: (1) the 497 who did not report employment in a summer program but did report participating in at least one summer professional learning activity, and (2) the 104 who reported employment in an academic summer program.

We applied the rescaled analytic weights when producing frequency tables and cross tabulations both descriptively on the full ATP data set and its subsets and when using the ATP data for comparison to the BXS surveys.

Comparing BellXcel and ATP Survey Responses

Our purpose in comparing the BXS survey responses with the ATP data was to be able to make statements about how the BXS survey responses compared with those of teachers nationally. To conduct these analyses, we assembled comparable items from the BXS and ATP surveys. The BXS surveys were designed with these comparisons in mind and, thus, included many questions with the same or very similar wording to the ATP survey (differences in wording were minor revisions to remove references to BXS). To compare the BXS survey with the ATP survey, we "stacked" the BXS and ATP survey responses into a single analytic data set, retaining the rescaled ATP weights for the ATP records, and setting an analytic weight of 1 to each of the BXS survey records. We limited our main analyses to the 396 BXS respondents who were eligible for analyses in both the fall and the summer surveys, and the 104 ATP respondents who reported employment in an academic-focused summer program. We produced cross tabulations of comparable survey items against an indicator of the record's source, ATP or BXS. Significance testing again made use of the survey-corrected chi square testing approach.

A limitation of comparisons by cross tabulation alone is that when we observe differences in the distribution of a given survey item's responses, it may not be immediately clear whether the difference reflects an effect of membership in the BXS sample versus the ATP sample or perhaps reflects effects of underlying differences in the demographic makeup of the two samples. To address this limitation, we estimated survey-weighted regression models of a subset of survey items common to the BXS and ATP surveys, which allowed us to both account for the analytic weights and to adjust for differences in the BXS and ATP subsamples described earlier. We dichotomized the response options into two categories depending on the question of interest. For example, if we wanted to understand teachers agreement with an item, we created a generally positive category by combining responses of "agree or strongly agree" and a generally negative category by combining responses of "disagree or strongly disagree." We used survey-weighted logistic regression to model the probability of the more positive response as a function of membership in the Bell program, adjusted for respondent characteristics. Regression models for the dichotomized outcomes were of the form:

$$\text{logit}(p_i) = \beta_0 + \beta_1 \bullet Bell_i + W_j X_{ij} \quad (1)$$

Where p_i represents the probability of endorsing the "more positive" level of the binary outcome for the ith individual, regressed on an intercept term β_0, a binary sample indicator Bell_i which is equal to 1 for if the ith subject responded to the BXS survey and 0 if the ith subject responded to the ATP survey, and a vector of coefficients W_j for each of j subject-level demographic adjusters X_{i1} through X_{ij} for the ith subject. Significance tests of β_1 can be interpreted as tests for the difference in the adjusted probability of a "more positive" response between the BXS and ATP samples.

To obtain the covariate-adjusted percentages of BXS and ATP respondents who positively endorsed the binary outcome, we calculated the predictive margins of the outcome for both BXS and ATP respondents. This approach is also referred to as *recycled prediction* and is equivalent to using the estimated model covariates to obtain the average predicted probability of a "more positive" response for every individual in the data set if each were first treated as a BXS respondent, and then if each were treated as an ATP respondent, holding their other covariates constant at their observed values. In the absence of covariate adjustment, the method reproduces the conditional distribution of the outcome given sample membership and, in the presence of covariates, provides an average adjusted probability of, for example, the "more positive" response for each of the survey samples (Williams, 2012).

Postregression transformations of our models' regression coefficients allowed estimation of the covariate-adjusted percentages of survey respondents who chose the "more positive" versus the "more negative" options. Model adjustment covariates included race (white versus not white), gender (female versus male), highest education (masters' + versus less than masters' degree), and grades taught (secondary versus primary or both primary and secondary). We were not able to adjust for years of teaching experience because of data sparsity. Models included

inferential tests of differences detected in the probability of positively endorsing the comparison variable by the BXS fall sample versus the ATP sample. Results of these analyses are presented in the report and in Appendix H. Supplementary analyses using the same analytic approach on the entire ATP ($N = 645$) and BXS fall samples ($N = 560$) appear in Appendix D.

Comparing ATP Subgroups

As we described earlier, we calculated the survey responses of two subgroups of ATP respondents and their demographics using survey weighted tabulations. We noticed some potentially important differences in the demographic makeup of the subsets of the ATP data set and undertook model-based analyses to investigate the ATP data on its own, comparing the 497 respondents who reported participating in professional learning but did not report employment in a summer program to the set of 104 who endorsed employment in an academic summer program. The models again made use of dichotomized comparison variables as outcomes in survey-weighted logistic regression.

These ATP subgroup comparison models, shown in equation (2), were of a similar form to those in equation (1), where the sample membership indicator is set to Academic_i, a binary indicator equal to 1 for the 104 ATP respondents who reported employment in an academic summer program, and equal to 0 for those 497 who reported summer professional learning without employment in a program. The only statistically significant difference in demographic characteristics between the two subgroups described earlier was race, where the 104 in academic programs were significantly more diverse than those with professional learning but without summer employment. Therefore, the demographic coefficient estimate W_j is represents only the single subject-level indicator of White race/ethnicity X_{ij}:

$$\text{logit}(p_i) = \beta_0 + \beta_1 \bullet \text{Academic}_i + W_j X_{ij} \quad (2)$$

Predictive margins again provided our estimates of the adjusted percentages of "more positive" responses to the binary outcomes of interest. All data analyses were conducted using Stata version 15.1 (StataCorp, 2017). Results of these analyses are presented in Appendix E.

Limitations

As we noted in the main report, the analyses of survey data are descriptive, and we are not able to make causal statements attributing differences in survey responses to participation in the BXS program. Care must be taken to interpret observed differences in the context of a nonexperimental cross-sectional comparison of survey responses.

Our efforts to compare the BXS program with academic-focused summer programs nationally is limited in several ways. First, we are limited by some inconsistencies in survey administration. Although most of the items we compare across BXS and ATP samples were administered to both groups of teachers at the same time (fall 2019), a few comparable items

were administered to BXS teachers during the summer and to ATP teachers during the fall. For these questions, BXS teachers were responding about contemporary professional learning, and ATP teachers were responding about professional learning that had occurred over the summer. In addition, BXS teachers were offered a slightly smaller incentive ($10) for each survey they completed (a total of $20 for the teachers in our analytic sample, who completed both surveys) than ATP teachers, who were offered an incentive of $25 for their participation in a single survey. We found that BXS teachers were generally less experienced, less educated, more racially diverse, and more likely to be female than the ATP respondents who were employed in academic summer programs. While our modeling strategy adjusted for many of these differences, we were unable to adjust for differences in years of teaching experience because of data sparsity. It is possible that the differences in teaching experience between the two groups could be driving some of the differences we observed. It is also possible that other unmeasured differences in these samples may have contributed to the observed differences in their survey responses.

Second, we are limited by the lack of available information about some aspects of academic summer programs nationally. As we note in the main report, the BXS program appears to be similar to most of the academic summer programs in which teachers nationally were employed on some dimensions—academic focus, duration of the program, and ages of students served—and different on others (e.g., inclusion of academic subjects other than English language arts [ELA] and mathematics, emphasis on enrichment activities, length of the program). However, there are important characteristics of academic summer programs nationally for which we have no information, such as the demographic characteristics of the students served, whether students were required to attend summer school sessions, or whether the professional learning opportunities for teachers were mandatory. These incongruities in survey administration and the fact that we were only able to adjust for a limited set of sample characteristics could affect the comparability of the responses, and we urge readers to use caution when interpreting the results.

Appendix B. Qualitative Methods, Analysis, and Limitations

Qualitative Methods

The analyses of the qualitative data were designed to focus on the features of BXS professional learning, the perceptions and experiences of teachers about BXS professional learning, and the ways in which teachers perceived BXS professional learning to have influenced their teaching practices during the school year. Our analytic approach treated the BXS program as one example of an academic-focused summer program. We gathered qualitative data from BXS professional learning materials, interviews with BellXcel staff, in-person visits to three BXS sites, and follow-up phone interviews with select educators from the BXS site visits. These data are a complement to the survey data and provide rich examples of teachers' experiences. We describe each of the sources of qualitative data in the following subsections. Numbers of interview and focus group participants are summarized in Table B.1.

Review of BXS Professional Development Materials

BellXcel provided us with access to the professional learning materials they offered to their partner sites. These materials included teacher handbooks, slides used in large- and small-group professional learning sessions, prerecorded training webinars, instructional coaching checklists, lesson plan guidance and templates, and sample classroom materials (e.g., signs indicating classroom expectations). All these materials were made available to BXS teachers and/or site leaders through an online resource library, which teachers and site leaders could utilize at their discretion. We reviewed these materials to understand the content that was presented to BXS teachers in their professional learning and the different forms that professional learning took in BXS sites.

Interviews with BellXcel Staff

We conducted one-hour telephone interviews with key BellXcel staff who were responsible for the research, design, and implementation of BXS professional learning in spring 2019 (see Table B.1). Interviewers followed semistructured interview protocols to balance consistency in the questions asked and ensure coverage of important content while also allowing respondents to elaborate or offer unsolicited input. The interviews helped us gather information about the professional learning materials and experiences that were provided to teachers through their participation in BXS.

Table B.1. Numbers of Participants in Qualitative Data Collection Methods, 2019

Data Source	Method	*N* per Site Visit	Total *N*
BellXcel staff	BellXcel staff interviews	—	2
Site visits	Program manager interviews	1	3
	Instructional coach interviews	1	3
	Teacher focus groups	3–5	17
	Professional learning session observations	1	3
	Coaching session observations	0–1	2
	Classroom observations	2–4	9
	Teacher phone interviews	1–4	6

NOTES: We conducted two visits to each of the three BXS sites. We interviewed program managers and instructional coaches and conducted a focus group with teachers at each visit. We observed coaching interactions and classroom instruction during the second visit. The total *N* for these methods represents the number of individuals who participated rather than the total number of interviews or focus groups.

Site Visits

We conducted two-day, in-person visits at three BXS sites during summer 2019. We visited each site twice—once before the program opened and again in the last two weeks of the program. The purpose of the site visits was to gather in-depth information about the extent to which BXS professional learning approaches were consistent with best practices in adult learning and to gather staffs' perceptions of and experiences with BXS professional learning and how BXS professional learning affected their school-year instructional practices. During both site visits across our three sites, we conducted a focus group with three to five teachers and interviewed the instructional coach and site program manager. At the first visit, we observed approximately a day and a half of staff training sessions at each site. At the second visit, we observed one coaching session in two sites and two to three periods of classroom instruction in all sites. Table B.1 shows the number of interviews, focus groups, and observations conducted and the number of participants, across the six site visits.

The scope of the study allowed us to visit only a small number of BXS sites. Thus, we selected the sites purposefully to represent a range of BXS partner programs that were consistent in some attributes and varied across certain key characteristics (Yin, 2017). All the sites had at least two years of experience implementing the BXS program and met BellXcel's internal criteria for high-quality implementation. Sites varied in terms of partnership type (i.e., community-based organization [CBO] or district), student enrollment, and grade levels served. Responsibility for planning and leading the teacher training generally depends upon site partnership type (i.e., CBO or district). When CBOs such as YMCAs or Boys & Girls Clubs implement the BXS model, BellXcel provides training and support to the site-level CBO staff who oversee training for teachers in their sites. When districts implement the BXS model, a BellXcel staff member typically leads teacher training. Most BXS sites served 100 students or

fewer; about 16 percent of sites served more than 150 students. Therefore, we selected two sites that served fewer than 150 students and one site that served more than 150 students. Table B.2 presents the characteristics of these sites.

Table B.2. Characteristics of BellXcel Summer Sites, 2019

Site	Partnership Type	Estimated Student Enrollment	Grade Levels Served
Site 1	CBO	192	K–4
Site 2	District	100	5–6
Site 3	CBO	120	K–5

The purpose of the first site visit was to observe the professional learning that was provided to teachers prior to the start of the BXS program. During the first visit to each site, we interviewed the program manager and instructional coach and conducted a focus group of three to five teachers and assistant teachers. The interviews and focus groups each lasted 45 to 60 minutes. We also observed the professional learning sessions that occurred during our visit. We worked with the program site manager of each site to recruit and select teachers for the focus group to ensure variability in role (e.g., teacher, assistant teacher), previous experience working for BXS, subjects taught, and grade level, if applicable. If teachers declined or were unavailable, the program site manager helped recruit additional teachers to ensure variability in important teacher characteristics (e.g., role, years of teaching experience). We used semistructured interview and focus group protocols to promote consistency in the questions asked across sites and to ensure coverage of important content, while also allowing respondents to elaborate or offer unsolicited input. The observation protocols were also semistructured to capture specific conditions of interest (e.g. opportunities for active engagement and content-specific information were noted in the professional learning session protocol), while allowing observers to capture the diversity of topics and instructional practices.

The purpose of the second site visit was to observe other components of BXS professional learning, such as instructional coaching and active experimentation, and to gather staff impressions of their BXS professional learning and experience. During the second visit, we again interviewed the program manager and instructional coach and conducted a focus group of three to five teachers or assistant teachers. We invited the same educators who participated in the focus group during the first site visit to participate. We replaced participants who were unavailable or declined to participate with other teachers with similar backgrounds and experience. As shown in Table B.1, we observed instruction in nine classrooms, three per site. Classroom observation protocols captured evidence and descriptions of BellXcel's key instructional strategies (e.g., student-centered instruction, positive behavior management). We also observed coaching sessions, in which the instructional coach provided feedback to teachers (one-on-one, as well as a coach working with two teachers in one session). We were unable to schedule an observation of

coaching in one site because the instructional coach was away during our scheduled visit. The coaching session observation protocols were open ended to allow observers to capture a diversity of coaching techniques, topics, and instructional strategies. The observers captured evidence and descriptions of coaching practices, including the extent to which teachers were provided with actionable and nonevaluative feedback from their coach. We provided each focus group participant with a $20 gift card to thank them for their time. We provided each site with a $200 honorarium in appreciation of the time spent organizing the visit.

Teacher Telephone Interviews

In winter 2020, we conducted telephone interviews with BXS teachers who participated in the summer 2019 focus groups. The purpose of the interview was to understand teachers' perceptions of the professional learning they received through BXS, how BXS professional learning compared to their school or district-provided professional learning, and how their BXS experience contributed to their school-year classroom practice. The interviews lasted between 45 and 60 minutes and covered such topics as school-year professional learning, conditions that enabled teachers' use of BellXcel's key instructional practices during the school year, and professional learning opportunities during BXS. We invited all 17 teachers who participated in the summer site-visit focus groups to participate in these interviews; six teachers participated with between one and four teachers participating from each site. We conducted these interviews at the beginning of the coronavirus disease 2019 pandemic, just as school buildings were closing and teachers were adjusting to remote instruction. We believe this confluence of circumstances contributed to the lower-than-expected response rate for these interviews. We provided teachers who participated in an interview with a $20 gift card to thank them for their time.

Analytic Method

Two team members analyzed the qualitative data by creating tables in Microsoft Word that allowed us to concisely synthesize site-level themes and visually compare themes across sites for areas of interest. The analysis of site visit and interview data proceeded in several steps. First, interview and focus group notes were compared with the audio recording and cleaned to serve as a near-transcript of the conversation. During classroom, coaching, and training session observations, we recorded field notes in Excel spreadsheet templates designed to capture salient information about specific professional learning practices (e.g., opportunities for active engagement), specific coaching practices (e.g., providing teachers with actionable feedback), and teacher use of specific classroom practices (e.g., use of positive behavior management techniques). We engaged in member checking as appropriate to ensure data accuracy. The cleaned interview and focus group transcripts and observation notes were then analyzed according to a codebook developed to capture themes related to best practices for teacher professional learning, teacher use of specific practices, and facilitators and barriers for teacher

summer and school-year practices. For all qualitative data, coders double-coded selected transcripts and field notes for each site and discussed coding decisions and the content of summaries throughout the process to ensure reliability. We synthesized these themes in site-level summaries and in a summary that compared themes across sites. The site-level summaries were then further synthesized into a summary of key themes across sites.

For the teacher telephone interviews—which occurred in winter 2020, after the summer site visits and subsequent analysis—we reviewed all interview transcripts and synthesized responses across interview questions according to prominent themes from site visits for which we were gathering deeper information. We integrated key themes and additional insights from the telephone interviews into the key themes developing from the site visits. Any inconsistencies in coding were discussed by the coding team, revised in the data, and resulted in updates to the codebook. We triangulated the qualitative data with the BXS survey data to provide context and detail to those results.

Limitations

The qualitative data were drawn from a variety of sources and provide a rich picture of BXS teachers' perceptions of their professional learning experiences. At the same time, readers should keep in mind the limitations of the data sources. First, BXS takes place in approximately 150 sites across the country each summer, and our analysis includes only three sites. While the qualitative data suggest themes that are relevant across sites and across teachers interviewed, we do not have sufficient information to make claims about their generalizability to all BXS sites. Second, interview and focus group data rely on the self-reports of the stakeholders who voluntarily participated. While our observations provide some insight into the accuracy of their self-assessments, observations were limited to two timepoints only, and we cannot independently verify the accuracy of interview and focus group participants' responses. Finally, although the site visit and interview data are crucial for providing richness and context, they include only a subset of staff at each site and are not representative samples of the full populations of staff at the BXS sites.

Appendix C. ATP Survey Results

Table C.1. ATP Survey Respondent Characteristics

Characteristic	Percentage of Respondents
Grades taught (*N* = 645)	
K–5th only	44
Both K–5th and 6th–12th	4
6th–12th only	52
Summer teaching experience (*N* = 147)	
One summer	24
2+ summers	76
Years of teaching experience (*N* = 628)	
1–3 years	2
4+ years	98
Race/ethnicity (*N* = 583)	
Black	6
White	82
Hispanic	6
Multiracial/other	5
Gender (*N* = 600)	
Female	77
Male	23
School type (*N* = 624)	
District-run school	96
Charter school	3
Private or parochial school	1
Other	0
Education level (*N* = 628)	
Less than a bachelor's degree	0
Bachelor's degree	40
Master's degree or higher	59
Professional license program (*N* = 624)	
Through an undergraduate or graduate teacher preparation program	76
Through an alternative preparation program (e.g., Teach for America)	10
Courses taken after attainment of undergraduate or bachelor's degree	11
No formal preparation program	2
Other	1

NOTES: All percentages shown are weighted to represent national distribution. Percentages may not sum to 100 due to rounding.

Table C.2. Type of Summer Program Where Respondents Were Employed in Summer 2019

Program Type	Percentage of Respondents
Specialty program focused on activities promoting skills of the specialty topic or area of interest, such as sports, arts, science and technology, youth development (e.g., soccer, drama, coding, Girl Scouts, Boy Scouts)	5
Multipurpose program focused on a variety of activities that might include recreation activities or enrichment activities but that does not include formal instruction in academic content (e.g., childcare for children older than 5, Boys & Girls clubs)	2
Academic program focused on instruction in academic content (e.g., ELA, mathematics, science, social studies) but which also may include recreation activities or enrichment activities (e.g., field trips or athletic activities)	16
I was not employed in a summer program in 2019	77

NOTES: Question text: "In *summer of 2019* were you employed at a summer program that meets any of the following criteria?" Percentages may not sum to 100 due to rounding. *N* = 645.

Table C.3. Respondents' Participation in Professional Learning Activities in Summer 2019

	Percentage of Respondents Who Answered		
Professional Learning Activity	**No**	**Yes**	**Don't Know**
Attended a conference	68	32	0
Wrote curriculum	68	32	0
Wrote assessments	69	30	0
Participated in professional learning communities	40	60	0
Took courses or seminars, either online or in person	56	44	0
Collaborated with colleagues to plan for the upcoming school year	19	81	0
Read books or articles related to education	14	86	0
Mentored another colleague or received mentoring from a colleague	69	30	0
Attended in-person professional learning	40	60	0
Received feedback from an administrator or instructional coach	64	36	0
Other	87	6	7

NOTES: Question text: "In *summer of 2019* did you participate in any of the following professional learning activities?" Percentages may not sum to 100 due to rounding. *N* = 645; Other *N* = 351.

Table C.4. Number of Professional Learning Activities Respondents Participated in During Summer 2019

Number of PL Activities	Number of Respondents Reporting This Number of Activities	Percent	Cumulative Percent
0	2	0.4	
1	45	7.0	7.3
2	63	9.7	17.1
3	85	13.2	30.2
4	89	13.8	44.0
5	107	16.6	60.6
6	85	13.1	73.7
7	69	10.8	84.5
8	43	6.7	91.2
9	36	5.5	96.7
10	20	3.1	99.8
11	1	0.2	100.0

NOTES: This table presents the number (count) of professional learning activities (listed in Table C.3) respondents reported participating in during summer 2019. Percentages are rounded to the nearest tenth of a percent in this table to capture the small numbers of individuals who participated in zero activities and 11 activities. *N* = 645.

Table C.5. Proportion of 2019 Professional Learning Activities Taken by Respondents That Their Districts Required or Provided

	Percentage of Respondents Who Answered		
Professional Learning Activity	**No**	**Yes**	**Don't Know**
Attended a conference	43	57	0
Wrote curriculum	49	51	1
Wrote assessments	53	46	1
Participated in professional learning communities	37	63	1
Took courses or seminars, either online or in person	44	56	0
Collaborated with colleagues to plan for the upcoming school year	56	44	0
Read books or articles related to education	71	29	1
Mentored another colleague or received mentoring from a colleague	60	40	1
Attended in-person professional learning	27	72	1
Received feedback from an administrator or instructional coach	39	60	1
Other	71	29	0

NOTES: Question text: "Were any of the professional learning activities you participated in *during summer 2019* required or provided by your school district?" This question was asked only of respondents who answered that they had participated in at least one professional learning activity in summer 2019 (Table C.3). Percentages may not sum to 100 due to rounding. *N* = 202–554.

Table C.6. Number of Days Respondents Participated in Professional Learning Activities in Summer 2019

	Percentage of Respondents Who Answered			
Professional Learning Activity	**1 Day**	**2–5 Days**	**>5 Days**	**Don't Know**
Attended a conference	24	57	17	2
Wrote curriculum	9	40	49	2
Wrote assessments	15	50	33	2
Participated in professional learning communities	17	55	24	4
Took courses or seminars, either online or in person	14	50	33	3
Collaborated with colleagues to plan for the upcoming school year	13	59	27	1
Read books or articles related to education	6	36	53	4
Mentored another colleague or received mentoring from a colleague	11	54	29	6
Attended in-person professional learning	19	63	15	3
Received feedback from an administrator or instructional coach	32	50	10	9
Other	11	41	49	0

NOTES: Question text: "Approximately how many days *during summer 2019* did you participate in each of these activities?" This question asked only about the professional learning opportunities that respondents had indicated they participated in during summer 2019 (Table C.3). Percentages may not sum to 100 due to rounding. *N* = 199–554; Other *N* = 23.

Table C.7. Duration of Summer Programs in Which Respondents Were Employed in Summer 2019

Number of Weeks	Percentage of Respondents
1 or less	22
2–4	49
5–10	24
More than 10	5
Don't know	1

NOTES: Question text: "How many weeks was the duration of a single session of the summer program where you were employed *in summer 2019*? If your program did not include multiple sessions, respond as to the length of the program." This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 148.

Table C.8. Days per Week of Summer Programs in Which Respondents Were Employed in Summer 2019

Number of Days	Percentage of Respondents
1–2	17
3–5	81
Don't know	2

NOTES: Question text: "How many days per week was the summer program where you were employed *in summer 2019*?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 148.

Table C.9. Hours per Day of Student Attendance at Summer Programs in Which Respondents Were Employed in Summer 2019

Hours per Day	Percentage of Respondents
Less than 1	1
2–4	47
5–8	45
More than 8	4
Don't know	4

NOTES: Question text: "How many hours per day did students attend the summer program where you were employed in summer 2019?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 148.

Table C.10. Expected Student Attendance at Summer Programs in Which Respondents Were Employed in Summer 2019

Frequency	Percentage of Respondents
There was no expectation for consistent attendance (e.g., students dropped in periodically and may not have been present every day or week).	13
Students were expected to attend 1–2 days per week	6
Students were expected to attend 3–4 days per week	16
Students were expected to attend every day	60
Don't know	6

NOTES: Question text: "In general, how frequently were students in the summer program where you were employed *in summer 2019* expected to attend?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 148.

Table C.11. Student Ages at Summer Programs in Which Respondents Were Employed in Summer 2019

	Percentage of Respondents Who Answered	
Years of Age	No	Yes
Younger than age 4	96	4
Ages 5 to 10	53	47
Ages 11 to 13	63	37
Ages 14 to 18	59	41
Older than 18	97	3
Don't know	96	4

NOTES: Question text: "What ages of students were enrolled in the summer program where you were employed *in summer 2019* (select all that apply)?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 148.

Table C.12. Components of Summer Programs in Which Respondents Were Employed in Summer 2019

	Percentage of Respondents Who Answered		
Component	**No**	**Yes**	**Don't Know**
Instruction in math and/or ELA	28	70	2
Instruction in other academic subjects (e.g., science, social studies)	41	57	1
Field trips with an educational focus (e.g., to museums, documentary films, or artistic performances)	67	29	4
Individual or team sports	80	18	2
Fine arts (e.g., music or painting)	67	30	3
Field trips without an academic focus (e.g., to an amusement park)	78	19	3

NOTES: Question text: "Did the summer program where you were employed *in summer 2019* include any of the following components?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 148.

Table C.13. Instruction Curricula Provided at Summer Programs in Which Respondents Were Employed in Summer 2019

	Percentage of Respondents Who Answered		
Subject	**No**	**Yes**	**Don't Know**
Math	35	63	1
ELA	21	78	1
Science, including robotics or engineering	31	66	3
Social studies, including history, civics, or government	58	40	1

NOTES: Question text: "Did the summer program where you were employed *in summer 2019* provide a curriculum for instruction in any of the following subjects?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 that included academic instruction (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 85–105.

Table C.14. Subjects Taught, Supervised, or Supported During the Summer Program in Which Respondents Were Employed in Summer 2019

	Percentage of Respondents Who Answered	
Subject	**No**	**Yes**
Math	49	51
ELA	29	71
Science, including robotics or engineering	49	51
Social studies, including history, civics, or government	66	34

NOTES: Question text: "Did you provide, supervise, or support instruction in any of the following subjects during your *2019 summer* program?" This question was asked only of respondents who answered that they were employed by an academic summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 86–105.

Table C.15. Role of Respondents Employed by a 2019 Summer Program

	Percentage of Respondents Who Answered	
Role	**No**	**Yes**
Teacher	19	81
Assistant teacher/paraprofessional	98	2
Enrichment/extracurricular teacher	93	7
Program manager or assistant program manager	92	8
Instructional coach	96	4
Athletic coach	92	8
Counselor or assistant counselor	100	0
Other	95	5

NOTES: Question text: "What was your role in the summer program where you were employed in summer 2019?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 148.

Table C.16. Respondents' Years of Experience Working at the Summer Program in Which They Were Employed in Summer 2019

Experience	**Percentage of Respondents**
1 summer (i.e., 2019 was my first summer)	24
2 summers	16
3 summers	12
4 summers	11
5–9 summers	21
10 or more summers	15

NOTES: Question text: "How many summers of experience do you have working in the summer program where you were employed *in summer 2019*?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 due to rounding. *N* = 147.

Table C.17. Respondents' Assessment of Summer 2019 Professional Learning Opportunities

Criterion	Percentage of Respondents Who Answered			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Were coherent (e.g., the content was clear and made sense)	2	5	70	23
Were cohesive (e.g., there was a clear connection between different topics and sessions, they did not contradict one another)	3	14	64	20
Helped me develop instructional skills that I can apply to any subject area	3	14	64	20
Helped me develop instructional skills that are specifically applicable to the subject area I teach	3	11	65	21
Included opportunities for me to reflect on my own practice, either by myself or with others	2	9	62	28
Included opportunities for me to practice new skills or instructional strategies	3	18	58	21
Were relevant to my instruction this school year	2	8	62	28
Helped me improve my classroom instructional practice	2	9	65	24

NOTES: Question text: "Indicate your agreement that the professional learning opportunities you participated in during the *summer of 2019* met each of the following criteria." Percentages may not sum to 100 due to rounding. *N* = 638–640.

Table C.18. Extent to Which Respondents Found Summer 2019 Professional Learning Opportunities Helpful for Improving Their 2019–2020 School-Year Instruction

	Percentage of Respondents Who Answered			
		I Received This and		
Professional Learning Opportunity	I Did Not Receive This	Found It Unhelpful	Found It Somewhat Helpful	Found It Very Helpful
Observations of my classroom performed by an administrator and followed by feedback	68	5	17	10
Observations of my classroom performed by a coach and followed by feedback	77	3	12	7
One-on-one coaching sessions	83	1	9	7
Collaborating on instruction with my colleagues	25	3	35	37
Opportunities to observe other educators' classrooms	77	2	11	9
Group coaching sessions with my peers	71	2	17	10
Analyzing student work with my colleagues	63	3	21	13
Large-group training or in-service sessions held in person	41	10	35	14
Small-group training or in-service sessions held in person	45	4	31	19
Conferences or convenings	60	3	22	15
Online courses or training sessions	62	5	19	14
Mentoring from a peer or colleague	74	1	15	10
Other	93	0	2	4

NOTES: Question text: "Please indicate whether you have received each of the following kinds of professional learning opportunities during *summer 2019*, and the extent to which you found them helpful for improving your instruction *this school year (2019–20)*." Percentages may not sum to 100 due to rounding. *N* = 637–638; Other *N* = 353.

Table C.19. Extent to Which Summer 2019 Professional Learning Opportunities Prepared Respondents to Use Instructional Strategies in the 2019–2020 School Year

	Percentage of Respondents Who Answered				
		PL Addressed Strategy			
Instructional Strategy	PL Didn't Address Strategy	But I Don't Feel Prepared to Use It	I Feel Somewhat Prepared to Use It	I Feel Very Prepared to Use It	Strategy N/A to My Role
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	42	3	20	32	3
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	30	2	21	43	3
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	26	4	24	44	3
Using data on student performance to inform your instruction	35	5	22	35	3
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	32	5	23	37	2
Implementing collaborative teaching (e.g., coteaching, team teaching)	52	4	14	24	5
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	42	2	17	38	2
Using a variety of strategies to check for students' understanding	30	2	24	42	2
Using questioning strategies to promote students' critical thinking	33	5	21	40	2

NOTES: Question text: "Please indicate whether the professional learning opportunities you received during *summer 2019* addressed each of these instructional strategies, and the extent to which these opportunities prepared you to use each of these strategies in your classroom *this school year (2019–20)*." PL = professional learning; N/A = not applicable. Percentages may not sum to 100 due to rounding. *N* = 635–636.

Table C.20. Extent of Change in Respondents' Use of Instructional Strategies in School Year 2019–2020 After 2019 Summer Program

Instructional Strategy	Percentage of Respondents Who Answered				
	Didn't Use Strategy in School-Year Instruction	Use of Strategy Decreased	Use of Strategy Stayed the Same	Use of Strategy Increased	Strategy N/A to My Role
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	13	2	45	37	4
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	7	1	38	51	3
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	7	2	41	48	2
Using data on student performance to inform your instruction	7	1	46	43	3
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	7	0	42	49	1
Implementing collaborative teaching (e.g., coteaching, team teaching)	25	1	38	29	7
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	5	1	47	46	1
Using a variety of strategies to check for students' understanding	3	1	44	50	2
Using questioning strategies to promote students' critical thinking	3	1	45	50	1

NOTES: Question text: "Please indicate whether your use of each of these instructional strategies *during the school year* changed after your *summer 2019 professional learning experiences*." Percentages may not sum to 100 due to rounding. *N* = 636.

Table C.21. Extent to Which 2019 Summer Instructional Strategies Improved Respondents' School-Year Practice

	Percentage of Respondents Who Answered			
Instructional Strategy	**Not at All**	**To a Small Extent**	**To a Moderate Extent**	**To a Great Extent**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	23	30	36	11
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	18	27	39	15
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	19	26	38	17
Using data on student performance to inform your instruction	22	26	34	19
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	19	27	37	17
Implementing collaborative teaching (e.g., coteaching, team teaching)	30	25	30	15
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	22	24	38	16
Using a variety of strategies to check for students' understanding	19	24	41	16
Using questioning strategies to promote students' critical thinking	20	24	37	18

NOTES: Question text: "Please indicate the extent to which the professional learning opportunities you received *during summer 2019* helped you improve your practice in each of these instructional strategies *this school year*?" This question was asked only of respondents who answered that they used each of these strategies during the school year in the previous question (i.e., who responded that their use of the strategy decreased, stayed the same, or increased in the previous question [Table C.20]). Percentages may not sum to 100 due to rounding. *N* = 434–604.

Table C.22. Respondents' Assessment of Summer Programs in Which They Were Employed in Summer 2019

	Percentage of Respondents Who Answered				
Statement	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A to My Role in Summer Program**
I felt comfortable experimenting with new instructional practices during the summer	1	3	36	50	10
I felt energized by my work in my summer program	2	10	39	44	4
I learned new instructional practices	5	18	35	36	6
The professional learning opportunities or training helped me improve my practice	1	16	38	36	9
I had enough classroom materials (e.g., paper, pencils)	3	9	34	45	8
I had enough curriculum materials (e.g., books, lesson plans)	5	14	31	43	7
My class sizes were manageable	2	5	41	44	8
The professional learning opportunities or training included practical application of skills	2	13	36	35	14
The professional learning opportunities or training taught me new instructional practices	3	19	38	26	15
I felt pressure to achieve certain outcomes for students	9	32	27	22	9
I felt pressure to cover certain content or topics in my instruction	9	29	27	24	10

NOTES: Question text: "Please indicate your level of agreement with each of the following statements about the program where you were employed *in summer 2019*?" This question was asked only of respondents who answered that they were employed by a summer program in 2019 (Table C.2). Percentages may not sum to 100 percent due to rounding. $N = 145$.

Table C.23. Respondents' Assessment of School- or District-Provided Professional Learning Opportunities

Criterion	Percentage of Respondents Who Answered			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Were coherent (e.g., the content was clear and made sense)	3	11	72	14
Were cohesive (e.g., there was a clear connection between different topics and sessions, and they did not contradict one another)	3	13	70	14
Helped me develop instructional skills that I can apply to any subject area	5	18	62	14
Helped me develop instructional skills that are specifically applicable to the subject area I teach	7	19	61	14
Included opportunities for me to reflect on my own practice, either by myself or with others	4	14	66	16
Included opportunities for me to practice new skills or instructional strategies	6	22	58	13
Were relevant to my instruction this school year	5	14	65	16
Helped me to improve my classroom instructional practice	5	17	62	16

NOTES: Question text: "Indicate your agreement that the professional learning opportunities you received *from your school or district* met each of the following criteria." Percentages may not sum to 100 due to rounding. *N* = 629.

Table C.24. Extent to Which Respondents Found School- or District-Provided Professional Learning Opportunities Helpful for Improving Their Instruction

	Percentage of Respondents Who Answered			
Professional Learning Opportunity	**I Did Not Receive This**	**I Found It Unhelpful**	**I Found It Somewhat Helpful**	**I Found It Very Helpful**
Observations of my classroom performed by an administrator and followed by feedback	57	8	25	11
Observations of my classroom performed by a coach and followed by feedback	73	4	16	7
One-on-one coaching sessions	79	2	12	8
Collaborating on instruction with my colleagues	20	4	43	33
Opportunities to observe other educators' classrooms	71	2	16	10
Group coaching sessions with my peers	64	4	22	10
Analyzing student work with my colleagues	46	7	31	16
Large-group training or in-service sessions held in person	21	18	45	16
Small-group training or in-service sessions held in person	31	9	42	18
Conferences or convenings	52	7	27	14
Online courses or training sessions	55	10	25	10
Mentoring from a peer or colleague	71	2	16	11
Other	95	0	3	2

NOTES: Question text: "Please indicate whether you have received each of the following kinds of professional learning opportunities *from your school or district—including PL received from your school/district in the week(s) leading up to the school* year—and the extent to which you found them helpful for improving your instruction." Percentages may not sum to 100 due to rounding. *N* = 628–631; Other *N* = 340.

Table C.25. Extent to Which School- or District-Provided Professional Learning Opportunities Prepared Respondents to Use Instructional Strategies in Their Classrooms

	Percentage of Respondents Who Answered				
		PL Addressed Strategy			
Instructional Strategy	PL Didn't Address Strategy	But I Don't Feel Prepared to Use It	I Feel Somewhat Prepared to Use It	I Feel Very Prepared to Use It	Strategy N/A to My Role
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	34	4	23	36	2
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	29	3	23	43	3
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	24	4	28	41	3
Using data on student performance to inform your instruction	23	6	29	40	2
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	25	5	28	41	1
Implementing collaborative teaching (e.g., coteaching, team teaching)	45	3	20	27	6
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	28	3	24	44	1
Using a variety of strategies to check for students' understanding	27	3	27	41	1
Using questioning strategies to promote students' critical thinking	28	4	27	40	1

NOTES: Question text: "Please indicate whether the professional learning opportunities you have *received from your school or district* covered each of these instructional strategies, and the extent to which these opportunities prepared you to use each of these strategies in your classroom?" Percentages may not sum to 100 due to rounding. *N* = 629–630.

Table C.26. Extent to Which School- or District-Provided Professional Learning Opportunities Improved Respondents' Instructional Practice

	Percentage of Respondents Who Answered			
Instructional Strategy	**Not at All**	**To a Small Extent**	**To a Moderate Extent**	**To a Great Extent**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	23	26	39	12
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	23	24	37	16
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	20	22	40	17
Using data on student performance to inform your instruction	19	23	40	19
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	20	24	36	21
Implementing collaborative teaching (e.g., coteaching, team teaching)	29	22	32	17
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	20	22	38	20
Using a variety of strategies to check for students' understanding	19	24	40	17
Using questioning strategies to promote students' critical thinking	21	22	38	18

NOTES: Question text: "Please indicate the extent to which the professional learning opportunities you have *received from your school or district* helped you *improve your practice* in each of these instructional strategies?" This question asked only about the strategies for which respondents indicated that their use of had decreased, stayed the same, or increased (Table C.20). Percentages may not sum to 100 due to rounding. N = 429–598.

Table C.27. Respondents' Assessment of Their 2019–2020 School-Year Experiences

Statement	Percentage of Respondents Who Answered				
	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A to My Role
I felt comfortable experimenting with new instructional practices during the school year	2	3	46	47	2
I felt energized by my work in my school	5	13	47	33	1
I learned new instructional practices	2	11	50	35	2
The professional learning opportunities or training helped me improve my practice	6	15	49	29	2
I had enough classroom materials (e.g., paper, pencils)	7	15	44	33	2
I had enough curriculum materials (e.g., books, lesson plans)	7	17	46	29	1
My class sizes were manageable	9	17	46	26	2
The professional learning opportunities or training included practical application of skills	8	16	53	22	2
The professional learning opportunities or training taught me new instructional practices	7	18	52	22	1
I felt pressure to achieve certain outcomes for students	4	15	41	37	2
I felt pressure to cover certain content or topics in my instruction	4	15	40	38	3

NOTES: Question text: "Please indicate your level of agreement with each of the following statements about your experience *this school year (2019–20)*." Percentages may not sum to 100 due to rounding. *N* = 628–630.

Table C.28. Respondents' Overall Confidence Level Entering the School Year After Their 2019 Summer Experience

Level	Percentage of Respondents
Not at all confident	2
A little confident	13
Somewhat confident	39
Very confident	46

NOTES: Question text: "Overall, how confident did you feel entering the school year following your 2019 summer experience (e.g., summer program or professional learning opportunities)?" Percentages may not sum to 100 due to rounding. *N* = 628.

Table C.29. Respondents' Overall Energy Level Entering the School Year After Their 2019 Summer Experience

Level	Percentage of Respondents
Not at all energized	7
A little energized	18
Somewhat energized	43
Very energized	32

NOTES: Question text: "Overall, how energized did you feel entering the school year following your 2019 summer experience (e.g., summer program or professional learning opportunities)?" Percentages may not sum to 100 due to rounding. *N* = 628.

Table C.30. Respondents' Overall Satisfaction with Their 2019 Summer Experience

Scale	Percentage of Respondents
1 = Extremely dissatisfied	1
2 = Dissatisfied	5
3 = Neutral	30
4 = Satisfied	48
5 = Extremely satisfied	15

NOTES: Question text: "Looking back, please rate your overall satisfaction with your 2019 summer experience (e.g., summer program or professional learning opportunities) on a scale of 1–5, with 1 representing 'Extremely dissatisfied' and 5 representing 'Extremely satisfied.'" Percentages may not sum to 100 due to rounding. *N* = 627.

Appendix D. Regression-Adjusted Comparisons of ATP National Survey to BXS Fall Survey

Table D.1. Survey Respondent Characteristics

	Percentage of BXS Teachers from Fall Survey	Percentage of ATP Teachers
Race/ethnicity **		
White	51	82
Nonwhite	49	18
Gender **		
Female	87	77
Male	13	23
Grade levels **		
K–5	72	44
6–12	22	52
Both	6	4
Years of teaching experience **		
0–3 years	20	2
4+ years	80	98
Education **		
Less than a bachelor's degree	10	0
Bachelor's degree or higher	90	100

NOTES: The characteristics presented in this table are based on the full analytic sample of the BXS fall survey. Percentages reflect nonmissing responses only. BXS $N = 560$; ATP $N = 645$. Asterisks indicate statistically significant differences in adjusted percentages: $^{**}p < 0.01$.

Table D.2. Extent to Which Use of Instructional Strategies Changed in the 2019–2020 School Year After Teachers' Summer 2019 Professional Development Experiences

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Instructional Strategy	Use of Strategy Decreased	Use of Strategy Increased or Stayed the Same	Use of Strategy Decreased	Use of Strategy Increased or Stayed the Same
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)*	0	100	3	97
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	1	99	2	98
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)*	0	100	3	97
Using data on student performance to inform your instruction**	1	100	9	91
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	—	—	—	—
Implementing collaborative teaching (e.g., coteaching, team teaching)	1	99	2	98
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	—	—	—	—
Using a variety of strategies to check for students' understanding*	1	100	3	97
Using questioning strategies to promote students' critical thinking**	0	100	3	97

NOTES: Question text: "Please indicate whether your use of each of these instructional strategies *during the school year* changed after your *2019 summer program*?" Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. Missing data (shown as —) are the result of inestimable adjusted percentages due to data sparsity. BXS N = 438–494; ATP N = 78–92. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table D.3. Extent to Which Summer 2019 Professional Learning Opportunities Improved Teachers' Practice in 2019–2020 School Year

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Instructional Strategy	**None or to a Small Extent**	**To a Moderate or Great Extent**	**None or to a Small Extent**	**To a Moderate or Great Extent**
Grouping students in different ways (e.g., with students at similar or differing achievement levels)**	38	62	49	51
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)*	35	65	42	58
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)*	33	67	41	59
Using data on student performance to inform your instruction	38	63	44	56
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction**	26	74	42	58
Implementing collaborative teaching (e.g., coteaching, team teaching)**	38	62	52	48
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)**	31	69	42	58
Using a variety of strategies to check for students' understanding	35	66	39	61
Using questioning strategies to promote students' critical thinking	34	66	41	59

NOTES: Question text: "Please indicate the extent to which the professional learning opportunities you received *during summer 2019* helped you improve your practice in each of these instructional strategies *this school year*?" Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. BXS N = 466–490; ATP N = 78–93. Asterisks indicate significant difference in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table D.4. Teachers' Assessment of Their 2019 Summer Program

Statement	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
	Disagree or Strongly Disagree	Agree or Strongly Agree	Disagree or Strongly Disagree	Agree or Strongly Agree
I felt comfortable experimenting with new instructional practices during the summer	7	93	6	94
I felt energized by my work in my summer program	12	88	15	85
I learned new instructional practices	24	76	18	82
The professional learning opportunities or training helped me improve my practice**	23	77	13	88
I had enough classroom materials (e.g., paper, pencils)	22	78	19	81
I had enough curriculum materials (e.g., books, lesson plans)	20	80	23	77
My class sizes were manageable	11	89	16	84
The professional learning opportunities or training included practical application of skills	21	79	17	83
The professional learning opportunities or training taught me new instructional practices**	34	67	17	83
I felt pressure to achieve certain outcomes for students**	55	45	41	59
I felt pressure to cover certain content or topics in my instruction**	58	42	37	63

NOTES: Question text: "Please indicate your level of agreement with each of the following statements about the program where you were employed *in summer 2019*." Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. BXS N = 468–497; ATP N = 84–91. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table D.5. Teachers' Assessment of Alignment Between School- or District-Provided Professional Learning Opportunities and Best Practices

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Criterion	Disagree or Strongly Disagree	Agree or Strongly Agree	Disagree or Strongly Disagree	Agree or Strongly Agree
Were coherent (e.g., the content was clear and made sense)	10	90	18	82
Were cohesive (e.g., there was a clear connection between different topics and sessions, they did not contradict one another)	12	88	18	82
Helped me develop instructional skills that I can apply to any subject area*	14	86	24	76
Helped me develop instructional skills that are specifically applicable to the subject area I teach	15	85	21	79
Included opportunities for me to reflect on my own practice, either by myself or with others	15	85	13	88
Included opportunities for me to practice new skills or instructional strategies	14	86	21	80
Were relevant to my instruction this school year	13	87	16	84
Helped me to improve my classroom instructional practice	14	87	17	83

NOTES: Question text: "Indicate your agreement that the professional learning opportunities you received *from your school or district* met each of the following criteria." Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. BXS N = 498–500; ATP N = 95. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table D.6. Extent to Which Teachers Found School- and District-Provided Professional Learning Opportunities Helpful in Improving Their Instruction

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Criterion	Found PL Unhelpful	Found PL Helpful or Very Helpful	Found PL Unhelpful	Found PL Helpful or Very Helpful
Observations of my classroom performed by an administrator and followed by feedback**	7	93	21	79
Observations of my classroom performed by a coach and followed by feedback*	6	94	20	80
One-on-one coaching sessions**	3	97	21	79
Collaborating on instruction with my colleagues	1	99	3	97
Opportunities to observe other educators' classrooms	4	96	8	92
Group coaching sessions with my peers	3	97	8	92
Analyzing student work with my colleagues	6	94	12	88
Large-group training or in-service sessions held in-person	15	85	19	81
Small-group training or in-service sessions held in person	8	92	9	91
Conferences or convenings	7	93	10	90
Online courses or training sessions	14	86	14	86
Mentoring from a peer or colleague*	3	97	12	88

NOTES: Question text: "Please indicate whether you have received each of the following kinds of professional learning opportunities *from your school or district—including PL received from your school/district in the week(s) leading up to the school year*—and the extent to which you found them helpful for improving your instruction." Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. BXS N = 228–443; ATP N = 36–81. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table D.7. Extent to Which Teachers Felt Prepared to Use Instructional Strategies Covered in School- or District-Provided Professional Learning Opportunities

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Instructional Strategy	**Did Not Feel Prepared to Use Strategy**	**Felt Very or Somewhat Prepared to Use Strategy**	**Did Not Feel Prepared to Use Strategy**	**Felt Very or Somewhat Prepared to Use Strategy**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)**	1	99	8	93
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	2	98	4	96
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	3	97	4	96
Using data on student performance to inform your instruction	4	96	4	96
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction*	5	95	2	98
Implementing collaborative teaching (e.g., coteaching, team teaching)	5	95	2	98
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	3	97	5	95
Using a variety of strategies to check for students' understanding	2	98	4	97
Using questioning strategies to promote students' critical thinking	2	98	6	94

NOTES: Question text: "Please indicate whether the professional learning opportunities you have *received from your school or district* covered each of these instructional strategies, and the extent to which these opportunities prepared you to use each of these strategies in your classroom?" Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. BXS N = 356–438; ATP N = 58–82. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table D.8. Extent to Which School- or District-Provided Professional Learning Opportunities Improved Teachers' Practice in Instructional Strategies

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Instructional Strategy	None or to a Small Extent	To a Moderate or Great Extent	None or to a Small Extent	To a Moderate or Great Extent
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	26	75	34	66
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	21	79	27	73
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)**	18	82	33	67
Using data on student performance to inform your instruction*	22	78	33	68
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction*	22	79	32	68
Implementing collaborative teaching (e.g., coteaching, team teaching)*	31	69	44	56
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)*	20	80	32	68
Using a variety of strategies to check for students' understanding*	21	80	31	69
Using questioning strategies to promote students' critical thinking*	22	78	33	68

NOTES: Question text: "Please indicate the extent to which the professional learning opportunities you have *received from your school or district* helped you improve *your practice* in each of these instructional strategies?" Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. BXS N = 438–474; ATP N = 78–93. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table D.9. Teachers' Assessment of Their Experiences in the 2019–2020 School Year

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Statement	**Disagree or Strongly Disagree**	**Agree or Strongly Agree**	**Disagree or Strongly Disagree**	**Agree or Strongly Agree**
I feel comfortable experimenting with new instructional practices during the summer	5	95	5	95
I feel energized by my work in my summer program	12	88	16	84
I learn new instructional practices	9	92	14	87
The professional learning opportunities or training help me improve my practice	14	86	20	80
I have enough classroom materials (e.g., paper, pencils)*	17	83	27	73
I have enough curriculum materials (e.g., books, lesson plans)*	17	83	29	71
My class sizes are manageable	20	81	29	72
The professional learning opportunities or training include practical application of skills	18	82	22	79
The professional learning opportunities or training teach me new instructional practices	19	81	23	77
I feel pressure to achieve certain outcomes for students	26	75	17	83
I feel pressure to cover certain content or topics in my instruction	23	77	17	83

NOTES: Question text: "Please indicate your level of agreement with each of the following statements about your experience *this school year (2019–20)*." Our national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. BXS N = 469–488; ATP N = 90–93. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Appendix E. Comparisons of U.S. Teachers Employed in an Academic-Focused Summer Program and Not Employed in a Summer Program

Table E.1. Survey Subsample Respondent Characteristics

	Percentage of ATP Teachers	
	Employed in an Academic-Focused Summer Program	**Not Employed in a Summer Program**
Race/ethnicity**		
White	70	86
Nonwhite	30	14
Gender		
Female	76	78
Male	24	22
Grade levels		
K–5	43	45
6–12	53	51
Both	4	4
Years of teaching experience		
0–3 years	2	2
4+ years	98	98
Education		
Less than a bachelor's degree	0	0
Bachelor's degree	40	40
Master's degree or higher	60	60

NOTES: Teachers who were not employed in a summer program reported participating in at least one professional learning activity in summer 2019. Academic summer program $N = 104$; No Summer Program $N = 497$. Asterisks indicate a statistically significant difference in adjusted percentages: $^{**}p < 0.01$.

Table E.2. Extent to Which U.S. Teachers Participated in Summer 2019 Professional Learning Opportunities

	Percentage of Summer Program Teachers Who Responded		Percentage of Non–Summer Program Teachers Who Responded	
Professional Learning Opportunity	**I Did Not Receive This PL**	**I Received This PL**	**I Did Not Receive This PL**	**I Received This PL**
Observations of my classroom performed by an administrator and followed by feedback	62	38	70	30
Observations of my classroom performed by a coach and followed by feedback**	69	31	81	19
One-on-one coaching sessions**	73	27	86	14
Collaborating on instruction with my colleagues	25	75	24	76
Opportunities to observe other educators' classrooms*	71	29	80	20
Group coaching sessions with my peers	64	36	74	26
Analyzing student work with my colleagues	57	43	66	34
Large-group training or in-service sessions held in person	42	58	40	60
Small-group training or in-service sessions held in person	49	51	45	55
Conferences or convenings	58	42	61	39
Online courses or training sessions	69	31	60	41
Mentoring from a peer or colleague**	63	38	78	22

NOTES: Question text: "Please indicate whether you have received each of the following kinds of professional learning opportunities during *summer 2019*, and the extent to which you found them helpful for improving your instruction *this school year (2019–20)*." Responses of "I received it and found it unhelpful"; "I received it and found it somewhat helpful"; and "I received it and found it very helpful" were summed to produce the percentage of teachers who reported participating in each activity. Comparisons were adjusted to account for differences between the two groups in teacher race. Summer program teachers $N = 95$; non–summer program teachers $N = 450$. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table E.3. Extent to Which Summer 2019 Professional Learning Opportunities Addressed Instructional Strategies in the 2019–2020 School Year

Instructional Strategy	Percentage of Summer Program Teachers Who Responded		Percentage of Non–Summer Program Teachers Who Responded	
	PL Did Not Address Strategy	PL Addressed Strategy	PL Did Not Address Strategy	PL Addressed Strategy
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	38	62	45	55
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	25	75	34	66
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	20	80	28	72
Using data on student performance to inform your instruction*	26	74	39	61
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction*	24	76	36	64
Implementing collaborative teaching (e.g., coteaching, team teaching)	42	58	59	41
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)**	28	72	45	55
Using a variety of strategies to check for students' understanding	24	76	33	67
Using questioning strategies to promote students' critical thinking	24	76	35	65

NOTES: Question text: "Please indicate whether the professional learning opportunities you received during *summer 2019* addressed each of these instructional strategies, and the extent to which these opportunities prepared you to use each of these strategies in your classroom *this school year (2019–20)*." Response options included "Opportunities did not address this strategy"; "Opportunities address this strategy, but I do not feel prepared to use it"; "Opportunities address this strategy and I feel somewhat prepared to use it"; "Opportunities address this strategy and I feel very prepared to use it"; and "Strategy not applicable to my role." Responses of "Opportunities address this strategy, but I do not feel prepared to use it"; "Opportunities address this strategy and I feel somewhat prepared to use it"; and "Opportunities address this strategy and I feel very prepared to use it" were summed to produce the percentage of teachers who reported their PL addressed the strategy. Responses of "Strategy not applicable to my role" were omitted from this analysis. Comparisons were adjusted to account for differences between the two groups in teacher race. Percentages may not sum to 100 due to rounding. Summer program teachers N = 88–93; non–summer program teachers N = 428–447. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table E.4. Extent to Which Summer 2019 Professional Learning Opportunities Prepared U.S. Teachers to Use Instructional Strategies in the 2019–2020 School Year

	Percentage of Summer Program Teachers Who Responded: PL Addressed Strategy and I		Percentage of Non–Summer Program Teachers Who Responded: PL Addressed Strategy and I	
Instructional Strategy	**Don't Feel Prepared to Use It**	**Feel Prepared to Use It**	**Don't Feel Prepared to Use It**	**Feel Prepared to Use It**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	7	93	6	94
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	3	97	4	96
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	3	97	6	94
Using data on student performance to inform your instruction	8	92	7	93
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	9	91	8	92
Implementing collaborative teaching (e.g., co-teaching, team teaching)	8	92	11	89
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	2	98	4	96
Using a variety of strategies to check for students' understanding	—	—	—	—
Using questioning strategies to promote students' critical thinking	12	88	6	94

NOTES: Question text: "Please indicate whether the professional learning opportunities you received during *summer 2019* addressed each of these instructional strategies, and the extent to which these opportunities prepared you to use each of these strategies in your classroom *this school year (2019–20)*." Response options were "Opportunities did not address this strategy"; "Opportunities address this strategy, but I do not feel prepared to use it"; "Opportunities address this strategy and I feel somewhat prepared to use it"; "Opportunities address this strategy and I feel very prepared to use it"; and "Strategy not applicable to my role." Responses of "Opportunities address this strategy and I feel somewhat prepared to use it" and "Opportunities address this strategy and I feel very prepared to use it" were summed to produce the percentage of teachers who reported that their PL addressed the strategy and that they felt prepared to use it. Responses of "Opportunities did not address this strategy" and "Strategy not applicable to my role" were omitted from this analysis. Comparisons were adjusted to account for differences between the two groups in teacher race. None of the differences was statistically significant. The regression model was not estimable for the item "Using a variety of strategies to check for students' understanding" because of the sparsity of data. Percentages may not sum to 100 due to rounding. Summer program teachers N = 53–74; non–summer program teachers N = 173–315.

Table E.5. Extent of Change in U.S. Teachers' Use of Instructional Strategies in School Year 2019–2020 After Summer 2019 Professional Learning Experiences

	Percentage of Summer Program Teachers Who Responded		Percentage of Non–Summer Program Teachers Who Responded	
Instructional Strategy	**Use of Strategy Decreased or Stayed the Same**	**Use of Strategy Increased**	**Use of Strategy Decreased or Stayed the Same**	**Use of Strategy Increased**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)*	53	47	64	36
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	46	54	48	52
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	51	49	51	49
Using data on student performance to inform your instruction*	46	54	59	41
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	49	52	52	48
Implementing collaborative teaching (e.g., coteaching, team teaching)*	59	41	72	28
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)**	42	58	58	42
Using a variety of strategies to check for students' understanding	47	53	52	48
Using questioning strategies to promote students' critical thinking	45	55	52	48

NOTES: Question text: "Please indicate whether your use of each of these instructional strategies *during the school year* changed after your *summer 2019 professional learning experiences*." Response options were "Didn't use strategy in SY instruction"; "Use of strategy decreased"; "Use of strategy stayed the same"; "Use of strategy increased;" and "Strategy not applicable to my role." Responses were dichotomized. Responses of "Use of strategy decreased"; and "Use of strategy stayed the same," were summed to find the percentage of teachers whose use of the strategy stayed the same or decreased. Responses of "Didn't use strategy in SY instruction" and "Strategy not applicable to my role" were excluded from this analysis. SY = school year. Comparisons were adjusted to account for differences between the two groups in teacher race. Percentages may not sum to 100 due to rounding. Summer program teachers N = 87–94; non–summer program teachers N = 414–447. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table E.6. Extent to Which 2019 Summer Instructional Strategies Improved Respondents' School-Year Practice

Instructional Strategy	Percentage of Summer Program Teachers Who Responded		Percentage of Non–Summer Program Teachers Who Responded	
	Not at All or to a Small Extent	To a Moderate or Large Extent	Not at All or to a Small Extent	To a Moderate or Large Extent
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)**	36	64	57	43
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)**	31	69	49	51
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	37	63	46	54
Using data on student performance to inform your instruction*	37	63	50	50
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction*	35	65	49	51
Implementing collaborative teaching (e.g., coteaching, team teaching)	47	53	59	41
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	40	60	48	52
Using a variety of strategies to check for students' understanding	37	63	45	55
Using questioning strategies to promote students' critical thinking	44	56	46	54

NOTES: Question text: "Please indicate the extent to which the professional learning opportunities you received *during summer 2019* helped you improve your practice in each of these instructional strategies *this school year*?" Response options: "Not at all," "To a small extent," "To a moderate extent," and "To a great extent." This question was asked only of respondents who answered that their use of the strategy decreased, stayed the same, or increased in the previous question (Table E.5). Responses were dichotomized: Responses of "Not at all," and "To a small extent" were combined, and responses of "To a moderate extent," and "To a great extent" were combined. Comparisons were adjusted to account for differences between the two groups in teacher race. Percentages may not sum to 100 due to rounding. Summer program teachers N = 78–93; non–summer program teachers N = 284–426. Asterisks indicate statistically significant differences in adjusted percentages: *$p < 0.05$; **$p < 0.01$.

Table E.7. Duration of Academic-Focused Summer Programs Where Respondents Were Employed, Summer 2019

Number of Weeks	Percentage of Respondents
1 or less	17
2–4	52
5–10	27
More than 10	3
Don't know	1

NOTES: Question text: "How many weeks was the duration of a single session of the summer program where you were employed *in summer 2019*? If your program did not include multiple sessions, respond as to the length of the program." Percentages may not sum to 100 due to rounding. *N* = 104.

Table E.8. Days per Week of Academic-Focused Summer Programs Where Respondents Were Employed, Summer 2019

Number of Days	Percentage of Respondents
1–2	17
3–5	81
Don't know	2

NOTES: Question text: "How many days per week was the summer program where you were employed *in summer 2019*?" Percentages may not sum to 100 due to rounding. *N* = 104.

Table E.9. Student Ages at Academic-Focused Summer Programs Where Respondents Were Employed, Summer 2019

	Percentage of Respondents Who Answered	
Years of Age	No	Yes
Younger than 4	95	5
5 to 10	53	47
11 to 13	68	32
14 to 18	63	37
Older than 18	96	4
Don't know	94	6

NOTES: Question text: "What ages of students were enrolled in the summer program where you were employed *in summer 2019* (select all that apply)?" Percentages may not sum to 100 due to rounding. *N* = 104.

Table E.10. Components of Academic-Focused Summer Programs Where Respondents Were Employed in Summer 2019

	Percentage of Respondents Who Answered		
Component	**No**	**Yes**	**Don't Know**
Instruction in math and/or ELA	13	85	2
Instruction in other academic subjects (e.g., science, social studies)	39	59	2
Field trips with an educational focus (e.g., to museums, documentary films, or artistic performances)	69	29	6
Individual or team sports	91	8	2
Fine arts (e.g., music or painting)	75	23	6
Field trips without an academic focus (e.g., to an amusement park)	81	16	3

NOTES: Question text: "Did the summer program where you were employed *in summer 2019* include any of the following components?" Percentages may not sum to 100 due to rounding. *N* = 104.

Appendix F. Linked Respondents to BXS Summer and Fall Surveys—Responses to Summer Survey Questions

Table F.1. Sample Characteristics of BXS Teachers Who Responded to Both Summer and Fall Surveys

	Percentage of BXS Teachers
Race/ethnicity	
White	54
Nonwhite	46
Gender	
Female	88
Male	12
Grade levels	
K–5	75
6–12	5
Both	20
Years of teaching experience	
0–3 years	20
4+ years	80
Education	
Less than a bachelor's degree	10
Bachelor's degree or higher	90

NOTES: The characteristics presented in this table are based on the 396 teachers who responded to the BXS summer and fall surveys as measured by their fall survey responses. Percentages may not sum to 100 due to rounding. *N* = 396.

Table F.2. Extent to Which Training at the Start of the 2019 Summer Program Prepared BXS Teachers to Use Instructional Strategies in Their Classrooms

	Percentage of BXS Teachers Who Responded				
		PL Covered Strategy			
Instructional Strategy	PL Didn't Cover Strategy	But I Don't Feel Prepared to Use It	I Feel Somewhat Prepared to Use It	I Feel Very Prepared to Use It	Strategy N/A to My Role
Using centers (i.e., within-class opportunities for scholars to work independently, collaboratively, or in educator-led groups)	24	4	19	51	2
Grouping scholars in different ways (e.g., with students at similar achievement levels or differing achievement levels)	19	6	17	55	3
Offering scholars opportunities, other than centers, to collaborate in my classroom (e.g., working in pairs or groups)	18	3	21	58	1
Using differentiated instruction (i.e., adopting different strategies depending on scholars' learning needs and interests)	19	3	21	54	3
Using data on scholar performance to inform your instruction	14	6	20	55	5
Promoting scholars' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	9	4	19	66	2
Implementing collaborative teaching (e.g., coteaching, team teaching)	19	4	15	58	4
Using positive behavior management techniques (e.g., addressing scholar behavior in a positive and respectful way)	10	4	19	66	2
Using a variety of strategies to check for scholars' understanding	20	3	17	56	3
Using questioning strategies to promote scholars' critical thinking	20	3	17	56	3

NOTES: Question text: "Please indicate whether the training you participated in at the start of the 2019 summer program covered each of these instructional strategies, and the extent to which the training prepared you to use each of these strategies in your classroom." BXS students are referred to as *scholars* throughout the survey. This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. N = 387–390.

Table F.3. Extent to Which BXS Teachers Found Ongoing Support and Coaching During the 2019 Summer Program Helpful for Improving Their Instruction

	Percentage of BXS Teachers Who Responded			
Support	**I Did Not Receive This Support**	**I Found It Unhelpful**	**I Found It Somewhat Helpful**	**I Found It Very Helpful**
Observations of my classroom followed by feedback	22	4	34	41
One-on-one coaching sessions	55	1	19	26
Collaborating on instruction with my colleagues (e.g., common planning time, professional learning communities)	26	2	25	46
Opportunities to observe other educators' classrooms	70	1	12	18
Group coaching sessions with my peers	56	1	18	26
Analyzing scholar work with my colleagues	46	1	19	34

NOTES: Question text: "Please indicate whether, during the summer program, you received each of the following kinds of supports, and the extent to which you found them helpful for improving your instruction." BXS students are referred to as *scholars* throughout the survey. This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 384–387.

Table F.4. BXS Teachers' Assessment of the Support They Received During the 2019 Summer Program

	Percentage of BXS Teachers Who Responded			
The Ongoing Support I Received Throughout the Summer . . .	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**
Was coherent (e.g., the content was clear and made sense)	6	15	50	30
Was cohesive (e.g., there was a clear connection between different topics and sessions, they did not contradict one another)	5	17	50	28
Helped me develop instructional skills that I can apply to any subject area	6	18	49	28
Helped me develop instructional skills that are specifically applicable to the subject area I teach	7	19	50	25
Included opportunities for me to reflect on my own practice, either by myself or with others	4	16	49	31
Included opportunities for me to practice new skills or instructional strategies	6	15	52	28
Was relevant to my instruction this summer	6	11	55	28
Helped me to improve my classroom instructional practice	5	16	51	28

NOTES: Question text: "To what extent do you feel that the ongoing support you received throughout the summer met each of the following criteria?" This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 379–383.

Table F.5. BXS Teachers' Assessment of Whether the Instructional Coaching They Received During the Summer 2019 Program Helped Them Use Instructional Strategies in Their Classrooms

The Instructional Coaching I Received Helped Me . . .	Percentage of BXS Teachers Who Responded				
	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A to My Role
Use centers (i.e., within-class opportunities for scholars to work independently, collaboratively, or in educator-led groups)	3	10	47	35	6
Give scholars opportunities, other than centers, to collaborate in my classroom (e.g., working in pairs or groups)	2	8	48	38	4
Use differentiated instruction (i.e., adopting different strategies depending on scholars' learning needs and interests)	3	5	49	40	3
Use data on scholar performance to inform my instruction (e.g., using scholar data to determine whether to review a topic or to group scholars)	2	6	46	41	6
Use positive behavior management techniques	2	4	50	42	2
Implement collaborative teaching with my colleagues	2	11	43	40	4
Promote scholars' social and emotional skills (e.g., growth mindset, collaboration) through my instruction	2	6	45	46	2
Meet the needs of scholars with disabilities	6	12	41	32	9
Use a variety of strategies to check for scholars' understanding	2	9	47	39	3
Use questioning strategies to promote scholars' critical thinking	3	8	49	38	3

NOTES: Question text: "Please indicate the extent to which you disagree or agree with each of the following statements about the instructional coaching you received during the summer 2019 program." BXS students are referred to as *scholars* throughout the survey. This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. N = 285–290.

Table F.6. BXS Teachers' Assessment of the Instructional Coaching They Received During the Summer 2019 Program

	Percentage of BXS Teachers Who Responded				
The Instructional Coaching I Received . . .	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A to My Role**
Communicated a clear vision for instruction	6	12	42	33	7
Encouraged me to implement what I learned in summer training in my classroom	6	11	44	32	7
Was relevant to what was going on in my classroom	6	10	44	34	6
Provided me with useful feedback to improve my instruction	6	13	43	31	8
Was relevant to the subject I teach	6	10	45	32	9
Approached observations and feedback in a nonevaluative way	6	11	41	34	9
Encouraged me to try new instructional strategies	6	16	40	31	8
Helped me develop my own social and emotional skills	8	17	43	26	7

NOTES: Question text: "Please indicate the extent to which you disagree or agree with each of the following statements about the instructional coaching you received during the summer 2019 program." This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 381–384.

Table F.7. BXS Teachers' Assessment of Their Summer Experience in 2019

Statement	Percentage of BXS Teachers Who Responded			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Scholars at my site were motivated to achieve	2	9	66	23
Scholars at my site were highly engaged	1	12	63	24
Scholars treated each other with respect	2	15	66	17
Scholars treated educators with respect	1	10	68	20
Educators at my site engaged in regular, productive conversations with one another about how to improve instruction	2	15	55	27
Educators at my site had the skills needed to foster meaningful scholar learning	1	3	64	33
Educators at my site believed they had the ability to help scholars increase their intelligence	1	2	64	33
Educators at my site supported each other in their efforts to improve scholar learning	0	7	59	34
Leaders at my site were highly supportive of educators	2	5	55	38
I received the tools and resources I needed to do my job well	6	18	49	28
Coaches at my site were highly supportive of educators	2	8	53	37
The program promoted caring, consistent adult-scholar relationships	1	5	57	38

NOTES: Question text: "Please rate your level of agreement with each of the following statements about your summer experience in 2019." BXS students are referred to as *scholars* throughout the survey. This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. N = 377–379.

Appendix G. Linked Respondents to BXS Summer and Fall Surveys—Responses to Fall Survey Questions

Table G.1. Extent of Change in BXS Teachers' Use of Instructional Strategies in School Year 2019–2020 After 2019 Summer Program

	Percentage of BXS Teachers Who Responded				
Instructional Strategy	**I Don't Use Strategy in SY Instruction**	**My Use of Strategy Decreased**	**My Use of Strategy Stayed the Same**	**My Use of Strategy Increased**	**Strategy N/A to My Role**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	1	0	47	47	5
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	0	1	44	53	3
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	0	1	44	53	3
Using data on student performance to inform your instruction	0	1	46	49	4
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	1	1	33	63	3
Implementing collaborative teaching (e.g., coteaching, team teaching)	5	2	43	42	8
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	1	1	44	54	2
Using a variety of strategies to check for students' understanding	0	0	45	53	2
Using questioning strategies to promote students' critical thinking	0	0	45	52	3

NOTES: Question text: "Please indicate whether your use of each of these instructional strategies *during the school year* changed after your *2019 BellXcel summer program*." This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 393–395.

Table G.2. Extent to Which Summer 2019 Professional Learning Opportunities Helped BXS Teachers Improve Their Practice of Instructional Strategies During the 2019–2020 School Year

	Percentage of BXS Teachers Who Responded					
Instructional Strategy	**Not at All**	**To a Small Extent**	**To a Moderate Extent**	**To a Great Extent**	**I Don't Use This Strategy in My SY Instruction**	**Strategy N/A to My Role**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	15	18	36	25	2	5
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	14	16	31	33	2	4
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	13	15	35	32	2	3
Using data on student performance to inform your instruction	15	18	28	34	1	5
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	10	14	31	41	2	3
Implementing collaborative teaching (e.g., coteaching, team teaching)	16	17	27	29	3	8
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	12	14	31	40	2	2
Using a variety of strategies to check for students' understanding	14	13	34	34	2	3
Using questioning strategies to promote students' critical thinking	14	15	30	37	2	2

NOTES: Question text: "Please indicate the extent to which the professional learning opportunities you received in your *summer 2019 BellXcel program* helped you **improve your practice** in each of these instructional strategies *this school year (2019–20)*." This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 393–395.

Table G.3. BXS Teachers' Assessment of Their Summer 2019 BellXcel Program

	Percentage of BXS Teachers Who Responded				
Statement	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A to My Role in Summer Program**
I felt comfortable experimenting with new instructional practices during the summer	2	5	52	38	3
I felt energized by my work in my summer program	3	10	49	37	2
I learned new instructional practices	3	20	50	26	2
The professional learning opportunities or training helped me improve my practice	5	18	49	26	3
I had enough classroom materials (e.g., paper, pencils)	8	17	40	33	2
I had enough curriculum materials (e.g., books, lesson plans)	6	16	47	31	3
My class sizes were manageable	3	9	49	37	3
The professional learning opportunities or training included practical application of skills	5	15	53	24	3
The professional learning opportunities or training taught me new instructional practices	6	24	47	20	3
I felt pressure to achieve certain outcomes for students	7	44	32	13	3
I felt pressure to cover certain content or topics in my instruction	7	44	34	11	5

NOTES: Question text: "Please indicate your level of agreement with each of the following statements about your *summer 2019 BellXcel program*." This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 393–396.

Table G.4. Extent to Which School- or District-Provided Professional Learning Opportunities Prepared BXS Teachers to Use Instructional Strategies in Their Classrooms

	Percentage of BXS Teachers Who Responded				
		PL Addressed Strategy			
Instructional Strategy	PL Didn't Address Strategy	But I Don't Feel Prepared to Use It	I Feel Somewhat Prepared to Use It	I Feel Very Prepared to Use It	Strategy N/A to My Role
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	13	1	28	50	8
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	11	2	26	54	8
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	9	2	27	55	6
Using data on student performance to inform your instruction	7	2	28	55	8
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	10	3	27	56	5
Implementing collaborative teaching (e.g., coteaching, team teaching)	18	4	22	45	11
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	10	3	25	58	4
Using a variety of strategies to check for students' understanding	9	1	29	56	5
Using questioning strategies to promote students' critical thinking	10	2	26	57	5

NOTES: Question text: "Please indicate whether the professional learning opportunities you have *received from your school or district* covered each of these instructional strategies, and the extent to which these opportunities prepared you to use each of these strategies in your classroom." This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 390–392.

Table G.5. Extent to Which School- or District-Provided Professional Learning Opportunities Helped BXS Teachers Improve Their Practice of Instructional Strategies

	Percentage of BXS Teachers Who Responded					
Instructional Strategy	**Not at All**	**To a Small Extent**	**To a Moderate Extent**	**To a Great Extent**	**I Don't Use This Strategy in My SY Instruction**	**Strategy N/A to My Role**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels)	8	11	39	35	2	5
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)	7	10	34	42	2	6
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)	5	11	36	41	2	5
Using data on student performance to inform your instruction	5	13	31	44	2	7
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) through your instruction	7	12	33	43	1	4
Implementing collaborative teaching (e.g., coteaching, team teaching)	13	14	28	34	2	10
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)	5	12	33	46	1	3
Using a variety of strategies to check for students' understanding	5	13	33	44	2	4
Using questioning strategies to promote students' critical thinking	7	11	33	42	2	5

NOTES: Question text: "Please indicate the extent to which the professional learning opportunities you received in your *from your school or district* helped you **improve your practice** in each of these instructional strategies." This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 390–392.

Table G.6. BXS Teachers' Assessment of Their Experiences This School Year, 2019–2020

Statement	Percentage of BXS Teachers Who Responded				
	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A to My Role
I feel comfortable experimenting with new instructional practices during the school year	1	5	56	36	3
I feel energized by my work in my school	2	10	52	34	2
I learn new instructional practices	1	6	59	31	3
The professional learning opportunities or training help me improve my practice	2	12	55	28	4
I have enough classroom materials (e.g., paper, pencils)	3	12	52	30	3
I have enough curriculum materials (e.g., books, lesson plans)	2	15	49	30	4
My class sizes are manageable	4	13	53	26	3
The professional learning opportunities or training include practical application of skills	3	12	55	26	4
The professional learning opportunities or training teach me new instructional practices	3	12	56	25	4
I feel pressure to achieve certain outcomes for students	3	19	44	29	4
I feel pressure to cover certain content or topics in my instruction	4	17	41	33	6

NOTES: Question text: "Please indicate your level of agreement with each of the following statements about your experience *this school year (2019–20)*." This table presents results from the sample of BXS teachers who responded to the summer and fall surveys. Percentages may not sum to 100 due to rounding. *N* = 388–394.

Appendix H. Regression-Adjusted Comparisons of ATP Respondents Who Worked in an Academic Focused Summer Program with BXS Teachers Who Responded to Both Summer and Fall Surveys

Table H.1. Respondents' Agreement with Statements About 2019 Summer Programs

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Instructional Strategy	**Strongly Disagree or Disagree**	**Agree or Strongly Agree**	**Strongly Disagree or Disagree**	**Agree or Strongly Agree**
I feel comfortable experimenting with new instructional practices during the summer	8	92	3	97
I felt energized by my work in my summer program	14	86	15	85
I learned new instructional practices	22	78	29	71
The professional learning opportunities or training helped me improve my practice	22	78	25	75
I had enough classroom materials (e.g., paper, pencils)	25	76	18	82
I had enough curriculum materials (e.g., books, lesson plans)	21	79	26	74
My class sizes were manageable	13	87	6	94
The professional learning opportunities or training included practical application of skills	21	79	25	75
The professional learning opportunities or training taught me new instructional practices	31	69	28	72
I felt pressure to achieve certain outcomes for students	52	48	43	57
I felt pressure to cover certain content or topics in my instruction	54	46	41	59

NOTES: BXS survey question text: "Please indicate your level of agreement with each of the following statements about your summer 2019 BellXcel program." ATP survey question text: "Please indicate your level of agreement with each of the following statements about the program where you were employed in summer 2019." Response options for both questions: "Strongly disagree," "Disagree," "Agree," and "Strongly Agree." The BXS teacher data are based on fall 2019 responses from the subset of teachers who responded to both summer and fall surveys. The national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. This figure presents dichotomized results adjusted for sample differences. None of the differences was statistically significant. BXS *N* = 343–352; ATP *N* = 84–91.

Table H.2. Extent to Which Summer Professional Learning Helped Improve the Use of Key Instructional Practices Among BXS Teachers and Teachers Employed in Academic Summer Programs Nationally

	Percentage of BXS Teachers Who Responded		Percentage of Teachers Nationally Who Responded	
Instructional Strategy	**None or to a Small Extent**	**To a Moderate or Great Extent**	**None or to a Small Extent**	**To a Moderate or Great Extent**
Grouping students in different ways (e.g., with students at similar achievement levels or differing achievement levels	22	78	33	67
Offering students opportunities to collaborate in my classroom (e.g., working in pairs or groups)*	18	82	30	70
Using differentiated instruction (i.e., adopting different strategies depending on students' learning needs and interests)**	18	82	34	66
Using data on student performance to inform your instruction**	20	80	34	66
Promoting students' social and emotional skills (e.g., growth mindset, collaboration) skills through your instruction*	22	78	32	68
Implementing collaborative teaching (e.g., co-teaching, team teaching)*	30	70	44	56
Using positive behavior management techniques (e.g., addressing student behavior in a positive and respectful way)**	19	82	37	63
Using a variety of strategies to check for students' understanding**	20	80	35	65
Using questioning strategies to promote students' critical thinking**	21	79	40	60

NOTES: BXS Survey question text: "Please indicate the extent to which the professional learning opportunities you received in your summer 2019 BellXcel program helped you improve your practice in each of these instructional strategies this school year." ATP Question text: "Please indicate the extent to which the professional learning opportunities you received during summer 2019 helped you improve your practice in each of these instructional strategies this school year." Response options for both questions: "Not at all," "To a small extent," "To a moderate extent," and "To a great extent." The BXS teacher data are based on fall 2019 responses from the subset of teachers who responded to both summer and fall surveys. The national teacher data are based on results from a subset of teachers who reported summer employment with an academic program on the ATP. This table presents dichotomized results adjusted for sample differences. BXS N = 326–337; ATP N = 78–93. Asterisks indicate statistically significant differences: *$p < 0.05$; **$p < 0.01$.

References

Hamilton, Laura S., Christopher Joseph Doss, and Elizabeth D. Steiner, *Teacher and Principal Perspectives on Social and Emotional Learning in America's Schools: Findings from the American Educator Panels*, Santa Monica, Calif.: RAND Corporation, RR-2991-BMGF, 2019. As of September 22, 2019: https://www.rand.org/pubs/research_reports/RR2991.html

National Center for Education Statistics, "Teacher Questionnaire: National Teacher and Principal Survey: 2017–18 School Year," Washington, D.C.: U.S. Department of Education, NTPS-4A Draft 6, May 17, 2017.

Rao, J. N. K., and A. J. Scott, "On Chi-Squared Tests for Multiway Contingency Tables with Cell Proportions Estimated from Survey Data," *Annals of Statistics*, Vol. 12, No. 1, 1984, pp. 46–60. As of November 5, 2020: https://projecteuclid.org/download/pdf_1/euclid.aos/1176346391

Robbins, Michael W., and David Matthew Grant, *RAND American Educator Panels Technical Description*, Santa Monica, Calif.: RAND Corporation, RR-3104-BMGF, 2020. As of May 21, 2020: https://www.rand.org/pubs/research_reports/RR3104.html

StataCorp, "Stata Statistical Software," Release 15, College Station, Tex., 2017.

Steiner, Elizabeth D., Laura S. Hamilton, Laura Stelitano, and Mollie Rudnick, *Designing Innovative High Schools: Implementation of the Opportunity by Design Initiative After Two Years*, Santa Monica, Calif.: RAND Corporation, RR-2005-CCNY, 2017. As of July 20, 2020: https://www.rand.org/pubs/research_reports/RR2005.html

Steiner, Elizabeth D., Laura Stelitano, Andy Bogart, and Sophie Meyers, *The Promise of Summer as a Time for Teacher Professional Learning: Findings from a National Survey and Implications from the BellXcel Program*, Santa Monica, Calif.: RAND Corporation, RR-A196-1, 2021. As of January 2021: https://www.rand.org/pubs/research_reports/RRA196-1.html

University of Chicago Consortium on School Research, "2017 CPS 5 Essentials Teacher Survey," Chicago, Ill., 2017.

Williams, Richard, "Using the Margins Command to Estimate and Interpret Adjusted Predictions and Marginal Effects," *Stata Journal*, Vol. 12, No. 2, June 2012, pp. 308–331.

Yin, Robert K., *Case Study Research and Applications: Design and Methods*, 6th ed., SAGE Publishing, 2017.