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The Prevalence of Collaboration Among American Teachers

National Findings from the American Teacher Panel

There is abundant research suggesting that peer collaboration is an important component of teachers' long-term career development and capacity to support student learning. A growing body of evidence reveals that teachers' satisfaction and career pathways are affected more by workplace environment, including aspects of teachers' ability to collaborate with peers, than by student characteristics (Kraft et al., 2015; Johnson, Kraft, and Papay, 2012; Ladd, 2011; Simon and Johnson, 2015).

Schools that provide appropriate, deliberate, and coherent types of teacher support—such as regular opportunities for collaboration—are far more likely to attract, develop, and retain effective teachers, thus ensuring that all students routinely benefit from skilled and committed instruction (Ingersoll and Kralik, 2004). For example, researchers have found that collaboration can provide opportunities for teachers to engage in informal mentoring from more-experienced and more-effective colleagues (Jackson and Bruegmann, 2009), experiment with new instructional approaches (Moolenaar,

KEY FINDINGS

- Only 31 percent of teachers reported that they have sufficient time to collaborate with other teachers.

- Teachers who reported having greater opportunities and time for collaboration consistently reported higher levels of actual collaboration activity, regardless of the type of collaboration.

- Peer observation was the least common form of peer collaboration, with 44 percent of teachers reporting that they never observed another teacher's classroom to get ideas for instruction or to offer feedback in a typical month.

- Only 4 percent of teachers indicated that they never met with other teachers at their school to discuss instructional practice, with 43 percent indicating they do so weekly or more often.

- School poverty did not have a statistically significant relationship with teachers' reports of collaboration opportunities or the frequency of activities.

- The association between frequency of collaborative feedback and its perceived helpfulness is most salient for teachers in low-poverty schools; there is no apparent link between frequency and perceived helpfulness among teachers in high-poverty schools.

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Sleegers, and Daly, 2012), and co-construct under-standings of policies and practices—which, in turn, can shape their teaching practices (e.g., Coburn, 2001). Furthermore, teacher collaboration is associated with teachers' sense of collective efficacy, which is positively associated with student achievement outcomes, particularly in mathematics (Goddard, Goddard, and Tschannen-Moran, 2007; Louis et al., 2010; Moller et al., 2013; Ronfeldt et al., 2015).

A recent national survey of teachers and principals observed nearly universal agreement with the notion that teacher collaboration can support student success, regardless of school characteristics (Markow and Pieters, 2010). However, there is persistent evidence that teaching remains an isolated experience for many educators in the United States compared with teachers in high-achieving Organisation for Economic and Co-operation and Development (OECD) nations, due in part to limited opportunities for collaboration in a U.S. teacher's typical workday schedule (OECD, 2009; Wei, Darling-Hammond, and Adamson, 2010). Although there is qualitative evidence that teachers might be more prone to working together in formalized teams to collaboratively develop curriculum and address student needs (Charner-Laird et al., 2017), there is limited evidence that these types of practices are on the rise across the country.

National surveys of U.S. teachers consistently present evidence that on-the-job peer collaboration is occurring, but it is far from universal. For example,

Moller et al. (2013) found that among a national sample of fifth-grade students, less than one-fifth of their elementary school years were spent in schools where teachers frequently collaborated with each other. In addition, a national sample of teachers participating in the 2009 MetLife Survey of the American Teacher reported infrequent peer observations for the purpose of improving instruction, as only 22 percent reported this happened "often" or "always" in their schools (Markow and Pieters, 2010). Another national study of teachers' experiences, the School and Staffing Survey (SASS), revealed similar trends regarding peer observation, with only 63 percent of teachers saying they observed, or were observed by, a colleague for at least ten minutes over the past 12 months (Darling-Hammond et al., 2009). Teachers report relying on externally provided workshops as their primary source of support and professional development, rather than collaborative learning and planning activities with their colleagues (Darling-Hammond et al., 2009; Wei, Darling-Hammond, and Adamson, 2010).

The support of widespread improvement in teachers' practice through collaboration is impeded by multiple factors, including not only the organizational cultures that take form inside schools but also long-standing norms of teacher autonomy and egalitarianism, which cause some teachers to resist steps to build professional community (Little, 1990; Moller et al., 2013). These factors might be particularly salient in high-poverty schools, which have lower levels of capacity to support professional learning among teachers (Bryk et al., 2010; Stosich, 2016). There is some evidence that suggests teachers in high-poverty schools—and particularly new teachers in those settings—have less opportunity for collaboration (Wei, Darling-Hammond, and Adamson, 2010). On the other hand, teachers in high-poverty schools might have more impetus to collaborate, partly in response to the growing demands of federal and state policies. For example, collaborative structures, such as instructional teams or professional learning committees, have become more common and are intended, in part, to provide teachers with opportunities to work together to enhance school performance within high-stakes accountability regimes (Hamilton et al., 2009;

Ronfeldt et al., 2015). However, little is known about teacher collaboration across multiple contexts in the United States, and differences in collaboration based on poverty rates have not been examined with nationally representative data.

The purpose of this study is twofold: (1) to provide national-level estimates of teachers' collaboration opportunities and activities and (2) to understand the extent to which teachers receive helpful feedback through collaboration activities. Embedded in both of these goals is comparative analysis of collaboration experiences among teachers in schools with different levels of student poverty. To accomplish these objectives, we use data from a nationally representative sample of teachers of kindergarten through 12th grade (K–12) in the United States and focus on three particular aspects of teacher collaboration: the prevalence of opportunities, the frequency of collaboration activities, and the helpfulness of the feedback that teachers receive through peer collaboration.

There are multiple definitions of teacher collaboration in the literature (e.g., Goddard et al., 2015). A recent national study of teaching practices found that the most frequent types of collaborative activities are teachers meeting in teams to improve their efforts in support of student success, school leaders sharing responsibility with teachers to achieve school goals, and novice teachers working with more-experienced teachers (Markow and Pieters, 2010). We define *teacher collaboration* as professional interaction with colleagues that focuses on refining and improving classroom instruction, curriculum, and supports for students. These interactions can take multiple forms, and we focus on the specific activities in which teachers often engage during the school day: informal classroom observations that are not related to a formal evaluation system, meetings with peers to discuss curriculum and lesson plans, and discussions of data related to student progress. We also focus on the substantive feedback that teachers receive through these interactions with their peers.

Sample and Data

Data are drawn from the RAND American Educator Panels (AEP), which are composed of the American

Teacher Panel (ATP) and the American School Leader Panel (ASLP). This study is based on an October 2016 survey administered to the ATP. At the time of this survey, the panel included 3,431 teachers, with 1,825 completing the survey, for a completion rate of 53 percent. In the survey, teachers were asked about several topics related to their professional practice, including formal evaluation systems and opportunities for informal collaboration with colleagues. To facilitate the comparison of responses of teachers from schools with different demographic profiles, the ATP survey data were merged with the 2014–2015 school-level files from the National Center for Educational Statistics' Common Core of Data. Teachers were categorized into quartiles based on the percentage of students in their schools receiving free and reduced-price lunch (FRPL), with the cut points falling at 33.2 percent FRPL, 53.3 percent FRPL, and 74.1 percent FRPL.[1]

Sampling weights were generated and applied to ensure that the proportionate representation of teacher demographics matched the most recently available national data, while also adjusting for potential bias due to survey nonresponse. Weighting for the ATP involved modeling selection probabilities (i.e., the chance that a given individual was contacted for inclusion into the panel) and response probabilities (given that they were selected, the probability that they responded). Weights were designed to ensure that the weighted sample does not under- or overrepresent certain types of teachers, and they were calculated by modeling response probabilities of teachers across a wide variety of characteristics. Characteristics that factored into this process included descriptors at the individual level (e.g., gender, professional experience) and school level (e.g., school size, grade level, urbanicity, socioeconomic status).[2]

Table 1 provides details of the teacher participants and characteristics of their respective school contexts. As the table indicates, our sample of teachers was quite varied, along with the schools where they were employed. In particular, there were consistent differences across the four FRPL-based subgroups that are presented in columns 2 through 5. Not surprisingly, teachers in higher-poverty schools were more likely to be in urban

TABLE 1

Weighted Teacher and School Demographics

Demographic Measures	Full Sample (*n* = 1,825)	Low Poverty (*n* = 449)	Mid-Low Poverty (*n* = 450)	Mid-High Poverty (*n* = 451)	High Poverty (*n* = 451)
Teacher characteristics					
Years teaching (mean)	16.0	16.6	16.5	15.1	15.5
School characteristics					
Urbanicity***					
City	30.8%	18.2%	22.3%	33.2%	52.9%
Rural	18.9%	16.0%	27.1%	22.5%	10.1%
Suburb	39.4%	58.5%	35.3%	29.6%	29.8%
Town	11.0%	7.4%	15.4%	14.7%	7.2%
White***	49.9%	70.0%	65.6%	43.1%	15.1%
Black***	15.2%	5.9%	10.0%	18.7%	29.0%
Hispanic***	24.1%	10.2%	15.8%	28.6%	45.5%
Asian***	5.1%	9.5%	3.4%	3.4%	3.5%
Elementary school***	48.6%	41.5%	47.3%	43.8%	63.3%
Size (mean)***	857.0	1,012.8	815.0	863.3	710.7

NOTES: Quartiles do not sum to 1,825 because of missing school data for 24 respondents. Asterisks indicate significant differences among respondents from schools with different poverty levels, according to chi-square tests or weighted regressions in which each continuous characteristic is regressed on the linear specification of school poverty quartiles. ***$p < 0.001$.

settings (18 percent of Quartile 1 teachers work in city schools, compared with 53 percent of Quartile 4 teachers) and worked in schools with lower percentages of white students and higher percentages of black and Hispanic students. In addition, teachers in higher-poverty schools tended to work at elementary schools that were smaller, on average, than their counterparts in lower-poverty schools. Therefore, even though our analysis is focused on differences in collaboration practices by teachers at schools with varying levels of poverty, we conducted sensitivity tests that incorporate these additional measures of school context.

Our findings are summarized in the next section and organized around two research questions. First, we discuss the national trends in teachers' reports about their collaboration opportunities, their actual collaboration activities, and the perceived usefulness of these experiences. Second, we discuss the extent to which these three aspects of collaboration vary among teachers in schools with

different degrees of student poverty. We conclude with a discussion of our findings' implications for policymakers and practitioners.

Results

Analysis of the ATP data revealed a number of important findings regarding teacher collaboration and its association with school poverty across the United States. First, few teachers reported sufficient time to collaborate with their peers, and those who had more time and opportunities in general consistently reported higher levels of actual collaboration activity. We also found that peer observation was the least common form of peer collaboration, with 44 percent of teachers reporting that they never observed another teacher's classroom to get ideas for instruction or to offer feedback in a typical month. However, only 4 percent of teachers indicated that they never met with other teachers at their school to discuss instructional

practice, with 43 percent indicating they did so weekly or more often. School poverty did not have a statistically significant relationship with teachers' reports of collaboration opportunities or the frequency of activities, but we did find that school poverty moderated the association between the frequency of feedback received via collaboration and its perceived helpfulness, such that there was no apparent link between frequency and perceived helpfulness among teachers in high-poverty schools. We describe these findings in more detail in the following section.

National Trends in Teacher Collaboration

Here, we summarize teachers' reports about their collaboration activities, with a focus on three aspects of teacher collaboration: the prevalence of opportunities to work with their colleagues, the frequency of actual collaboration activities, and the usefulness of these collaboration experiences.

Teachers were asked to indicate their level of agreement with the statement "I have sufficient opportunities to collaborate with other teachers." As shown in the first bar of Figure 1, approximately 53 percent of teachers indicated that they somewhat or strongly agreed with this statement. However, even though teachers might have had the ability to collaborate with their colleagues, many might still be unable to do so because of time constraints; only 38 percent of teachers indicated agreement with the subsequent statement, "I have sufficient time to collaborate with other teachers" (see second bar of Figure 1).

Time might be one of the main limiting factors that kept teachers from collaborating more often, but it was not the only obstacle for some teachers. Thirty percent of teachers strongly or somewhat agreed with the statement, "There are other factors outside of time and opportunity that prevent me from collaborating with other teachers on instructional practice." Teachers were given the opportunity to write in what these other factors were, and many teachers' write-in responses included a lack of willingness among their

FIGURE 1

Teacher-Reported Opportunities to Collaborate with Other Teachers
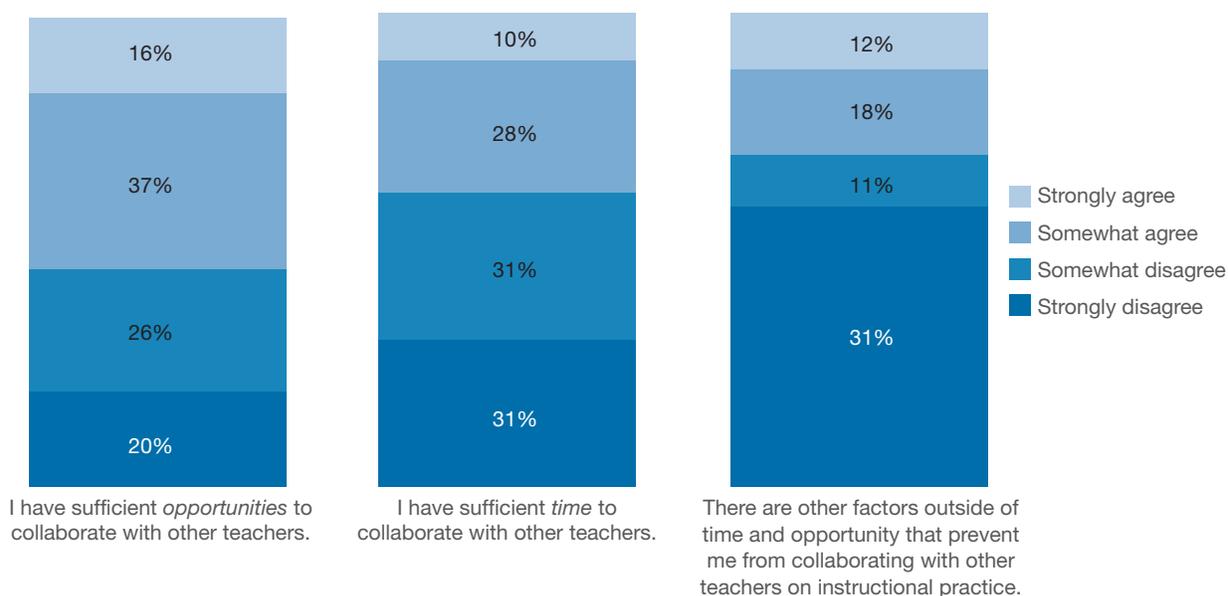
NOTE: Bars may not add to 100 percent because of rounding.

colleagues, difficulty finding substitutes to cover their classes while performing observations, and the inflexible nature of their daily schedule.

Teachers Commonly Collaborated Through Meetings and Discussions with Colleagues, but Peer Observations Were Less Common

We asked teachers to describe the frequency of a few specific collaboration activities in a typical month, and we found some notable variation in teachers' reports of their activities. As shown in Figure 2, 44 percent of teachers said they never observed another teacher's classroom to get ideas for instruction or to offer feedback in a typical month. Teachers' second-most common response was that they typically observed their peers once a month or less (38 percent). Approximately 18 percent of teachers observed their colleagues' classrooms more than once a month.

As shown in the second and third bars of Figure 2, teachers met with peers to discuss instructional practice or assessment data very often compared with the frequency of peer observations. For example, only 4 percent of teachers indicated that

they never met with other teachers at their school to discuss instructional practice, while 43 percent indicated doing so on at least a weekly basis. We found a similar pattern when asking teachers about reviewing student data from assessments or assignments: Only 14 percent reported never doing this in the past 12 months, and 26 percent indicated they did so at least weekly.

Collaboration Opportunities Were Associated with Collaboration Activities

To assess the extent to which this variation in teacher collaboration is related to opportunities and time constraints, we compared the distribution of teacher-reported collaboration activities presented in Figure 2 among teachers with different levels of reported opportunity and time as presented in Figure 1. These comparisons are illustrated in Figure 3, which shows teacher reports of greater frequency of collaboration among those who expressed higher levels of agreement with statements about having sufficient opportunities to collaborate with other teachers. For example, as shown in the first bar in Figure 3, 70 percent of teachers who strongly
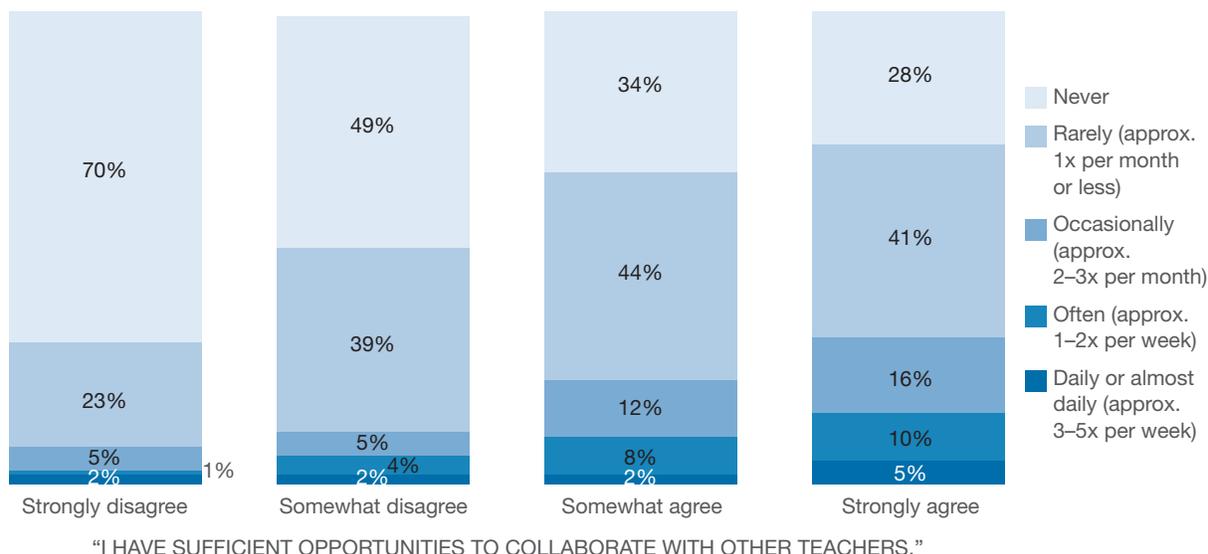
FIGURE 2

Teacher-Reported Frequency of Collaboration Activities in a Typical Month
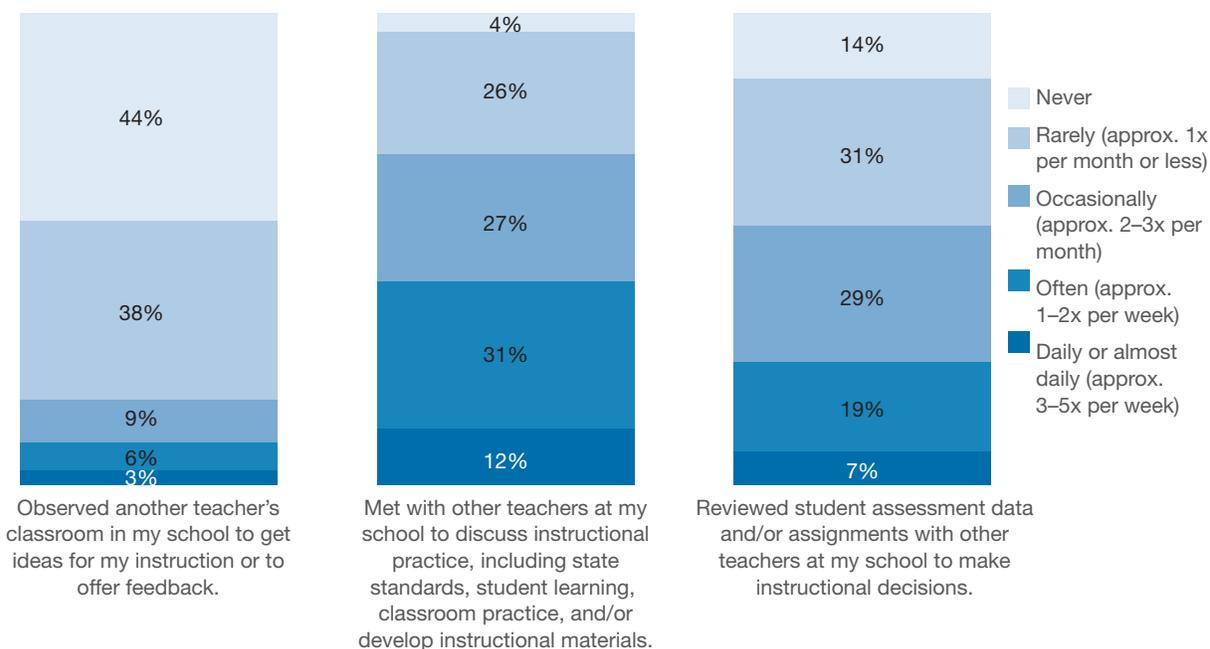
NOTE: Bars may not add to 100 percent because of rounding.

FIGURE 3

Teacher-Reported Frequency of Observing Another Teacher's Classroom, by Perceived Sufficiency of Opportunities to Collaborate with Other Teachers

"I HAVE SUFFICIENT OPPORTUNITIES TO COLLABORATE WITH OTHER TEACHERS."

NOTES: Bars may not add to 100 percent because of rounding. Chi-square tests of the difference in the distribution of teachers' reports of collaboration activity is significant among teachers with varying levels of agreement with the statement, "I have sufficient opportunities to collaborate with other teachers" ($p < 0.01$).
RAND *RR2217-3*

disagreed with the statement "I have sufficient opportunities to collaborate with other teachers" indicated that they never observed another teacher's classroom to get ideas for their own instruction in a typical month, whereas only 28 percent of the teachers who strongly agreed with the same statement said that they never observed a peer for instruction ideas in that same time frame. This pattern of associations was consistent when considering the other collaboration activities presented in Figure 2, such as meeting with teachers to discuss instructional practice or reviewing student assessment and/or assignment data with other teachers, and these results are available upon request.[3]

Teachers' Reports of Collaboration Activities Varied Among Those in Schools with Different Levels of Student Poverty, but the Nature of the Association Is Unclear

We did not find any statistically significant differences, based on school poverty levels, in teachers' reports about their opportunities to collaborate or the amount of time they have available for collaboration. However, 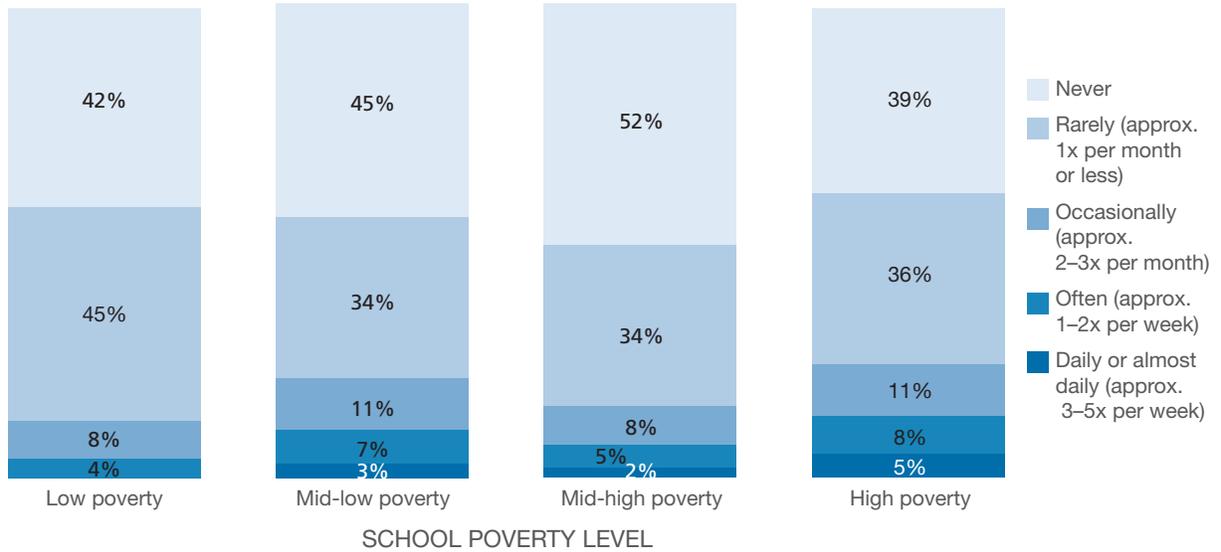we did find that the distribution of teachers' reported collaboration experiences varied among teachers from schools with different levels of student poverty.

Related to differences in actual collaboration activities, teachers in higher-poverty schools reported more collaboration experiences than their peers in schools that have moderate or low levels of students in poverty. Specifically, as shown in the fourth bar of Figure 4, we found that, compared with teachers from schools in the other poverty subgroups, fewer teachers from high-poverty schools reported "never" observing another teacher's class to get ideas or provide feedback (39 percent). At the other end of the distribution, more teachers in high-poverty schools indicated that they observed other teachers occasionally (two or three times a month) or twice a month or more (24 percent) than the other subgroups. (These distributional differences were statistically significant at the $p < 0.01$ level.)

However, when considering the bigger picture in Figure 4, we can see that the relationship was not linear, such that teachers from each successive school poverty quartile reported higher levels of collaboration. Furthermore, sensitivity analyses involving weighted linear regressions both with and without such control variables as school grade level, race and
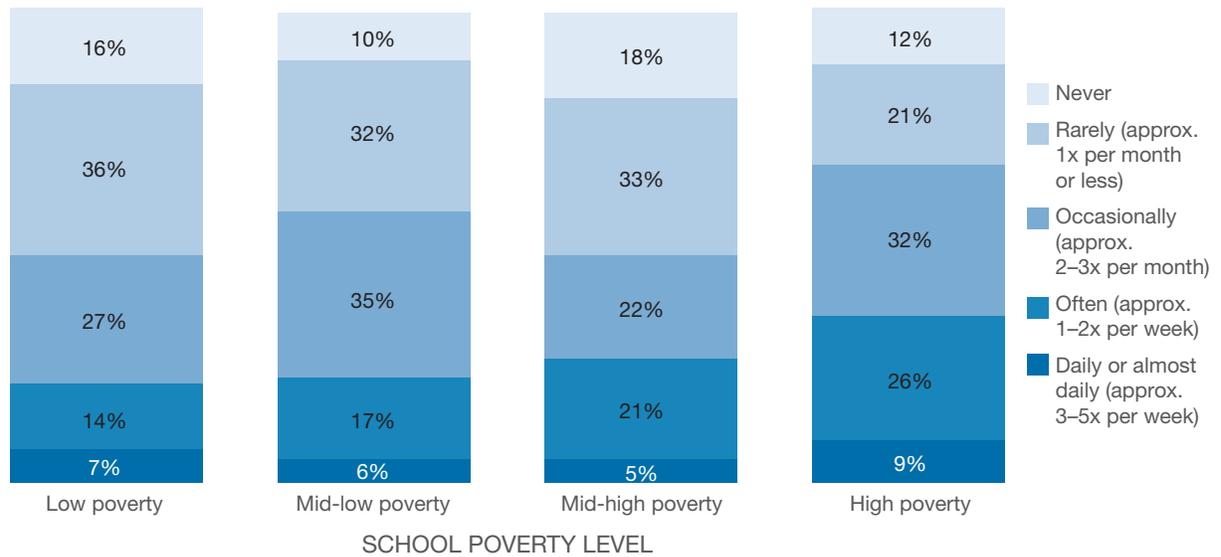
FIGURE 4

Teacher-Reported Frequency of Teacher Observation in the Past 12 Months, by School Poverty Quartile

NOTES: Bars may not add to 100 percent because of rounding. Chi-square tests of the difference in the distribution of teachers' reports of collaboration activity is significant among teachers from schools with varying levels of student poverty (*p* < 0.01).

FIGURE 5

Teacher-Reported Frequency of Meeting with Colleagues to Review Student Assessment and/or Assignment Data, by School Poverty Quartile

NOTES: Bars may not add to 100 percent because of rounding. Chi-square tests of the difference in the distribution of teachers' reports of collaboration activity is significant among teachers from schools with varying levels of student poverty (*p* < 0.01).

ethnic composition, and urbanicity all yielded non-significant results. Therefore, we can only conclude that the association between teacher and school poverty was not consistently positive or negative.

When teachers were asked about the frequency of their meetings with peers to review student assessment and/or assignment data to inform instructional decisions (see Figure 5), a higher percentage of teachers in the high-poverty quartile again responded affirmatively. Specifically, 33 percent of teachers from high-poverty schools reported meeting to discuss student data for instructional decisions "never" or "rarely," which was a smaller percentage than all of the other FRPL-based subgroups. Furthermore, 35 percent of teachers at high-poverty schools indicated that they discussed student data in this manner weekly or more often—more than the other three subgroups and the national average of 26 percent. (These distributional differences were statistically significant at the $p < 0.01$ level.)

As with the results presented in Figure 4 regarding teacher observation, sensitivity analyses involving weighted linear regressions both with and without such control variables as school grade level, race and ethnic composition, and urbanicity all yielded nonsignificant results. Thus, it is important to note that the results regarding teachers meeting to review student assessment and/or assignment data do not provide conclusive evidence of a positive association between school poverty and teacher collaboration activities. Instead, these results merely suggest that the distribution of teacher responses to questions regarding their collaboration activities were different across the four quartiles describing school poverty levels.

Receiving Feedback Through Teacher Collaboration

We will now shift from teacher reports of their own collaboration activities to their perceptions about the helpfulness of being on the "receiving end" of one particular collaboration activity: peer feedback from observations of instruction.

Teachers Reported That Peer Feedback on Instructional Practices Was More Helpful If They Received It More Often

When teachers were asked about the informal feedback they received during the 2015–2016 school year overall, only 30 percent indicated that they were informally observed by a colleague at least once during the school year (separate from a formal school and/or district evaluation), and even fewer (23 percent) reported receiving feedback from those informal peer observations.

These rates increased when we framed the question in terms of receiving feedback via informal observations *in a typical month*—52 percent of teachers reported that they receive feedback on their instructional practices from informal observation by other teachers "rarely" (approximately once a month or less, but more than "never"), with 15 percent saying they receive feedback more than once a month, on average.

Among the teachers who reported that they received some amount of feedback from informal peer observation in a typical month, we found that the frequency of this feedback was associated with their perception that it was helpful for improving their instructional practice. As shown in Figure 6, 72 percent of teachers who reported receiving feedback "often" (weekly or more) found it to be "extremely helpful," which was much higher than those who received feedback occasionally (36 percent) or rarely (21 percent) in a typical month.

The Relationship Between the Frequency and Helpfulness of Informal Feedback from Colleagues Was Most Pronounced for Teachers in Low-Poverty Schools

When we compared teachers' reports about the helpfulness of feedback from peer observations, we did not find any statistically significant associations with school poverty levels. However, a weighted multivariate analysis revealed an interesting interaction among school poverty, feedback frequency, and perceived helpfulness. As shown in Figure 7, we found a pronounced gap in teacher reports of feedback helpfulness for teachers who received different amounts of feedback, but only for teachers in the lowest two quartiles of percent FRPL.[4] In other words,

FIGURE 6

Teacher-Reported Helpfulness of Feedback on Instructional Practices via Informal Observation from Peers, by Feedback Frequency
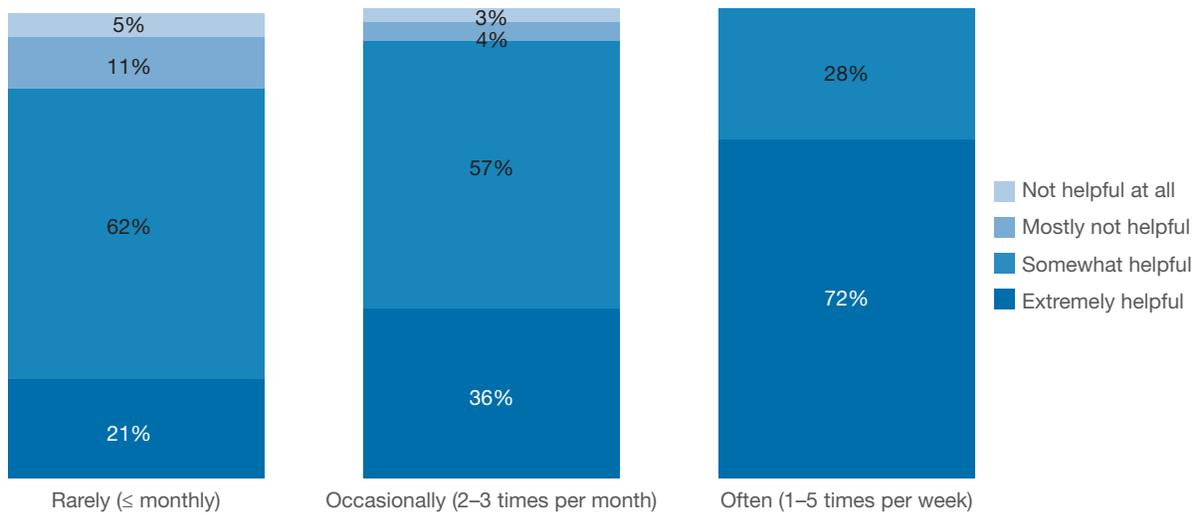
NOTES: Bars may not add to 100 percent because of rounding. A chi-square test of the difference in the distribution of teachers' reports of feedback helpfulness was significant among teachers who receive feedback with different levels of frequency ($p < 0.01$).

FIGURE 7

Weighted Marginal Estimates of Helpfulness of Feedback, Conditional on Feedback Frequency and Percent FRPL Quartiles
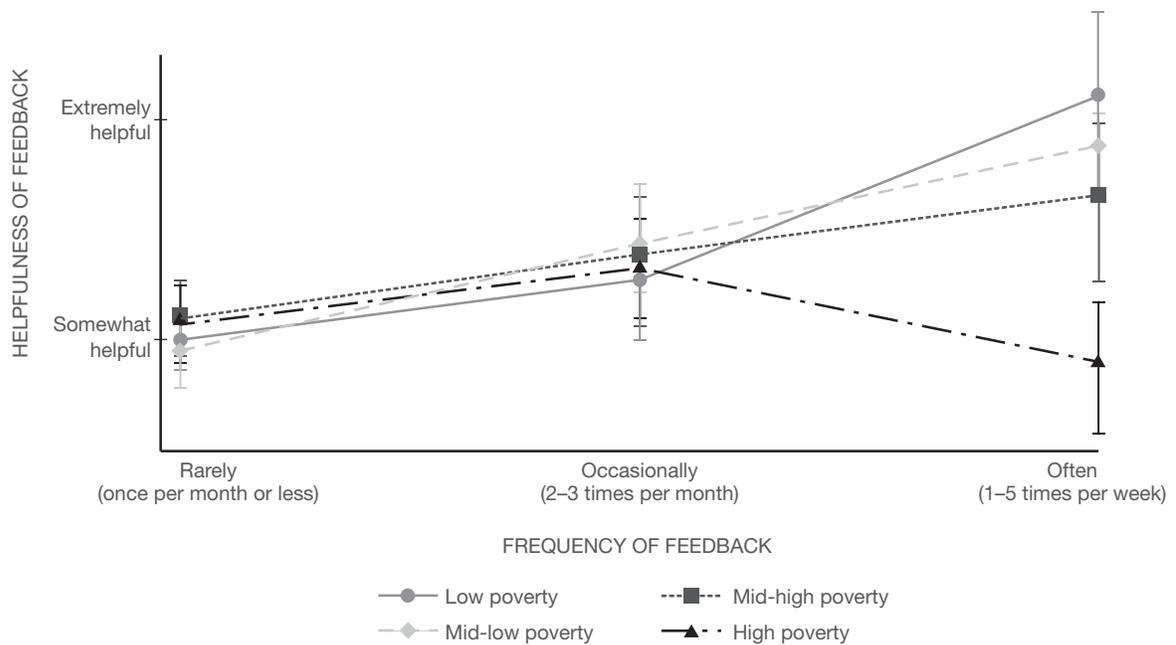
NOTE: Vertical bars represent 95-percent confidence intervals based on weighted linear estimates.

feedback frequency appears to be particularly helpful for teachers working in schools with fewer students receiving FRPL, while the teachers from higher-poverty schools reported similar or even lower levels of helpfulness regardless of the frequency of the feedback they receive.

To briefly summarize the findings presented in this section, teachers across the country often participated in some form of collaboration with their colleagues, although the experience was not universal—likely because some did not have the opportunities or the time to engage in those collaborations. Teacher peer observations appeared to be the least common form of collaboration in which teachers engaged. We found inconsistent and ultimately inconclusive results that did not point to a clear association regarding differences in collaboration activities among teachers at schools with varying levels of student poverty. Finally, we found that teachers reported the feedback they receive from peer observations to be more helpful when feedback was provided more frequently, but the perceived benefits of that increased frequency were nonexistent for teachers in high-poverty schools. We provide further conclusions and implications in the next section.

Conclusions

There is abundant evidence that the work of teachers is central to students' chances of academic success, and that on-the-job collaboration among teaching peers is increasingly seen to be a vital component to the development of teacher capacity (Goddard, Goddard, and Tschannen-Moran, 2007). Therefore, it is important to gain a full understanding of the extent to which teachers have sufficient opportunity to collaborate on the job, and whether they are able to actually participate in collaborative activities. Furthermore, it is important to understand the extent to which these collaborative experiences vary among teachers in different school contexts.

According to the results of our survey of a nationally representative sample of U.S. teachers, the vast majority of educators felt that time constraints prohibit them from collaborating with colleagues at their school. Despite this limitation, more than

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half of teachers reported that they receive some form of feedback based on informal peer observation in a typical month, and they were more likely to consider the feedback helpful if they received it more frequently. In addition, a majority of teachers reported that they meet with colleagues to discuss instructional strategies and review data from student assessments and assignments to make decisions about classroom instruction.

We also found that school poverty was not a significant predictor of teachers' reports of collaboration with peers, whether in the form of peer observations or meetings with colleagues to review student data for instructional decisions. Even though school poverty did not have a statistically significant association with the frequency of collaboration activities, the perceived helpfulness of these activities was higher for teachers in low-poverty schools than for those working in schools with higher levels of student poverty. In other words, more-frequent collaboration might not lead to instructional improvements for teachers in high-poverty schools, although additional research is needed to determine why this might be the case. One possible explanation is that the collaboration activities taking place at high-poverty schools are driven by responses to policy mandates and are more focused on compliance than on instructional improvements. For example, Hargreaves (1994) found that principals forcing teachers to meet without any meaningful support for the effort leads to a sense of "contrived collegiality" that does not produce helpful results.

While collaboration appears to be an important component of instructional improvement for teachers, it is not happening universally among educators in the United States.

Many of our findings are consistent with other national studies of teachers, including the 2004 and 2008 SASSs and the 2009 MetLife Survey of the American Teacher, although differences in how questions were worded make it difficult to provide direct comparison of results. Specifically, our finding that peer observation occurs less frequently than other forms of collaboration is similar to the results found in the MetLife Survey (Wei, Darling-Hammond, and Adamson, 2010). We should highlight, however, that the MetLife study had only 22 percent reporting peer collaboration (Markow and Pieters, 2010), while our 2016 ATP data had 54 percent of teachers reporting that they observed a colleague's classroom for the purposes of improving instruction or providing feedback over the past 12 months. Although our results might represent a stark increase in teacher reports of peer observation, they are actually lower than Darling-Hammond et al. (2009) reported, based on an analysis of the SASS data. But again, these differences might be attributable to differences in the wording of questions.

Our finding that teachers in high-poverty schools reported slightly higher rates of collaboration than those in lower-poverty schools is somewhat consistent with analysis of SASS data in Wei, Darling-Hammond, and Adamson (2010), which indicated that teachers in

schools with high FRPL enrollment are more likely to collaborate via common planning meetings than their peers in schools with low rates of FRPL. However, the equivocal nature of our results, highlighted by the consistently nonsignificant multivariate linear analyses, suggest that any apparent association between school poverty and teacher collaboration are not robust to the influence of other confounding factors.

Our findings suggest that although collaboration for teachers appears to be a helpful component of instructional improvements, we cannot claim it is happening for all teachers. A major obstacle to increased collaboration appears to be time constraints, which is unsurprising given the limited space that U.S. teachers typically have in their schedules for such activities, compared with many European nations (OECD, 2009). If more support and time were given to organized collaborative structures, such as teacher teams or professional learning communities, teacher collaboration could become a much more universal part of the profession (Charner-Laird et al., 2017).

There are three key limitations to this report. First, we do not know the extent to which teachers collaborate in nonprofessional settings or have online access to any of the numerous content exchange platforms that have been developed for teachers. Our analysis focused on in-person collaborative activities conducted by teachers with their colleagues at their schools, so activities outside of school or online are not included. Second, the findings are based entirely on teacher self-reports, which could be affected by social desirability bias and drive some responses up (e.g., teachers overreporting the extent to which they perform certain collaborative activities) or down (e.g., teachers underreporting the resources or opportunities their school provides for them as a way of explaining their own behavior). Nonetheless, we believe these findings represent a reasonable demonstration of teachers' perceptions of collaboration activities. Third, other than our investigation of the perceived helpfulness of feedback on instructional practices (as shown in Figures 6 and 7), we do not address the quality of collaboration activities, as most recently measured by Ronfeldt et al. (2015).

Implications

The findings in this report have important implications for education policymakers and practitioners. While collaboration appears to be an important component of instructional improvement for teachers, it is not happening universally among educators in the United States. A likely solution for state and local educational agencies, along with school leaders, is to work on providing more opportunities for greater collaboration among peers.

A first step is to increase the time available for teachers to participate in collaborative activities, such as peer observation and common planning time. However, support for increased collaboration time is likely not going to be enough; evidence suggests that increased common planning time does not correspond with more teacher collaboration (Wei, Darling-Hammond, and Adamson, 2010). Thus, schools and districts should consider providing protocols to guide collaboration and provide scaffolding for meaningful follow-through on an ongoing basis.

The finding that increased frequency of collaborative feedback is related to increased perception of helpfulness only among teachers in lower-poverty schools underscores a need to focus on quality as well as quantity. Thus, a focus on developing stronger, evidence-based collaboration practices and support structures might be particularly fruitful for teachers in high-poverty schools. This will require buy-in from principals, who should see their support for teacher collaboration as a part of their role as instructional leaders. This is likely to be particularly important for teachers in schools that have a variety of reform and school improvement mandates (Louis et al., 2010; Valli and Buese, 2007).

Moving forward, it will be important for scholars and policymakers to explore the particular obstacles that hinder teacher collaboration and to explore the practices that are seen to be particularly effective at improving teacher capacity. As RAND and our partners continue to develop and expand the ATP and its companion, the American School Leader Panel, we hope to continue to track trends in teacher collaboration across the United States and over time.

Notes

[1] These cut points are based on the unweighted distribution of percentage of FRPL for the teachers in our sample of respondents. We also considered using percentage-based cut points at 25 percent, 50 percent, and 75 percent, but the high level of agreement between the two forms of categorization and the consistent results in all subsequent analysis of FRPL-based differences led us to use the quartile cut points for ease of interpretation. Following naming conventions of the Institute of Educational Sciences, we label these categories low, mid-low, mid-high, and high poverty (National Center for Educational Statistics, 2017).

[2] Analyses were conducted in Stata, and all estimates were adjusted for weighting using inverse probability weights via the *pweight* specification.

[3] As a sensitivity analysis for the chi-square tests reported in Figures 3 and 4, we also estimated weighted linear regression models in which teachers' reported collaboration activities were predicted by their reported agreement with the opportunity and time questions already mentioned. In all cases, we found that teacher-reports of sufficient opportunities and time are positively associated with the three specific collaboration activities we discuss. All estimates were statistically significant at the $p < 0.01$ level. Results are available upon request.

[4] The marginal means and confidence intervals that are presented in Figure 7 are derived from a weighted linear regression that included an indicator of feedback frequency (operationalized as three dummy variables for "rarely," "occasionally," and "often"), as well as an indicator for percent FRPL quartile (numbered 1 through 4), and the interaction between the two. Finally, to account for unmeasured variation due to state-level differences in collaboration or professional development policies, we include state-level fixed effects. Model results are presented in Table A.1 of the appendix.

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Appendix

Abridged Survey Instrument

1. **Last school year (2015–2016)**, *separate from* a school and/or district formal teacher evaluation system, *how often* and *by whom* were you:

Action Taken	How often?				By whom?[a]		
	Select one response per row				For each element that occurred last year (one or more times), check all who were involved.		
	Never	Once	2–3 times	4 or more times	Colleague/ Peer	Mentor/ Coach	Administrator
…informally observed teaching your class?	❏	❏	❏	❏	❏	❏	❏
…informally given feedback on your teaching?	❏	❏	❏	❏	❏	❏	❏

[a] Gray out this second set of columns for anyone who selects "never" for either row in this question.

2. In a typical month, how often do you receive feedback on your instructional practices from each of the following sources?

Type of Feedback	Never	Rarely (approximately once per month or less)	Occasionally (approximately 2–3 times per month)	Often or Daily (approximately 1–5 times per week)
Feedback from any source	❏	❏	❏	❏
Feedback from formal observation as part of evaluation system	❏	❏	❏	❏
Feedback from informal observation by other teachers	❏	❏	❏	❏
Feedback from informal observation by school leaders	❏	❏	❏	❏
Feedback from validated externally developed student surveys (e.g., Tripod)	❏	❏	❏	❏
Informal student feedback (e.g., nonvalidated surveys, other feedback)	❏	❏	❏	❏
Parent feedback (e.g., surveys, other feedback)	❏	❏	❏	❏
Feedback from coach/mentor	❏	❏	❏	❏
Other (please specify)	❏	❏	❏	❏

3. Think about the last time you received feedback on your instructional practice from each of these sources. How helpful was it for improving your instructional practice? (Populate with all items from Question 2 for which panelists respond Rarely, Occasionally, or Often—not Never.)

Type of Feedback	Not helpful at all	Mostly not helpful	Somewhat helpful	Extremely helpful
Feedback from any source	❒	❒	❒	❒
Feedback from formal observation as part of evaluation system	❒	❒	❒	❒
Feedback from informal observation by other teachers	❒	❒	❒	❒
Feedback from informal observation by school leaders	❒	❒	❒	❒
Feedback from validated externally developed student surveys (e.g., Tripod)	❒	❒	❒	❒
Informal student feedback (e.g., teacher-developed student surveys, other feedback)	❒	❒	❒	❒
Parent feedback (e.g., surveys, other feedback)	❒	❒	❒	❒
Feedback from coach/mentor	❒	❒	❒	❒
Other (please specify)	❒	❒	❒	❒

4. Indicate your agreement with the following statements about opportunities to collaborate with other teachers. Include opportunities both inside and outside of your school.

Opportunity	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
I have sufficient opportunities to collaborate with other teachers.	❒	❒	❒	❒
I have sufficient time to collaborate with other teachers.	❒	❒	❒	❒
There are other factors outside of time and opportunity that prevent me from collaborating with other teachers on instructional practice. (please specify)	❒	❒	❒	❒

5. **In the past 12 months**, did you participate in any of the following activities in collaboration with other teachers *at your school*? (Collaboration includes all structured or planned activities when you met with colleagues to discuss curriculum, instruction, assessments, students, and/or any other aspect of your job.)

Activity	Never	Rarely (approximately once per month or less)	Occasionally (approximately 2–3 times per month)	Often (approximately once or twice per week)	Daily or almost daily (approximately 3–5 times per week)
I met with other teachers at my school to discuss instructional practice, including state standards, student learning, classroom practice, and/or develop instructional materials.	❒	❒	❒	❒	❒
I observed another teacher's classroom in my school to get ideas for my instruction or to offer feedback.	❒	❒	❒	❒	❒
I reviewed student assessment data and/ or assignments with other teachers at my school to make instructional decisions.	❒	❒	❒	❒	❒
Other (please specify)	❒	❒	❒	❒	❒

Weighted Regression Results

In Table A.1, we present the results of a weighted regression estimating teacher reports of feedback usefulness, as reflected in Figure 7.

TABLE A.1

Weighted Estimates of Teacher Reports of Feedback Usefulness, Conditional on Feedback Frequency and School Poverty

Feedback Characteristic	Weighted Estimate of Helpfulness
Frequency of feedback on instructional practices	
Rarely	NA (omitted referent)
Occasionally	0.27
Often or daily	1.184***
School poverty	
Low	NA (omitted referent)
Mid-low	−0.013
Mid-high	0.165
High	0.121
Interactions	
Occasionally * mid-low poverty	0.223
Occasionally* mid-high poverty	0.008
Occasionally * high poverty	−0.012
Often * mid-low poverty	−0.311
Often * mid-high poverty	−0.584
Often * high poverty	−1.372***
Grade level	
Secondary school	NA (omitted referent)
Primary school	0.016
Urbanicity	
City	NA (omitted referent)
Rural	−0.157
Suburb	−0.004
Town	−0.059
Intercept	3.154***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

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About This Report

Teacher collaboration is an important component of long-term career development for educators across the United States. For example, collaborative activities (such as peer observation and co-planning meetings) can provide opportunities for teachers to engage in informal mentoring with more-experienced and more-effective colleagues, experiment with new instructional approaches, and co-construct understandings of policies and practices, which, in turn, can shape their teaching practices. However, many factors impede support of teacher collaboration. These include norms of teacher autonomy, isolation, and limited instructional support from principals. These factors might be particularly salient in high-poverty schools, which have been found to have lower levels of capacity to support professional learning among teachers. However, little is known about teacher collaboration across multiple settings in the United States, and differences based on poverty rates have not been examined with nationally representative data. This report explores the prevalence of teacher collaboration in schools across the United States and assesses the extent to which teacher collaboration varies in schools with different levels of students in poverty. Analysis focuses on teachers' reports of three particular aspects of teacher collaboration: the prevalence of opportunities, the frequency of collaboration activities, and the usefulness of collaboration experiences. The findings might inform policy and practice related to teacher collaboration opportunities at the school, district, state, and national levels.

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