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Job-Related Stress Threatens the Teacher Supply

Key Findings from the 2021
State of the U.S. Teacher Survey



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KEY FINDINGS

- Nearly one in four teachers said that they were likely to leave their jobs by the end of the 2020–2021 school year, compared with the one in six teachers who were likely to leave, on average, prior to the pandemic. Black or African American teachers were particularly likely to plan to leave.
- A much higher percentage of teachers reported frequent job-related stress and symptoms of depression than the general adult population.
- Mode of instruction and health were the highest-ranked stressors for teachers.
- One in three teachers was responsible for the care of their own children while teaching.
- Many pandemic-era teaching conditions, such as technical problems while teaching remotely, were linked to job-related stress, depressive symptoms, and burnout.
- More *likely pandemic leavers* (i.e., teachers who were unlikely to leave their jobs before the pandemic but who were likely to leave at the time of the survey) experienced working conditions that were linked to higher levels of stress than teachers who were unlikely to leave and those who were considering leaving prior to the coronavirus disease 2019 (COVID-19) pandemic.
- The experiences of likely pandemic leavers were similar in many ways to those of teachers who had already resigned during the pandemic.
- Taken together, these results suggest that job-related stress poses immediate and long-term threats to the teacher supply.

The coronavirus disease 2019 (COVID-19) pandemic has highlighted and exacerbated many existing challenges within the United States' education system, including unequal access to such resources as the internet, barriers to engaging students and families, a heightened need for supporting student wellness, and the stress that teachers experience in their jobs. Surveys conducted prior to the pandemic found teaching to be one of the most stressful jobs in the United States (Gallup, 2014). Since March 2020, teachers have faced new working conditions wrought by the pandemic, and teaching has become even more challenging and stressful (Cardoza, 2021; Kraft, Simon, and Lyon, 2020; Singer, 2021). Teachers are navigating unfamiliar technology, are balancing multiple modes of teaching, and have concerns about returning to in-person instruction. Moreover, research suggests that some pandemic-era challenges are linked to teachers' feelings of burnout (Pressley, 2021). In addition to these work-related stressors, many teachers—who are overwhelmingly women—are caring for their own children while they are teaching.

The job-related stress that teachers experience warrants attention. First, job stress can negatively affect teachers' physical health (de Souza et al., 2012; Katz et al., 2016; Wolfram et al., 2013).

Second, teacher wellness and mental health are associated with the quality of students' learning environments and with an array of academic and non-academic student outcomes (McLean and Connor, 2015; Oberle and Schonert-Reichl, 2016; Zhang and Sapp, 2008). For example, teachers who reported higher levels of well-being also reported more-extensive use of social-emotional learning practices (Hamilton and Doss, 2020), which can have a positive impact on students' well-being and academic achievement (Durlak et al., 2011; Kanopka et al., 2020).

Third, teacher stress has been linked to turnover (i.e., mobility and attrition), which is critical given concerns about teacher shortages and the links between turnover and student achievement (Darling-Hammond, Sutchter, and Carver-Thomas, 2017; Kaufman and Diliberti, 2021a; Ryan et al., 2017; Singer, 2021; Sorensen and Ladd, 2020). Research that was conducted prior to the pandemic linked numerous sources of teacher dissatisfaction with

job-related stress, such as a lack of administrator support, a lack of autonomy, and demanding working conditions, which are themselves linked to teacher turnover (Carver-Thomas and Darling-Hammond, 2017; Greenberg, Brown, and Abenavoli, 2016; Lever, Mathis, and Mayworm, 2017; Pearson and Moomaw, 2005). Teachers also experienced stress in their personal lives, including stress caused by caring for children or other family members (Carver-Thomas and Darling-Hammond, 2017).

Although teaching is high-stress profession, teachers earn lower salaries than other professionals with similar levels of education (Organisation for Economic Co-Operation and Development, 2017). Before the pandemic, almost 20 percent of teachers cited financial reasons as an important factor in their decisions to leave the profession (Carver-Thomas and Darling-Hammond, 2017), and 20 percent of teachers who left the profession because of the pandemic cited “insufficient pay to merit the risks or stress” among their top reasons for leaving (Diliberti, Schwartz, and Grant, 2021).

RAND Corporation research conducted in December 2020 found that most teachers who quit during the pandemic cited the stress of teaching as their main reason for leaving (Diliberti, Schwartz, and Grant, 2021), pointing to a need to understand how teachers’ sources of job-related stress might be different now than they have been in the past. Better understanding teachers’ sources of job-related stress will help policymakers and education leaders provide appropriate supports to teachers and perhaps will prevent teachers from leaving their jobs or the profession because of stressful working conditions.

In this report, we explore the state of teacher well-being in the United States. We present our findings in two sections. First, we describe the stressors teachers faced during the pandemic and how those stressors are associated with teachers’ reported well-being. Second, we examine the working conditions experienced by teachers who were considering leaving their jobs because of the pandemic and how those conditions differ from those of teachers who were considering leaving before the pandemic and teachers who were not considering leaving.

Overall, this report contributes to the existing body of literature on teachers’ experiences during the

Abbreviations

AFT	American Federation of Teachers
ALP	American Life Panel
ATP	American Teacher Panel
CDC	Centers for Disease Control and Prevention
COVID-19	coronavirus disease 2019
NCES	National Center for Education Statistics
UAS	Understanding America Study

pandemic in three ways. First, we explore teachers’ self-assessments on a set of well-being indicators and reported intentions to leave their jobs by the end of the 2020–2021 school year. Second, we compare teachers’ self-reports of well-being and intentions to leave their jobs with those of the general public, where possible. Third, we examine the link between pandemic-era working conditions and well-being. Our findings identify the threat of extensive turnover in the teaching workforce, which might lead to a teacher shortage and could disrupt both school opening in fall 2021 and ongoing learning for students. We conclude with a discussion of implications and offer recommendations for educators and policymakers.

How We Analyzed the Survey

We fielded a survey in late January and early February 2021 to a nationally representative sample of K–12 teachers through RAND’s American Teacher Panel (ATP). The survey yielded 1,006 complete responses out of 1,819 eligible invitations for a 55-percent completion rate. The final sample was weighted to ensure national representation. In this report, we discuss only a subset of the survey questions that focused on working conditions and well-being. We conducted qualitative coding of select survey items that allowed for an open-ended response and include quotations from these responses throughout this report.

To compare teachers’ reports to those of the general population, we fielded nearly identical survey questions about job-related stress and intention to

An individual's likelihood of leaving their job and their well-being are highly correlated with perceived working conditions.

leave to U.S. adults in RAND's nationally representative American Life Panel (ALP) in early March 2021. The wording of the intention to leave question was modified to refer to "your job" instead of "your teaching job." To compare incidence of symptoms of depression among teachers with those among the general population, we analyzed data from identical questions on the January and February 2021 Understanding America Study (UAS) (University of Southern California Dornsife Center for Economic and Social Research, undated-a and undated-b).¹ We discuss our analytic methods in more detail in Appendix A and provide the complete survey questions and responses in Appendix B. Responses from the ALP and the UAS are included in Appendixes C and D, respectively. All appendixes are available separately online at www.rand.org/t/RRA1108-1.

We compare three teacher subgroups in this report:

- teachers who were unlikely to leave their current teaching job before the pandemic but were likely to leave at the time of the survey (i.e., *likely pandemic leavers*)
- teachers who were likely to leave their current teaching job both before the pandemic and at the time of the survey (i.e., *likely prepandemic leavers*)
- teachers who were unlikely to leave their current teaching job both before the pandemic and at the time of the survey (i.e., *unlikely leavers*).

We categorized teachers into these three subgroups based on their response to the question, "What is the likelihood that you will leave your job by the end of the current school year (2020–2021), compared to the likelihood you would have left your job before COVID-19?" We excluded the small number of individuals who stated that they did not plan to remain in their current teaching job in the 2021–2022 school year because they were scheduled to retire. We reasoned that, for teachers taking scheduled retirement, their decision to remain in or leave the profession was less dependent on the working conditions they faced during the pandemic.²

Our analysis of these three teacher subgroups made the following three comparisons:

- likely pandemic leavers compared with likely prepandemic leavers
- likely pandemic leavers compared with unlikely leavers
- likely prepandemic leavers compared with unlikely leavers.

In general, we found that the survey responses of likely pandemic leavers were significantly different from those of teachers in the other two groups. Unless otherwise noted, we discuss only the differences among these three teacher subgroups that are statistically significant at $p < 0.05$. For simplicity, when we discuss these differences, we refer to how likely pandemic leavers differed from their teacher peers (i.e., likely prepandemic leavers and unlikely leavers). We note other differences where they exist.

Throughout this report, we focus on four key indicators of well-being as reported by teachers: (1) frequency of experiencing job-related stress, (2) ability to cope with that stress, (3) symptoms of depression, and (4) feelings of burnout.³ Because the intent of this report is to provide exploratory, descriptive information rather than to test specific hypotheses, we did not make statistical adjustments for multiple comparisons. We explored whether teachers' responses to these well-being indicators differed according to their demographic characteristics, their teaching context (e.g., school-level student demographics, grade level or subject taught), or the characteristics of the students that they taught. We

did not find many such differences, but we discuss the few differences that our analyses revealed.

We recognize that an individual’s likelihood of leaving their job and their well-being are highly correlated with perceived working conditions (Allensworth, Ponisciak, and Mazzeo, 2009; Ingersoll, 2001). In general, people who are considering leaving their jobs might experience more-challenging working conditions and job-related stressors. As we noted earlier, teaching is one of the more stressful occupations in the United States. In this report, we describe these conditions among teachers who have considered leaving their jobs since the beginning of the pandemic.

Teacher Well-Being During the Pandemic

Nearly One in Four Teachers Overall, and Almost Half of Black Teachers in Particular, Said That They Were Likely to Leave Their Jobs by the End of the 2020–2021 School Year

As of January 2021, 23 percent of teachers reported that they were likely to leave their current teaching jobs by the end of the 2020–2021 school year.⁴ Most of these teachers were likely pandemic leavers. Teachers were slightly more likely to report intending to leave their jobs than employed adults in the United States; 17 percent of employed adults were considering leaving their current jobs (Table C.3 in Appendix C). The proportion of teachers who were considering leaving their jobs in January 2021 has not changed since fall 2020, when we last posed this question to teachers (Kaufman et al., 2020). Before the pandemic, about 16 percent of teachers, on average, left their current job within the school year (Carver-Thomas and Darling-Hammond, 2017; National Center for Education Statistics [NCES], 2015). Our results suggest that teachers might leave their jobs before the end of the 2020–2021 school year at higher rates than in previous years.

Nearly half of teachers who identified as Black or African American reported that they were likely to leave their jobs by the end of the school year and were more likely to say that they planned to leave than were teachers of other races. Teaching is a predomi-

nantly White profession (NCES, 2020). A decline in teachers of color would have educational impacts on students; studies have found that all students, especially students of color, benefit from having teachers of color (Carver-Thomas, 2018; Cherng and Halpin, 2016). Black students in particular benefit from having teachers of the same race (Carver-Thomas, 2018; Egalite, Kisida, and Winters, 2015; Gershenson et al., 2017). This emphasizes the importance of understanding why Black or African American teachers might leave and how schools and districts can work to retain them.

To better understand what factors teachers were considering in their decisionmaking process, we asked those who were considering leaving to explain why in an open text box. About one in five teachers who responded to this question mentioned COVID-19 in their response, and about half mentioned that they were considering other job opportunities within and outside education without explicitly mentioning the COVID-19 pandemic. One such teacher said, “If something better comes along, I will leave.”⁵

When interpreting these results, readers should keep in mind that teachers’ intentions to leave their jobs might change over time. Also, an intention to leave does not necessarily mean that the teacher ultimately will quit their job. A RAND ATP survey administered in March 2021 used an identical survey question and found that 18 percent of teachers reported that they were likely to leave their jobs by the end of the school year (Kaufman and Diliberti, 2021b). It is possible that the time that the survey question was administered could play a role in teachers’ responses. Teachers might be more likely to con-

I’m considering a change in district due to how my district has handled COVID.

— Teacher

sider leaving in the fall or winter, when much of the school year is ahead of them, than in the spring, with summer break in sight. Regardless, previous research has shown that even small increases in attrition rates can have significant consequences for teacher shortages (Carver-Thomas and Darling-Hammond, 2017).

Most Teachers Reported Experiencing Frequent Job-Related Stress and Burnout; One in Four Teachers Reported Symptoms of Depression

Three out of four teachers reported that their work since the beginning of the 2020–2021 school year had frequently been stressful. This high rate of stress was similar to reported stress levels among teachers who left the profession in the years leading up to and during the COVID-19 pandemic (Diliberti, Schwartz, and Grant, 2021). One in five teachers reported that they were not coping well with the stress of their job, and half of teachers reported feeling burned out. One in four teachers reported experiencing symptoms of depression (see Figure 5 later in this report). Moreover, more teachers appear to be experiencing frequent job-related stress now than in the years before the pandemic. In 2017, 61 percent of the teachers who responded to the same survey question on the American Federation of Teachers (AFT) Educator Quality of Work Life survey reported experiencing frequent job-related stress (American Federation of Teachers and Badass Teachers Association, 2017).⁶

Frequent job-related stress, feelings of burnout, and symptoms of depression appear to be nearly universal among teachers. We observed few differences by teacher demographics and teaching context (e.g., school characteristics, such as urbanicity).⁷ Female teachers were more likely to report high levels of job-related stress and burnout than male teachers (see Table A.4 in Appendix A).

Overall, we found that many teachers reported experiencing high levels of distress across several of our four well-being indicators. Teachers who experienced frequent job-related stress were more likely to also experience depressive symptoms and feelings of burnout than teachers who did not report frequent job-related stress. We found this to be true across all of the well-being indicators that we examined. When teachers reported experiencing distress on one dimension, whether it be frequent job-related stress, depressive symptoms, feelings of burnout, or difficulty coping with their job-related stress, they were more likely to experience another form of distress as well (see Table A.3 in Appendix A).

More Teachers Reported Experiencing Frequent Job-Related Stress and Symptoms of Depression Than the General Population

In January 2021, teachers experienced more frequent job-related stress than employed adults nationally. Forty percent of employed adults reported experiencing frequent job-related stress, compared with 78 percent of teachers. More teachers also reported experiencing depressive symptoms than did the general population. According to our analysis of the UAS data—which used the same questions to measure symptoms of depression and which was administered at the same time as our ATP survey—only 10 percent of U.S. adults reported experiencing such symptoms, as shown in Figure 1.

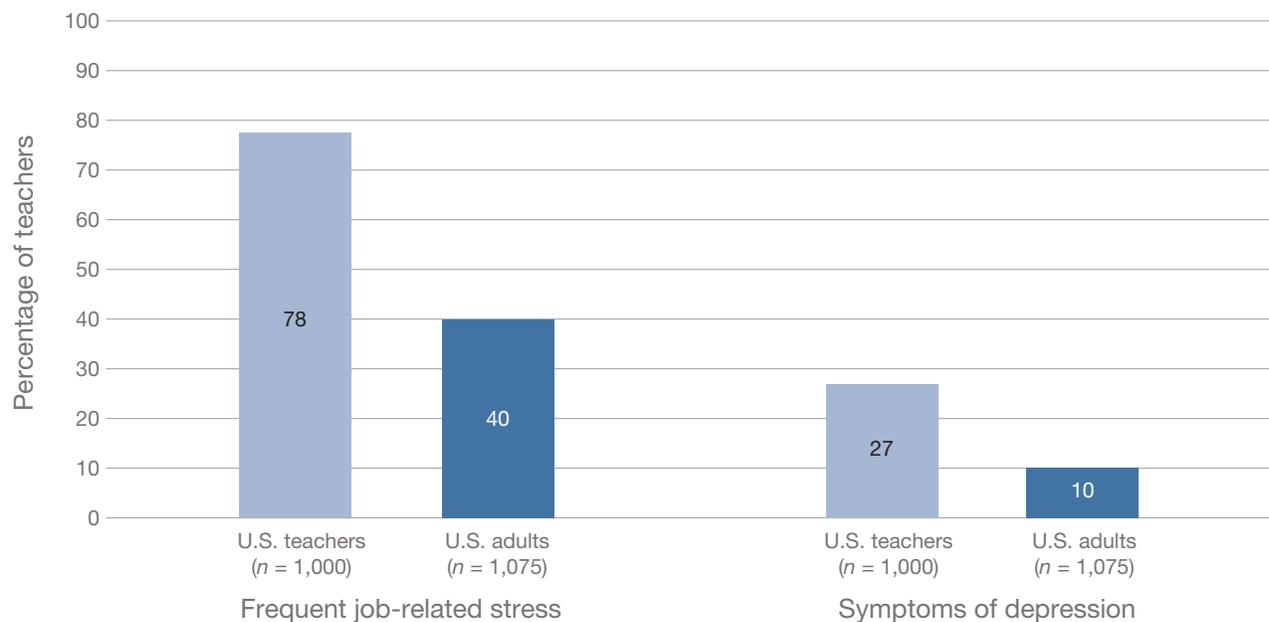
Mode of Instruction and Health Were the Highest-Ranked Stressors for Teachers; Layoffs Were Not a Concern

Challenges with instruction during the COVID-19 pandemic have been well documented (Clark et al., 2021; Hopkins et al., 2021; Kaufman and Diliberti, 2021a; Kaufman et al., 2020). Consistent with this

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FIGURE 1

Job-Related Stress and Symptoms of Depression Among Teachers and Among the General U.S. Adult Population



SOURCES: Data for U.S. teachers are from our ATP survey. Data for frequent job-related stress among U.S. adults are from our ALP survey. Data for symptoms of depression among U.S. adults are from the Understanding America Study (University of Southern California Dornsife Center for Economic and Social Research, undated-a).

prior work, we found that the most-prevalent sources of job-related stress mentioned by a majority of teachers were engaging students, dealing with changes to their schools’ instructional models this school year, teaching remotely, making or maintaining contact with the families of their students, and supporting students’ social and emotional learning.

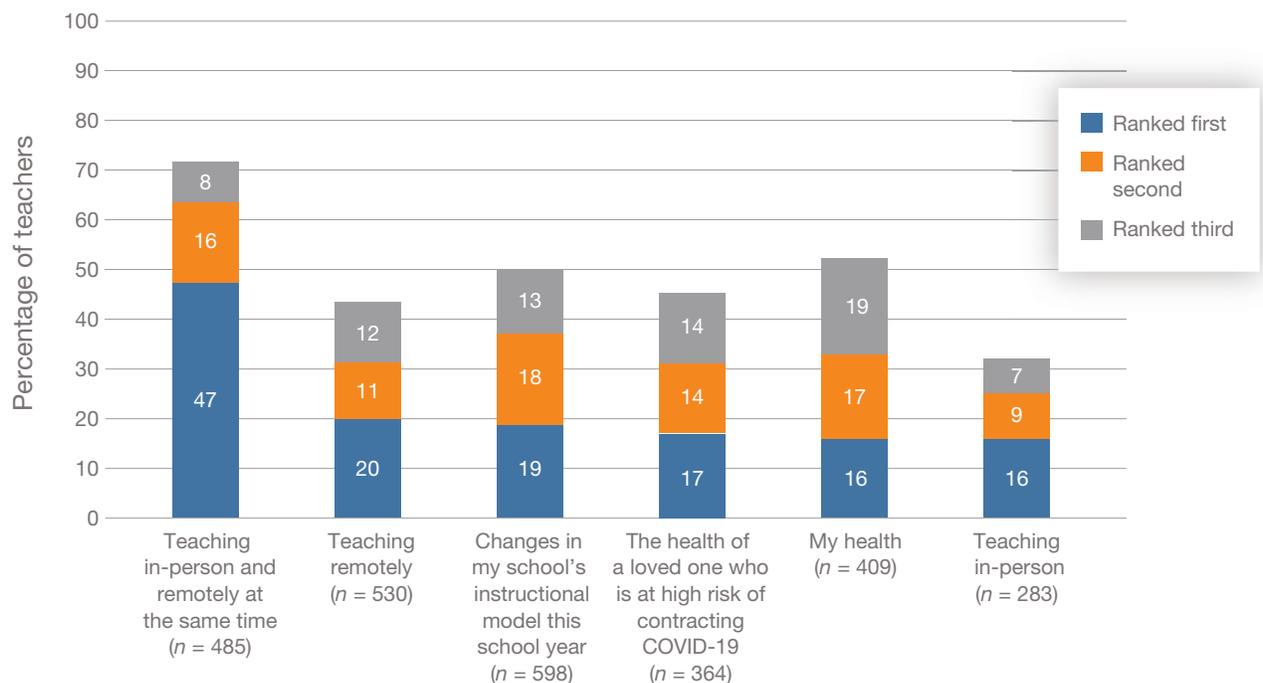
We looked at the stressors that teachers ranked as the first, second, and third greatest sources of job-related stress and found that the highest-ranked stressors were related to hybrid teaching (which we define broadly as some in-person instruction and some remote instruction),⁸ remote teaching, changes in modes of instruction, concerns about teachers’ own health, and concerns about the health of loved ones, as shown in Figure 2. About three-quarters of teachers who selected “teaching in-person and remotely at the same time” as a source of stress ranked it as one of their top three stressors, and nearly half ranked it as their greatest stressor. This suggests that hybrid teaching might be a particular

challenge for teachers, which is consistent with media reports (Ali, 2020).

Health was also a top source of stress. About half of teachers ranked “my health” and “the health of a loved one who is at high risk for COVID-19” as one of their top three stressors. On the positive side, furloughs or layoffs were not a concern for most teachers.⁹

It is critical to explore the specific challenges that teachers face with remote teaching.

FIGURE 2
Teachers' Top-Ranked Sources of Stress



NOTES: This figure is based on the following survey question: "Of the sources of stress in your job you indicated, rank the top three from 1 to 3." Teachers were presented with the job-related stressors they selected as sources of stress in the previous survey question. See Table B.17 in Appendix B.

Technical Problems with Remote Learning Remain Common

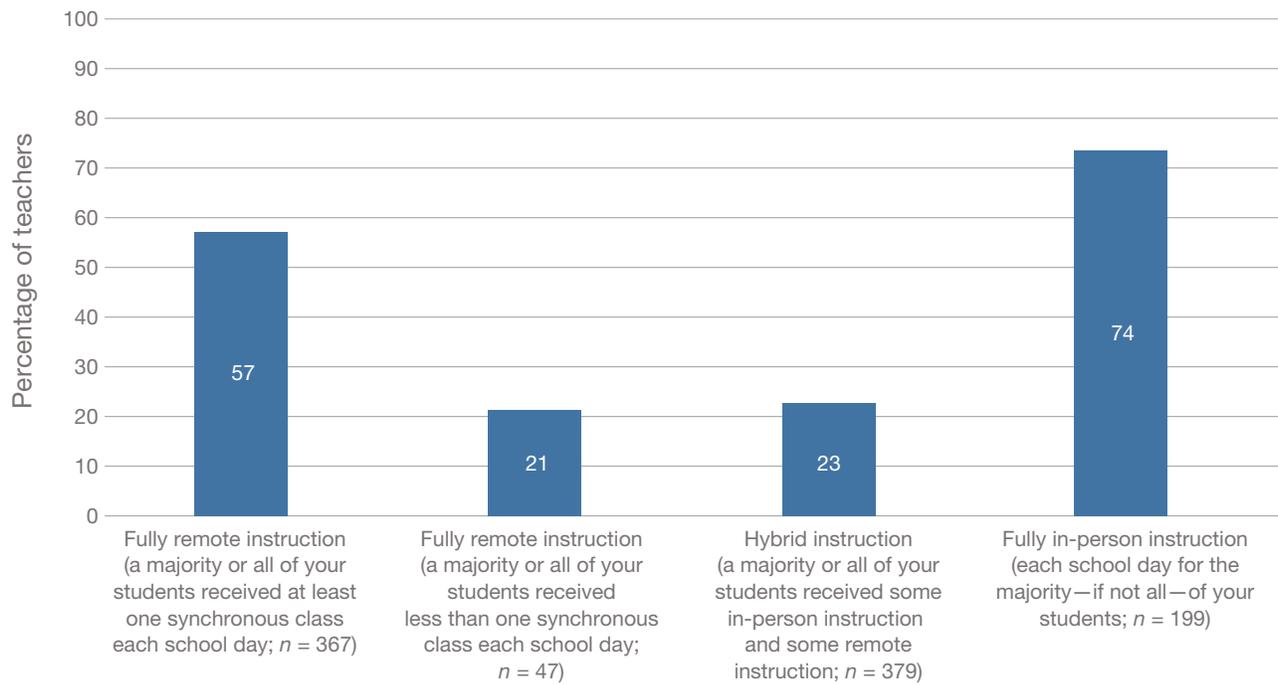
In January 2021, teaching in a fully remote model was the most common mode of instruction, reported by 42 percent of teachers. Thus, it is critical to explore the specific challenges that teachers face with remote teaching. This survey was administered nearly a year into the COVID-19 pandemic, and teachers reported that technical problems continued to be prevalent. Half of the teachers who provided remote instruction reported experiencing technology issues at least one day per week, and 83 percent reported that their typical student experienced technology issues at least one day per week. In addition, only about half of teachers said that they had received training on delivering remote instruction. Although this is an improvement from fall 2020, when only 39 percent of teachers responding to an ATP survey reported that they had received training on how to provide remote instruction (Kaufman et al., 2020), this finding suggests that more could be done to support teachers using this mode of teaching and learning.

Less Than Half of Teachers Reported That Their Actual and Preferred Instructional Modes Matched; Teachers Who Provided Fully In-Person Instruction Experienced the Greatest Alignment

We asked teachers to report how they were currently teaching and to specify how they would like to be teaching their students at the time they took the survey. As of January 2021, slightly less than half of teachers reported that they were currently teaching in the mode of instruction—remote, hybrid, or in-person—that they preferred. We defined a *match* when the preferred mode of instruction matched the actual mode of instruction (e.g., when a teacher who preferred to teach remotely was teaching remotely). Teachers who were providing fully in-person instruction experienced the greatest alignment between their actual and preferred modes of teaching; nearly three-quarters of those teachers preferred to be teaching that way (see Figure 3). Few teachers who provided hybrid instruction experienced alignment; only 23 percent of these teachers preferred hybrid

FIGURE 3

Teachers Experiencing a Match Between Their Actual and Preferred Mode of Instruction



NOTE: This figure compares teachers' responses to the following two survey questions: "Which of the following most closely reflects how you are teaching your students as of today?" and "Which of the following most closely reflects how you would like to teach your students today?"

instruction. Almost half of teachers in hybrid settings would have preferred to teach fully in-person, and another third would have preferred to be teaching in some form of fully remote instruction (see Table B.69 in Appendix B).

One-Third of Teachers Were Responsible for the Care of Their Own Children While Teaching

Like many working parents during the pandemic, some teachers with children were responsible for the care and/or remote education of their own children during the workday. Thirty-two percent of teachers with children living in their household (regardless of the age of the child or that child's need for care or learning support) reported that they were the main person responsible for the care and/or learning support of their own children while they were teaching. When we looked among only teachers with children in their home who needed care or learning support, this number rose to 41 percent. About one-third of

teachers whose children needed care or learning support reported that another adult (e.g., spouse, family member, babysitter) was responsible for their chil-

I'm simultaneously teaching full-time while monitoring my elementary school age daughter's learning and being her primary caregiver [at] all hours of the day with no support.

— Teacher

dren, and the remaining teachers reported that their children were in school or daycare outside the home.

Teachers Believed That Vaccines and COVID-19 Testing Would Make In-Person Teaching Safer

More than 65 percent of teachers viewed vaccines and COVID-19 testing for themselves, other staff, and students as important for making in-person teaching safer. Implementing recommended measures to increase the safety of teaching in-person is vital, given that one in three teachers who were teaching in-person at least some of the time at the time of this survey reported feeling unsafe doing so.¹⁰

Incomplete or inconsistent adoption or enforcement of some recommended COVID-19 safety precautions might contribute to some teachers feeling unsafe. Large majorities of teachers reported that many recommended practices, such as face mask requirements for staff and students and social distancing, were used in their schools. However, most teachers perceived that other important mitigation measures, such as COVID-19 testing of staff or students or improving ventilation, were not in use in their schools; these practices were reported by only about one-quarter of teachers.

Although COVID-19 testing and improved ventilation are recommended by the Centers for Disease Control and Prevention (CDC), both are expensive and can be challenging to implement (CDC, 2021; Faherty et al., 2021; Griffith and Pearce, 2020).

I'm constantly having to tell teenagers to pull their masks up, and [there are] no real consequences available for those who refuse to comply.

— Teacher

However, a more recent RAND survey of principals (administered in March 2021) found that schools' use of COVID-19 testing for staff and students appears to have increased (Kaufman and Diliberti, 2021b). The same survey found that 83 percent of teachers reported that they had received at least one dose of a COVID-19 vaccine.¹¹

Many Pandemic-Era Teaching Conditions Were Linked to Increased Reports of Job-Related Stress, Depressive Symptoms, and Burnout

Understanding the connection between teachers' working conditions and reported levels of well-being is important because of the strong connection between experiencing high levels of job-related stress and turnover (Diliberti, Schwartz, and Grant, 2021; Ryan et al., 2017). We explored how pandemic-era working conditions were linked to four indicators of teacher well-being: reports of work-related stress, ability to cope with that stress, feelings of burnout, and depressive symptoms.

Figure 4 displays the relationships among some salient pandemic-era working conditions and these four indicators of teachers' self-reported well-being. Teachers who experienced such working conditions as a lack of a match between actual and preferred modes of instruction, frequent changes in their schools' modes of instruction, lack of support from their schools or administrators, or technical issues with remote learning were significantly more likely to report poor well-being across these four dimensions than teachers who did not report experiencing these working conditions. Teachers who perceived that their schools were not implementing some COVID-19 safety practices also were significantly more likely to report poor well-being across these four dimensions. Other stressful working conditions, such as caring for their own children while teaching, were associated with higher levels of distress but the differences were not statistically significant.

We analyzed teachers' open-ended responses to a question about their plans to leave their jobs by the end of the school year. One in five teachers who provided an open-ended response echoed the sentiment that pandemic-era teaching conditions were causing them distress. Explicitly linking the pandemic,

FIGURE 4
Working Conditions Linked to Higher Levels of Teacher Distress



NOTES: The weighted percentages of teachers who experienced frequent job-related stress, symptoms of depression, difficulty in coping with job-related stress, and burnout for each working condition are noted in Appendix Tables B.64–B.68. In response to the question, “What safety measures is your school taking to reduce COVID-19 transmission during in-person instruction this school year (2020–2021),” teachers were able to select the safety practices that they perceived their schools were implementing, including rapid COVID-19 testing of students or staff, requirements for the use of face masks among students or staff, temperature checks for employees or students, improvements in ventilation, social distancing, and hygiene practices. For ease of interpretation, we combined teachers’ responses for similar safety practices (e.g., “regular [e.g., monthly] COVID-19 rapid testing of most or all staff, regardless of symptoms” and “COVID-19 rapid testing of staff who feel unwell.”) In this figure, we included only safety practices that were linked to a significant increase in at least one of the teacher distress indicators. See Appendix Table B.68 for the full results.

resulting working conditions, and eventual decisions relating to retention, one teacher said, “COVID-19 and blatant disrespect for the pressures on teachers are pushing me out the door.”

Job-Related Stressors and Working Conditions Among Likely Pandemic Leavers

In this section, we discuss our analysis of three subgroups of teachers (likely pandemic leavers, likely prepandemic leavers, and unlikely leavers) and compare the survey responses of likely pandemic leavers with those of their teacher peers (i.e., likely prepandemic leavers and unlikely leavers). We also compare the responses of likely pandemic leavers with those of former teachers who left the profession during the pandemic and before their scheduled retirement. These teachers were asked about similar topics in a RAND survey administered in December 2020 (Diliberti, Schwartz, and Grant, 2021).

The unknown of staying in remote teaching or going back to in-person [teaching is difficult]. [The expectations are] changing sometimes daily. . . . I feel I cannot get a grip and plan for things one way or another.

— Teacher

More Likely Pandemic Leavers Reported Frequent Job-Related Stress and Symptoms of Depression Than Their Teacher Peers

Frequent job-related stress was nearly universal among likely pandemic leavers. As shown in Figure 5, 96 percent of likely pandemic leavers reported experiencing job-related stress during the 2020–2021 school year. In comparison, frequent job-related stress was reported by only 64 percent of likely pandemic leavers among the general population of employed adults (see Table C.4 in Appendix C).

Likely pandemic leavers reported not coping with the stress of their job as well as their teacher peers. Moreover, more likely pandemic leavers reported symptoms of depression than their peers, but they were as likely to report feeling burned out as likely prepandemic leavers. Both groups of likely leavers felt more burned out than teachers who were unlikely to leave.

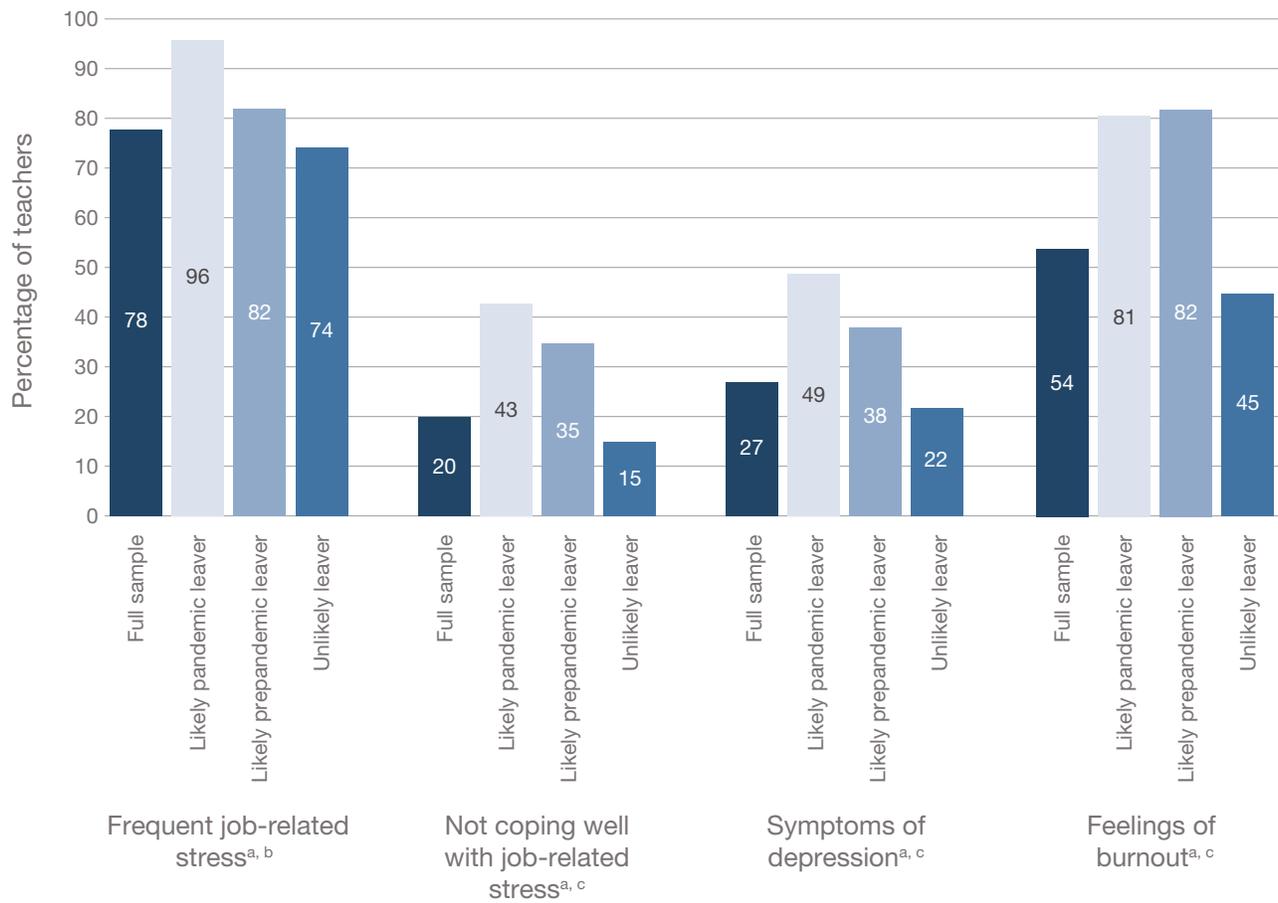
Teachers who were likely pandemic leavers were similar to their teacher peers in terms of demographics and teaching context (e.g., school characteristics, subject or grade level taught; see Tables A.1 and A.2 in Appendix A).¹² The likely pandemic leavers in our sample were demographically similar in terms of age, race or ethnicity, and sex to samples of teachers who left the profession during the pandemic and who left prior to the pandemic (Diliberti, Schwartz, and Grant, 2021).

Technical Problems and a Lack of Technical and Administrative Supports Were More Common for Likely Pandemic Leavers

Remote instruction—either through a fully remote or hybrid model—was the most common instructional mode among likely pandemic leavers. Among teachers who were providing at least some remote instruction, frequent technical problems were more commonly reported by likely pandemic leavers. Fewer likely pandemic leavers than unlikely leavers had received training on how to deliver instruction remotely. Likely pandemic leavers also had more difficulty getting the equipment that they needed to teach remotely repaired or replaced if it was not working, as shown in Figure 6.

FIGURE 5

Teachers' Job-Related Stress, Ability to Cope, Symptoms of Depression, and Feelings of Burnout



NOTES: Teachers who were scheduled to retire were omitted from the categories of leavers but were included in the full sample. Full sample $n = 1,006$; likely pandemic leaver $n = 148$; likely pre-pandemic leaver $n = 67$; and unlikely leaver $n = 748$.

^a Indicates that the difference between likely pandemic leavers and unlikely leavers was significant at $p < 0.05$.

^b Indicates that the difference between likely pandemic leavers and likely pre-pandemic leavers was significant at $p < 0.05$.

^c Indicates that the difference between likely pre-pandemic leavers and unlikely leavers was significant at $p < 0.05$.

Similar percentages of teachers who left the profession during the pandemic reported technical problems while teaching remotely and reported that they had not received training (Diliberti, Schwartz, and Grant, 2021).¹³ This suggests that likely pandemic leavers were experiencing some of the same instructional challenges as teachers who left during the pandemic.

Support from school administrators is strongly related to teachers' intentions to stay in their jobs (Carver-Thomas and Darling-Hammond, 2017). About half of likely pandemic leavers agreed that the administrators in their schools were highly sup-

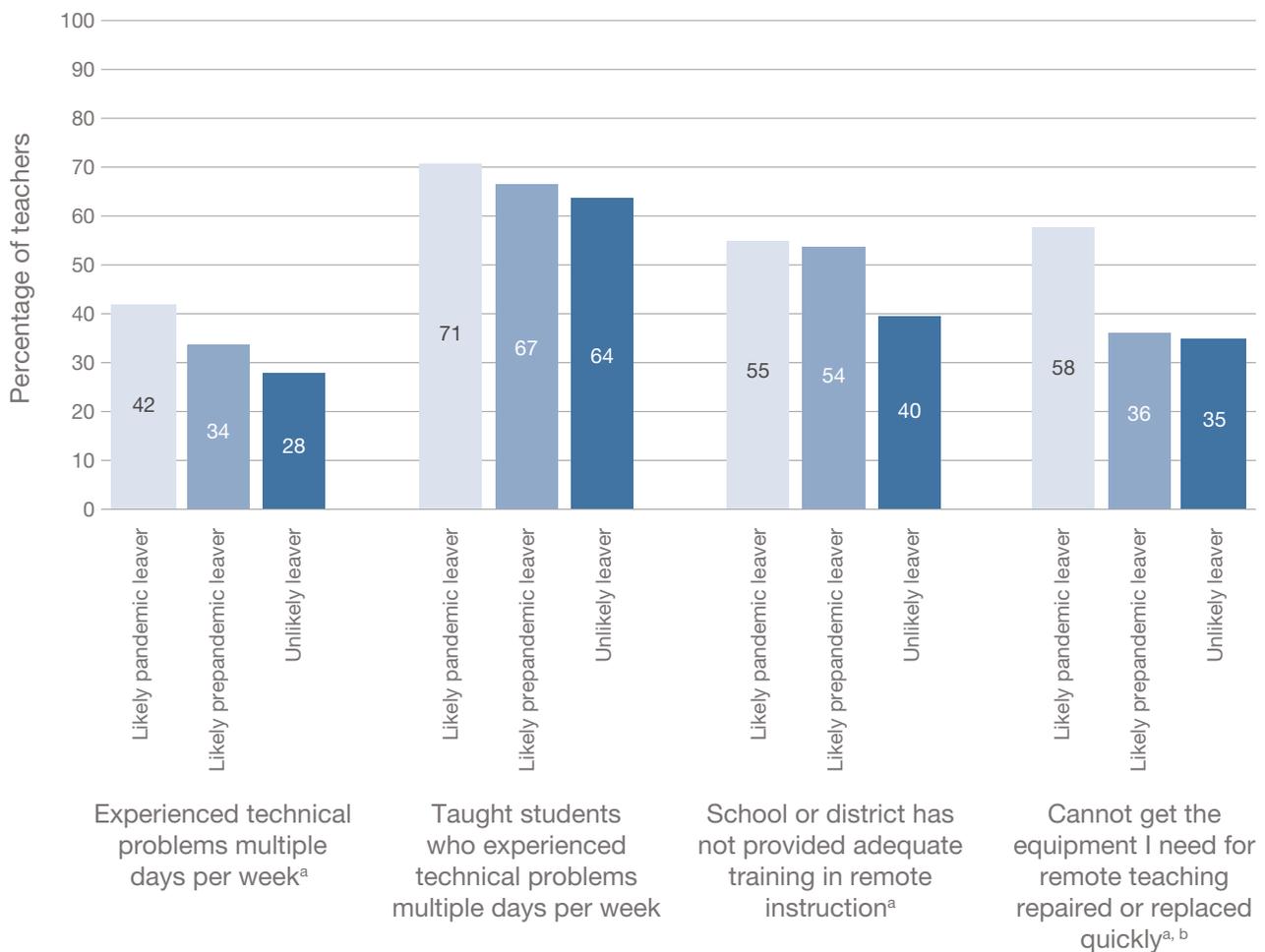
portive of teachers, as did about half of likely pre-pandemic leavers. In comparison, 80 percent of unlikely leavers perceived their administrators to be highly supportive.

Concerns About Health and Teaching In-Person Were More Salient for Likely Pandemic Leavers

Likely pandemic leavers were more stressed about their own health and about the health of a loved one who was at high risk of contracting COVID-19 than their teacher peers. Perhaps as a result, only 25 percent of likely pandemic leavers teaching in-person at

FIGURE 6

Technical Problems, Adequate Training, and Availability of Equipment Among Remote Teachers



NOTES: We focused this analysis on teachers whose current mode of teaching involved at least some remote instruction and whose students used technology for remote instruction. Thus, we excluded teachers who reported that they were currently teaching fully in-person. We also excluded the small number of teachers who reported that their students did not use technology for remote instruction. *Experienced technical problems multiple days per week* comprises responses of “daily” or “several days per week” to the following question: “After a month into remote teaching this school year (2020–2021), how frequently—on average—did you personally experience technical problems related to the technology you used for remote instruction?” *Taught students who experienced technical problems multiple days per week* comprises responses of “daily” or “several days per week” to the following question: “After a month into remote teaching this school year (2020–2021), how frequently—on average—did your typical student experience technical problems related to the technology they used for remote instruction?” *School or district has not provided adequate training in remote instruction* comprises responses of “strongly disagree” or “disagree” to the following survey item: “My school or district has provided me with adequate training in how to deliver instruction remotely.” *Cannot get equipment I need for remote teaching repaired or replaced quickly* comprises responses of “strongly disagree” or “disagree” to the following survey item: “If the equipment I need to teach remotely isn’t working, I can get it repaired or replaced quickly.” Likely pandemic leaver $n = 124$; likely pre-pandemic leaver $n = 54$; and unlikely leaver $n = 586$.

^a Indicates that the difference between likely pandemic leavers and unlikely leavers was significant at $p < 0.05$.

^b Indicates that the difference between likely pandemic leavers and likely pre-pandemic leavers was significant at $p < 0.05$.

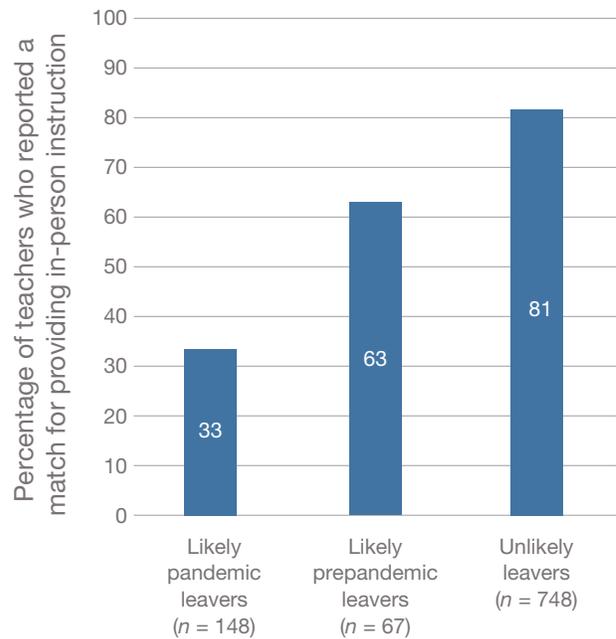
least some of the time felt safe doing so, compared with 54 percent of likely prepandemic leavers and 70 percent of teachers who were unlikely to leave. Moreover, few likely pandemic leavers who were teaching in-person in January 2021 preferred to be teaching that way, as shown in Figure 7. At the time, most likely pandemic leavers who were teaching in-person would have preferred teaching remotely. These results are consistent with the earlier RAND survey of teachers who left the profession during the pandemic and prior to their scheduled retirement. Diliberti, Schwartz, and Grant, 2021, found that teachers’ own health or the health of a loved one “was the second-highest-ranked reason for leaving among those who said the pandemic drove them out of the profession” (p. 6).

The extent to which teachers felt safe teaching in-person might be related to the COVID-19 safety precautions taken in their schools. Although requiring that adults wear masks throughout the day (except for during meals) was near-universal, use of other precautions varied. Fewer likely pandemic leavers than unlikely leavers reported that their schools had adopted social-distancing practices (such as instructing students in cohorts or pods), hygiene practices (such as cleaning rooms and surfaces between uses), and temperature checks for students. Other measures, such as improved ventilation and COVID-19 testing for students and staff, were not commonly reported by teachers; we found no significant differences between likely pandemic leavers and their teacher peers on these items (see Table B.70 in Appendix B).

Few Likely Pandemic Leavers Experienced a Match Between Preferred and Actual Modes of Instruction, and More Experienced Changes in School Instructional Model

As we reported earlier, challenges related to mode of instruction, such as technical issues with remote teaching and increased concerns about health if teaching in-person, were more common for likely pandemic leavers. These teachers also were less likely to be teaching in their preferred mode of instruction. Only 33 percent of likely pandemic leavers experienced a match between their preferred and

FIGURE 7
Percentage of Teachers Who Reported a Match for In-Person Instruction, According to Their Likelihood of Leaving



Teachers providing in-person instruction

NOTES: This figure compares teachers’ responses to the following two survey questions among each of the three groups of teachers (i.e., likely pandemic leavers, likely prepandemic leavers, unlikely leavers): “Which of the following most closely reflects how you are teaching your students as of today?” and “Which of the following most closely reflects how you would like to teach your students today?” The figure displays results for teachers who reported a match for providing in-person instruction. The few teachers who reported that they were scheduled to retire were excluded from this analysis.

actual modes of instruction, compared with about half of their teacher peers. It was also more common for likely pandemic leavers to experience at least one change in their schools’ instructional models, such as a switch from fully remote to hybrid teaching, during the 2020–2021 school year.

Likely Pandemic Leavers Were Disproportionally Responsible for the Care and Learning Support of Their Own Children While They Were Teaching

Among teachers who reported that their own children needed learning support or care, half of likely pandemic leavers were responsible for such care while they were teaching, compared with 29 percent of likely prepandemic leavers and 40 percent of unlikely

Experiencing high levels of job-related stress poses immediate and long-term threats to the teacher supply.

leavers. The child care burden experienced by likely pandemic leavers appears to be similar to that reported by teachers who left the profession during the pandemic and before their scheduled retirement; these teachers ranked it as their third-highest reason for leaving, after health concerns and insufficient pay given the risks and stress of the job (Diliberti, Schwartz, and Grant, 2021).

Implications

Taken together, these results suggest that experiencing high levels of job-related stress poses immediate and long-term threats to the teacher supply. Teaching was a stressful occupation long before the pandemic. The results from this survey suggest that teachers have experienced many job-related stressors during the 2020–2021 academic year. Perhaps as a result of those stressors, one in four teachers were considering leaving their jobs by the end of this school year—more than in a typical prepandemic year and more than employed adults nationally. Teachers reported experiencing more job-related stress than many employed adults. Furthermore, certain working conditions, such as the lack of a match between actual and preferred modes of instruction, the lack of administrator and technical support, frequent technical issues with remote teaching, and the lack of implementation of COVID-19 safety measures, were linked to greater teacher distress.

It is concerning that these stressful working conditions and increased personal responsibilities were more common among likely pandemic leavers than among teachers who were likely to leave before

the pandemic and among those who were unlikely to leave. Moreover, the experiences of these likely pandemic leavers were similar in many ways—such as in overall reports of job-related stress, technical issues while teaching remotely, and lack of child care—to those of teachers who left the profession after the start of the pandemic but prior to their scheduled retirement. These similarities suggest that likely pandemic leavers might well decide to quit if nothing is done to address these challenging working conditions and to support teacher well-being.

At the same time, there are other indications of threats to the teacher supply. Recent research suggests that prepandemic teacher shortages remain a critical issue in urban and rural districts alike (Carver-Thomas, Leung, and Burns, 2021). The immediate need to reduce class sizes for physical distancing, which requires more staff, along with shortages of substitute teachers, might exacerbate the problem of teacher shortages in the short term (Carver-Thomas, Leung, and Burns, 2021). Prepandemic enrollment declines in teacher preparation programs also could contribute to understaffed schools in the short term (Partelow, 2019).

Although nearly one in four teachers were considering leaving their jobs by the end of the 2020–2021 school year, as of January 2021, we found that nearly half of those teachers were still unsure of their plans. This suggests that at least some teachers who were thinking about leaving might not do so this school year. Teachers' decisions to leave their current job likely rest on multiple factors—such as vaccination rates and districts' summer school staffing plans—and job opportunities outside the classroom might begin to look more attractive as the economy recovers from the pandemic (Barnum, 2020).

Stressful working conditions, many of which have been exacerbated by the COVID-19 pandemic, appear likely to spur some teachers who might not otherwise have considered leaving to consider doing so this year. Although it is not clear when, or even whether, these teachers will ultimately decide to quit, it is also not clear how many pandemic-induced working conditions, such as remote teaching, will persist after the pandemic. These stressful working conditions might have already deterred some individuals from enrolling in teacher preparation programs

and could continue to do so in the future. If fewer teachers are trained in the coming years, some teaching positions could remain vacant in the long term. Addressing job-related stressors is therefore imperative to avert further teacher shortages.

Recommendations

In this section, we offer recommendations for district and school leaders and state and local policymakers. Although this report focuses on teachers' experiences during the COVID-19 pandemic, we recognize that job-related stress and challenging working conditions predate the 2020–2021 school year and might continue after the pandemic is over. For example, it seems likely that more learning will occur online after the pandemic. Recent surveys indicate that district leaders plan to continue to offer remote learning in response to parent demand (Gewertz, 2021; Schwartz et al., 2020). Similarly, recent interviews with a broad sample of school leaders found that many principals are considering increased use of online materials in the next school year (Wang et al., forthcoming). Although some of the recommendations we offer in this section focus on the COVID-19 pandemic, they are intended to encourage district and school leaders to understand teachers' working conditions, links to well-being, and needs for a better work environment. We hope that these recommendations can mitigate job-related stressors for current teachers and reduce concerns for those considering entering the profession.

Implement Recommended COVID-19 Mitigation Measures in a Way That Allows Teachers to Focus on Instruction

In the coming months, teachers' worries about their own health or the health of loved ones might depend on the proportions of teachers in their schools who are vaccinated and the COVID-19 safety measures

that their schools have adopted. Although vaccination rates are rising for both teachers and adults in the general population, maintaining a safe environment for teaching and learning will remain a priority. There is evidence that more schools are adopting such practices as COVID-19 testing (Kaufman and Diliberti, 2021b). Districts and schools that have not yet adopted COVID-19 testing or other recommended safety measures should consider doing so. Although many such measures are costly, the American Rescue Plan Act of 2021 provides schools with funding to hire staff and ramp up large-scale testing programs, and the Federal Emergency Management Agency is reimbursing school districts for testing program costs (Lieberman, 2021; Pub. L. 117-2, 2021).

Adopting safety measures is only one piece of the puzzle. Some media reports suggest that enforcing COVID-19 safety measures can be time-consuming for teachers and other school staff (Schwartz, 2021). Therefore, district and school leaders should consider adopting recommended COVID-19 safety measures and collaborating with teachers to ensure that such measures are implemented in ways that allow teachers to focus on instruction. For example, districts and schools could recruit additional staff and deploy multiple communication mechanisms to help students comply with safety measures. Schools could ensure that windows are operable, employ fans and air purifiers, or upgrade ventilation systems. Education leaders also should consider how schools can facilitate vaccinations for younger students once they become available.

Collect Data on Teacher Working Conditions and Links to Well-Being

The working conditions and job-related stressors that could spur teachers to consider leaving their current jobs might vary by school. Thus, the changes in working conditions that might induce teachers to

Teachers reported experiencing more job-related stress than many employed adults.

remain in their jobs—and the well-being supports they find to be helpful—might also vary at the school level. It is crucial that district and school leaders understand this variation to inform the design and implementation of supports. Many school districts, states, and teacher professional associations already provide mental health supports to teachers,¹⁴ but the extent to which teachers are aware of these supports, take advantage of them, or experience barriers to access is not clear.

In addition, state, district, and school leaders should keep in mind that teachers from different backgrounds might be affected differently by their working conditions. For example, teachers of color and teachers who are parents of children who need learning support or care might experience different job-related stressors and working conditions—and thus have different needs—than their teacher peers. Schools and districts should consider systematically collecting data about the mental health and well-being needs of teachers in a manner that enables subgroup analysis to understand the sources of teacher distress in their school communities, the working conditions that would enhance teacher satisfaction, and the types of well-being supports that teachers would find most helpful (Regional Educational Laboratory Pacific, undated).

Work with Teachers and School Leaders to Design and Implement a Variety of Mental Health and Wellness Supports

It is crucial that state, district, and school leaders involve teachers and school leaders in developing an array of responses to and supports for reducing teacher stress and providing support for mental

health. This is critical, given the links among job-related stress, symptoms of depression, and burnout demonstrated in our data (see Table A.3 in Appendix A), as well as in the mental health literature (Schonfeld and Bianchi, 2016; Van Praag, 2005). District and school leaders could use the data that they collect about teacher working conditions and well-being to inform this collaboration. States and districts should consider using American Rescue Plan funds, along with teacher and principal input, to provide mental health supports for staff.¹⁵ These supports could range from low-cost, low-touch options to policies and programs that would take more time and effort to implement. At the lower-cost end, districts or schools might consider providing information or referral services to teachers about where they can seek mental health support.

In the mid-cost range, education policymakers and leaders should consider leveraging existing efforts and community partnerships to provide wellness and mental health supports to students and include supports for educators. A RAND survey of district leaders found that some districts are already taking steps in this direction (Schwartz et al., 2021). For example, schools could partner with nonprofits and government health agencies to create “wellness centers” that provide mental health services to teachers along with students and their families (Jones, 2020).

District and school leaders also should consider working in partnership with teachers, school leaders, and their professional associations, where applicable, to tailor teachers’ job descriptions and roles to suit individual needs and preferences as a means of reducing stress and promoting wellness. In addition,

Teachers of color and teachers who are parents of children who need learning support or care might experience different job-related stressors and working conditions—and thus have different needs—than their teacher peers.

districts or schools might consider hiring assistants or substitutes for the purpose of providing teachers with short breaks throughout the day (Gonser, 2021).

Help Teachers Access Care for Their Own Children

Helping teachers access child care could go a long way to alleviating stress and promoting teacher retention. Women have left the workforce at disproportionate rates during the pandemic, largely because of a lack of child care support (Edwards, 2020).

Women in the teaching workforce, which is about three-quarters female, might be similarly affected. Although the pandemic has amplified the need for child care, it is a support that could alleviate teachers' stress beyond the pandemic. Some districts are already addressing this challenge (Schwartz et al., 2021). For example, Los Angeles Unified School District has provided a \$500 monthly subsidy for each child aged five and younger to attend a child care program (Dale, 2021).

The American Rescue Plan provides \$15 billion to the child care and development block grant program (Pub. L. 117-2, §2201). Most of this funding will be allocated to states to ramp up child care assistance to essential workers. Income eligibility requirements for this assistance have been waived under the American Rescue Plan, making all essential workers eligible for this funding. State leaders should consider including teachers in the definition of *essential worker* to ensure that they are eligible for this assistance.

Collaboratively Develop Clear Policies for Remote Teaching and Adopt Technology Standards for Remote Teaching Equipment

District leaders should consider working with teachers and school leaders to collaboratively develop policies for remote teaching. These policies could include defining the circumstances in which teachers will be expected to teach remotely. For example, will remote teaching occur on bad-weather days (e.g., snow days)? These policies also could include providing the additional staffing support teachers need (e.g. instructional paraeducators) to help monitor and support remote learning and meet other student needs. The

Helping teachers access child care could go a long way to alleviating stress and promoting teacher retention.

policy also could describe when, if at all, teachers might teach in a hybrid format.

In addition, district leaders should consider adopting technology standards for the remote teaching equipment issued to teachers—such as laptops, internet connections, cameras, and microphones—and provide necessary training to support remote teaching in the long term. Training, maintenance, and helpdesk support on standard-issue equipment could benefit from economies of scale as educators and technology support staff alike become familiar with a common set of equipment. Standardizing remote teaching equipment also would ensure that audio and video quality are consistent and accessible to students. Districts and schools also should consider expanding the number of staff who provide tech support and who can maintain, repair, or coordinate the replacement of equipment. Finally, district and school leaders should consider planning for the financial cost of ongoing technology maintenance and replacement.

Notes

¹ The UAS, which is conducted by the Center for Economic and Social Research at the University of Southern California, is a nationally representative survey of U.S. adults ages 18 and older.

² We omitted 13 teachers from this analysis who responded, “I am scheduled to retire” in response to the question, “What are your plans after you leave your current teaching job in the 2021–2022 school year?” The survey question did not allow us to differentiate between teachers who were retiring immediately upon becoming eligible and teachers who were retiring after they became eligible.

³ In this report, we determined that teachers experienced *frequent job-related stress* if teachers responded “often” or “always” to the question, “Since the beginning of the 2020–2021 school year, how often has your work been stressful?” We determined that teachers experienced *difficulty in coping well with stress* if teachers responded “1 (not well at all)” or “2” on a five-point scale in response to the question, “How well are you coping with the stress of your job right now?” To determine whether teachers reported symptoms of depression, we administered the Patient Health Questionnaire-2 (PHQ-2), a screener for depressive symptoms. The two questions on the PHQ-2 are scored on a scale of zero to three and are summed to create a total score for the screener. Scores of three or more indicate depressive symptoms (Kroenke, Spitzer, and Williams, 2003). We determined that teachers experienced *feelings of burnout* based on responses to four survey items asking respondents about the extent to which they agreed or disagreed with four statements: “The stress and disappointments involved in teaching aren’t really worth it”; “I don’t seem to have as much enthusiasm now as I did when I began teaching”; “I look forward to teaching in the future”; and “I am glad I selected teaching as a career.” Responses were given on a four-point scale from “strongly disagree” to “strongly agree.” For the first two items, we coded teachers’ response as indicating burnout if they agreed or strongly agreed with the statement. For the second two items, we coded teachers’ response as indicating burnout if they disagreed or strongly disagreed with the statement. We categorized the respondent as experiencing feelings of burnout if two or more of their responses indicated burnout.

⁴ The survey question encompassed *attrition* (i.e., teachers considering leaving the profession altogether or retiring), and *mobility* (i.e., teachers taking a teaching job at another school). Together, attrition and mobility constitute turnover (Carver-Thomas and Darling-Hammond, 2017).

⁵ Other responses, which were mentioned by less than eight teachers each, included financial concerns, child care, concerns about student behavior, and unspecified personal reasons.

⁶ Although the 2017 AFT Educator Quality of Work Life survey used a nearly identical question about job-related stress, the results are not directly comparable because the AFT survey was administered to a random sample of AFT members, educators in two New York school districts, and an additional convenience sample.

⁷ Teacher demographics are described in the separate appendix and include race, ethnicity, gender, age, and years of teaching experience. Teaching context includes school characteristics, such as urbanicity and demographic characteristics of the students served in the school, and the demographic characteristics of the students taught by the teachers themselves.

⁸ We recognize that hybrid teaching could mean a variety of things, such as simultaneously teaching students in-person and remotely or teaching in-person in the morning and remotely in the afternoon. We defined hybrid teaching simply for the discussion in this report; Appendix Table B.30 displays more details about the specific types of hybrid instruction in which teachers reported engaging.

⁹ Eighty-two percent of teachers were not concerned about teacher layoffs within the next year, and only 8 percent of teachers reported that their own job security was a source of stress. This is consistent with school superintendents’ reports of anticipated increasing—rather than decreasing—expenditures during this school year (2020–2021) and next school year (2021–2022) (Schwartz et al., 2020).

¹⁰ We defined *teaching in-person at least some of the time* as teaching in a hybrid model or a fully in-person model. This survey was administered in late January and early February 2021, before the Biden Administration directed states to prioritize teachers for vaccinations.

¹¹ The results from this March 2021 ATP survey include the finding that most teachers who intended to be vaccinated had already received at least one dose of a vaccine. This is concerning, given that most fully remote teachers want all staff at their schools to be vaccinated before they feel safe teaching in-person (Kaufman and Diliberti, 2021b).

¹² There were no significant differences between likely pandemic leavers and their teacher peers by gender, years of teaching experience, grade level taught, subject taught, or mode of instruction used. However, we did observe some differences. In comparison with unlikely leavers, likely pandemic leavers were more likely to be teachers of color, be older than 50, and have annual salaries between \$50,000 and \$79,000. They were less likely to have annual salaries above \$79,000. They were more likely than likely prepandemic leavers to teach in schools in towns and to teach in schools where the student population was above the median enrollment of White students. There also might be school-level differences in working conditions—even among schools with similar characteristics—that influence teachers’ reports of their well-being. However, our survey data do not allow us to examine these differences.

¹³ Sixty-four percent of teachers who left the profession during the pandemic reported that their districts had not provided them with training in remote teaching. Among teachers who reported that their main reason for leaving the profession was the pandemic, 55 percent reported experiencing technical problems multiple days per week, and 69 percent taught students who experienced technical problems multiple days per week (Diliberti, Schwartz, and Grant, 2021).

¹⁴ See, for example, the Expanded New York City Employee Assistance Program (City of New York, Office of the Mayor, 2021), the Chicago Teachers Union expanded telehealth benefits (Rizzo, 2020), the expanded services in the Maine FrontLine WarmLine (Maine Association of Psychiatric Physicians, undated), and the virtual panel discussions addressing stress and uncertainty related to the COVID-19 pandemic offered by Montana State University (Montana Office of Public Instruction, 2021). The AFT and the National Education Association also offer mental health services to their members (AFT, undated; National Education Association Member Benefits, undated).

¹⁵ See U.S. Department of Education, 2021a, and U.S. Department of Education, 2021b.

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About This Report

The American Educator Panels are nationally representative samples of teachers, school leaders, and district leaders across the country.

In this report, we draw on the American Teacher Panel (ATP) to examine teachers' reports of their well-being and working conditions to understand what factors might influence teachers' intentions to leave their current teaching job during the coronavirus disease 2019 (COVID-19) pandemic. The survey was administered to 1,006 ATP members in January and February 2021.

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