

Understanding how COVID-19 has Changed Teachers' Chances of Remaining in the Classroom

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Abstract

The 2020-2021 academic year was a trying year for teachers. We use a nationally representative sample of teachers from the RAND American Teacher Panel to document that teachers' stated consideration of leaving the profession increased during the pandemic. We also study factors associated with teachers' consideration of leaving the profession and high levels of job burnout during the pandemic. Approaching retirement age (being 55 or older), having to change instruction modes, health concerns, and high levels of job burnout all appear to be important predictors of the probability of considering leaving or retiring from teaching. Hybrid teaching increased consideration of leaving the profession because of COVID. Health concerns and switching instruction modes are all associated with higher levels of concern about job burnout. Interestingly, those approaching retirement ages do not present higher levels of concern about job burnout than younger teachers. Although increased consideration of leaving and concern about burnout do not yet appear to have materialized into higher attrition rates so far, higher levels of job dissatisfaction could affect teacher effectiveness and could harm student academic progress.

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1. Introduction

The 2020-2021 academic year was a year like no other. After nationwide school closures during the spring of 2020, schools reopened in the fall using combinations of in-person, hybrid, and remote learning models. Teachers had to adapt to unexpected conditions, teaching in unprecedented ways, using synchronous and asynchronous instruction, while also being challenged to establish connections with students, families, and colleagues. Health concerns added to the mix as some teachers went back to in-person education despite the lack of a vaccine and uncertainty surrounding COVID-19 transmission in schools. As a result, teachers' levels of stress and burnout have been high throughout these unusual pandemic times (Diliberti et al., 2021), raising concerns about a potential increase in teacher turnover and future teacher shortages (Goldberg, 2021; Lavery, 2020).

Teacher turnover often has negative effects on students (Hanushek et al., 2016), and a teacher shortage might be particularly disruptive in certain subjects or jurisdictions that already struggled to find qualified teachers (Goldhaber, 2021). In addition, higher levels of job dissatisfaction, consideration of leaving the profession, and stress could harm teacher effectiveness and student academic progress even if teachers do not leave (Madigan & Kim, 2021). Therefore, it is important to get a better understanding of why teachers have considered leaving so that we might find ways to better support teachers during these challenging times.

To examine this issue, we included questions on a 15-minute survey administered to the RAND American Teacher Panel (ATP) from March 22 to March 31, 2021. Over 1,000 teachers answered questions about their current jobs, job preferences, teaching mode (in-person, online, etc.), how often they switched teaching modes, their colleagues, and perceived COVID-19 risks during the 2020-21 school year. We combine this data with teacher burnout information

collected by the RAND American Teacher Panel at the same time as our survey. As a comparison, we also use data from a prior survey involving almost 5,500 teachers administered from February 10th to March 16th, 2020, to assess how teacher attitudes about leaving the classroom might have changed during the first year of the pandemic.

We use these data to study how the pandemic has changed teachers' intentions to remain in their current position and which factors are associated with high levels of concern about job burnout and increased consideration of leaving the profession. We find that more teachers have considered leaving the profession or retiring during the pandemic. Approaching retirement age, having to change instruction modes, and high concerns about job burnout appear to be important predictors of the probability of considering leaving or retiring from teaching. Interestingly, approaching retirement age does not appear associated with higher levels of concern about job burnout but health concerns, teaching in a hybrid model, or having to switch teaching modes during the year are all associated with high job burnout concerns. Addressing health concerns while trying to minimize school disruptions, the need for hybrid teaching modes, and changes in teaching mode could help retain teachers. However, policies targeted at reducing high levels of job burnout in teachers might be less successful at helping retain teachers approaching retirement age.

2. Review of Previous Literature

Teaching was a high-stress profession before the pandemic and the current COVID-19 crisis has exacerbated teachers' levels of stress and burnout. Diliberti et al. (2021) surveyed a sample of former teachers from the ATP in December 2020. Their sample included both teachers who left the profession in the two years leading up to the COVID-19 pandemic as well as those who left during the first nine months of the pandemic. They find that stress was the most

common reason given by public school teachers for leaving the profession both before and during the pandemic, but the COVID-19 crisis appears to have added to that stress. Almost half of the public-school teachers who voluntarily left the profession between March and December 2020 said it was because of the COVID-19 pandemic.

According to a separate ATP survey from January 2021, teachers' intentions to leave also appear elevated during the pandemic. Steiner & Woo (2021) found that nearly one-quarter of teachers indicated they were likely to leave their jobs by the end of the school year. If realized, this would represent a 7 percentage point increase in teacher turnover compared with an average national turnover rate of 16% pre-pandemic (NCES, 2019). So far, teacher attrition rates have not increased (Bastian & Fuller, 2021; Bacher-Hicks et al. 2021). But, as the pandemic continues and the emerging variants present new challenges during the 2021-2022 academic year coupled with a recovering economy providing additional employment options, the continued stress could result in more teachers leaving.

The prospect of increased teacher turnover is concerning for schools and students. Replacing teachers is costly and can drain school resources (Barnes et al., 2007; Birkeland & Curtis, 2006; Milanowski & Odden, 2007). Also, teacher turnover negatively affects student achievement which could make it more difficult for students to recover from any learning losses experienced during the pandemic (Ronfeldt et al., 2013). Finally, even if teachers do not leave, higher levels of job dissatisfaction and consideration of leaving could affect teachers' job performance and could harm students' academic progress (Madigan & Kim, 2021).

3. Data and Descriptive Trends

We included questions on a 15-minute survey administered to the nationally representative RAND American Teacher Panel (ATP)¹ from March 22 to March 31, 2021. Our sample contained 1,045 teachers. Following the national composition of the teaching labor force, most teachers in our sample (73%) are female and 83% are white. 29% of teachers in our sample teach in a city, 39% teach in the suburbs, while 31% teach in a town or rural area.

Using these data, we identify teachers who are approaching retirement age as those who are 55 years old or older² (N=170; 16.3%). Three hundred and nine teachers in our sample (29.8%) reported teaching fully remote to most of their students for most of the school year, 509 (49%) of teachers reported they taught in a hybrid model, while 220 (21.2%) reported teaching fully in person. Finally, 71.5% of teachers in our sample reported they had to switch instructional models at least once during the 2020-2021 school year, and the average teacher switched models twice.

Teachers, at the time of our survey, were also asked other questions designed by the RAND ATP team that we use in our analysis. We use teachers' responses to a series of questions about burnout. Teachers rated in a scale from 1 ("Not a concern right now") to 4 ("A major concern") the following challenges: Feelings of burnout associated with stress from the job,

¹ <https://www.rand.org/education-and-labor/projects/aep/about.html>. RAND American Educator Panels, American Teacher Panel, 2021 ATP Module on Finances, Retirement, and Job Preferences, UAR0421T, RAND Corporation, Santa Monica, CA, April, 2021.

² Each state and several municipalities operate their own teacher retirement plans where retirement eligibility ages vary across and frequently within plans. This makes it difficult to determine which age would truly be a teachers first retirement eligibility age. However, although few plans allow teachers to retire at age 55 with full benefits, the full retirement age is not far off in most plans. For more information, see Fuchsman, McGee, and Zamarro (2021).

feelings of burnout associated with stress outside the job, and responsibilities to care for her children or other loved ones. For each of these, we created a dummy variable representing high levels of concern if the respondent answered they were a major concern. Teachers who reported they preferred not to say were coded as missing values in our analysis. Figure 1 presents the distribution of teachers' responses to these questions. In our sample, 51% of teachers reported that feelings of burnout associated with stress from the job were a major concern, compared with 14% who reported that feelings of burnout outside the job were a major concern and 28% who reported high levels of concern about responsibilities for taking care of their children or other loved ones.

Additionally, we use responses to a pre-pandemic survey of 5,464 teachers³. Survey administration took place from February 10th to March 16th, 2020 and focused on teachers' retirement knowledge and preferences. Several questions on the 2020 survey were repeated on the 2021 survey, allowing us to see how teachers' attitudes may have changed through the pandemic.

Teachers' Career Attachment During the COVID-19 Pandemic

Using the data described above we first study descriptively, how teachers' intentions to remain in the classroom might have changed during the pandemic. Overall, we find that teachers became less certain that they would work a full career in the classroom. We asked teachers both in our March 2020 and March 2021 surveys whether they planned to work as a teacher until retirement. In March 2020, 74.2% of teachers reported that they expected to work as a teacher until retirement, while 9.3% said they did not expect to, and 16.5% did not know. In contrast, in

³ RAND American Educator Panels, American Teacher Panel, 2020 ATP Survey on Finances, Retirement, and Job Preferences, UAR0120T, RAND Corporation, Santa Monica, CA, April 2020.

March 2021, the proportion reporting they expected to work as a teacher until retirement fell to 69%, while the proportion reporting they did not expect to remained similar at 9.5% and the proportion saying they didn't know increased to 21.5%.

Both surveys also asked teachers to report their perceived probability of leaving their current state or the profession within the next 5 years. Figure 2 shows the distribution of reported probabilities for both the March 2020 and March 2021 surveys. The reported probability of leaving their current state or the profession during the next 5 years increased from 24% on average in March of 2020 to 30% in March 2021. This change was due to a reduction in the percentage of teachers reporting a zero probability of leaving their current state or the profession within the next 5 years and a corresponding increase in the percentage reporting a 50% chance and a 100% chance. We observed similarly reported probabilities regardless of teachers' instructional mode.

In March 2021 teachers were also asked directly about whether they had considered leaving or retiring from their current position and, if so, whether this was because of COVID-19 or for other reasons. Figure 3 presents teachers' responses to this question, overall, by career experience level and for those teachers 55 and older. Overall, a high proportion of teachers (41%) reported considering leaving or retiring during the 2020-2021 academic year. Of these, 22% declared it was because of the COVID-19 pandemic while 19% declared it was for other reasons. Although the proportion of teachers that considered leaving or retiring during the 2020-2021 school year was similar across different experience levels, those approaching retirement (55 years old or older) considered leaving at higher rates. Thirty-four percent of teachers 55 and older declared they considered leaving or retiring because of COVID-19 as compared to 22% for all respondents.

So far, teachers' consideration of leaving appears to be more common than doing so. In our survey, we also asked teachers to report, to the best of their knowledge, the number of their school colleagues that have considered leaving or retiring because of the COVID-19 pandemic, and then we asked how many of those colleagues left or retired. On average, teachers reported they knew 6 colleagues at their school that considered leaving or retiring because of COVID, with the median teacher reporting 3. Among those that reported knowing at least one colleague who has thought about leaving or retiring because of COVID, on average, teachers reported they knew about 3 who left with the median teacher reporting 2. On average, teachers reported that around 40% of their colleagues that considered leaving because of COVID ended up leaving. However, it remains to be seen whether this will persist as the pandemic progresses.

Even if teachers decide not to leave, higher levels of job dissatisfaction and increased consideration of leaving could affect teacher effectiveness and could harm student academic progress. In the next section, we further study factors associated with teachers' increased consideration of leaving and concerns about job burnout.

4. Factors Associated with Teachers' Consideration of Leaving and Concerns About Job Burnout During the COVID-19 Pandemic

In the next sections, we present our analytical approach and results to further understand which factors are behind teachers' consideration of leaving or retiring from their current positions and concerns about job burnout.

Methods

We use statistical logit models to study factors associated with the overall probability of teachers considering leaving or retiring from the profession in the last year with the following specification:

$$\begin{aligned} Prob(ConsiderLeaving_i) = & \Lambda(\beta_0 + \beta_1 demographics_i + \beta_2 gradelevel_i + \beta_3 vaccinated_i + \\ & \beta_4 COVIDrisk_i + \beta_5 teachingmode_i + \beta_6 switchingmode_i + \beta_7 urbanicity_i + \\ & + \beta_8 ConcernedJobBurnout_i + \beta_9 ConcernedOtherBurnout_i + \\ & \beta_{10} ConcernedCareResponsibilities_i) \quad (1) \end{aligned}$$

Where our outcome variable, *ConsiderLeaving*, takes value 1 if the teacher reports having considered leaving or retiring from their current position during the past year in the March 2021 survey.

The set of *demographics* controls includes teachers' gender, whether the teacher identifies as non-White, and three dummies for teacher age (age 35-44, age 45-54, and age 55+). Teachers aged less than 35 constitute our reference category. We also include two dummies to capture the grade level of teaching (elementary grades, middle grades), with high school grades as the reference category. *Vaccinated* is an indicator variable that takes value one if the teacher reports having received at least one dose of the COVID-19 vaccine.⁴

We use two variables to capture teachers' reported COVID risks (*COVIDrisk*). First, we include the average of teacher-reported probabilities that she will get COVID, either at her job or

⁴ In December 2020 the first COVID vaccine doses were administered in the U.S. Although some states gave priority to teachers to be eligible for a vaccine during the first months, not all did, and vaccines were not available for all adults until later in March or April 2021.

outside, in the next three months. Second, we also include the teacher's reported probability that, if infected, she will end up in the hospital because of COVID or die.

Teaching mode is captured with two indicator variables for the teacher reporting that hybrid is the instruction mode that better reflects how her students have been receiving education during the academic year and another indicator variable for the teacher reporting it was remote education. Teaching fully in-person is our reference category in this case. We also include a dummy variable (*switchingmode*) that takes value one if the teacher reports having to change instructional mode at least once during the academic year.

Urbanicity includes indicator variables for the teacher working in a school in the suburbs, or a town or rural setting as compared with an urban school. Finally, we estimate specifications that also include dummies for the teacher reporting high levels of concern about job burnout, burnout due to stress outside her job, and care responsibilities, as described above.

We also use multinomial logit models, following the specification in (1) above, to study factors associated with the separate probabilities of considering leaving or retiring because of COVID, for other reasons, or not considering leaving at all. Similarly, we also study the determinants of high levels of concern about job burnout using a logit model like the following:

$$\begin{aligned} Prob(ConcernedJobBurnout_i) = & \Lambda(\beta_0 + \beta_1 demographics_i + \beta_2 gradelevel_i + \\ & \beta_3 vaccinated_i + \beta_4 COVIDrisk_i + \beta_5 teachingmode_i + \beta_6 switchingmode_i + \\ & \beta_7 urbanicity_i) \end{aligned} \quad (2)$$

In all models, we use sampling weights included with the ATP to maintain a nationally representative sample of teachers. To aid interpretation, we present our estimates as average marginal effects.

Results

Table 1 presents the results of logit models, following the specification described in (1) above, of the estimated predictors of the probability that teachers declare they have considered leaving or retiring from their jobs during the 2020-2021 school year. In column (2) we include variables about teachers declaring high levels of concern about job burnout, burnout due to stress out of the job, and care responsibilities. Finally, columns (3), (4), and (5) present the results for separate probabilities for considering leaving because of COVID, considering leaving for other reasons other than COVID, and not considering leaving, obtained using a multinomial logit model.

Approaching retirement age, having to change instruction modes, and health concerns appear to be important predictors of the probability of considering leaving or retiring from teaching. Those teachers approaching retirement (age 55 and older) were 11 percentage points more likely to say they have considered leaving or retiring during the past year because of COVID, as compared to teachers not approaching retirement age. However, teachers nearing the retirement age were not more likely than other teachers to report having considered leaving or retiring for reasons other than COVID.

Having to change instructional modes at least once during the year is associated with a 12-percentage point higher probability of having considered leaving or retiring, 10 percentage points when we control for high concerns about burnout. Most teachers in our sample had to switch instructional models at least once during the 2020-2021 school year, with teachers doing so twice on average. Interestingly, this translated into a higher probability of teachers reporting considering leaving for reasons other than COVID.

Teaching in a hybrid model is also associated with a higher probability of considering leaving because of COVID. Compared with teaching in-person, teachers who taught their students primarily via a hybrid modality declared a 7 percentage points higher probability of considering leaving because of COVID. On the other hand, elementary school teachers present a 7-percentage point lower probability of considering leaving than high school teachers.

Looking at teachers' health concerns, compared to teachers who report a zero percent chance of being hospitalized or dying because of COVID-19, those who think they have a 50% chance are 10 percentage points more likely to have considered leaving or retiring because of COVID. We observe a similar effect for teachers' reported probability of being infected with COVID, but this effect becomes smaller and statistically insignificant once we control for high concerns about job burnout.

The strongest association is observed between high concern about job burnout and the probability of considering leaving. Teachers who are highly concerned about burnout derived from stress in their jobs have a 30 percentage points higher probability of declaring they have considered leaving or retiring from their positions, 19 percentage points higher probability of considering leaving because of COVID, and 12 percentage points higher probability of considering leaving for other reasons. Finally, high concerns of burnout due to stress outside the job or high concerns related to care responsibilities do not appear to be significantly associated with the probability of teachers considering leaving or retiring.

Importantly, including variables for high concerns about burnout and care responsibilities do not eliminate the observed associations between being 55 and older, switching modality, and hybrid teaching for the probability of considering leaving because of COVID. Having received at least one COVID vaccine shot appears associated with a 7 percentage lower probability of

considering leaving once we control for high concerns about job burnout. The only variable that loses significance once we control for concerns about job burnout is the reported probability of getting infected with COVID.

Given that concerns about job burnout appear to have a strong association with teachers' consideration of leaving the profession, we further study its predicted factors using the model specification in (2) above. As we can see in Table 2, female teachers present a higher probability of declaring high levels of concern about burnout due to stress in the job. Interestingly, approaching retirement age (being 55 years or older) is not associated with high concern about job burnout. Those 55 and older present an 11 percentage point lower probability of reporting high concern of job burnout. This result combined with our results presented in Table 1 suggest that the higher probability of considering leaving the profession for this group, discussed above, is not due to high concerns of job burnout. Policies targeted at reducing high levels of job burnout in teachers might be less successful at helping to retain those teachers approaching retirement age.

Perceived COVID health risks are associated with a higher probability of reporting high concerns about job burnout. Moving from a teacher who reports a zero percent chance of being infected with COVID-19 to one with a 50% chance is associated with 15 percentage points increased probability of declaring a high concern about job burnout, keeping everything else equal. Similarly, the result of moving from a zero percent chance of being hospitalized or dying if infected with COVID to a 50 % chance is associated with a 10-percentage point increase.

Those who received at least one COVID vaccine dose present a 7-percentage point increased probability of reporting high concerns about job burnout, however, this effect might be

due to reverse causation and indicate how those with higher concerns in general may have more concerns about job burnout and might decide to get vaccinated at a higher rate.

Importantly, teaching hybrid is associated with a 9-percentage point increase in the probability of reporting that job burnout was a major concern while having to switch teaching models is associated with a 7-percentage point increase but only marginally statistically significant. Finally, teaching in a town or rural area is associated with lower concerns of job burnout.

Discussion

The 2020-2021 academic year was a trying year for teachers and, as a result, teachers reported high concerns about job burnout and a higher probability that they may leave the profession than they did before the pandemic. Our results highlight four areas where teachers need support. First, a larger proportion of those approaching retirement age reported having considered leaving or retiring because of COVID during the past year, independently of concerns about job burnout, which could be problematic for schools as they might lose their more experienced and effective teachers (e.g., Harris & Sass, 2011; Wiswall, 2013).

Secondly, most teachers had to change instructional mode at least once and many experienced multiple disruptions during the year. Having to change instructional modes was associated with an increased probability of considering leaving or retiring, suggesting that stability in teaching mode could have positive effects for teachers. Third, teaching in a hybrid model appeared to be especially challenging for teachers as it was associated with higher concerns about job burnout and increased consideration of leaving because of COVID.

Finally, COVID health concerns were also an important factor associated with an increased probability of considering leaving. Addressing health concerns while trying to minimize school disruptions, the need for hybrid teaching modes, and teaching mode changes could help reduce teachers' job burnout and help retain teachers. Note, however, that interventions targeted at reducing high levels of teacher burnout might not be enough to retain teachers approaching retirement age.

So far, teachers' consideration of leaving was more common than actually doing so, and teacher attrition rates do not appear to have increased (Bastian & Fuller, 2021; Bacher-Hicks et al. 2021). However, it remains to be seen whether this will persist as the pandemic continues. Even small rates of increased teacher turnover could be problematic if concentrated in areas with teacher shortages (e.g., rural areas or teachers in certain fields like math, science, or special education) (Dee & Goldhaber, 2017). Finally, higher levels of job dissatisfaction could affect teacher effectiveness and could harm student academic progress even if teachers decide not to leave (Madigan & Kim, 2021).

We should work together to control community spread, adopt school mitigation methods, and facilitate a supportive work environment to help teachers navigate the uncertainty of yet another school year in the pandemic. In this respect, Kraft et al. (2021) document how schools with strong communication, targeted training, meaningful collaboration, fair expectations, and authentic recognition for their teachers helped them maintain their sense of success during the beginning of this pandemic.

References

- Backer-Hicks, A., Chi, O., & Orellana, A. (2021). COVID-19 and the Composition of the Massachusetts Teacher Workforce. Boston University Wheelock College of Education & Human Development. Wheelock Educational Policy Center.
- Barnes, G., Crowe, E., & Schaefer, B. (2007). The Cost of Teacher Turnover in Five School Districts: A Pilot Study. National Commission on Teaching and America's Future.
<https://eric.ed.gov/?id=ED497176>
- Barnum, M. (2021, April 6). Despite pandemic, there's little evidence of rising teacher turnover—Yet. *Chalkbeat*. <https://www.chalkbeat.org/2021/4/6/22368846/teacher-turnover-quitting-pandemic-data-economy>
- Bastian, K. C., & Fuller, S. C. (2021). Teacher and Principal Attrition During the COVID-19 Pandemic in North Carolina. Chapel Hill, NC: Education Policy Initiative at Carolina.
- Birkeland, S. E., & Curtis, R. E. (2006). Ensuring the support and development of new teachers in the Boston Public Schools: A proposal to improve teacher quality and retention. Boston Public Schools.
- Diliberti, M. K., Schwartz, H. L., & Grant, D. (2021). Stress Topped the Reasons Why Public School Teachers Quit, Even Before COVID-19. RAND Corporation. <https://doi.org/10.7249/RRA1121-2>
- Fuchsman, D., McGee, J. B. & Zamarro, G. (2021). Teachers' Knowledge about and Preparedness for Retirement: Results from a Nationally Representative Teacher Survey. (EdWorkingPaper: 21-489). Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/mwe1-n717>
- Goldberg, E. (2021, April 7). As Pandemic Upends Teaching, Fewer Students Want to Pursue It. *The New York Times*. <https://www.nytimes.com/2021/03/27/us/covid-school-teaching.html>
- Goldhaber, D. (2021, May 18). Analysis: COVID-19 Raised Fears of Teacher Shortages. But the Situation Varies from State to State, School to School & Subject to Subject. *The 74 Million*.

- <https://www.the74million.org/article/analysis-covid-19-raised-fears-of-teacher-shortages-but-the-situation-varies-from-state-to-state-school-to-school-subject-to-subject/>
- Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics*, 95(7), 798–812. <https://doi.org/10.1016/j.jpubeco.2010.11.009>
- Kraft, M. A., Simon N. S., & Lyon M. A. (2021). Sustaining a Sense of Success: The Protective Role of Teacher Working Conditions during the COVID-19 Pandemic, *Journal of Research on Educational Effectiveness*, 14:4, 727-769. DOI: 10.1080/19345747.2021.1938314
- Lavery, L. (2020, December 19). The pandemic is causing teachers to flee the profession. *Salon*. <https://www.salon.com/2020/12/19/the-pandemic-is-causing-teachers-to-flee-the-profession/>
- Milanowski, A. T., & Odden, A. R. (2007). A new approach to the cost of teacher turnover. School Finance Redesign Project, Center on Reinventing Public Education. Working Paper No. 13.
- NCES. (2019). Table 210.30. Mobility of public elementary and secondary teachers, by selected teacher and school characteristics: Selected years, 1987-88 through 2012-13. In *Digest of Education Statistics*. https://nces.ed.gov/programs/digest/d19/tables/dt19_210.30.asp
- Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How Teacher Turnover Harms Student Achievement. *American Educational Research Journal*, 50(1), 4–36. <https://doi.org/10.3102/0002831212463813>
- Steiner, E. D., & Woo, A. (2021). *Job-Related Stress Threatens the Teacher Supply: Key Findings from the 2021 State of the U.S. Teacher Survey*. RAND Corporation. <https://doi.org/10.7249/RRA1108-1>
- Wiswall, M. (2013). The dynamics of teacher quality. *Journal of Public Economics*, 100, 61–78. <https://doi.org/10.1016/j.jpubeco.2013.01.006>

Figure 1: Teachers Levels of Concern About Burnout from Job Related Stress, Burnout from Stress Outside the Job, and Care Responsibilities

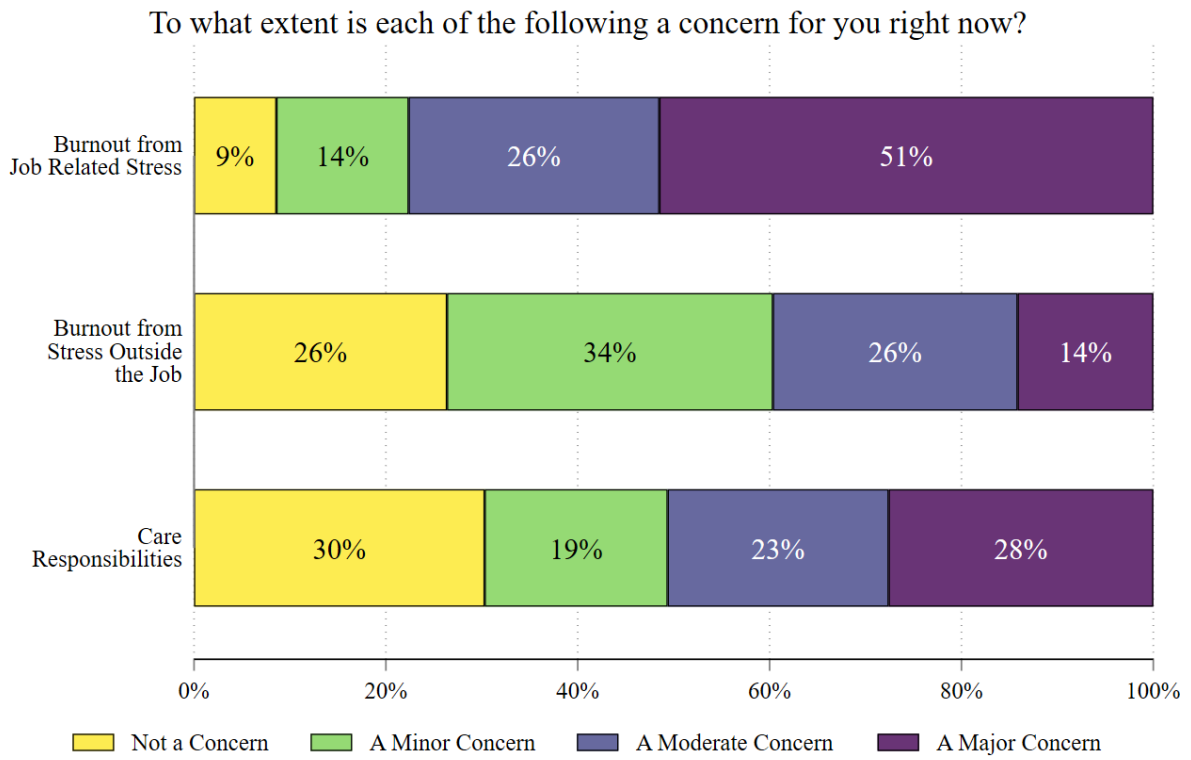
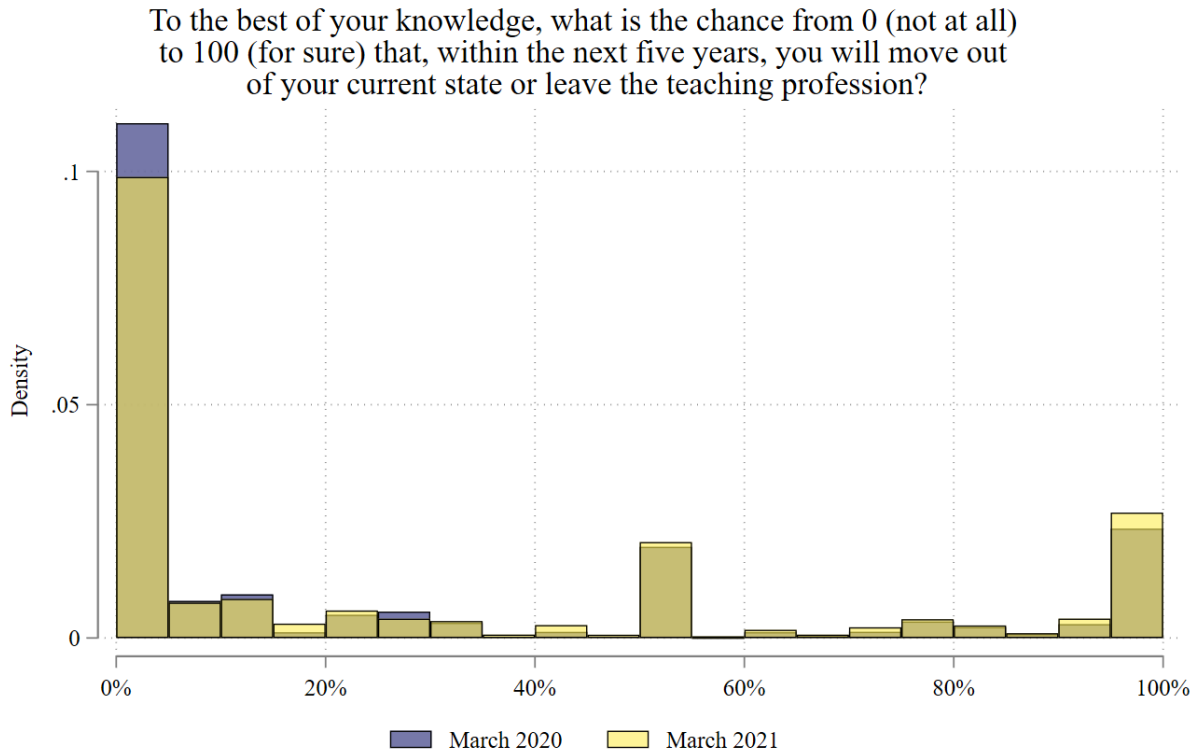
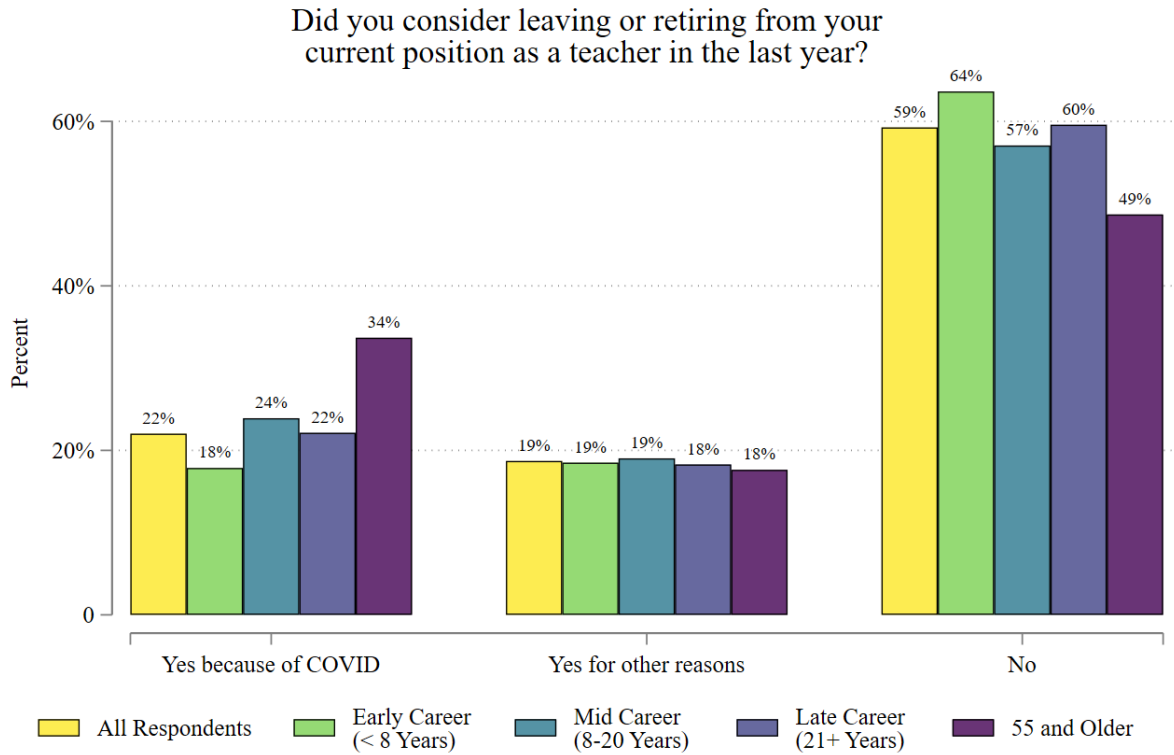


Figure 2: Teachers' Reported Probability of Leaving their Current State or the Profession in the Next Five Years



Note: Results weighted using ATP provided sampling weights

Figure 3: Teachers' Consideration of Leaving or Retiring from their Current Position



Note: Results weighted using ATP provided sampling weights

Table 1: Factors Related to the Probability of Considering Leaving or Retiring in the Last Year

	Considered Leaving		Considered Leaving		Did not Consider
	(1)	(2)	Because of COVID	For Other Reasons	Leaving
Female	0.059 (0.037)	-0.004 (0.036)	0.024 (0.032)	-0.029 (0.029)	0.005 (0.036)
Not White	0.031 (0.047)	0.016 (0.047)	0.047 (0.039)	-0.038 (0.042)	-0.009 (0.047)
Age 35-44	-0.052 (0.043)	-0.026 (0.040)	-0.007 (0.036)	-0.018 (0.034)	0.025 (0.040)
Age 45-54	-0.033 (0.043)	-0.021 (0.041)	-0.019 (0.037)	-0.002 (0.034)	0.021 (0.041)
Age 55+	0.090* (0.051)	0.120** (0.050)	0.105** (0.041)	0.013 (0.041)	-0.118** (0.050)
Elem. Teacher	-0.072** (0.036)	-0.037 (0.034)	-0.048 (0.030)	0.012 (0.029)	0.036 (0.034)
Middle Sch. Teacher	-0.034 (0.037)	-0.024 (0.035)	-0.032 (0.031)	0.009 (0.029)	0.023 (0.035)
Has been vaccinated	-0.048 (0.037)	-0.073** (0.035)	0.006 (0.032)	-0.075*** (0.028)	0.069* (0.036)
Pr(Infection)	0.002** (0.001)	0.001 (0.001)	0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)
Pr(Hosp/Die Infection)	0.002** (0.001)	0.001 (0.001)	0.002*** (0.001)	-0.001 (0.001)	-0.001 (0.001)
Switch Modality	0.124*** (0.037)	0.104*** (0.035)	0.034 (0.033)	0.071** (0.030)	-0.105*** (0.035)
Remote Instruction	-0.061 (0.049)	-0.059 (0.044)	0.063 (0.042)	-0.110*** (0.036)	0.047 (0.045)
Hybrid Instruction	-0.009 (0.042)	-0.041 (0.039)	0.071** (0.036)	-0.097*** (0.031)	0.026 (0.039)
Suburban	-0.063 (0.038)	-0.049 (0.036)	-0.029 (0.032)	-0.020 (0.032)	0.049 (0.036)
Town Rural	-0.036 (0.043)	0.001 (0.040)	-0.014 (0.036)	0.014 (0.033)	0.000 (0.040)
High Job Burnout		0.311*** (0.026)	0.191*** (0.027)	0.121*** (0.027)	-0.312*** (0.026)
High Outside Burnout		0.025 (0.045)	-0.009 (0.037)	0.034 (0.035)	-0.025 (0.045)
High Concern Childcare		0.027 (0.036)	0.027 (0.030)	-0.001 (0.030)	-0.027 (0.036)

Note: Results displayed as average marginal effects. Robust standard errors in parentheses. Estimates were obtained using ATP-provided sampling weights. *** p<0.01, ** p<0.05, * p<0.1

Table 2: Factors Related With High Concern about Feelings of Job Burnout

	<i>Concerned Job Burnout</i>
Female	0.174*** (0.036)
Not White	0.000 (0.048)
Age 35-44	-0.074 (0.045)
Age 45-54	-0.037 (0.045)
Age 55+	-0.107** (0.053)
Elem. Teacher	-0.088** (0.036)
Middle Sch. Teacher	-0.022 (0.037)
Pr(Infection)	0.003*** (0.001)
Pr(Hosp/Die Infection)	0.002* (0.001)
Switch Modality	0.067* (0.037)
Remote Instruction	-0.001 (0.057)
Hybrid Instruction	0.093** (0.045)
Has been vaccinated	0.070* (0.040)
Suburban	-0.043 (0.040)
Town Rural	-0.096** (0.045)

Note: Results displayed as average marginal effects. Robust standard errors in parentheses. Estimates were obtained using ATP-provided sampling weights. *** p<0.01, ** p<0.05, * p<0.1