

**Online Appendix for
What Explains Differences in Finance Research Productivity During the Pandemic?¹**

Brad M. Barber
University of California – Davis

Wei Jiang
Columbia Business School & NBER & ECGI

Adair Morse
University of California – Berkeley & NBER

Manju Puri
Duke University, Fuqua School of Business & NBER

Heather Tookes
Yale School of Management

Ingrid M. Werner
Fisher College of Business, The Ohio State University & CEPR

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This online appendix provides additional information about the AFFECT 2020 survey on the impact of COVID-19 on the research productivity of finance researchers, to supplement the paper “What Explains Differences in Finance Research Productivity During the Pandemic?” More details on the survey questions, the communications with prospective respondents, and also overall statistics are provided.

Survey

The goal of the survey was to get a quick temperature check on how the pandemic was affecting finance colleagues around the world. We therefore designed a very short survey (less than 5 minutes). The survey was sent to members of the American Finance Association (AFA), the largest membership organizations in the finance field.

Survey Administration

¹ We are very grateful to the Executive Committee of the American Finance Association for their support, and in particular AFA President Ken Singleton for his guidance and encouragement throughout this project.

An invitation to take the voluntary survey was distributed to 8,421 members of the AFA via email on October 26, 2020, with a deadline of November 4, 2020. Two reminders were sent, on October 31 and on November 4, 2020. A copy of the invitation email is in Figure A1. In order to ensure the proper consent was obtained, each prospective respondent was asked whether or not they resided in the European Union (EU) or European Economic Area (EEA), and therefore was subject to General Data Protection Regulation (GDPR). Respondents who indicated that they were from the EU and EEA were presented with a consent page compliant with this regulation and were then channeled to the common consent page applicable to all respondents. The survey instrument itself was administered via the AFAs qualtrics^{XM} account. A total of 1,440 responses were received by the deadline, for a response rate of 17.5%.² The median response time was 228 seconds, or 3 minutes and 48 seconds.

<Insert Figure A1 about here>

Survey Questions

Our main survey questions were how research productivity and how time allocated to research were affected by the pandemic. We also asked questions about how a researcher's support in terms of resources and the feedback from colleagues were impacted by the changes in the work environment arising from COVID-19. The survey was anonymous. We did not collect IPs or other identifiers; but we did collect demographic information on gender, professional role, household structure (spouse/partner, children), and also regional geographic location (the U.S., Europe and the rest of the world). The surveyed individuals were asked about their institution's response to the pandemic, such as extensions of tenure-clocks, extensions of deadlines, and elimination/optionality of student evaluation of instruction. Finally, we asked about how concerned survey respondents were about a number of issues related to the pandemic, such as isolation, online teaching, in-person teaching, children's education, employer and personal finances, and personal health. Table A1 provides details on the questions, as well as the response frequencies.

<Insert Table A1 about here>

Attrition

As expected, there is attrition as the respondents work their way through the survey. While 1,440 individuals started the survey, we are missing answers for 110 survey takers after the first question. The missing

² 213 emails bounced back, so the response rate is 1,440 out of 8,208 or 17.5%. Typical response rates for voluntary surveys without incentives (such as gift cards, etc.) ranges from 10-20% in recent years (Pedersen and Nielsen (2016)).

observations rise gradually and reach 202 when we get to the question about the country where the respondent's primary work place is located.

Slider Questions

Two sets of questions require further explanation, the change in time allocation and the concerns due to the pandemic. These variables are scored on a Likert scale between 1 and 5 using a slider that was positioned at the neutral value of 3 by default (this value represents no change in time for a particular activity/respondent neither agrees nor disagrees that the respondent is worried about a particular issue). We instructed respondents to leave the slider at 3 if the question did not apply to them. However, people who did not feel that their time allocation had not changed may not have moved the slider either and would therefore also have been counted as missing observations by qualtricsTM. To avoid over-interpreting the answers, we reassign missing observations to take the value of 3 only if at least one of the time (concerns) responses are non-missing so that it appears that the respondent was not skipping the entire question. This eliminates slightly more observations, 218 for the change in time allocation questions and 233 for the concerns questions.

1. Survey Respondent Characteristics

Geography and Position

Figure A2 illustrates some basic characteristics of our surveyed individuals based on their responses. The respondents are distributed across geographic regions as follows: 51.9% work in the U.S.; 24.6% work in the European Economic Area (EEA); and 23.4% in the Rest of the World (RoW) (Panel A). Respondents with university-related position include: 26.0% that are students; 26.5% are tenure-track faculty pre-tenure; and 32.9% are tenured faculty. Non-university respondents are distributed as follows: 1.8% are junior researchers; and 3.3% are senior researchers; 6.4% are non-tenure track or non-researchers outside of universities; and the remaining 3.1% responded other for a total of 14.6% (Panel B).

<Insert Figure A2 about here>

Demographics

The gender composition of the respondents that answered the gender question affirmatively is reported in Figure A3.³ The distribution is 66.8% male and 33.2% female (Panel A). We also ask about the household composition, and on this question respondents may indicate more than one alternative and hence the alternatives are not mutually exclusive. 14.1% of the responses indicate the individual lives alone, 60.3% live with a spouse, partner, or significant other, 36.3% live with children, 6.5% live with a dependent adult (e.g., elderly parent), and 7.9% live with a non-dependent adult (e.g., a roommate) (Panel B).

<Insert Figure A3 about here>

It is well known from media and other academic work that the pandemic has been challenging for working families with children and particularly those with very young children (e.g., Meyers et al. 2020). To be able to use this variation for our cross-sectional analysis trying to understand the impact of the pandemic on research productivity, we ask about the ages of children in the household. In the survey, 22.9% of the responders have children between 0 and 5 years old; 19.2% have children between 6 and 12 years old; 8.8% have children between 13 to 18 years old; and 9.7% have children in the household over 18 years old. Finally, 37.7% of our respondents do not have children.

Teaching and Policies

To understand the work situation faced by survey respondents, we also ask about whether the respondent had to adjust their teaching delivery mode from in-person to online. Figure A4 illustrates the fraction of our respondents that were teaching during the pandemic. Almost two-thirds (63.8%) of our respondents had to adjust to online teaching during the pandemic: 21.7% responded that they were not teaching, and 14.5% responded that teaching was not part of their normal duties (Panel A).

<Insert Figure A4 about here>

We wanted to know how employers changed their policies in response to the pandemic. Did they, for example, extend the tenure-clock for junior faculty? Were such extensions optional or automatic? Given the challenges discussed above related to switching from in-person to online teaching, did a University change their policy on student evaluations to make them either optional or indicated that they would not be heavily relied on for performance evaluation? We find that 21.6% of our responses indicate the University offered junior faculty the option to extend the tenure clock, and another 19.0% indicated the tenure-clock extensions were automatic. 9.7% indicate that other extensions were granted, e.g., extended deadlines for

³ There were 226 respondents that either skipped the question, or indicated that they preferred not to answer.

submission of research reports or other work products. Student evaluations of teaching were optional or they received reduced weight in 14.7% of the responses. A relatively large proportion, 16.5%, saw no relief from their employers associated with the pandemic and 24.1% indicated they are not aware of any workplace policies aimed at reducing the burden of the pandemic.

Productivity and Mechanism of Resources and Feedback

Our central question centered on research productivity. Two mechanisms we studied in addition to demographics were financial resources and feedback. The response frequencies for these questions are summarized in Figure A5. The possible answers to the question were on a Likert scale from 1=Strong Negative Impact to 5=Strong Positive Impact. We first asked how the survey subject perceived the pandemic had impacted their own research productivity. The overwhelming majority- 73.6% of our respondents say the impact of the pandemic on their research productivity is negative. 38.6% reported a strong negative effect while another 35.0% reported a slight negative effect. Only 11.1% report no impact, and 15.3% report either a slight or strong positive impact (Panel A).

<Insert Figure A5 about here>

Producing research is frequently a team effort that involves not just co-authors, but also research assistants, IT support, and administrative support. Researchers also have access to office space at work, and financial support to facilitate conducting their research (e.g., data acquisition, software and hardware acquisition, etc.) We wanted to know if working from home meant that the level of research support fell for our respondents. We asked the respondents to tell us how true was the statement "Covid-19 caused a significant reduction in the financial or personnel support I have for research." The answers were on a Likert scale from 1=not true to 5=very true. In hindsight, this question could potentially be confusing as a lower score here indicates better financial support, but it still gave us some information. Panel B shows that 34.9% did not find that their research support had declined during the pandemic. The remaining respondents, 65.1% said that it was either to some degree true 49.9% (2, 3 and 4) or very true 15.1% (5).

The third central question was if the pandemic implied that researchers were having a harder time getting timely feedback on their work. The lockdowns and university closures meant that the spontaneous research discussions that take place in the hallways and over meals were eliminated. Seminars and conferences were either cancelled or went virtual, which reduces personal interaction and the ability to gain impromptu feedback on research ideas during breaks, etc. Senior researchers had to shoulder additional administrative burdens, and many faculty members were teaching, potentially reducing the ability of junior researchers to get feedback on their work. Indeed, the vast majority of our respondents – 72.4% – indicate that the pandemic had a negative impact on their ability to obtain timely feedback on their work, distributed as

follows: 26.2% experience a strong negative impact, while 46.2% say that the impact is slightly negative. Only 5.5% feel their ability to get timely feedback has improved during the pandemic, and 22.1% say there is no change.

Mechanisms: Time-Allocation and Concerns

The perceived impact of the pandemic on research productivity depends on the ability to devote time to research as well as the ability to concentrate on the research work. We asked two set of questions to address how these inputs to the research endeavor were affected by the pandemic. The first question asks how the respondent has changed the amount of time they spend on different activities during the pandemic compared to before. The second question asks if the respondent worries about a number of factors that could disrupt their concentration and hence their productivity. The average answers are summarized in Figure A6.

<Insert Figure A6 about here>

Panel A reports the average response on a Likert scale from 1=much less to 5=much more to the question if they spent more or less time on a particular activity during than before the COVID-19 pandemic. The average response has been normalized by subtracting 3 to facilitate interpretation. On average, respondents spend less time on leisure, research, and sleep, and more time on childcare, chores, and teaching compared to before the pandemic. We report the distribution of responses for each Concern in Figure A7. 52.8% of our respondents spend less or much less time on research, while 27.7% spend more time on research during the pandemic. Time devoted to teaching increased for 45.9% of the respondents, while 14.5% say they spend less time teaching. 57.3% say they spend more or much more time on household chores, while 4.4% spend less or much less time on chores. Recall that many respondents do not have children, which in part explains why 54% report no change in the time spent on childcare. However, 42.6% report that they spend more or much more time on childcare during the pandemic. Very few respondents indicate a reduction in time spent on childcare (3.3%). 30.2% of our respondents report sleeping less or much less, while 16.8% report they sleep more or much more. The vast majority (71.4%) of the respondents report they spend less or much less time on leisure during the pandemic, while 9.7% are able to spend more or much more time than before the pandemic on leisure activities.

Panel B reports the average response on a Likert scale from 1=strongly disagree to 5=strongly agree to the question of whether the respondent agreed or disagreed with statements that “I worry about ...” The average response has been normalized by subtracting 3 to facilitate interpretation. On average, respondents worry most about their physical and mental health, closely followed by isolation. They clearly worry about online teaching, but almost as much about the prospects to have to teach in person. The respondents are much more worried about their employer’s finances than their own on average, and their children’s education is

also a source for concern. We report the distribution of responses for each Concern in Figure A8. Our respondents are particularly concerned about isolation and the physical and mental health consequences of the pandemic: 67.9% of the respondents somewhat or strongly agree that they worry about isolation and 70.4% somewhat or strongly agree that they worry about their physical or mental health. Our respondents are also worried about online teaching, 55% of respondents somewhat or strongly agree on this question. They are almost equally concerned about in-person teaching (46.8%). 53.4% of the respondents indicate that they somewhat or strongly agree that they worry about their employer’s finances. Fewer respondents agree that they worry about personal finances (40.6%). The care and schooling for children are also on respondents’ list of concerns, 33.2% say they agree somewhat or strongly to the statement that they worry about the welfare of their children during the pandemic.

<Insert Figure A7 and A8 about here>

References

Myers, Kyle R., Wei Yang Tham, Yian Yin, Nina Cohodes, Jerry Thursby, Marie C. Thursby, Peter Schiffer, Joseph T. Walsh, Karim R. Lakhani, and Dashun Wang, 2020, Unequal effects of the COVID-19 pandemic on scientists. *Nature Human Behavior* 4, 880–883 (2020).

From: [AFFECT \(Academic Female Finance Committee\)](#)
To:
Subject: The Impact of COVID-19 on the Productivity of Finance Researchers
Date: Monday, October 26, 2020 9:49:27 AM

The Academic Female Finance Committee of the American Finance Association - [AFFECT](#) – is inviting you to participate in a research study by voluntarily completing an anonymous online survey.

The purpose of this study is to assess the impact of COVID-19 pandemic on the productivity of finance researchers.

We know that your time is extremely scarce these days, and this survey should take **less than 5 minutes**.

Please Click the Link below to be taken to a Consent Page(s) where you are provided with additional information, and given a choice as to whether or not you want to participate.

Follow this link to the Survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

[Link](#)

THIS LINK IS UNIQUELY YOURS AND SHOULD NOT BE SHARED.

This survey closes on at midnight MST on Wednesday, November 4th, 2020.

We very much hope that you will participate!

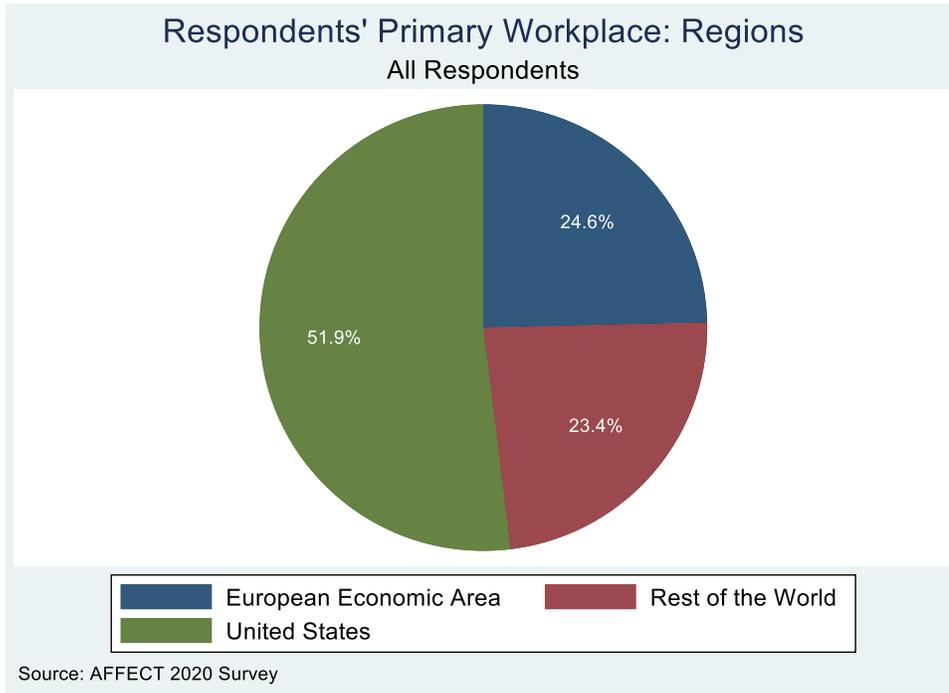
Research Team:

Brad Barber, Wei Jiang, Adair Morse, Manju Puri, Heather Tookes, Ingrid Werner

Figure A1. Survey Invitation

The invitation went out via email to all members of the American Finance Association (AFA) as of October 26, 2020, the distribution date. It included a link that took prospective respondents to the actual survey which was implemented using AFA's qualtricsTM account.

A. Geography



B. Profession

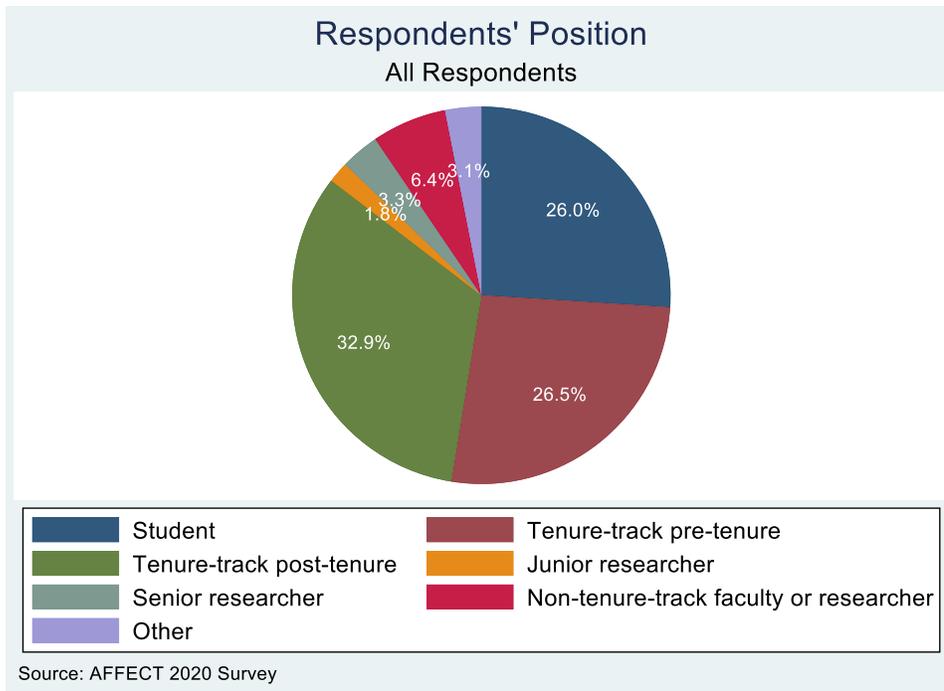
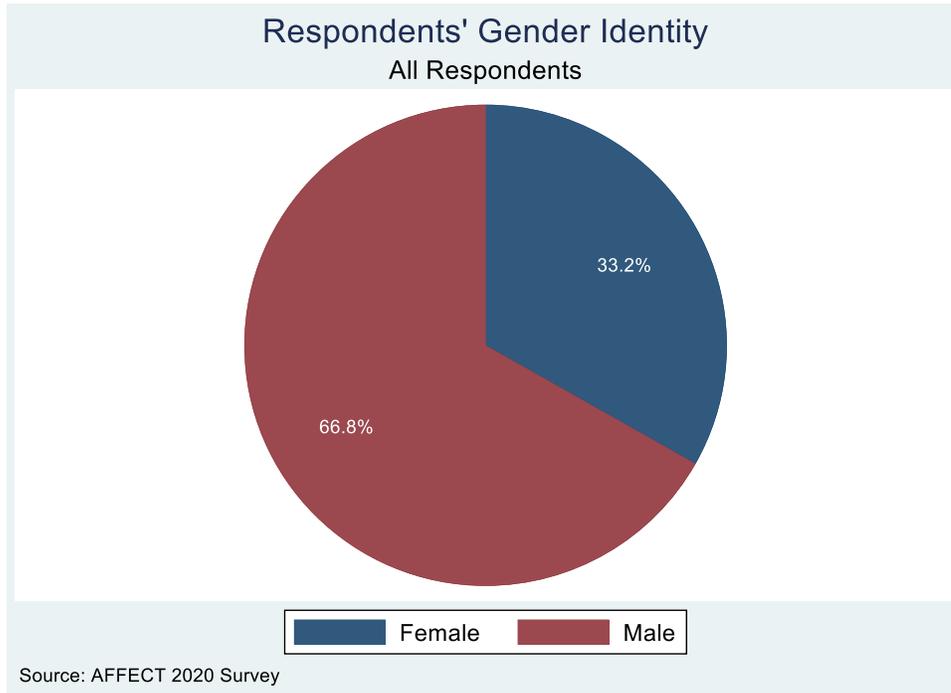


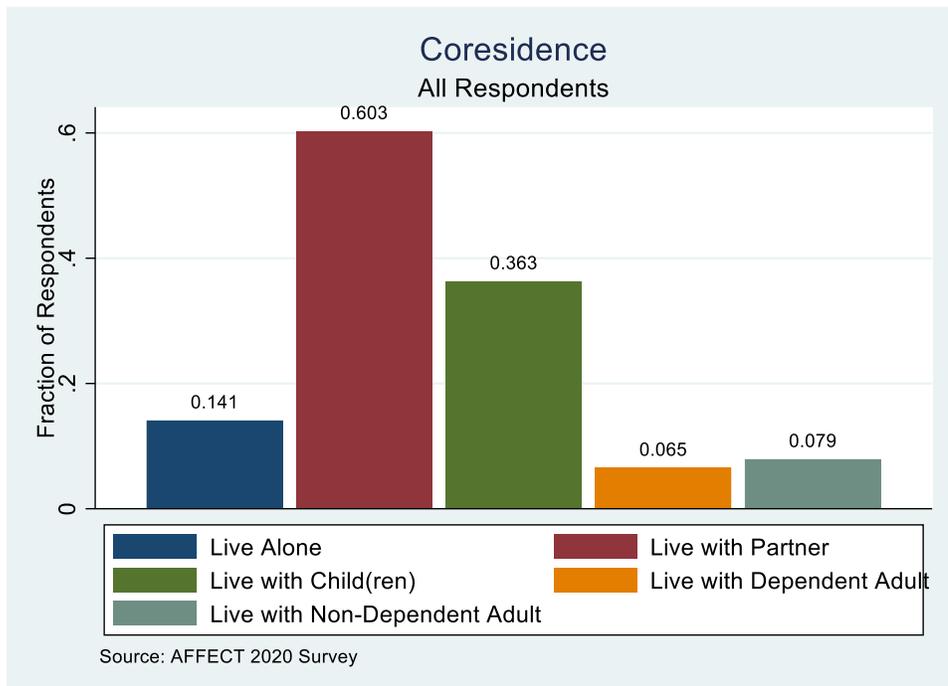
Figure A2. Geography and Profession

The pie charts describe the distribution of responses in terms of geographic location of their primary workplace and their profession.

A. Gender



B. Coresidence



C. Children

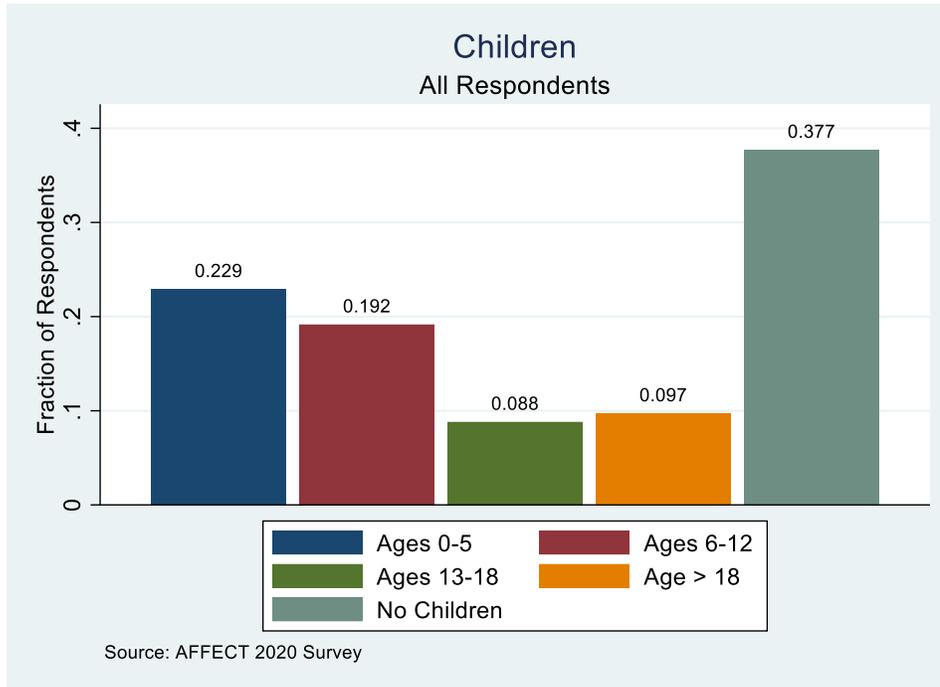
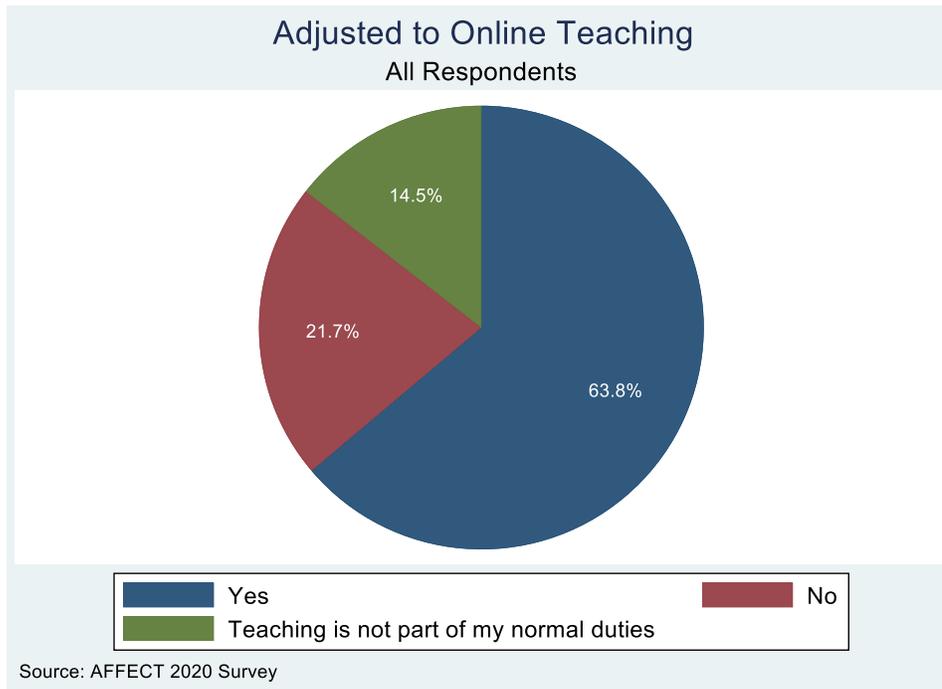


Figure A3. Demographics

The pie charts describe the distribution of responses in terms of gender for respondents that indicated either male or female (Panel A). Bar charts indicate coresidence (Panel B) and children (Panel C) and multiple responses may be selected by one respondent.

A. Teaching



B. Workplace Policies

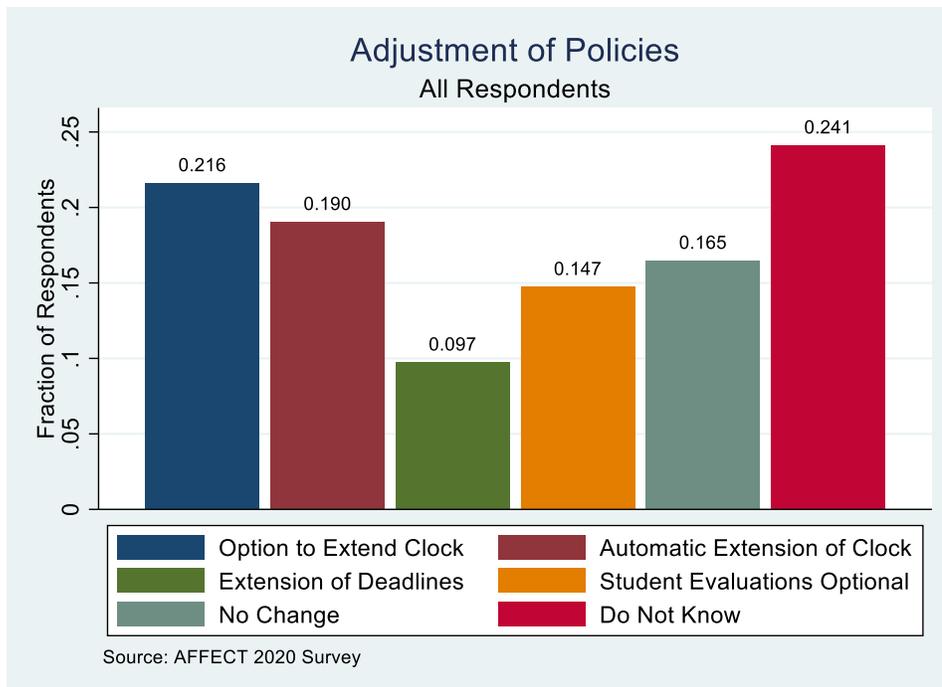
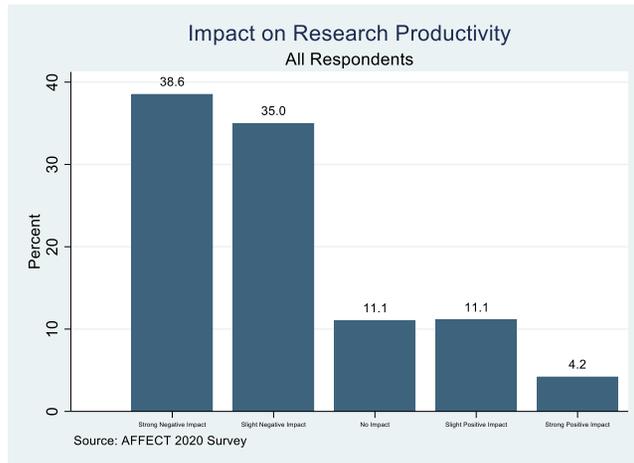


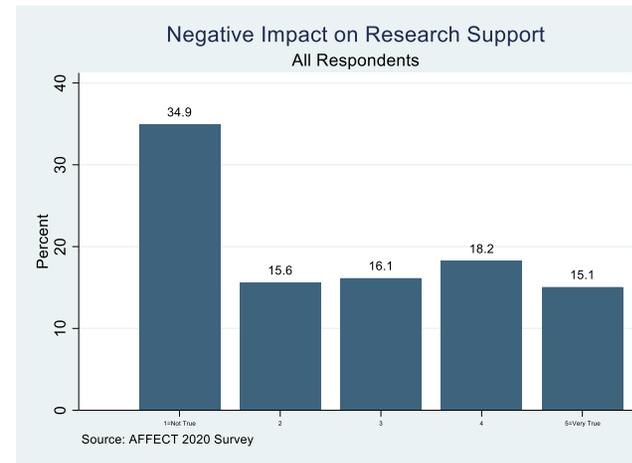
Figure A4. Teaching and Workplace Policies

The pie charts describe the distribution of responses in terms of teaching (Panel A) and changes to workplace policies (Panel B).

A. Research Productivity



B. Research Support



C. Timely Feedback

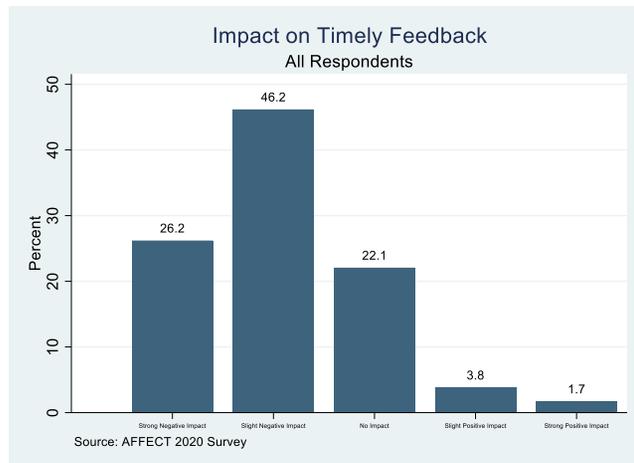
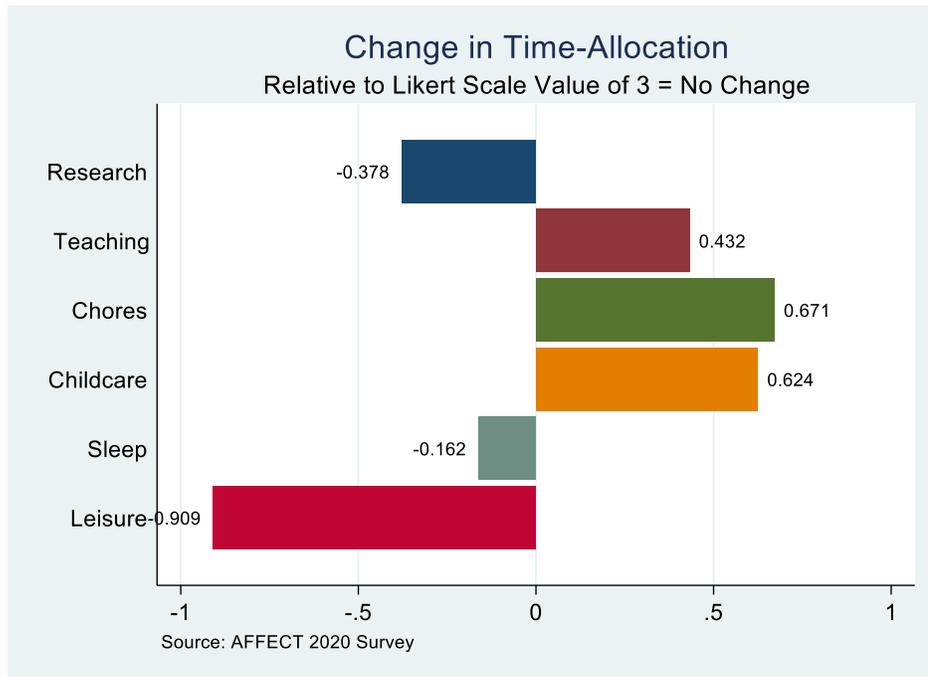


Figure A5. Research Productivity, Research Support, and Timely Feedback

The charts describe the distribution of responses on a Likert Scale from 1 to 5 in terms of the impact of the pandemic on research productivity (Panel A), research support (Panel B), and ability to get timely feedback (Panel C).

A. Change in Time-Allocation



B. Concerns

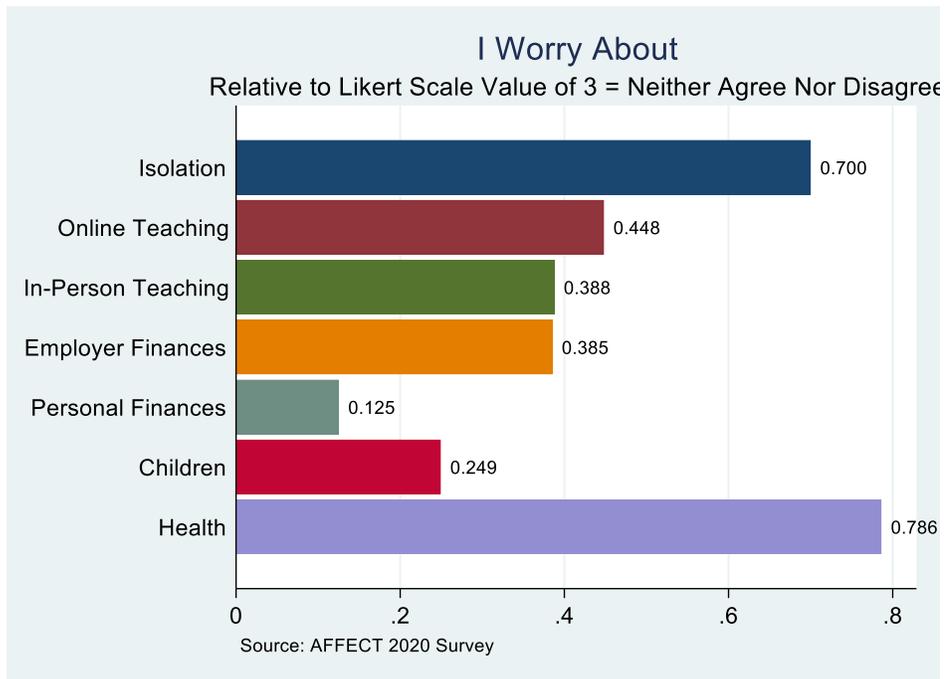


Figure A6. Time Allocation and Concerns

The charts depict the normalized (subtract 3) average responses on a Likert Scale from 1=much less to 5=much more in terms of the time spent during the pandemic on different categories in Panel A. The normalized (subtract 3) average response on a Likert scale from 1=strongly disagree to 5=strongly agree for concerns during the pandemic are reported in Panel B.

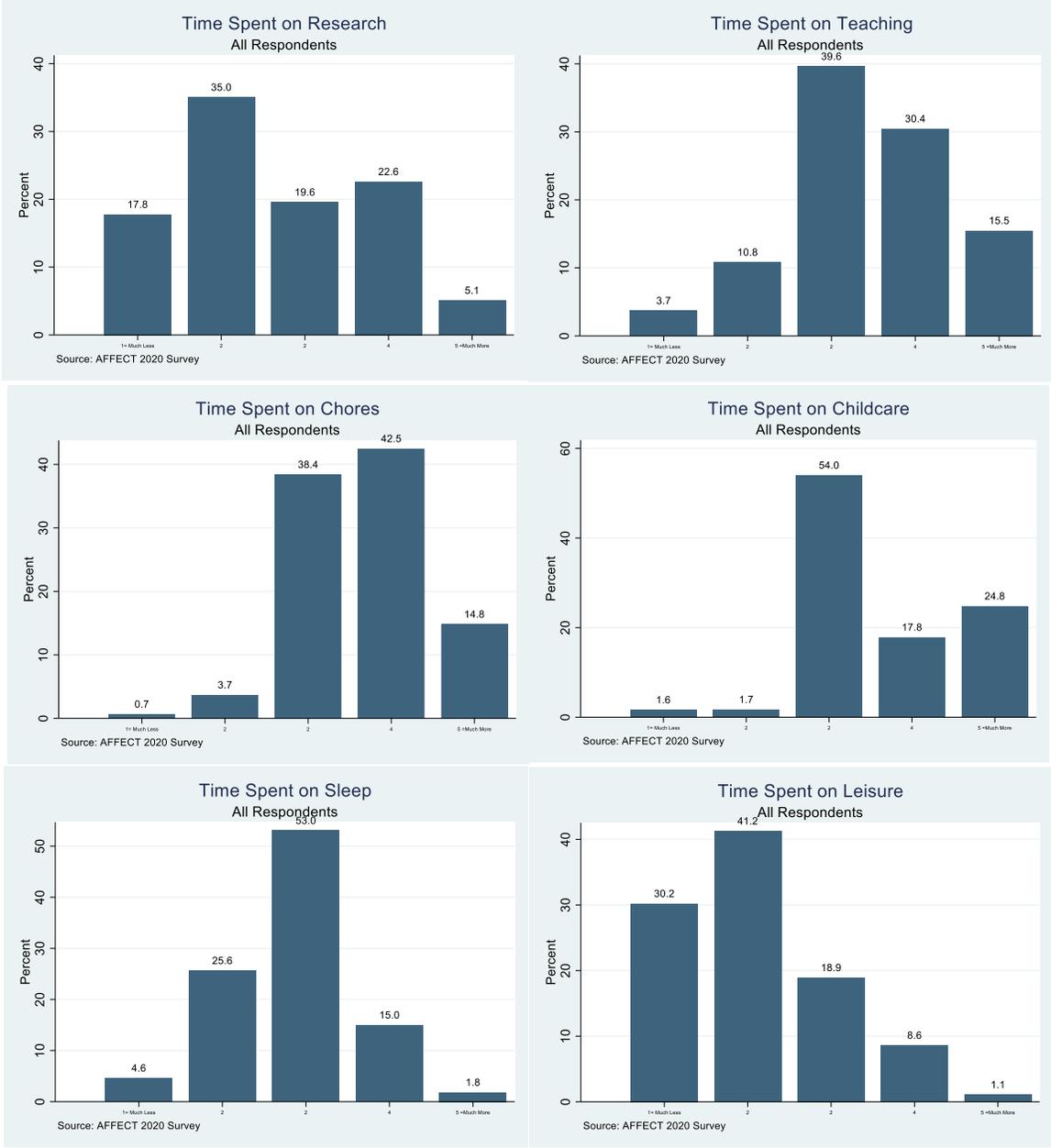


Figure A7. Time-Allocation on a Likert Scale

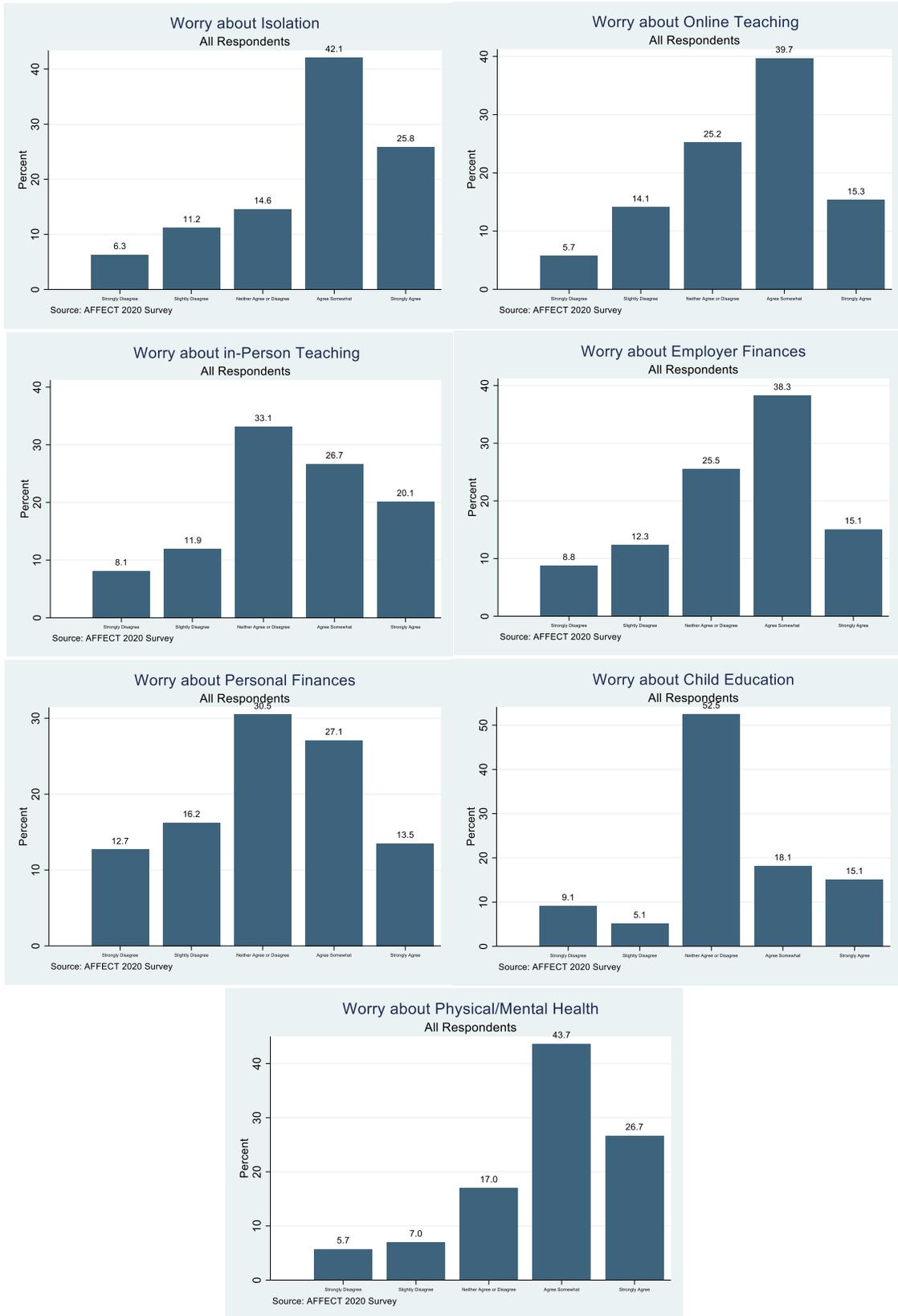


Figure A8. Concerns on a Likert Scale

Table A1. Survey Questions and Response Frequencies

This table summarizes the survey response frequencies for each question in the AFFECT survey of "The Impact of COVID-19 on the Productivity of Finance Researchers."

Question	Response Frequencies							
To direct you to the appropriate consent page(s), please tell us if you reside in the European Economic Area, the United Kingdom, or Switzerland?	Missing 0	Yes 379	No 1061					
Which of the following best describes your position?	Missing 110	Student 346	Tenure-track faculty pre-tenure 353	Tenure-track faculty post-tenure 437	Junior researcher 24	Senior researcher 44	Non-tenure track faculty or researcher 85	Other 41
Did you have to transition from in-person to online teaching for a substantial portion of your teaching?	Missing 121	Yes 842	No 286	Teaching is not part of my duties 191				
How did the COVID-19 pandemic affect your research productivity?	Missing 138	Strong negative impact 502	Slight negative impact 456	No impact 144	Slight positive impact 145	Strong positive impact 55		
Please tell us how true the following statement is for you a 1 (not true) to 5 (very true) scale: "Covid-19 caused a significant reduction in the financial or personnel support I have for research."	Missing 152	1 (Not true) 450	2 201	3 208	4 235	5 (Very true) 194		
How did Covid-19 affect your ability to receive timely feedback on your research projects, working papers, or other work?	Missing 158	Strong negative impact 336	Slight negative impact 592	No impact 283	Slight positive impact 49	Strong positive impact 22		
Please tell us if you spent more or less time on the activities below on an average WORKDAY during compared to before the COVID-19 pandemic. (Leave slider at 3 if it does not apply to you).*	Missing	Much Less	Less	Neither More Nor Less	More	Much More		
Research	218	217	428	239	276	62		
Teaching	218	45	132	484	372	189		
Childcare and schooling	218	20	21	660	218	303		
Domestic chores	218	8	45	469	519	181		
Sleep	218	56	313	648	183	22		
Leisure	218	369	504	231	105	13		

Table A1. Survey Questions and Response Frequencies (continued)

Please tell us if anyone resided with you during the period March 1, 2020 to September 30, 2020 (select all that apply).***	Missing	Spouse/partner/significant other	Dependent child	Dependent adult	Adults (not dependents)		
	187	203	523	94	114		
If you live with one or more adults, which of these best describes their occupation(s) from March 1, 2020, to September 30, 2020? (Leave blank if you do not live with one or more adults)	Missing	No paid occupation	Paid occupation was more demanding	No change in demands	Paid occupation was less demanding		
	396	275	350	331	88		
What are the ages of your children (select all categories that apply)?***	Missing	0-5	6-12	13-18	> 18	No children	
	218	330	276	127	140	543	
To which gender do you most identify?	Missing	Male	Female				
	226	811	403				
Please tell us how the disruption created by COVID-19 has affected your institution's promotion policy (select all that apply). ***	Missing	Option to add time to tenure clock	Time automatically added to tenure clocks	Extensions have been granted	Student evaluations have been eliminated or optional	No policy changes	Don't know policy
	204	311	274	140	212	237	347
In what country is your primary work place located?	Missing	US	Other Country				
	202	643	595				
Finally, tell us whether agree or disagree with the following statements (Leave slider at 3 if statement does not apply to you)**	Missing	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
I worry about isolation due to working from home	233	76	135	176	508	312	
I worry about virtual teaching	233	69	170	304	479	185	
I worry about in-person teaching	233	98	144	400	322	243	
I worry about the financial condition of my employer	233	106	149	308	462	182	
I worry about my financial situation	233	153	196	368	327	163	
I worry about my ability to provide an education for my child(ren) from home	233	110	62	634	219	182	
I worry about my physical and mental health	233	69	84	205	527	322	

* The instructions result in missing observations. If all responses on Time questions are missing, they are left missing (218 responses).

** The instructions result in missing observations . If all responses on Worries are missing, they are left missing (233 responses).

*** Do not sum to 1,440 as multiple responses for each respondents are allowed.