

The Impact of COVID-19 on Early Career Scholars and Doctoral Scholars

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Chairwoman Johnson, Ranking Member Lucas, and members of the Committee, thank you for the opportunity to speak with you today.

As we near the one-year mark of COVID-19 hitting the United States in full force, the disruptions to the personal and professional lives of early career scholars and doctoral students at universities and colleges across the country have proven to be drastic, persistent, and far-reaching. The harsh realities of the pandemic and its impact on social institutions like school, work, and the family have created challenging conditions that are taking their toll on research progress, researchers, and academic careers. These conditions have also exacerbated gender and racial inequities that may have lasting effects on future generations of researchers and the production of research.

Soon after the onset of the pandemic, the American Educational Research Association and the Spencer Foundation launched a two-part project to assess the pressing needs facing early career scholars and doctoral students and ways to address those needs. I want to acknowledge the team of eight affiliated with these two organizations and my collaborator, Dr. Na'ilah Suad Nasir, Spencer Foundation President. All bring commitment, caring, and extraordinary competence to undertaking this work during this pernicious pandemic time.

Simply put, we were very much concerned with the well-being and career trajectories of early career scientists and how the continued production of knowledge might be stalled, attenuated, or worse by adverse impacts on those who are at the beginning stages of their careers. We were determined to provide information to help higher education leaders, private and public funders, policymakers, and other organizational heads better support the next generation of researchers and to learn about immediate as well as far ranging effects with consequences for the nation's research enterprise.

The COVID-19 Focus Group Study consisted of 12 focus groups held in late May and the beginning of June 2020. The groups were held via a video meeting, were recorded, and the video data and transcriptions (a total of 18 hours of group interaction) were

systematically examined. The second part of this research—the COVID-19 Impact Study—is a national web-based survey of approximately 6,000 early career scholars and doctoral students. Developed by AERA and the Spencer Foundation, NORC at the University of Chicago fielded the survey on our behalf. The data collection was completed at the end of January.

This testimony is based primarily on the focus group study and the report released in January 2021—[*Voices from the field: The impact of COVID-19 on early career scholars and doctoral students*](#). The report includes emphasis on the voices of participants through substantial reliance on their own words. What we heard during these group discussions drove home the severity of the pandemic’s impact on the lives and careers of these scholars. The analysis led to identifying seven major themes.

- 1. Research Has Been Disrupted and Delayed, and Scholars Are Having to Adapt** – Scholars are facing derailments and delays in research projects. Their normal access to school administrators and students has been curtailed. As education across levels and contexts has changed drastically and quickly, research projects are undergoing rapid change as well. Researchers are facing uncertainty and ambiguity in their research projects in this unpredictable, ever-shifting environment.
- 2. The Emergence of Systemic Racism Has Created a Dual Pandemic and Additional Professional Pressures** – The emergence of a dual pandemic, after the killing of George Floyd, heightened concerns about systemic racism and institutionalized inequities in society. Scholars of color are experiencing emotional distress and exhaustion from being asked to do even more work, such as supporting students of color, teaching courses on race, or being the “go-to” person when racism and police brutality became more visible.
- 3. Scholars Are Struggling to Balance Family, Home, Community, and Professional Life** – Scholars, especially women, face uncertainties and barriers to research productivity while juggling home and family challenges, including providing full-time childcare and helping young children struggling with the social and educational challenges of virtual learning. They are not only concerned about their personal challenges, but those of their colleagues and students.
- 4. Researchers Are Uncertain about Job Security and Career Opportunities** – Researchers are increasingly concerned about their employment status and career trajectories as the result of deep budget cuts, falling enrollment, and the elimination of programs at institutions nationwide.

5. **There Is a Growing Sense of Disconnection and Lost Community** – The pandemic has affected researchers’ sense of connection to colleagues. Many feel they do not have the resources or bandwidth to stay professionally engaged, impeding future research collaborations. Doctoral students in particular worry about diminished opportunities for creating networks to support their job search.
6. **Researchers Are Concerned about Institutional Incapacity to Respond and Support** – While some scholars appreciate what they view as sincere efforts by institutions to support them, few see leadership as attuned to their situations. Many experience responses from institutional leaders as bureaucratic or as attempting to perpetuate a sense of normalcy when the circumstances are anything but normal.
7. **Online Teaching Is Creating Uncertainty, Complexity, and Heightened Concerns about Inequity** – COVID-19 is adding extra layers of responsibility and uncertainty to scholars’ teaching and mentoring roles. While some have seen opportunities in the shift to online learning, others are deeply concerned about the inequity issues caused by technology access and online participation.

The findings summarized above and set forth in detail in the report underscore the serious challenges we face in ensuring that scholarly fields and institutions of higher education retain and foster an inclusive talent pool of research excellence. The report offers a series of recommendations relevant to this hearing. Among the most germane are to: provide funding that allows for material support to emerging scholars (both salary and “soft support”), build community and connect scholars, support scholars with caregiving responsibilities, and focus on mentoring.

As noted earlier, the data collection for the AERA-Spencer COVID-19 Impact Survey concluded just weeks ago. Work is now underway to allow for appropriate weighting of the data and preparing for the data analysis. The study includes 3,339 early career doctorates and 2,642 doctoral students. With the caveat this information is preliminary, I want to thank Tom Hoffer at NORC for working rapidly with me to offer some brief facts-at-a-glance relevant to the focus group report and the committee’s work:

For doctoral students:

- 45% of the doctoral students indicate that COVID-19 has extended the timeline for completing their doctoral degree; 33% noted that they have experienced a great deal of delay in completing their doctoral degree.
- 73% of the doctoral students indicated increased stress related to working on doctoral studies remotely (some increase by 31%; a great deal of increase by 42%)

- 80% cited reduced opportunities for collegial exchange as either a great deal (46%) or some (34%) source of difficulty.
- 69% believed COVID-19 has substantially slowed their progress on critical research tasks with 35% indicating very significant and 34% moderately significant impacts.
- 48% of male and 46% of female doctoral student respondents have childcare responsibilities; 70% of the women with childcare responsibilities report a significant increase in those responsibilities due to the pandemic, compared to 55% of their male counterparts.

For early career doctorates:

- 24% have experienced a reduction or loss of wages, hours worked, or other income from employment as a result of COVID-19; 21% view it as very likely (14%) or likely (7%) that they will experience such a reduction or loss in the next 12 months.
- 72% have experienced stress related to working remotely from home: 33% a great deal of stress and another 39% some stress.
- 87% have experienced reduced opportunities for collegial exchange: 57% a great deal and 30% some reduction.
- 71% report COVID-19 has substantially slowed progress on critical research tasks (37% very significant; 34% moderately significant).
- 56% of women and 61% of men have childcare responsibilities; 74% of women and 67% of men report a significant increase in those responsibilities related to the pandemic.

A survey of 329 high energy physicists focused on the impact of COVID-19 (undertaken at about the same time as our Focus Group Study) revealed similar thematic concerns. Hildreth and Narain (2020) reported that physicists indicated that their efficiency is lower working from home; isolation is widely felt; and childcare is affecting how graduate students, postdocs, faculty, and others spend their time. See https://science.osti.gov/-/media/hep/hepap/pdf/202007/07-Hildreth_Narain-Community_Gathered_COVID-19_Impacts_for_HEP.pdf?la=en&hash=F6FE69EFB66A99207380F4286B3AB94185CEAB8A.

These results further complement the results of a survey undertaken in summer 2020 of 208 senior university officials that oversee graduate education. The study is led by a team at NORC and supported by the NSF rapid response research (RAPID) program. They released a report last month that is cause for further concern about the challenges facing emerging scholars and America's research capacity.

Institutional leaders reported 67 percent of their STEM research was delayed or discontinued. Less than one-quarter (24 percent) of institutions reported that graduate students received consistent advising from graduate faculty during COVID-19, and even fewer (12 percent) said that virtual advising was an adequate replacement for in-person

contact. About two-thirds (67 percent) of institutions reported they anticipated needing to cut the budget of their graduate school programs as a result of the pandemic and its consequences.

These additional data only underscore the need to act on the kinds of recommendations outlined in our Focus Group report where federal investment could help to enhance institutional and organizational responses to COVID-19 that are essential, equitable, and forward looking. One such example is the NSF Career-Life Balance (CLB) Supplemental Funding Request (NSF 21-021) that is congruent with the needs and concerns expressed by many participants in our focus group.

AERA and our peer associations strongly support the Research Investment to Spark the Economy (RISE) Act and the Supporting Early-Career Researchers Act. The RISE Act would provide a much needed infusion of funding to address costs from disruptions to research grants; provide financial support and flexibility for faculty, postdoctoral researchers, and graduate students; and help cover expenses required for ramping research back up as labs and research facilities reopen. The Supporting Early-Career Researchers Act would help keep early career researchers whose employment opportunities have been affected by the pandemic in the STEM pipeline through a new National Science Foundation fellowship program. Both of these bills would help mitigate the loss of research talent and ensure the long-term viability of American research. This moment presents an important opportunity to not only protect and bolster American's research capacity during and after COVID-19, but also make sure that the historic inequities within the sciences are not exacerbated as women and persons of color face the worse of the pandemic's effects.

Interpersonally, organizationally, or systemically, institutions, leaders, senior scholars, and policymakers at the federal, state, and local levels are at a pivotal time to support the next generation of researchers and thereby the very research enterprise that relies on them. The risks to their futures and to the country that benefits from their insights and innovation are far too great to lose this opportunity. We ask your committee to lead, to act in our nation's best interest, and to do so with one voice and without hesitation.

Felice J. Levine
Biographical Sketch

Felice J. Levine is Executive Director of the American Educational Research Association (AERA). Her work focuses on research and science policy issues, research ethics and conduct, data access and sharing, the scientific and academic workforce, and diversity and inclusion in higher education. She is principal investigator of the longstanding AERA-NSF Grants Program. She is principal investigator of an NSF-funded collaborative project to build a data hub to connect data resources, foster new scholarly networks, and advance research capacity in STEM education. She is also collaborating on an initiative examining the impact of and fostering academic support for open science products. Most timely, Levine is engaged in a multi-method study of the impact of COVID-19 on early-career education researchers and doctoral students.

Levine chairs the Board of the Council of Professional Associations on Federal Statistics, co-chairs the Societies Consortium on Sexual Harassment in STEMM, and is a member-at-large of the Social, Political, and Economic Sciences Section of the American Association for the Advancement of Science (AAAS). Levine also serves on the Board of the Consortium of Social Science Associations and the Board of Databrary as well as on the Advisory Group of the Center for Engineering, Ethics, and Society and the Advisory Group of the Humanities Indicators Project. She is a Fellow of the American Association for the Advancement of Science, the American Educational Research Association, and the Association for Psychological Science and an elected member of the International Statistical Institute. She holds A.B., A.M., and Ph.D. degrees in sociology and psychology from the University of Chicago.