

Pandemic disproportionately affects scientists with young children

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The COVID-19 pandemic is having a disproportionate, negative impact on the careers of scientists with young children at home, a new survey finds.

Researchers at Northwestern University's Kellogg School of Management led the study, finding broad discrepancies in the [pandemic](#)'s impact on scientists. Most notably, researchers with young children have been forced to drastically reduce the amount of time they spend on their research, which could have long-term effects on their careers and could exacerbate existing inequalities.

While the majority of survey respondents reported reduced work hours after the start of the pandemic, those with at least one child under the age of five reported a 17% greater reduction compared to peers without young dependents. Such a reduction could lead to fewer publications for those scientists, potentially affecting tenure decisions and driving other long-lasting career impacts.

"We're truly in the biggest crisis of our generation, yet we know so little about how the COVID-19 pandemic is impacting our professional career paths," said corresponding author Dashun Wang, associate professor and director of Northwestern's Center for the Science of Science and Innovation. "The need to care for dependents is clearly not unique to the scientific workforce, so these results may also be relevant for broader labor categories and may have broad relevance for shaping a more effective response to the pandemic's impact in science and beyond."

The research was published today (July 15) in *Nature Human Behaviour*. Kyle Myers of Harvard University is lead author. Co-authors include researchers from Harvard and Yale University.

Research findings are based on more than 4,000 responses to a survey sent to scientists in Europe and the United States in mid-April. The survey solicited information about how scientists' work changed from the onset of the pandemic and how their research output might be affected in the near future.

It also included questions about a wide range of individual characteristics, including field of study, career stage (e.g. tenure status), demographics (e.g. age, gender, number and age of dependents in the household) and other relevant factors such as institutional closures and personal exemptions from said closures.

The researchers also found broad differences in work impact based on gender and field of study. For example, women reported a larger reduction in work hours compared to men, and scientists who study the laboratory sciences, such as chemistry and biology, reported a larger reduction compared to scientists in fields such as statistics or economics.

"Institutions that don't take into account this varied impact likely will fare worse than those that do," Wang said, noting that policies such as extending the tenure clock for all faculty, while well-meaning, could exacerbate existing inequalities. "The main challenge is that in science, the production cycle drastically outlasts the time window required for an effective response, so by the time the impact becomes apparent, it is often too late to respond."

The researchers suggest that policymakers, at both the government and institutional levels, should work to better understand how pandemic response policies impact various groups so they can better design policy responses that help those who need it most.

"The pandemic has caused us to look at the issue of childcare in a new way," Wang said. "We have so far overlooked the stark difference between work-from-home and shelter-at-home, with the latter implying that dependents are also at home and need care."

More information: Kyle R. Myers et al. Unequal effects of the COVID-19 pandemic on scientists, *Nature Human Behaviour* (2020).
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