

The Impact of Covid 19 on Female Academics

"We are all in the same storm, but not in the same boat" Vincent-Lamarre et al (2020)

Following discussions with FIRN¹ members about the impact of Covid-19 on Academic research, FIRN Women has conducted a brief search of the recent literature. Below is a summary of papers, blogs, and media coverage that highlights the disproportional impact of Covid 19 on academic research output between males and females. We trust decision makers will find this information useful as they navigate performance evaluations in the current climate.

The papers reveal that female academics are submitting considerably fewer papers and grants than men during this period. This is predominately due to asymmetric caring responsibilities, and that women appear to shoulder much of the operational work and service roles.

FIRN would welcome suggestions of possible policy remedies to ensure that the gender gap is not further exacerbated during this time.

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The following is a summary of recent articles discussing Covid-19 and gender inequality within academia (as of 25 May 2020)

This is a combination of academic papers, blogs, op-ed pieces, and newspaper articles. There is some repetition amongst the material presented below. For example, if an academic writes a blog post or op-ed piece and that person is then interviewed. Some writers have used the same source of data on pre-prints and registered reports. A number of recent articles discuss general gender inequality in pay, job security, financial recovery from economic shocks, and home responsibilities, which are all exacerbated by Covid-19, but only those that specifically discuss academia are included here.

¹ FIRN – the Financial Research Network – is the premier network of finance researchers and PhD students across Australia and New Zealand. The purpose of FIRN is to provide a strong, cohesive and efficient approach toward supporting research and advancement in the Australian finance academic community. Contact: info@firn.org.au website: www.firn.org.au



Academic Papers / Analysis

The pandemic and the female academic

Minello, A. (2020, 17 April 7). The pandemic and the female academic. *Nature*. https://www.nature.com/articles/d41586-020-01135-9

Key point - academic work is incompatible with the responsibilities for home learning and childcare currently needed

Despite unbalanced care duties at home, academics are all in open competition for jobs. 'Academic work, as judged on the number of publications and amount of funding, is incompatible with the responsibilities for home learning and childcare currently needed.' In natural sciences, male academics are more likely to have a partner who does not work outside the home, female academics are more likely to have a partner who is also an academic, in these two-income households, the female academic still shoulders the greater burden of housework. In order to address this, it is suggested that this pandemic period be considered care leave to even the playing field. (Uses Frederickson (2020) pre-print analysis).

Who is doing new research in the time of COVID-19? Not the female economists Amano-Patiño,N, Faraglia,E., Giannitsarou,C. & Hasna, Z. (2020, 2 May) Who is doing new research in the time of COVID-19? Not the female economists. *Vox.* https://voxeu.org/article/who-doing-new-research-time-covid-19-not-female-economists

Key point – senior male economists are maximising the current situation to produce more working papers.

Despite Covid-19 providing ample data for economic research, it is less likely that this research will be done by female (or midcareer male) academics. Senior male economists are maximising the current situation to produce more working papers relating to Covid-19. Female academics are shouldering a disproportionate burden of home learning and childcare that inhibits their capacity to continue with expected research, teaching and administrative work. Other factors inhibiting research output for women are that women are more risk adverse (reluctant to take on new projects in uncertain times) and that women trade quantity for quality, given that higher standards are expected of women authors, and thus take longer to produce papers.

The decline of women's research production during the coronavirus pandemic

Vincent-Lamarre, P., Sugimoto, C. R. & Lariviere, V. (2020, 19 May) The decline of women's research production during the coronavirus pandemic. *Nature Index*.

https://www.natureindex.com/news-blog/decline-women-scientist-research-publishing-production-coronavirus-pandemic

Key point – policies to address gender inequality are needed to uphold a robust research environment that draws on the full population.

Male faculty are four times more likely to have a stay-at-home partner than their female colleagues. The researchers observed lower rates of submissions for pre-prints and registered reports from women for March and April 2020, compared with both the preceding two months in 2020 and the same two months of 2019. Reduced submissions from female academics is concerning because a 'robust scientific environment requires the participation of all members of the population; a crisis requires that we draw from the intellect of the full



population'. Public recognition of, and suitable policies for, gender inequities are required so that research output includes perspectives from the full population for the coming years.

Is Covid-19 turning back the clock on gender equality in academia?

Shurchkov, O. (2020, April 24). Is Covid-19 turning back the clock on gender equality in academia? *Medium*. https://medium.com/@olga.shurchkov/is-covid-19-turning-back-the-clock-on-gender-equality-in-academia-70c00d6b8ba1

Key point – blanket application of broad policies to address gender inequality may exacerbate current inequalities.

The writer argues that 'gender inequality among academics is important because the demographic composition of faculty shapes what is taught in the classroom, what research questions are asked, and how policy discussions are framed'. The author makes the point that irrespective of Covid-19, on average, male faculty are four times more likely to have a stay-at-home partner than female faculty, and that female faculty with children spend considerably more time engaging in caregiving activities compared to their male counterparts (35.5 vs. 20.3 hours per week). Hence, female academics have less time to devote to research and writing, which has been exacerbated by Covid-19 work from home orders. Submissions by female authors fell by 'over 3 percentage points (pp) in March of 2020, and further fell by 5 pp in April. Given that women represent only about 25 percent of authors in the sample, these numbers actually imply approximately a 12+ percent drop in March and a 20+ percent drop in April, relative to the mean'. Productivity in May is likely to be even lower because March and April statistics include work that began prior to Covid-19 work from home orders. The author acknowledges the call for changes to policies (such as tenure clock extensions) to address inequalities, however, expresses concern that some policies may exacerbate existing gender inequality. For example, extensions still favour those academics (mostly male) with a stay-at-home partner.

Commentary:

Scientist Mothers Face Extra Challenges in the Face of COVID-19

Jedd, T., Goldman, G., Henry-Moss, D., Wagner, C., Lescak, E., Metcalf, J. L., Hufbauer, R. & Brander, S. (2020, May 7). Scientist Mothers Face Extra Challenges in the Face of COVID-19. *Scientific American*. https://blogs.scientificamerican.com/voices/scientist-mothers-face-extra-challenges-in-the-face-of-covid-19/

Key point - The authors ask leaders of the science community to recognise the inequality that Covid-19 will have on some staff, mostly women

The article highlights that those working from home often have blurred lines between work hours and caring duties; set working hours for many is just not possible at the moment. In addition to reduced hours, other factors need to be considered in reduced research output for women, namely 'barriers to obtaining data, the cancellation of conferences, networking and job interviews; and uncertainty in funding'. The authors welcome policies such as pausing tenure applications but express concern that these policies will ultimately leave women in less secure and lower paying employment situations, leaving them financially worse off for years to come.



Women academics seem to be submitting fewer papers during coronavirus.

Kitchener, C. (2020, April 24). Women academics seem to be submitting fewer papers during coronavirus. 'Never seen anything like it,' says one editor. *The Lily*. https://www.thelily.com/women-academics-seem-to-be-submitting-fewer-papers-during-coronavirus-never-seen-anything-like-it-says-one-editor/

Key point - men are submitting up to 50 percent more than they usually would while submissions from women are down

In response to increase caring responsibilities, female academics are submitting fewer papers, which may ultimately stall their careers. Fewer submissions are easy to spot in fields such as astrophysics where women are already underrepresented. In contrast, some journals, such as *Comparative Political Studies*, report that submissions from men have increased 50%. A female academic interviewee worries that review panels for advancement and older, less encumbered staff will wonder why she did not write more during her four months at home, yet caring responsibilities has not allowed for the quiet stretches of time required for writing. Another female academic took a pandemic extension but now fears a recession means her job is even less secure. One female academic has started keeping a log of time spent each day on caring for children and time spent working as supporting evidence for future applications and tenure reviews of the disadvantage of Covid-19 for female academics.

Women are getting less research done than men during this coronavirus pandemic Frederickson, M. (2020, May 18). Women are getting less research done than men during this coronavirus pandemic. *The Conversation*. https://theconversation.com/women-aregetting-less-research-done-than-men-during-this-coronavirus-pandemic-138073

Key point – competition within academia does not distinguish between those with caring responsibilities and those without.

When women have caring responsibilities, or share care responsibilities with a partner, they are still competing against others in academia who are not. Using pre-print data downloaded from <u>arXiv</u> and <u>bioRxiv</u>, the number of men submitting is growing faster than women.

Impact of COVID-19 on academic mothers

Parent in Science Movement. (2020, May 15). Impact of COVID-19 on academic mothers. *Science*. (Letter to the editor). https://science.sciencemag.org/content/368/6492/724.1

Key point – flexible policies and timeline extensions are needed

Covid-19 is another motherhood penalty in academia. Increased responsibilities at home during the pandemic pose great risk to the gap between mothers (and fathers) and their childless peers in science. This piece calls for the urgent implication of flexible policies and timeline extensions.

Media:

Women's research plummets during lockdown - but articles from men increase Fazackerley, A. (2020, May 12). Women's research plummets during lockdown - but articles from men increase. *The Guardian*.

https://www.theguardian.com/education/2020/may/12/womens-research-plummets-during-lockdown-but-articles-from-men-increase



Key point – some academics will be left behind through no fault of their own

Covid-19 is exacerbating an already skewed playing field, allowing some academics (those without family responsibilities, or large numbers of students to support) to pull ahead while talented, capable academics (usually women) are held back through no fault of their own. The structure of academia, where research is often completed between other tasks, means that in some households it falls in behind partners with more structured timetables (i.e. hard meeting times). Research, as requiring periods of quiet time to read and write, is incompatible with home responsibilities. The article reports of journal editors refusing to be flexible with deadlines to accommodate longer times needed for academics with other responsibilities. Even with a moratorium on publishing, some academics (those with fewer home responsibilities) will build up their pipeline of research and be at an advantage when everything opens up again.

No Room of One's Own

Flaherty, C. (2020, April 21). No Room of One's Own. *Inside Higher Ed*. https://www.insidehighered.com/news/2020/04/21/early-journal-submission-data-suggest-covid-19-tanking-womens-research-productivity

Key point - Covid-19 exacerbates well-established inequities of academia and takes away structure that supports women to work, such as childcare and family support. Covid-19 is mostly affecting solo-authored papers; several journals report markedly lower submissions of solo-authored papers by women. 'In addition to increased home learning and childcare responsibilities, women are taking on the cooking and cleaning associated with having a family at home all day, every day'. Women are also taking on caregiving roles for friends, relatives and neighbours, which may require significant physical and emotional work, and further takes away time available for research and writing. Female academics are also likely take on more service roles within their academic institution than their male counterparts, which receive less recognition and in the time of a pandemic, may require considerable time. Female academics are less protective of their research time leaving them vulnerable to lower output when other demands increase. In summary, 'Covid-19 exacerbates well-established inequities of academia and takes away structure that supports women to work, such as childcare and family support'.

Women in science are battling both Covid-19 and the patriarchy.

Buckee, C. (2020, May 15). Women in science are battling both Covid-19 and the patriarchy. *The Times Higher Education*. https://www.timeshighereducation.com/blog/women-science-are-battling-both-covid-19-and-patriarchy#

Key point – men are dominating expert scientific opinion in the media

Covid-19 threatens hard-won progress of women in science. Scientists (microbiologists, epidemiologists, virologists) are currently in high demand by the media, however, 'lessqualified male opinions are being sought and repeated over expert female opinion'. Men are taking more of the spotlight – women are quoted less often or not at all. Rather than writing research or speaking with the media, women are more likely to be working behind the scenes completing operational work, supporting students through a difficult semester, and filling service roles; the 'invisible work' of academia. More male researchers are applying for Covid-19 funding than female, despite being less well-qualified in some instances. In comparison to their male colleagues, female academics are taking on increased domestic and caring duties during current work from home orders, further negatively impacting their contribution to research.