

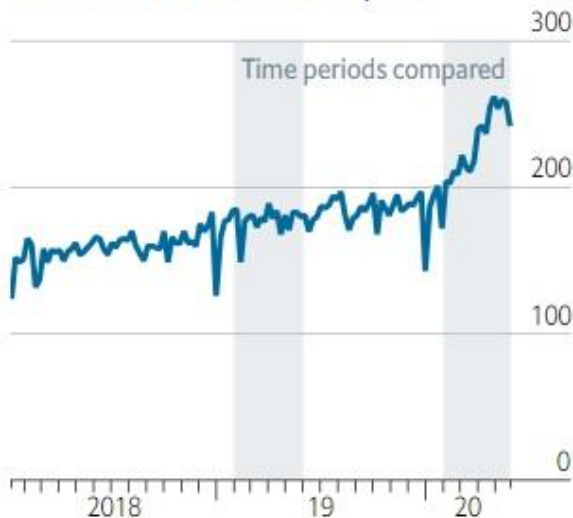
The gender gap in academic research widened during the first wave of the pandemic

Young female researchers suffered the most

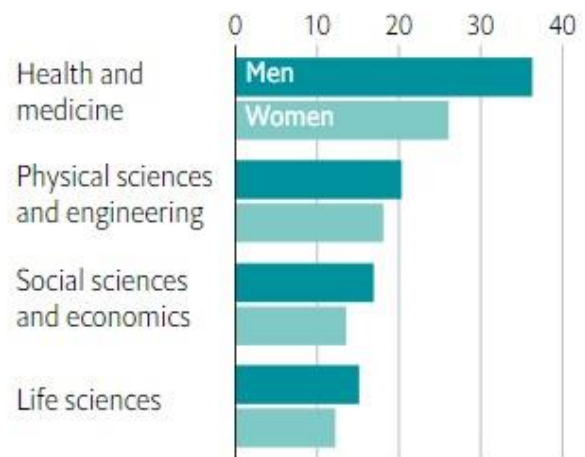
The covid-19 ceiling

Academic papers published in journals owned by Elsevier, a publisher

Total number of submissions, '000



Increase in number of submissions per 100 authors, comparing Feb-May 2019 with 2020



Source: "Gender gap in journal submissions and peer review during the first wave of the covid-19 pandemic. A study on 2329 Elsevier journals" by Squazzoni et al., *PLoS ONE*, 2021

When the covid-19 pandemic first shut down campuses in America and Europe, the reactions among academics were mixed. Some were thrilled to retreat to home offices with uninterrupted time for thinking, writing and analysis. Many others bemoaned the

disruptions to work caused by home-schooling and child-care responsibilities. “The next person who tweets about how productive Isaac Newton was while working from home gets my three year old posted to them,” joked one researcher.

Studies have shown that, across many professions, the disturbances caused by enforced home-working did not affect all workers equally. Even before the pandemic, women shouldered most of the domestic chores. The pandemic only reinforced this trend. Between February and April 2020, women in America scaled back the hours they spent on professional duties up to five times more than men did. No surprise, then, that the first wave of the pandemic coincided with a drop in the proportion of papers submitted by female academics.

A recent [study](#) by a group of European researchers examined papers by over 5m authors submitted to journals owned by Elsevier, an academic publisher, which accounts for around 16% of the market, more than any other company. Between February and May 2020 the number of papers submitted surged by 30% compared with the same period in 2019. But the increase in submissions from men far outstripped that from women. On average there were around 20 additional papers submitted for every 100 female researchers, but more than 25 for men. This widened an already large gender gap, where submissions from women accounted for less than one-third of the total in 2019.

The pattern was the same across all the research fields examined, from engineering to economics. But the effect was particularly pronounced for academics who were at an earlier stage in their careers, and are most likely to have young children or to be caring for frail parents. Those responsibilities surged during the pandemic, when schools were closed and elderly people were encouraged to stay indoors.

One area in which women’s contributions to academia remained steady was in peer-reviews. That suggests that they prioritised work for journals over their own research. But academics are often judged on the quantity of papers they produce. In a world where researchers must “publish or perish”, and where women are already under-represented at the top table, the smaller share of publications could have a damaging effect on women’s career progression.