

Which speakers will benefit from the rise in remote seminar presentations?

*The pandemic has led to a surge in working from home and a fall in business travel. More meetings have taken place remotely. **Marcus Biermann (Université Catholique de Louvain and Centre for Economic Performance, LSE)** looks at how the changes have played out in academic seminars in economics, and asks whether women in academia may benefit from a decreasing need to travel.*

Many people have to travel as part of their job. Before COVID, the average CEO at a large manufacturing company [spent about 8 percent](#) of their working time travelling. The pandemic disrupted travelling, forcing people to instead experiment with software such as Microsoft Teams and Zoom. According to the American Time Use Survey, the share of adults working from home almost [doubled](#) from 22 percent in 2019 to 42 percent in 2020.

Working from home (WFH) will likely persist in the future. [Barrero et al. \(2021\)](#) project that in the post-pandemic US economy, WFH will be four times its pre-pandemic level. However, it is unclear whether the consequences of WFH instead of travelling differ by individuals' gender and productivity. Observing travel for a specific occupation globally and measuring productivity at the individual level both pose significant data challenges. My paper studies who is benefitting from remote work instead of travelling for academic seminars in economics. The advantage of studying this setting is that a large fraction of seminars are published online and travel is observable. Furthermore, productivity is measurable — for example, in terms of publications.

I collected data on seminars from 270 institutions worldwide including universities, central banks, research institutes, and international organisations. Overall, the sample contains observations on more than 12,000 seminars from the autumn of 2018 to 2020. The data on seminars are complemented by rich speaker characteristics such as their work experience (after PhD award), gender, proxies of productivity, and workplace location. High productivity at the speaker level is proxied through a position in the top 1 percent in rankings from a platform that ranks registered economists in terms of their research output overall and over the last ten years. Another more general measure is taken from the rankings of speakers' universities in terms of publications in major economic journals between 2015 and 2019. I collected information on the location of hosting institutions to calculate the distance between the seminar speaker and the hosting institution.

The analysis compares the same seminar series before and after the technology shock. The vast majority of institutions explicitly report that they held their seminars online, therefore the effect of the technology shock is identified by estimating the difference in 2020 to the pre-technology shock period. The pandemic contemporaneously increased the need for childcare and housework. Surveys in the literature show that this burden was [disproportionately born by women](#) among academics. To control for age-specific and gender-specific pandemic-related changes in time use, I compare seminar speakers of the same academic age and gender.

More productive economists gave relatively more seminars

I find that there were 12 percent fewer seminars overall and 15 percent fewer individual speakers after the technology shock. So how did the allocation of seminars change among different types of speakers?

My first main finding is that more productive economists gave relatively more seminars. The share of more productive economists increased when looking at rankings at the individual level. For example, the likelihood that a speaker is from the top 1 percent in terms of recent research output increased by 3.4 percentage points or 27.4 percent in terms of the pre-technology shock mean. Second, I consider a ranking of universities according to their output in leading economics journals. The average rank of speakers' institutions decreased on average by 7.4 positions. The best institution is ranked first, i.e. the average quality of the speaker's institution increased.

Unmute

When examining the differential effects along the distribution, I find that speakers from the institutions with the highest number of publications (first quartile) crowded out speakers from institutions with the lowest number of publications (fourth quartile). Only for the first quartile of speakers does the average quality of host institutions decrease. This is consistent with a more significant decrease of the opportunity costs to give a seminar for high productivity speakers. As the time required to present in a seminar decreases, they are more willing to accept invitations from institutions of lower average quality.

The share of female speakers rose markedly

The second main finding is that the share of female speakers rose markedly. The likelihood that a seminar speaker is female increased by 7.5 percentage points, which is quantitatively important, as the pre-technology shock mean was 21.8 percent. The increase in female speakers is more pronounced for medium-length distances (approximately between 1,500 and 5,000 km). This suggests that the requirement to travel could be a barrier for women to accept a seminar invitation. As women, on average, contribute more to childcare and housework it may become more difficult to substitute these contributions for longer trips.

My results contribute to a debate about why women are underrepresented in high paying occupations. In the field of economics, women have historically been under-represented relative to other research fields. The literature has discussed the under-representation of women in other professions such as corporate management and law firms. My paper highlights that more flexible job arrangements, such as reducing the requirement to travel, could increase the representation of women in these occupations thereby potentially narrowing the existing gap.

The distance between host and speaker institutions surged by 32 percent

The third main finding is that the distance between host and speaker institutions surged by 32 percent. The increase in distance is more pronounced for speakers from better ranked institutions. For example, the estimates suggest an increase of about 42 percent for a speaker affiliated with a top 10 institution.

Which continents are driving the increase in distance? The only continent combination that increases in absolute terms was seen in seminars held by speakers from institutions in Europe hosted by institutions in the Americas, by about 65 percent. The number of seminars held by speakers from institutions in the Americas hosted by institutions in Europe decreased less than the overall number of seminars suggesting a relative increase. There were relatively more seminars across geographic borders. The likelihood of seminars across countries' borders increased by 4.6 percent, which is about 10 percent in terms of the pre-technology shock mean.

In the last step, I correlate the number of seminars with citations. In a preliminary analysis, I find that the association is positive and strongest in the year of the technology shock. The literature has shown that knowledge spillovers decay quickly with distance, for example, when considering patent citations. My findings suggest that knowledge spillovers in research might become less localised if communication through technology continues to play an important role in a post-pandemic world.

This post represents the views of the author and not those of the COVID-19 blog, nor LSE.