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Women and Minorities Encouraged to Apply (Not Stay)

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The Coronavirus 2019 (COVID-19) pandemic has deepened gender and racial diversity problems in academia. Mentorship shows women and other under-represented groups where the ladders to success are, and helps them avoid the chutes, a revised leaky pipeline metaphor. Here, we identify tangible strategies that will improve gender equity, including increasing active mentorship by male academics.

The Pandemic and the Hidden Curriculum

The COVID-19 pandemic has deepened gender and racial diversity problems in academia. While many job offers encourage women and minorities to apply, the institutions do not provide the support that will retain and promote talented scholars from under-represented communities. During the pandemic, women scholars are submitting fewer articles for publication [1]. The bulk of the cognitive and emotional labor related to child care continues to fall on women, although many men in academia appear to be experiencing ‘gender shock’ in the new work-from-home environment, where life and scholarship hang in the balance. To address these problems, many universities have instituted blanket tenure clock extensions. However, these will inevitably favor those not in caregiving roles, and exacerbate the gender gap [2].

While academic parents are privileged in many ways to be able, in many cases, to work from home, they are not immune from the stress of balancing work and family life, and often do so in isolation. Academics rarely have the choice to live near their support systems, such as family and friends. The early years of family formation often overlap with the tenure clock. The pandemic overlaid on top of this scenario has created an untenably stressful environment, and women and mothers are bearing the bulk of the burden. Women were already tenured and promoted at lower rates compared with men, although this is improving in some disciplines more quickly than in others.

Why Mentorship Matters

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Why Mentorship Matters

Mentorship helps keep women and other under-represented groups in academia. Women, especially those of color, exit academia at higher rates than do men, a phenomenon we call ‘chutes and ladders’. Mentorship provides the ladders and teaches the hidden curriculum so that women can be better prepared to avoid the chutes. In The PhD Parenthood Trap: Caught Between Work and Family in Academia, Crawford and Windsor describe the less-observable lower-order processes, often related to family formation, that result in more visible and quantifiable higher-order processes, such as gendered gaps in citations, hires, and promotions [3,9].

Results from our recent survey on mentorship during the COVID-19 pandemic show some interesting trends. For example, the percentage of survey respondents (N = 88) who have provided formal mentorship has decreased slightly, but the percentage who reported having received formal mentorship has increased (Figure 1). By contrast, the percentage of those who reported having provided informal mentorship has increased, while those who reported being beneficiaries of informal mentorship has decreased (Figure 2). These trends provide two reasons for optimism: first, even though formal mentorship programs have been interrupted by the pandemic, they are still continuing to take place; and second, the provision of informal mentorship has increased. This may mean that the conversion to remote learning has decreased
some barriers to participation as people can engage virtually when they may not have been able to do so in person.

Unfortunately, mentorship is still a highly gendered activity. Most formal mentorship programs are undertaken by women, for women. Our survey sample reflects this: two-thirds of the respondents identified as women.

What We Can Do
We can guard against women’s preventable exits from academia by making a few concerted changes. Implicit bias training should be required for faculty on hiring, tenure, and promotion committees. Women need better advocacy from their letter-writers too; recommendation letters differ systematically in gendered ways that minimize women’s achievements, and their chances of getting hired [10]. Letters for men tend to focus on quantifying their accomplishments, whereas letters for women tend to focus on social aspects, such as collegiality, and also tend to be much shorter than men’s letters of references. More women need to be nominated for awards and high-profile service roles that amplify their stature in the profession. Women tend to take care of the academic family, performing less visible service roles with a limited scope of benefit, rather than being broadly impactful.

We also need to broaden our definition of what counts as professional” [11]. The culture of the academy often requires women to present themselves as unencumbered men, such as by removing wedding rings and not disclosing pregnancies, children, or spouses during job interviews. However, women are not unencumbered men, and some men who are carrying their share of the caregiver load also experience bias. Institutions should provide a paid research sabbatical for women after the birth or adoption of each child, in addition to, not in place of, paid parental leave.

In addition, we need more ‘men in the middle’, that is, those with tenure who have leverage in changing departmental and disciplinary culture to have more active mentorship and advocacy roles [12]. The Society for Political Methodology, a conference with historically greater participation by men, recently began strongly encouraging the chairs of conference panels to call on women first, because this improves overall engagement in the discussion by women in the audience [13]. This strategy also works in classroom settings at the undergraduate and graduate levels.

Why It Matters
Gender essentialism, where we expect women and men to behave along traditionally defined roles, is slowing the process of scientific discovery. It took decades of rejections for Katalin Karikó’s idea about mRNA to gain traction, and yet this idea pioneered the Pfizer-BioNTech COVID-19 vaccine. In international politics, it is not only societies with women leaders, but also more egalitarian and fair societies who have had fewer COVID-19 deaths [14]. This is a lesson for academia: everyone does better when women do better.

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Declaration of Interests
No interests are declared.

Resources
1. https://medium.com/international-affairs-blog/snow-days-holidays-and-pandemic-quarantines-why-we-need-to-be-looking-after-parents-a3dc8413548
2. https://medium.com/international-affairs-blog/we-need-to-talk-gender-bias-and-best-practices-for-supporting-academic-parents-1d633d34f5a
3. https://sites.google.com/colgate.edu/ir-virtual-practice-job-talks/home
4. https://blog.oup.com/2014/11/mentorship-academic-career-political-science/
5. https://medium.com/international-affairs-blog/bias-and-professionalism-c42abf65f4ba
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References
1. Viglione, G. (2020) Are women publishing less during the pandemic? Here’s what the data say. Nature 581, 365–366
2. Windsor, L. and Crawford, K.F. (2020) Snow days, holidays and pandemic quarantines: why we need to be looking after parents. Medium 23 Mar
3. Hesli, V.L. et al. (2012) Predicting rank attainment in political science: what else besides publications affects promotion? PS: Polit. Sci. Polit. 45, 475–492
4. Mason, M.A. and Goulden, M. (2002) Do babies matter? Academe 88, 21
5. Crawford, K.F. and Windsor, L.C. (2020) We need to talk: gender, bias and best practices for supporting academic parents. Int. Aff. Blog 14 May
6. Lupton, D. () IR/CP virtual practice job talks. https://sites.google.com/colgate.edu/ir-virtual-practice-job-talks/, Accessed date: 9 March 2021
7. Leeds, B.A. et al. (2014) The importance of mentoring. OUPblog 23 Nov
8. Crawford, K.F. and Windsor, L. (2019) Best practices for normalizing parents in the academy: higher- and lower-order processes and women and parents’ success. PS: Polit. Sci. Polit. 53, 275–290
9. Crawford, K.F. and Windsor, L. (2001) The PhD Parenthood Trap: Caught Between Work and Family in Academia, Georgetown University Press
10. Madera, J.M. et al. (2009) Gender and letters of recommendation for academic: agentic and communal differences. J. Appl. Psychol. 94, 1591–1599
11. Crawford, K.F. and Windsor, L. (2001) Bias and ‘Professionalism’. Int. Aff. Blog 3 Mar
12. Windsor, L. and Thies, C. MENtorship: ’men in the middle’ and their role as allies in addressing gender bias. PS: Polit. Sci. Polit. (in press)
13. Carter, A.J. et al. (2019) Women’s visibility in academic seminars: women ask fewer questions than men. PloS ONE 13, e0202743
14. Windsor, L.C. et al. (2020) Gender in the time of COVID-19: evaluating national leadership and COVID-19 fatalities. PloS ONE 15, e0244521

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