



Science
Societies

Disproportionate effects of the pandemic: Why it matters and what you can do

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There was much excitement and relief when the COVID-19 vaccines started being administered last December, but unfortunately, it may take a while longer before we can return to “normal.” In the meantime, soil scientists continue to work and conduct research where possible and, in some cases, use this opportunity to publish previously collected data. Those of us who are not busy homeschooling or taking care of family members have the luxury of focusing on our writing while teleworking, but there is an increasing gap between men and women in the number of papers published and grant dollars earned, e.g., one study indicates that women are only posting 42% as many preprints as men (Viglione, [2020](#)). Another study showed that in dual-earner, heterosexual married households with children, mothers reduced their work time over five times more than fathers between March and April 2020 (Collins et al., [2020](#)). Racial and ethnic minority groups are even more likely to be negatively impacted during the pandemic, but data are much harder to find for these cases. This suggests that gender and minority parity in the profession may also decrease.

Why It Matters to SSSA

Although the number of women and minorities has increased in SSSA (women increasing by almost 43% in the last decade; Vaughan et al., [2019](#)), our total membership numbers are stagnant or falling, and we need to attract and retain more members to remain sustainable. Younger members are typically more diverse and represent the future of our discipline, especially as we face new challenges in urban soil science and climate change. However, younger members may be most adversely affected by disproportionate workloads and are struggling with work–life balance (e.g., caring for parents and/or children). Together, women and all minorities comprise less than a third of our SSSA membership. All three of our Societies have a strategic goal to increase our diversity, but professional membership and participation may be a low

priority for women and minorities if they are being overly impacted by the pandemic.

What You Can Do

Encouraging diversity and improving equity between genders and underrepresented groups is not just the right thing to do; it's the smart thing to do if we want to increase our membership numbers, our influence, and the economy. For example, the global gross domestic product growth could fall by \$1 trillion if we continue to do nothing, or it could raise by \$13 trillion in 2030 if gender-parity improvements are made (<https://mck.co/3bnxuES>). That is, if we continue to allow women and minorities to fall out of the workforce, we will see a loss in economic growth over the next decade that will put more families at risk and create undue stress. Additionally, we won't have those diverse voices to help us in strategic problem-solving areas.

Consider how you as a supervisor, mentor, or faculty adviser, whether in an academic, private, or government setting, can contribute to a diverse work environment that will be more resilient and productive even after this pandemic. Here are some steps an employer can take to support women and minorities during these tough times (

<https://bit.ly/3q3K0Os>):

- Consider cases on an individual basis and build a culture of collaboration.
- Be flexible and provide creative working options—job sharing, cross-training, and assigning new or different tasks that can be done from home on the employee's own schedule.
- Re-evaluate goals, expectations, and deliverables. Don't hold your staff and students to the same performance expectations or benchmarks as in a non-pandemic year.

- Providing flexibility for men can keep women working—this may seem surprising at first, but by allowing the men (especially fathers) on your payroll or in your labs to be more flexible, *and encouraging them to support their families*, they can provide more help and support to their partners and build more collaboration. It is also important that you exemplify and demonstrate the principles of collaboration, shared work ethic, and respect for all roles (including caregiving, homeschooling, and domestic duties).

- Nominate women, LGBTQ+, and minority colleagues for SSSA awards and recognize them for their outstanding contributions (www.soils.org/awards).
- Don't stand idly by while women and minority colleagues do 25 hours more internal service annually than white male faculty (<https://bit.ly/3hZ6sFg>)—step up to do your share, mentor them on how to optimize their external professional service, and make sure that credit gets given where due. Internal service is service to the university, campus, or department while external service is to the local, national, and international professional communities and is often seen more favorably in evaluations.
- Invite women and minority colleagues to collaborate with you on grants and research projects. Adding diversity will not only get you points with federal funding agencies but will also provide new perspectives and approaches to problem solving.

Finally, remember that we ALL have challenges when working from home—be it family, pets, or poor internet connections—but try to be patient, understanding, and



Photo by Patrick Mansell and courtesy of Flickr/Penn State.

nonjudgmental. One of the things I appreciated most while working online in 2020 was the attitude of acceptance and support that my students and colleagues showed me as I fumbled around learning new technology. Some of you may even remember my dogs showing up during my Annual Meeting comments. I was so relieved that the little guys stayed quiet the whole time—and it was fun to see all the comments about them in the chat box.

Stay safe and please continue practicing social distancing, mask wearing, and all the protocols to minimize spreading COVID; also, be vaccinated as soon as you can. In addition, check in with your female, LGBTQ+, and minority colleagues and students to see if they need any help, and let them know that you support their efforts. Improving diversity, inclusivity, and equity of all SSSA members is one of my goals as president and a cross-society strategic goal that will benefit all of us.

Dig Deeper

- Collins, C., Landivar, L.C., Ruppanner, L., & Scarborough, W.J. (2020). *COVID-19 and the gender gap in work hours*. *Gender Work & Organization*.

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- Vaughan, K., Van Miegroet, H., Pennino, A., Pressler, Y., Duball, C., Brevik, E.C., Berhe, A.A., & Olson, C. (2019). Women in soil science: Growing participation, emerging gaps, and the opportunities for advancement in the USA. *Soil Science Society of America Journal*, **83**, 1278–1289.

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- Viglione, G. (2020). Are women publishing less during the pandemic? Here's what the data say. *Nature*, **581**, 365–366.

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