

A successful intervention boosts the gender diversity of STEM faculty

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Eighty-one percent of US science, technology, engineering, and math (STEM) university faculty members are men. To address this substantial gender disparity, an interdisciplinary team from Montana State University, led by Jessi L. Smith, devised a three-step search intervention, the results of which are published in *BioScience*. The approach, based on self-determination theory, was successful. "Searches in the intervention were 6.3 times more likely to make an offer to a woman candidate, and women who were made an offer were 5.8 times more likely to accept the offer from an intervention search," explain the authors.

The study encompassed 23 STEM-faculty searches conducted over one year at Montana State University. Each part of the three-step [intervention](#) was aimed at one of three psychological needs: competence, autonomy, and relatedness. Self-determination theory holds that creativity, motivation, and performance thrive when these three needs are met.

To enhance competence, search committees assigned to the intervention group were first provided with a printed "faculty search toolkit," with instructions for conducting a broad applicant search. To improve autonomy, committees were instructed about how to overcome implicit gender bias. To address social relatedness, committee members were connected with a peer to support the search, and job finalists consulted with a "family advocate" in a confidential interview.

Although the authors noted some initial pushback among faculty members, this did not stand in the way of achieving the desired results. For instance, in the intervention group committees, 40.5% of the candidates short-listed and phone-interviewed were women, versus only 14.2% in the control group. As a result of this success, the intervention has since been applied to all STEM-faculty hiring at Montana State University. In the ensuing years, women have constituted 50% of those hired.

According to the authors, the results demonstrate the successful application of psychological theory in achieving practical outcomes, which "shows that organizations can benefit from using psychological science to inform precise interventions." Furthermore, they stress that interventions of this type may have applications beyond the promotion of gender diversity: "Although the focus here was on increasing women faculty within STEM, the intervention can be adapted to other scientific and academic communities to advance diversity along any dimension."

Provided by American Institute of Biological Sciences

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