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UMass ADVANCE STEM Inclusive Community Findings 2022

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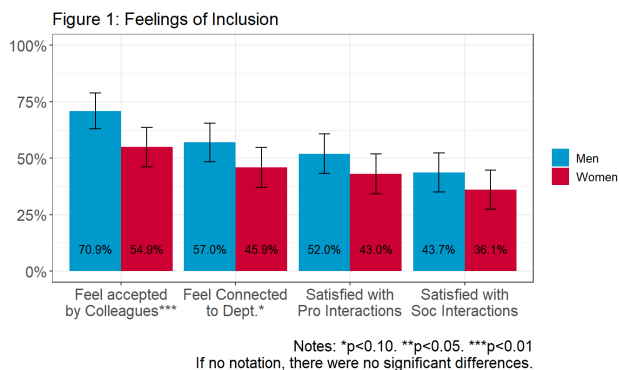
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UMass ADVANCE Faculty Survey Inclusive Community Findings

Inclusion refers to faculty members feeling connected, valued, respected, and heard in their departments and the larger UMass community. The pandemic has had a dramatic impact on feelings of inclusion, as many people have spent months or years primarily working from home, with fewer opportunities to meet and connect with colleagues.

In the 2022 ADVANCE survey, 273 UMass faculty from 32 STEM departments in CICS, CNS, COE, and CSBS responded. In this research brief, we describe some of the key findings from this survey, focusing on patterns among STEM faculty by gender.

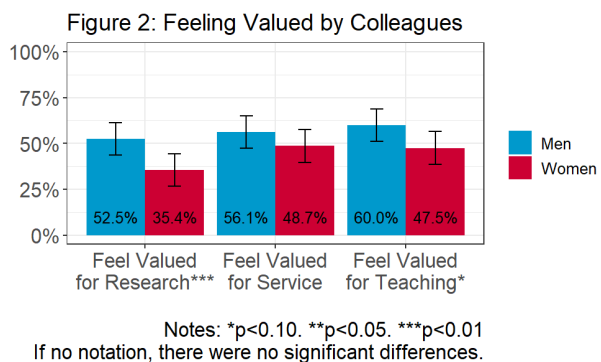
We also explored any differences by college and found that there are not many differences by college around inclusive community. Overall, CICS faculty rate their department climate most highly and consider their unit more inclusive. However, faculty in the college of engineering report high levels of feeling accepted by colleagues. By rank, there are significant differences between non-tenure-track and tenure track faculty, but fewer differences between assistant professor and tenured professors. We do not observe many differences based on year of hire.



Overall, feelings of inclusion have gone down on campus since the 2018 survey, likely as a result of the disruptive impact of the pandemic. Men who are UMass STEM faculty are more likely to report feeling accepted by their department colleagues and connected to their departments, as shown in Figure 1. **Women feel significantly less accepted by their colleagues ($p<0.05$) and significantly less connected to their departments ($p<0.1$).** There are no gender differences in satisfaction with professional and social interactions. However,

compared to feelings of being accepted or connected, both men and women reported **lower levels of satisfaction towards interactions**. This reflects how the pandemic has interrupted professional and social interactions.

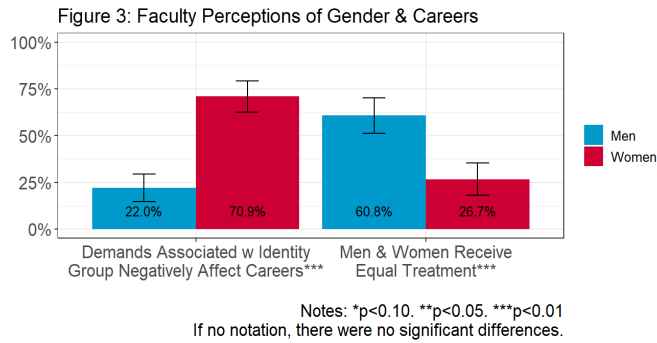
On average, UMass STEM faculty feel “somewhat valued” to “valued” by their department colleagues, in terms of research, service, and teaching. The gender differences in these measures are worth noting. Compared to men, women feel significantly less valued by colleagues for their research ($p<0.01$). This is a critical measure at a research-intensive university and suggests that women do not feel seen for their research in the ways that men are. Women are also marginally less likely to feel valued for teaching ($p<0.1$). We do not observe significant gender differences in the measure of feeling valued for service, but Figure 2 suggests that there may be some gender differences.



Notes: *p<0.10. **p<0.05. ***p<0.01
If no notation, there were no significant differences.

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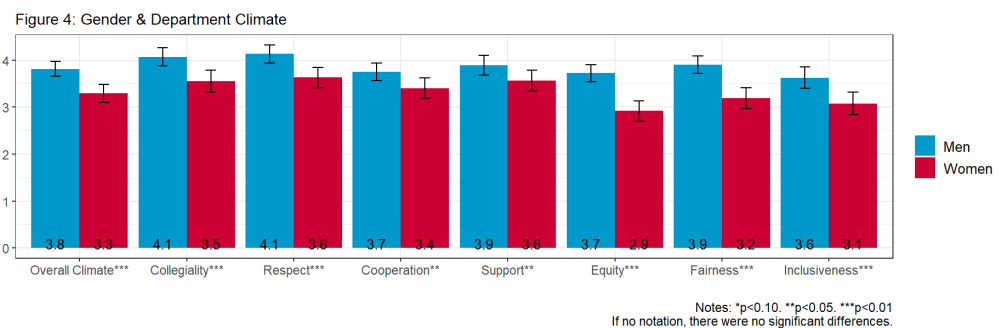
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We also asked UMass faculty how gender might affect their careers. As shown in Figure 3, women and men have substantially different perceptions: **women are significantly more likely to report that their careers are negatively affected by the demands or expectations associated with their identity ($p < 0.01$)**. Indeed, more than two-thirds of STEM women experience these negative effects, while less than one quarter of STEM men report negative

effects. **In addition, women are much less likely to believe that women and men receive equal treatment in their departments/programs ($p < 0.01$)**. The disjuncture here suggests that many men do not recognize the challenges women in STEM face.

The survey also asked faculty to rate their departments on a series of climate dimensions. On average, both men and women faculty rate the climate of their department somewhat positively,



but the climate ratings are still significantly gendered. As showed in Figure 4, women give significantly fewer positive ratings on many climate measures, suggesting **women STEM faculty consider their departments to be less collegial, respectful, cooperative, supportive, equitable, fair, and inclusive than their male colleagues**.

Implications for interventions: After the onset of the COVID-19 pandemic, many relationships became more tenuous, as more and more activities moved online, and there have been fewer opportunities for faculty members to interact professionally and socially. ADVANCE will continue to promote [tools](#) aimed at creating solutions for more inclusive, cohesive, and engaged departmental cultures. ADVANCE also has a role to play in promoting women's research and helping make their contributions to campus more visible. Yet this recognition work also needs to be taken up more broadly at the university.

Through the power of collaboration UMass ADVANCE provides knowledge driven research and solutions for faculty equity. ADVANCE cultivates faculty equity, inclusion and success by providing the resources, recognition and relationship building that are critical for equitable and successful collaboration in the 21st century academy. UMass ADVANCE is funded by the National Science Foundation (NSF), which is advancing gender and racial equity for faculty in science and engineering. For more information on UMass ADVANCE go to: <https://www.umass.edu/advance/home>

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