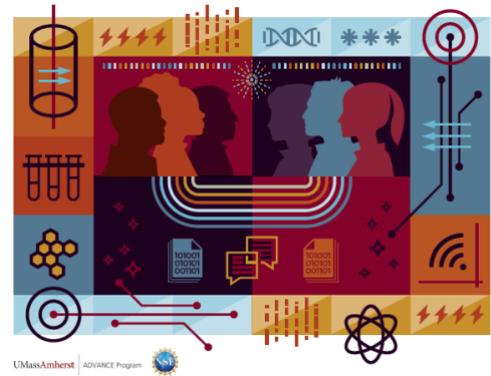


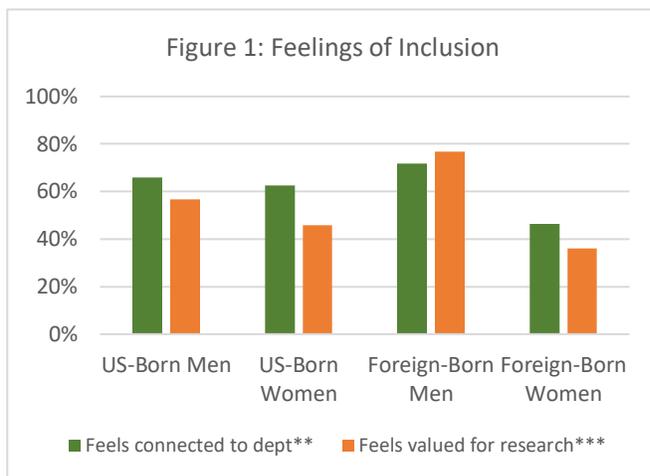
# STEM Faculty Experiences by Gender & Nationality

The UMass ADVANCE program is working to ensure greater equity among faculty through the power of collaboration. In this research brief, we describe some of the key findings from our initial survey, conducted in 2018-19. We will conduct the same survey in 2022-23 to measure the impact of our interventions.

In this research brief, we focus on patterns among STEM faculty by **nationality and gender**. We explore whether and how nationality and gender affect how STEM faculty experience inclusion, shared decision-making, and research collaboration. UMass ADVANCE interventions aim to develop systemic and sustainable approaches to address faculty disparities at the intersection of gender and nationality, including addressing the experiences of foreign-born STEM faculty to support their inclusion and retention. As the findings in this brief indicate, **interventions must foster inclusion specifically for foreign-born women STEM faculty.**

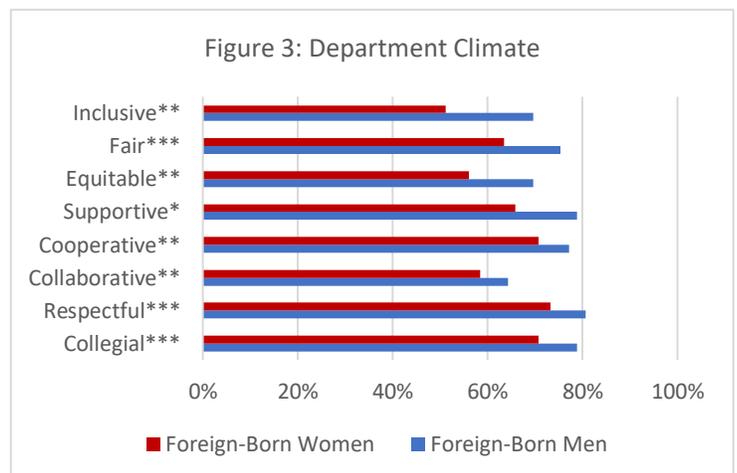
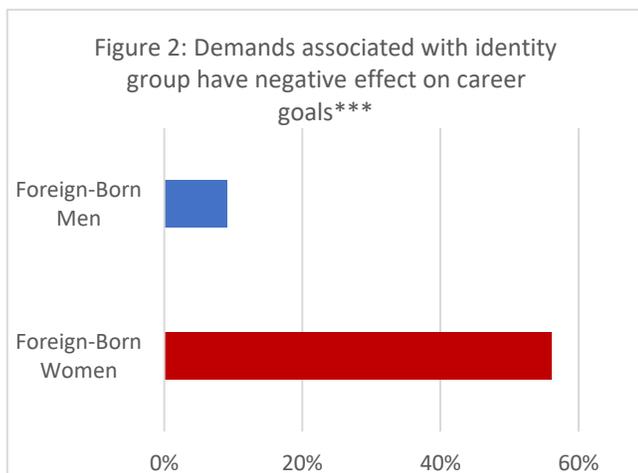


23.4% of survey respondents were born outside of the US. In this brief, faculty are grouped by US-born men (n=142), US-born women (n=132), foreign-born men (n=57), and foreign-born women (n=41). In the figures below, statistical significance is indicated as \*p<.10, \*\*p<.05, and \*\*\* p<.001.

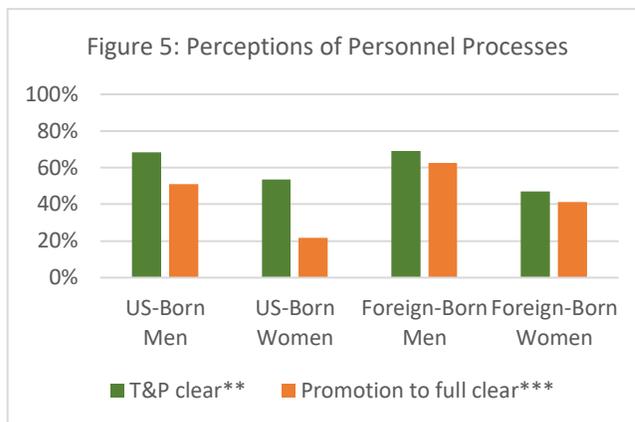
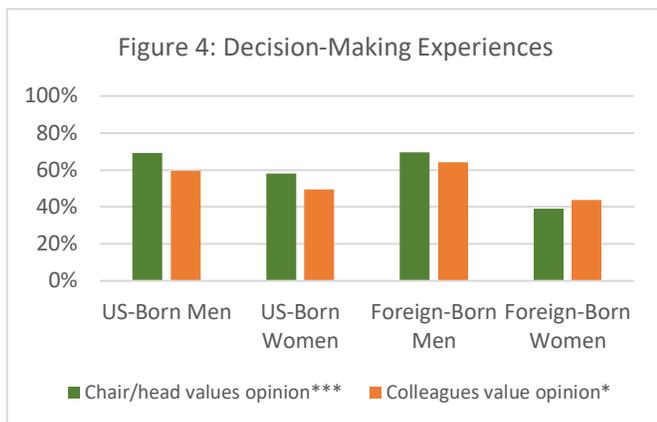


Feelings of inclusion among STEM faculty are shaped by nationality and gender. As Figure 1 shows, foreign-born men are the most likely to feel connected to their departments and valued for research, but **foreign-born women feel the least connected and valued for their research**. Similarly, Figure 2 shows that **foreign-born women are over six times as likely to report demands associated with their identity groups have had negative effects on their careers**. Comparing just foreign-born men and women faculty, Figure 3 reveals that foreign-born women are more likely to rate their departments lower than foreign-born

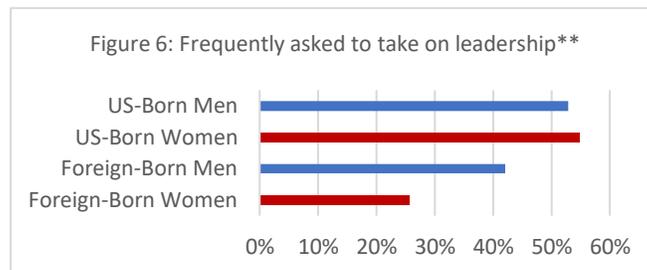
men on most climate measures. **Foreign-born women find departments less collegial, respectful, collaborative, cooperative, supportive, equitable, fair, and inclusive than foreign-born men.**



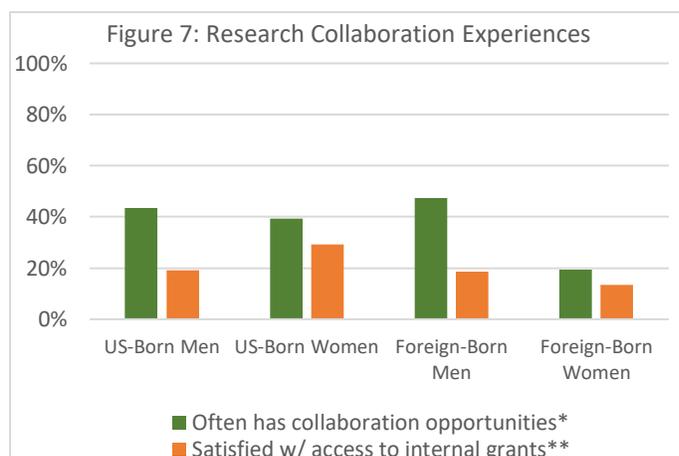
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In the context of decision-making, STEM faculty generally report feeling that their opinions are valued by chairs/heads – with the exception of foreign-born women faculty. As Figure 4 shows, **less than 40% of foreign-born women feel their chairs/heads value their opinions**. Foreign-born women also feel **less valued by their colleagues**. Both US-born and foreign-born men are more likely to report that tenure & promotion processes are clear than women, as indicated in Figure 5. **Fewer than half of foreign-born women feel that tenure & promotion is clear** and, among associate and full professors, that promotion to full is clear. These findings suggest that there is a disconnect in transparency surrounding personnel processes by gender and nationality that often leaves foreign-born women in the dark.



**Foreign-born faculty are also less frequently asked to take on leadership roles in their department.** As shown in Figure 6, only about 42% of foreign-born men and 26% of foreign-born women are often asked to serve in leadership.



On average, both US-born and foreign-born STEM faculty report enjoying collaboration very much; however, collaboration opportunities vary by gender and nationality. As Figure 7 shows, **foreign-born women STEM faculty have the fewest opportunities to collaborate on campus**. They are also the **least satisfied with collaboration opportunities**, followed by foreign-born men. Foreign-born women are **deeply unsatisfied** with access to internal grants to support their collaborative research, with only **13.5% reporting being satisfied**.

Foreign-born men have the most opportunities to collaborate on campus, again suggesting that foreign-born women faculty have distinct experiences on campus that must be addressed.

Through the power of collaboration UMass ADVANCE transforms the campus by cultivating faculty equity, inclusion and success. ADVANCE provides the resources, recognition and relationship building that are critical to equitable and successful collaboration in the 21st century academy. UMass ADVANCE is funded by the National Science Foundation. For more information on ADVANCE go to <https://www.umass.edu/advance/>.