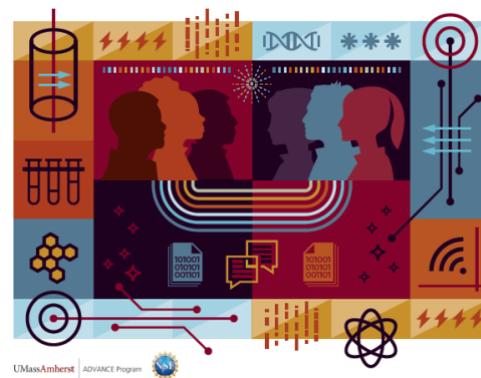


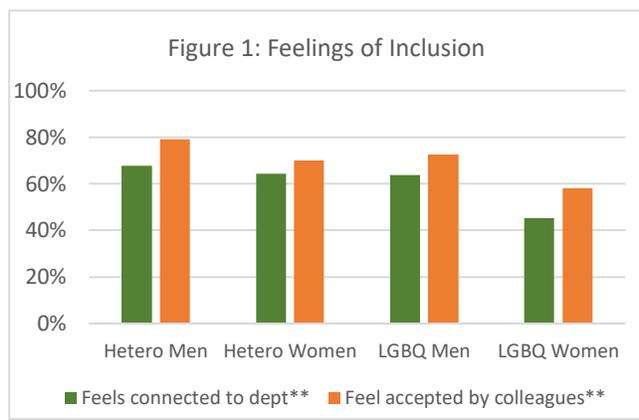
STEM Faculty Experiences by Gender & Sexuality

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 **sexuality and gender**. We explore whether and how sexuality 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 sexuality, including addressing the experiences of LGBTQ STEM faculty to support their inclusion and retention. As the findings in this brief indicate, **interventions must foster inclusion specifically for LGBQ STEM faculty, particularly LGBQ STEM women.**

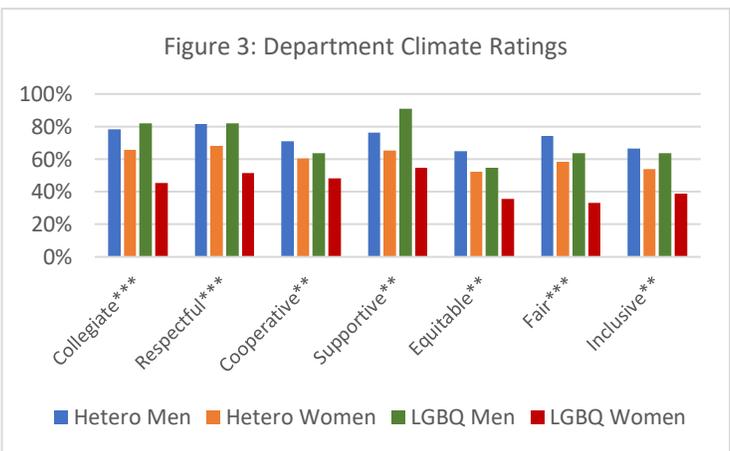
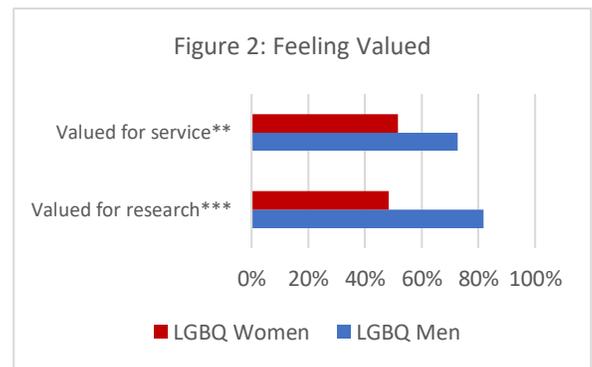


10% of survey respondents identified as LGBQ. No respondents identified as transgender. In this brief, faculty are grouped by LGBQ men (n=11), LGBQ women (n=31), heterosexual men (n=178), and heterosexual women (n=133). In the figures below, statistical significance is indicated as *p≤.10, **p≤.05, and *** p≤.001.



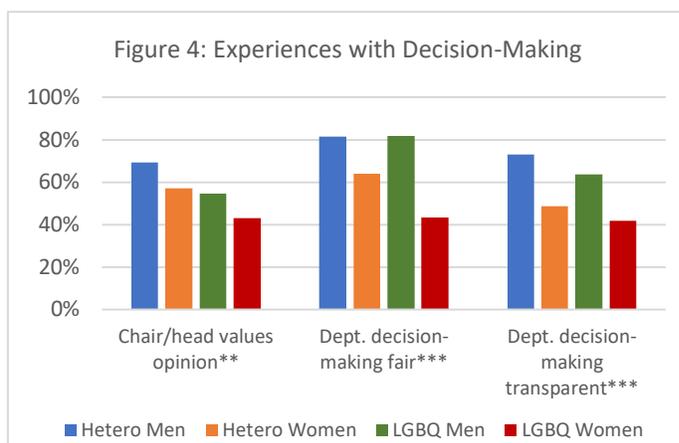
Feelings of inclusion among STEM faculty are shaped by sexuality and gender. As Figure 1 shows, LGBQ men feel only slightly less connected to their departments and accepted by colleagues at similar levels as straight men. Straight women’s feelings of connection and acceptance are comparable to LGBQ men, but **LGBQ women feel the least connected and accepted by colleagues**, with less than half of LGBQ women feeling connected.

Similarly, Figure 2 shows that **among LGBQ faculty, women feel much less valued for their service and research than men.** LGBQ men feel extremely valued, especially for their research, but there is a gender divide in how LGBQ faculty experience their department communities.



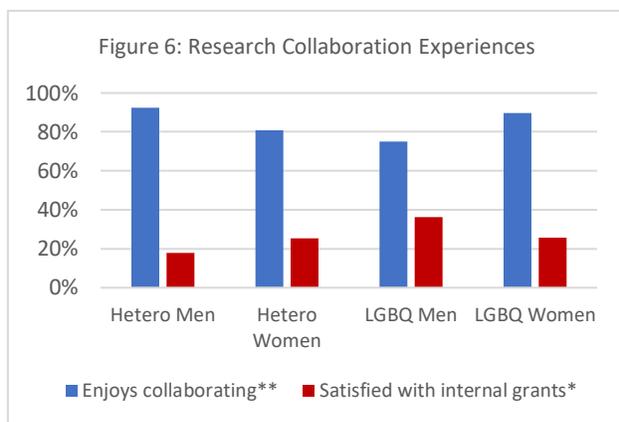
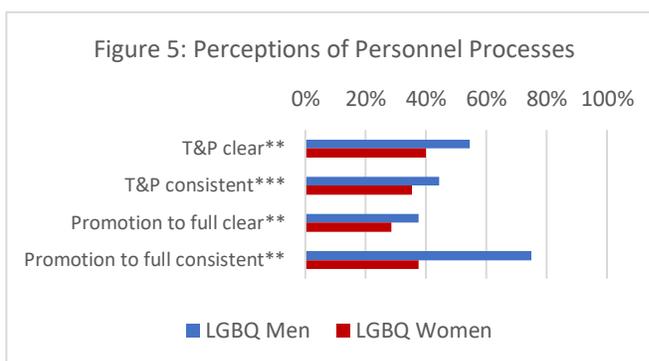
This can also be shown in Figure 3, where LGBQ women rate their departments the lowest on nearly all climate measures. **LGBQ women find departments less collegial, respectful, cooperative, supportive, equitable, fair, and inclusive than LGBQ men.** LGBQ men are the most likely of any group to rate their departments as supportive, suggesting they may have more positive experiences in their departments than LGBQ women.

STEM Faculty Experiences by Gender & Sexuality



Departmental decision-making is also shaped by gender and sexuality for STEM faculty. As Figure 4 shows, neither LGBQ men nor women feel their opinions are valued by department chairs as much as heterosexual faculty, with **LGBQ women feeling the least valued in decision-making**. Similarly, **less than half of LGBQ women believe that department decision-making is fair or transparent**. LGBQ men are more similar to heterosexual men on these measures, with the majority generally finding decision-making to be fair and transparent.

Findings on personnel decisions are especially troubling: LGBQ faculty are much less clear on tenure and promotion processes than heterosexual faculty – especially LGBQ women. As Figure 5 shows, **only 40% of LGBQ women feel that tenure and promotion is clear** and just about 35% feel T&P criteria are applied consistently. **Just over half of LGBQ men find tenure and promotion processes clear, and even fewer of them believe T&P criteria are applied consistently**. Among associate and full professors, **processes about promotion to full are even less clear among LGBQ faculty**. While LGBQ men are very likely to believe promotion to Professor criteria are applied consistently, **only 37.5% of LGBQ tenured women faculty believe promotion to full is consistent**. These findings suggest a disconnect in transparency surrounding personnel processes by gender and sexuality that often leaves LGBQ faculty, especially LGBQ women, in the dark.



On average, heterosexual and LGBQ STEM faculty report enjoying collaboration very much. However, as Figure 6 shows, all groups are dissatisfied with collaboration opportunities like internal grants. Overall, there are very few variations in research collaboration experiences among heterosexual and LGBQ faculty that are significant, suggesting that sexuality might not shape research collaborations on campus as much as other social backgrounds.

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/>.