ASSESSING THE ACADEMIC WORK ENVIRONMENT FOR TENURED/TENURE-TRACK FACULTY AT THE UNIVERSITY OF MICHIGAN IN 2012 AND 2017:

GENDER, RACE, & DISCIPLINE IN DEPARTMENT- AND UNIVERSITY-RELATED CLIMATE

UM ADVANCE PROGRAM

OCTOBER, 2018

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EXECUTIVE SUMMARY

This report marks the fourth study of campus climate at The University of Michigan that the ADVANCE Program has conducted since 2001. It provides an opportunity for us to understand how the climate at the university is experienced by different groups of faculty and to consider changes over time. These studies are an important corollary to ADVANCE's focus on the success of a diverse and excellent faculty.

In 2001 and 2006 ADVANCE administered faculty climate surveys to assess the climate for STEM (science, technology, engineering, mathematics) faculty as part of the program's initial funding which focused on tenure track women in STEM fields. The findings from these studies were used to make policy recommendations and identify practices that might improve the work environment for women and minority science and engineering faculty. In particular, the findings have informed the design and implementation of ADVANCE initiatives at UM.

In the fall of 2012, ADVANCE conducted a third survey. As before, this study was a cross-sectional data collection similar to the previous two studies; however, this was the first study to survey all faculty (on all three tracks) on campus as ADVANCE's focus has broadened to include faculty in all fields and from all underrepresented groups, especially faculty of color. The overall findings from this survey were consistent with the previous two surveys and indicated that the climate is relatively positive for white male faculty in all disciplinary groups (sciences and engineering, social sciences, and arts and humanities), but less so for white women and faculty of color. Nevertheless, it also revealed many areas of improvement for science and engineering faculty for whom over time data were available. Despite the positive changes noted, the data also suggested that there continue to be clear and consistent gender and race-ethnicity differences indicating a more negative climate for women and faculty of color.

In fall 2017 ADVANCE conducted a fourth survey, replicating the 2012 cross-sectional campus-wide faculty survey. All tenure-track, research, and clinical faculty with paid appointments at the University of Michigan-Ann Arbor were surveyed. This allowed us to examine the work-related environment for faculty campus-wide and assess change over time (from 2012 to 2017) for faculty in all three disciplinary areas. This report focuses on the assessment of the work environment for faculty at two points in time: 2012 (Time 1) and 2017 (Time 2) and is limited to the experiences of tenure-track faculty campus-wide (N=3080) within three broad disciplinary groups with a particular emphasis on the work environment for women and faculty of color. The survey response rate was 40%. All analyses were conducted using appropriate weights and controls. In addition, a measure of experience was used as a control in all analyses; this means that any statistical finding reported below cannot be explained by simple differences in age, years at UM, year of degree, or rank.

SUMMARY OF FINDINGS

CLIMATE INDICATORS

SCIENCE AND ENGINEERING FACULTY

One-third of all women reported experiences of *gender discrimination* in 2017 (slightly higher than 2012 rates) and reported more gender discrimination than male faculty. Moreover, faculty across groups reported more experiences of *overhearing disparaging comments about women* in 2017 than in 2012. By contrast, reported experiences of *unwanted sexual attention* were low and constant over time.

Reports *of racial-ethnic discrimination* were relatively low and fairly stable over time but were significantly higher for faculty of color compared to white faculty at both times. Reports of *overhearing disparaging comments about racial-ethnic minorities and/or religious groups* were also generally low but showed an increase over time for all groups and increases that approached or obtained statistical significance for different groups of women faculty.

Ratings of the *general department climate* did not improve for any group in science and engineering. Moreover, there was a significant decrement in *climate for diversity* scores for all but men of color. In addition, women continued to report a more negative general climate and climate for diversity. Men of color also reported a more negative climate for diversity compared to white men.

SOCIAL SCIENCE FACULTY

One-third of women reported experiences of *gender discrimination* in 2017 and these rates were higher than in 2012 (but not significantly higher). Women also reported more experiences of gender discrimination compared to men. Reports about *overhearing disparaging comments about women* in 2017 were generally low. Reported rates of *unwanted sexual attention* were also low across groups.

Approximately one-quarter of faculty of color reported experiences of *racial-ethnic discrimination* in 2017; the 2012 rate was similar for women of color but increased by 12 percentage points for male faculty of color from 2012 to 2017. Reported rates of *overhearing disparaging comments about racial-ethnic minorities and/or religious groups* were low both years but increased slightly over time for all but white men; this difference approached or obtained statistical significance for men of color and white women. Scores were higher for faculty of color compared to white faculty but these differences were only statistically significant in 2017.

Ratings of the *general department climate* also did not improve for any group in the social sciences. All but white men also reported a less positive *climate for diversity* in 2017. Faculty of color also reported less positively then white faculty about both the general climate and climate for diversity.

ARTS AND HUMANITIES FACULTY

Approximately one-third of female faculty in arts and humanities reported experiences of *gender discrimination* in 2017; the rates were slightly lower compared to those in 2012 but over time differences did not approach statistical significance. By contrast, rates of gender discrimination increased over time for both groups of male faculty, but, again, the differences were not statistically significant. White women

reported higher levels of gender discrimination compared to white men both years; women of color reported higher levels than men of color in 2012 only. Rates of *overhearing disparaging comments about women* were generally low across groups, but in all cases increased from 2012 to 2017 (these over time differences were not statistically significant except in the case of men of color). Reported experiences of *unwanted sexual attention* were also generally low, but higher for women than for men (this difference was statistically significant in the case of white faculty); that rate for women of color increased over time to a rate comparable to white women in 2017.

While relatively low, reported rates of *overhearing disparaging comments about racial-ethnic minorities and/or religious groups* increased over time for all groups; the differences were statistically significant for the faculty of color. *Racial-ethnic discrimination* also increased over time for all groups, but were higher for faculty of color. Women of color reported more experiences of racial-ethnic discrimination compared to white women and men of color. There was no improvement in faculty ratings of the *general department climate* in arts and humanities. Similarly, the climate for diversity scores were less positive over time for all men faculty. Nevertheless, white men reported a more positive climate for diversity than men of color and white women in 2017.

CAREER SATISFACTION

SCIENCE AND ENGINEERING FACULTY

Mean scores of *work satisfaction* were high and showed some improvement over time; in particular satisfaction levels were higher in 2017 for men of color; by contrast, rates for women of color were lower (a trend). Rates of *overall career satisfaction* were also generally high and showed some improvement over time. Similarly, reported *interest in leaving UM* decreased over time for all groups; in the case of men of color that difference was statistically significant. Moreover, in 2012 mean scores for white men reflected higher satisfaction compared to white women and men of color; however, those comparisons were not statistically different in 2017.

SOCIAL SCIENCE FACULTY

Mean scores for *work satisfaction* were generally high both years. Ratings of *overall career satisfaction* were also generally high both years--slightly higher than overall work satisfaction. Similarly, *interest in leaving UM* was, on average, moderately low and fairly stable. Overall career satisfaction decreased for women of color and interest in leaving UM increased for both men and women of color; the reverse pattern was observed for white faculty (these differences were not statistically significant). Moreover, in 2017 faculty of color were more likely to express an interest in leaving UM than white faculty.

ARTS AND HUMANITIES FACULTY

Work satisfaction scores were moderately high and fairly consistent for arts and humanities faculty from 2012 to 2017; moreover, rates were similar by gender and race-ethnicity. *Overall career satisfaction* scores were slightly higher on average but only increased significantly over time for white male faculty. Moreover, white men reported higher overall career satisfaction compared to white women (their mean score was also quite a bit higher than that for men of color but the difference was not significant). *Interest in leaving UM* mean scores were below the midpoint across years.

CONCLUSIONS

The findings suggest some aspects of the *broader University climate* continue to be less welcoming for women and faculty of color. Across disciplinary groups, one-third of women faculty reported experiences of gender discrimination within the previous five years and they were more likely than their male colleagues to report gender discrimination. Moreover, faculty reports of overhearing insensitive and disparaging comments about women, although generally low, increased significantly across all faculty from 2012 to 2017.

Rates of racial-ethnic discrimination were generally low, except for some women of color, and consistent over time, except for some men of color for whom rates increased. Reports of overhearing insensitive and disparaging comments about racial-ethnic minorities and/or religious groups were also generally low, but, again, demonstrated an increasing trend over time, particularly for faculty of color for whom, perhaps with larger numbers, these differences might be statistically significant.

Department general climate ratings were generally high and consistent with 2012 mean scores; however, there was also evidence of a decline over time in ratings for faculty of color that did not obtain statistical significance (again, perhaps due to low numbers). *Climate for diversity* scale scores were also high as in 2012; however, again, there was evidence of an overtime decline in scores.

The lack of much over time improvement (and in some cases a decrement) in experiences of the climate for faculty, especially women and faculty of color, is disappointing, particularly when we found a significant improvement in 2012 for science and engineering faculty for whom we had over time data. Moreover, we continue to see more experiences of discrimination for women and faculty of color compared with men and white faculty. The lack of clear disciplinary differences in aggregated faculty experiences of the climate suggests that some aspects of the climate related to gender and race/ethnicity may well be quite pervasive across disciplines and supports ADVANCE's expanded focus beyond the science and engineering fields.

Assessment of *career satisfaction* revealed fairly stable reporting over time. Science and engineering women faculty and faculty of color showed significantly higher overall career satisfaction in 2017 compared to 2012. However, these differences were not in evidence for faculty in the other disciplinary areas and only white men in arts and humanities reported significantly higher career satisfaction in 2017 compared to 2012.

Our cumulative data suggest that many of the same factors influence different groups of faculty members' overall career satisfaction and intention to leave. Thus, addressing these different climate factors are likely to benefit all faculty, rather than benefiting some at the expense of others. Given the clear relationship between faculty members' ratings of the climate and work satisfaction with their overall satisfaction and intention to leave UM, it is important to continue our efforts to improve the campus climate for all faculty.

INTRODUCTION

This report marks the fourth study of campus climate at The University of Michigan that the ADVANCE Program has conducted since 2001. It provides an opportunity for us to understand how the climate at the university is experienced by different groups of faculty and allows us to consider changes over time. These studies are an important corollary to ADVANCE's focus on the success of a diverse and excellent faculty. Since its beginning as an NSF Institutional Transformation Grant, faculty and staff associated with the ADVANCE Program have worked to engage discussion, stimulate new efforts, and develop optimal practices related to these efforts throughout the campus.

In 2001 and 2006 ADVANCE administered faculty climate surveys to assess the climate for STEM (science, technology, engineering, mathematics) faculty as part of the program's initial funding which focused on tenure track women in STEM fields. The results from these studies documented a relatively more negative work environment for women and minority scientists and engineers than for white men. The 2006 study suggested little change in the climate for science and engineering faculty and a consistent pattern of a more negative climate for women faculty and faculty of color (especially female faculty of color). There were, however, indications that some things were improving. In the case of white women, the most dramatic change was the significant decrease in reports of unwanted sexual attention over time. In addition, for all faculty except women of color, experiences of scholarly isolation were lower.

The findings from these studies were used to make policy recommendations and identify practices that might improve the work environment for women and minority science and engineering faculty and faculty generally, since many measures taken to improve the climate for women and minority scientists and engineers benefit white men as well. In particular, the findings have informed the design and implementation of ADVANCE initiatives at UM.

In the fall of 2012, ADVANCE conducted a third survey. As before, this study was a cross-sectional data collection similar to the previous two studies; however, this was the first study to survey all faculty (on all three tracks) on campus as ADVANCE's focus (with funding from the Provost's Office) has broadened to include faculty in all fields and from all underrepresented groups, especially faculty of color. The overall findings from this survey were consistent with the previous two surveys and indicated that the climate is relatively positive for white male faculty in all disciplinary groups (sciences and engineering, social sciences, and arts and humanities), but less so for white women and faculty of color. Nevertheless, it also revealed many areas of improvement for science and engineering faculty for whom over time data were available; in particular we found improved climate ratings for science and engineering men and women faculty of color and men and women white faculty. Despite the positive changes noted, the data also suggested that there continue to be clear and consistent gender and race-ethnicity differences concerning some aspects of the climate at both the University and the department levels indicating a more negative climate for women and faculty of color in science and engineering.[1]

[1] Available at https://advance.umich.edu/research/ (click on Climate Studies, then 2012 reports).

This past fall (2017) ADVANCE conducted a fourth survey, replicating the 2012 cross-sectional campus-wide faculty survey. This allowed us to examine the work-related environment for faculty campus-wide and assess change over time (from 2012 to 2017) for faculty in all three disciplinary areas.

2017 STUDY

Our goal for this most recent climate study was again to observe how faculty experience their working environments at UM. This report focuses on the assessment of the work environment for faculty at two points in time: 2012 (Time 1) and 2017 (Time 2) and is limited to the experiences of tenure-track faculty campus-wide (later reports will focus on research and clinical track faculty). Reports of our earlier climate studies concentrated principally on STEM faculty (for whom we had the most complete over time data). Now we are able to look at all faculty within three broad disciplinary groups: sciences and engineering, social sciences, and arts and humanities and to consider the overtime (2012-2017) experiences of faculty within each of these three groups with a particular emphasis on the work environment for women and faculty of color.

The underlying assumption of this report is that aggregate data about difficulties faced by all or some faculty at the University of Michigan would help us target intervention efforts to improve the situation for these faculty and assess how well these efforts were working overall. We believe that our findings can, in fact, be helpful in this way. But we also offer a caution: aggregate data can only provide a picture of the overall group—that picture may, in fact, be misleading or simply irrelevant to any given individual person or particular unit. What this study can do—and we hope it does—is to give us a picture in broad strokes across many different units and individuals. It does not fill in the crucial shading and detail that only individual units and faculty can provide.[2]

It is important to keep this in mind both in the case where an obstacle identified here may seem not to apply, and in the case where an individual may feel she faces an obstacle, but it does not appear in the aggregate data. So it is worthwhile for institutional decision-makers to think about the problem, even if there are individual cases that are working fine. In fact, it would be wise for decision-makers to examine those individual cases carefully, not because they conflict with the aggregate data, but so we can learn how to ensure more women and underrepresented racial-ethnic minority faculty experience their departments as positively as white male faculty.

SAMPLE SURVEYED

In fall 2017 all tenure-track, research, and clinical faculty with paid appointments at the University of Michigan-Ann Arbor were surveyed (N=3080). For this analysis our focus is tenure-track faculty; those surveyed included:

[2] Visit https://advance.umich.edu/research/#support for more information about our unit climate assessments.

- All female tenure-track science and engineering faculty at or above the rank of assistant professor (N=573).
- All male tenure-track science and engineering faculty at or above the rank of assistant professor (N=1,376).
- All female tenure-track social science faculty at or above the rank of assistant professor (N=264).
- All male tenure-track social science faculty at or above the rank of assistant professor (N=362).
- All female tenure-track arts and humanities faculty at or above the rank of assistant professor (N=207).
- All male tenure-track arts and humanities faculty at or above the rank of assistant professor (N=298).

The total population of tenure-track faculty was surveyed; this includes 827 faculty of color (529 from science and engineering, 173 from the social sciences, and 125 from arts and humanities).

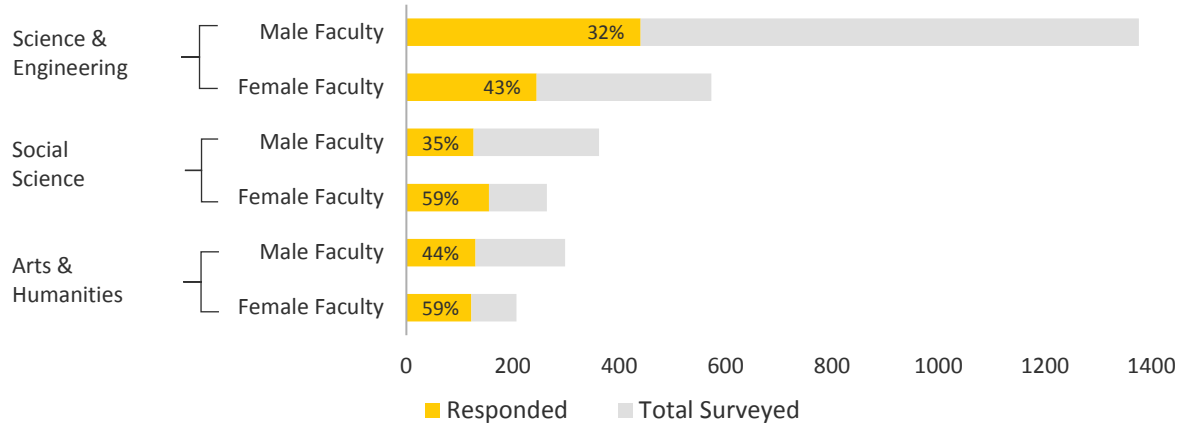
Response Rate

The response rate for all tenure-track faculty was 40%. The response rate for tenure-track faculty in the arts and humanities (50%) was higher than that for social science faculty (45%) and science and engineering faculty (35%).

The total sample of faculty who responded to this study of tenure-track faculty campus-wide is 1,218; the breakdown by discipline group is as follows:

- 685 science and engineering faculty (245 female faculty; 155 faculty of color)
- 281 social science faculty (155 female faculty; 74 faculty of color)
- 252 arts and humanities faculty (122 female faculty; 65 faculty of color)

Figure 1: Response Rates of Tenure-Track Faculty by discipline and gender.



In 2012 the sample of respondents included 626 science and engineering faculty (174 female faculty and 125 faculty of color); 265 social science faculty (117 female faculty and 54 faculty of color); and 194 arts and humanities faculty (88 female faculty and 35 faculty of color).

The data for 2017 suggest that the respondent sample was not fully representative of the faculty surveyed in terms of race-ethnicity, gender and school. To address this, all analyses were conducted using appropriate weights and controls. Weighted data analyses adjust the raw survey data to represent the population from which the sample is drawn. In this case the data were weighted on the basis of race, gender, and school (Engineering, LSA, Medicine, and all others) of the UM faculty population surveyed.

In both the samples, after weighting, we found that male faculty were older and had been at UM longer than female faculty; they also received their highest degree longer ago and were less likely to have been hired within the past 10 years. Similarly, men were more likely to be full professors than women faculty. We found parallel differences when comparing the white tenure-track faculty with tenure-track faculty of color. White faculty were older than the faculty of color; they had also been at UM longer and had received their degrees earlier. Faculty of color were more likely to have been hired in the past 10 years. White faculty were more likely to be at the rank of full professor.

Given these differences, a variable assessing experience was constructed, combining age, years at UM, year of degree, and rank. This measure of experience was used as a control in all analyses and means that any statistical finding reported below cannot be explained by simple differences in age, years at UM, year of degree, or rank.

DATA ANALYSIS STRATEGY

In this study we assessed gender differences (differences between men and women) and race-ethnicity differences (differences between white faculty and faculty of color) in experiences of tenure-track faculty within disciplinary group (science and engineering, social sciences, and arts and humanities). We were also able to examine time differences (comparing 2012 ratings with 2017 ratings) within each of the four gender/race-ethnicity groups (e.g., women of color, white men). Preliminary analyses were conducted comparing Asian and Asian American faculty to underrepresented minority faculty; these revealed few significant differences. Given this, and the small total number of faculty of color in the sample, we combined Asian and Asian American faculty with underrepresented minority faculty in these analyses. However, there were some differences comparing Asian and Asian American faculty with underrepresented minority faculty, particularly in some disciplinary groups; thus, in the discussion of findings we note those instances where we found significant results that differ for Asian and Asian American and underrepresented minority faculty. There were few such differences relative to all the analyses computed; nevertheless, we thought it important to report them so future research can assess whether they are meaningful.

Analyses were completed using analysis of variance (ANOVAs) on scales and items from the survey to assess differences by gender and race-ethnicity, comparing mean scores of white and of color women and men within the three disciplinary groups. Analysis of variance is a statistical procedure that apportions variation in people's scores on a variable to different factors—in this case, their membership in one of the twelve faculty groups: white women, women of color, white men, and men of color for each of the three disciplinary groups. This design allows for a four-way ANOVA (gender X race X discipline) of participant data that is crossed with time to test for groups differences between 2012 and 2017, as well as difference between groups within each time point within and across time. When the ANOVA indicated an overall significant difference in one of those individual or combined factors, we pursued relevant planned comparisons between appropriate groups. This is a relatively conservative way to minimize error when conducting multiple tests.

When assessing frequency data (numbers of people, rather than scores), we used logistic regression, which is appropriate when the dependent variable is dichotomous but there are continuous control variables. In instances where the frequency of "presence" (e.g., report of unwanted sexual attention or discrimination) on a dichotomous variable was rare (no group percentage was higher than 10%), no planned comparisons were pursued.

In the results discussed below, any references to significant differences or group differences refer exclusively to differences found to be statistically significant ($p \leq .05$—that is, differences or effects that would have occurred by chance if there really was no difference or effect at or less than 5 percent of the time, which is a generally accepted standard of statistical significance in social science research). Given some small sample sizes, especially when considering faculty of color, we also note if a difference is not statistically significant but does represent a trend ($p \leq .10$); it is possible that with larger samples these differences would be statistically significant.

Data tables follow the report.[3] Three comparable tables are produced for each set of analyses to allow us to show differences between groups by race-ethnicity and gender (i.e., comparing male faculty by race-ethnicity, female faculty by race-ethnicity, white faculty by gender, and faculty of color by gender) within the three broad discipline groups (science and engineering, social science, and arts and humanities). Each table reports means or frequencies for each gender/race-ethnicity group by discipline group at two time points (2012 and 2017) for each disciplinary group.

Scales created for the initial study (2001) to assess climate were replicated in the 2012 and 2017 data.[4] Three scales, two composite scores, and one individual item assess university climate; eight scales assess departmental climate. One additional item—evaluation of department leader as committed to racial-ethnic diversity—was also used to assess departmental climate. The first five department climate items are designed to assess more general aspects of the departmental climate. The remaining four assess directly departmental climate issues as they relate specifically to gender and/or race-ethnicity.

University Climate

- disparaging comments about women from students and faculty (2 items)
- disparaging comments about men from students and faculty (2 items)
- disparaging comments about racial-ethnic minorities and/or religious groups from students and faculty (4 items)
- experiences of gender discrimination (presence of experience in any of six areas)
- experiences of racial-ethnic discrimination (presence of experience in any of six areas)
- unwanted sexual attention

Departmental Climate

- positive environment (6 items)
- scholarly isolation (7 items)
- felt surveillance (4 items)
- evaluation of departmental leader as fair (3 items)
- evaluation of departmental leader as able to create a positive environment (3 items)
- diverse environment (4 items)
- gender egalitarian atmosphere (9 items)
- felt tokenism (2 items)
- evaluation of departmental leader as committed to racial-ethnic diversity (1 item)

Overview of Results

[3] Data tables with standard deviations are available at https://advance.umich.edu/research/ (Click on Climate Assessments, then 2017 reports).

[4] For the 2001 study, we created scales of items as a data reduction strategy that minimized the likelihood of findings resulting from chance, and maximized measurement reliability (see Cronbach, 1990, for a general account of the measurement approach employed here). For explanation of how scales were created, see 2002 report: https://advance.umich.edu/research/ (Click on Climate Assessments, then 2002 reports).

The results reported below describe findings separately for the three disciplinary groups (science and engineering, social sciences, and arts and humanities) for each of the variables considered at each time point (2012 and 2017). As noted above, we describe overall differences by gender and race-ethnicity and then for the four gender/race-ethnicity groups (women of color, men of color, white women, white men). We examine both over time differences by group as well as within time differences across groups.

We begin by describing the findings concerning the general university climate for the tenure-track faculty. We follow with a discussion of the experiences of the departmental climate more directly, considering first those variables that address climate issues more broadly, and then those variables in which both race-ethnicity and gender issues are directly implicated. We next examine the relationship between the climate ratings and individuals' overall career satisfaction and intent to leave UM for faculty in each of the three discipline groups, again looking at gender and race-ethnicity differences within those discipline groups.

FINDINGS

UNIVERSITY CLIMATE ASSESSMENTS RELATED TO GENDER (TABLE 1A-C)

The survey asked several questions regarding institutional climate that faculty may experience on the UM campus: overheard negative comments about women; gender discrimination; and unwanted and uninvited sexual attention (sexual harassment).

DISPARAGING COMMENTS ABOUT WOMEN

Faculty were asked how often they had overheard insensitive or disparaging comments about women from faculty, students and staff within the past five years. Responses were on a five-point scale from "never" to "weekly." Mean scores across disciplines for both 2012 and 2017 were low and ranged from 1.29 (closest to "never"), to 2.09 (closest to "1-2 time per year"). However, scores were generally slightly higher in 2017 compared to 2012 across groups and in some cases these differences were statistically significant.

GENDER AND RACE-ETHNICITY DIFFERENCES: Women scientists and engineers reported statistically significant higher levels of overhearing disparaging comments about women at both times compared to men. The pattern was similar in the case of women in the social sciences and arts and humanities; however, in most cases the differences only approached statistical significance.

White science and engineering faculty also reported higher levels of exposure to negative comments about women compared to faculty of color in 2012; there was no difference between these groups in 2017. By contrast, there was a trend for social science faculty of color to report overhearing more negative comments about women in 2017; there were no differences in 2012. Mean scores of white faculty and faculty of color in arts and humanities did not differ significantly either time.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Across discipline groups mean scores were generally higher in 2017 compared to 2012 for each gender/race-ethnicity group. In several cases these differences were statistically significant or approached significance. Women of color and white women in science and engineering reported more experiences of overhearing disparaging comments about women in 2017 than

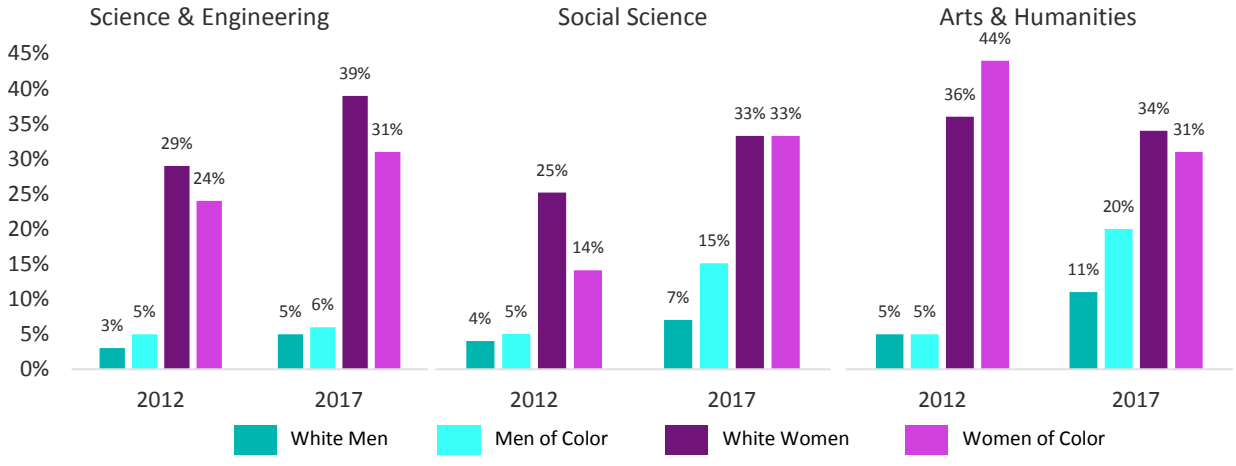
in 2012; there were also trends for men of color and white men to report similarly over time. In the arts and humanities there was only one statistically significant difference: men of color reported overhearing more disparaging comments about women in 2017 compared to 2012. A similar trend was reported by men of color in the social sciences.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In both 2012 and 2017 white women in all three disciplinary areas reported more experiences of overhearing disparaging comments about women compared with white men. White women in science and engineering were also more likely to report such experiences compared to women of color at both time points (in 2017 the difference approached statistical significance). Finally, men of color in the social sciences reported more experiences of overhearing disparaging comments about women compared to white men in 2017 (but not 2012).

GENDER DISCRIMINATION

The survey asked respondents about their experiences of gender discrimination within the past five years in six specific areas (hiring, promotion, salary, space/equipment and other resources, access to administrative staff, and graduate student or resident/fellow assignments). We created an overall felt gender discrimination score based on experience of discrimination in any of the six areas and those findings are reported here (results of analyses for each of the individual areas of discrimination are also reported in the tables). Thus, scores reflect a presence/absence of any experiences of gender discrimination asked about. Not surprisingly, very few men reported experiences of gender discrimination in 2012 or 2017; by contrast, one-quarter to nearly one-half of women agreed that they had such experiences. Reports of gender discrimination increased from 2012 to 2017 for many of the women in science and engineering and in the social sciences but in no instance were these increases statistically significant; rates for women in arts and humanities did not show a similar increase but 2012 reports were higher than those for women in the other disciplinary groups.

Figure 2: Percentage of faculty who reported experiences of gender discrimination at two time points by gender/race-ethnicity groups.



GENDER AND RACE-ETHNICITY DIFFERENCES: Women in all discipline groups were significantly more likely than men to report experiences of gender discrimination in 2012 and 2017. There were no statistically significant differences on this measure comparing white faculty and faculty of color.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: There were no overtime differences in reports of gender discrimination by the four gender/race-ethnicity groups for faculty within the three discipline groups.

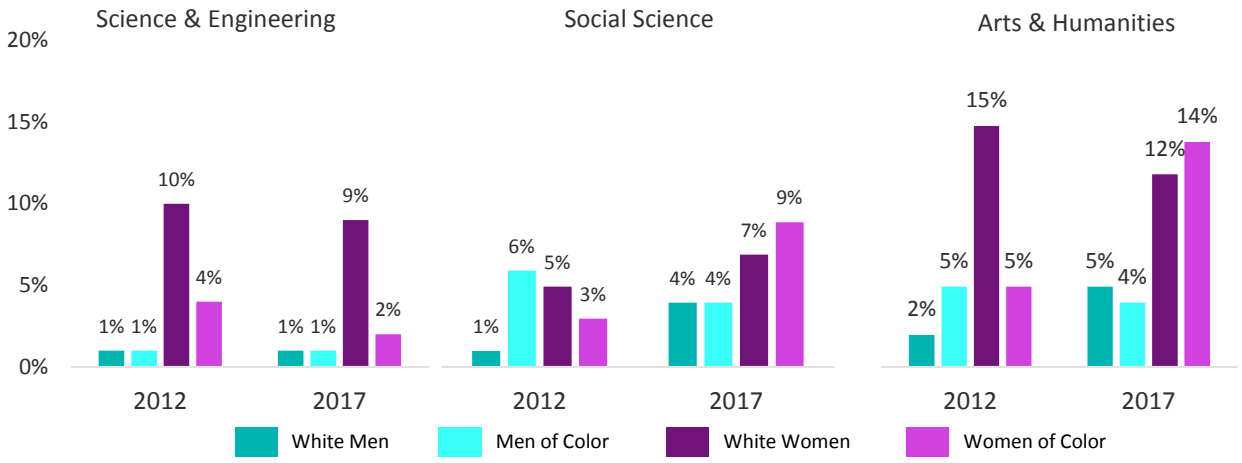
BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In all three disciplinary groups white women were significantly more likely to report experiences of gender discrimination than white men at both times. In the case of science and engineering faculty, women of color reported more experiences than men of color at both times. Similarly, in the arts and humanities women of color reported more experiences than men of color in 2012 (but not 2017). There was a similar trend for faculty of color in the social sciences in 2017 (but not 2012).

Unwanted and Uninvited Sexual Attention

Faculty were asked if they had experienced any unwanted and uninvited sexual attention with the past five years; responses were coded "yes" or "no"; 15% or fewer reported such experiences. Rates remained static or decreased slightly over time for about half the groups across disciplines (See Figure 3). In the remaining cases where it increased the change did not represent a statistically significant difference.

GENDER AND RACE-ETHNICITY DIFFERENCES: Women in sciences and engineering and arts and humanities were more likely than their male colleagues to report experiences of unwanted and uninvited sexual attention in 2012 and 2017. These same women were more likely than their male counterparts to indicate that others have reported experiences of sexual harassment to them at both times; however, in the case of arts and humanities faculty the differences only approached statistical significance. Rates of reported experiences of sexual harassment were not different by gender for faculty in the social sciences; however, women were more likely than men to have others reports such experiences to them in 2017 (but not 2012). There were also no differences on either variable by race-ethnicity at either time point within each of the three disciplinary groups.

FIGURE 3: Percentage of faculty who reported experiences of unwanted sexual attention at two time points by gender/race-ethnicity groups.



WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: There were no over time differences in reports of experiences of sexual harassment within each of the gender/race-ethnicity groups in the three discipline areas. White women in the social sciences reported a significant increase in other individuals reporting unwanted sexual attention to them. A similar trend was found for white women in science and engineering. Moreover, white men in science and engineering reported significantly higher levels of others' reporting of sexual harassment in 2017 compared to 2012. There was no difference in reporting on either measure for arts and humanities faculty over time.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In both science and engineering and the arts and humanities, white women reported significantly higher levels of unwanted sexual attention than white men at both data collections; white women in science and engineering also reported higher levels of others' reports of unwanted sexual attention compared to white men at both times. In the social sciences there were no differences between the gender/race-ethnicity groups on experiences of sexual harassment. However, in 2017 white women reported significantly higher levels of others' reports to them about such experiences compared to white men.

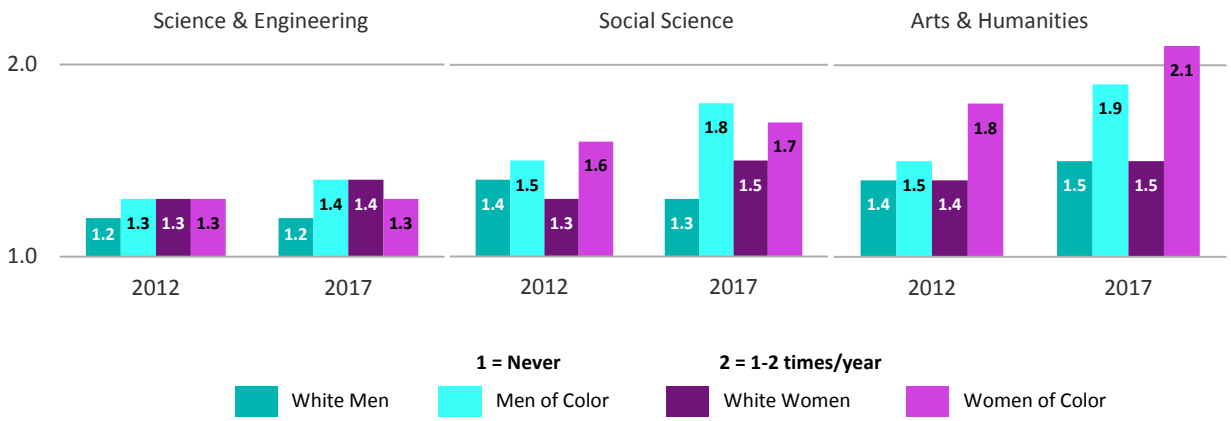
UNIVERSITY CLIMATE: ASSESSMENTS RELATED TO RACE-ETHNICITY (TABLE 2A-C)

Several questions regarding institutional climate addressed issues related to race-ethnicity, including disparaging comments about racial-ethnic minorities and/or religious groups and racial-ethnic discrimination.

DISPARAGING COMMENTS ABOUT RACIAL-ETHNIC MINORITIES AND/OR RELIGIOUS GROUPS

Faculty were asked how often they had overheard insensitive or disparaging comments about racial-ethnic minorities and/or religious groups from faculty, students and staff within the past five years. Responses were on a five-point scale from "never" to "weekly." Again, rates were generally low, as they had been in the case of overhearing disparaging comments about women, and ranged from 1.19 (closest to "never") to 1.87 (closest to "1-2 times per year"). However, mean scores of overhearing disparaging comments about racial-ethnic minorities and/or religious groups were higher in 2017 than in 2012 for all but one group and in some instances these differences were statistically significant.

Figure 4: Mean scores of hearing disparaging comments regarding race-ethnicity by discipline.



GENDER AND RACE-ETHNICITY DIFFERENCES: Faculty of color in the sciences and engineering and the social sciences reported significantly more instances of overhearing disparaging comments about racial-ethnic minorities and/or religious groups compared to white faculty at both times. This was also true for arts and humanities faculty of color in 2017 only. When we considered underrepresented minority (URM) and Asian and Asian American faculty separately we found that in the case of faculty in science and engineering and in the art and humanities, URM faculty were more likely than both Asian and Asian American and white faculty to report overhearing such negative comments in 2017 (all but one comparison was statistically significant). In the case of social science faculty, both URM and Asian and Asian American faculty were more likely that white faculty to report this in 2017 (and in 2012 comparing white and URM faculty). However, there was no statistically significant difference between Asian and Asian American and URM faculty either year. There were no differences on this variable by gender within the three disciplinary groups.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Across discipline groups mean scores for overhearing insensitive and disparaging comments about racial-ethnic minorities and/or religious groups were generally higher in 2017 compared to 2012 for all but one gender/race-ethnicity group (rates for white men in the social sciences decreased over time). In several cases these differences were statistically significant or approached significance. Specifically, arts and humanities men and women of color reported higher mean scores over time (rates also increased significantly for white women in science and engineering and the social sciences). The differences approached statistical significance in the case of women of color in science and engineering and men of color in the social sciences.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In 2017 white women and men of color science and engineering faculty reported overhearing significantly more disparaging comments about racial-ethnic minorities and/or religious groups compared to white men; the difference in 2012 comparing men of color and white men approached statistical significance. Mean scores of women of color compared to white women and men of color were not significantly different either year.

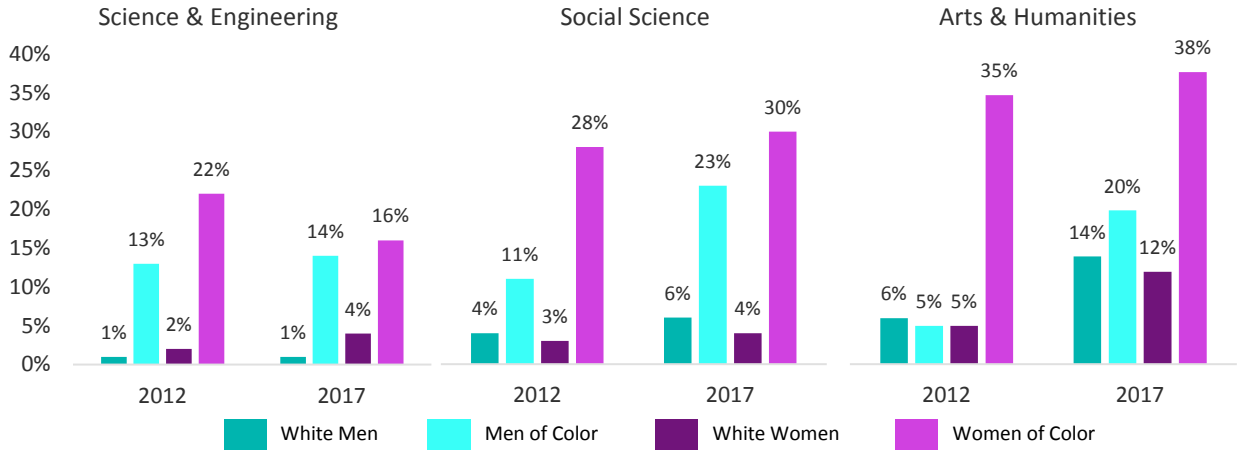
Similar to what was found in science and engineering, white women and men of color in the social sciences reported significantly higher mean scores in 2017 compared to white men. In addition, 2017 mean scores were significantly higher for women of color compared to white women.

In the arts and humanities, 2017 mean scores were significantly higher for both groups of faculty of color in comparison to their white same sex peers. There was also a trend for a similar finding comparing women of color and white women in 2012.

RACIAL-ETHNIC DISCRIMINATION

As with gender discrimination, survey respondents were asked about their experiences of racial-ethnic discrimination over the past five years in the same six specific areas (hiring, promotion, salary, space/equipment and other resources, access to administrative staff, and graduate student or resident/fellow assignments). Again, we assessed an overall felt racial-ethnic discrimination score based on experience of discrimination in any of the six areas and those findings are reported here (results of analyses for each of the individual areas of discrimination are also reported in the tables). Thus, scores reflect a presence/absence of any experiences of racial-ethnic discrimination asked about. Not surprisingly, rates for white faculty were quite low. Percentages of faculty of color who reported experiences of racial-ethnic discrimination ranged from 5% to 38%. In almost all instances rates were higher in 2017 for faculty of color compared to 2012; however, none of these over time differences obtained statistical significance.

Figure 5: Percentage of faculty that who felt racial-ethnic discrimination at two time points.



GENDER AND RACE-ETHNICITY DIFFERENCES: Within each of the three discipline groups faculty of color were significantly more likely than white faculty to report experiences of racial-ethnic discrimination at both times; there were no differences by gender.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Reports of racial-ethnic discrimination did not change significantly from 2012 to 2017 for any gender/race-ethnicity group across disciplines. It is worth noting however, that despite the lack of statistical significance, we observed an increase in mean scores for men and women faculty of color in the social sciences and arts and humanities.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: Within each of the three discipline areas, women of color were significantly more likely to report experiences of racial-ethnic discrimination compared to white women at both times. Similarly, men of color in science and engineering and the social sciences were more likely to report such experiences than their white male colleagues in 2017 (and also in 2012 for science and engineering faculty). In the social sciences women of color were also more likely than men of color to report racial-ethnic discrimination in 2012, but not in 2017. There were similar trends for faculty in the arts and humanities at both times.

DEPARTMENT CLIMATE (TABLE 3A-C)

The department climate was assessed with eight scales and one single item. Five of the scales assessed the department climate in general (positive environment, scholarly isolation, felt surveillance, department chair as fair and as able to create a positive environment); these scales were combined to create a measure of the general climate (where a higher number represents a more positive rating of the climate; thus, negative scales were reverse-scored before combining with the positive scales).[5] The four remaining measures addressed climate issues within the department specifically related to gender and/or race-ethnicity: tolerance of diversity, gender egalitarian atmosphere, felt tokenism, and department chair as committed to racial-ethnic diversity. As with the general climate measure, these were combined to create a climate for diversity measure on a similar five-point scale.[6]

GENERAL DEPARTMENT CLIMATE

Mean scores (measured on a five-point scale) were all above the mid-point and ranged from 3.37 to 4.01. In half of the cases mean scores were higher in 2017 compared to 2012 (but not statistically significantly different); the largest over time decreases were in the case of faculty of color (but, again these changes did not obtain or approach significance).

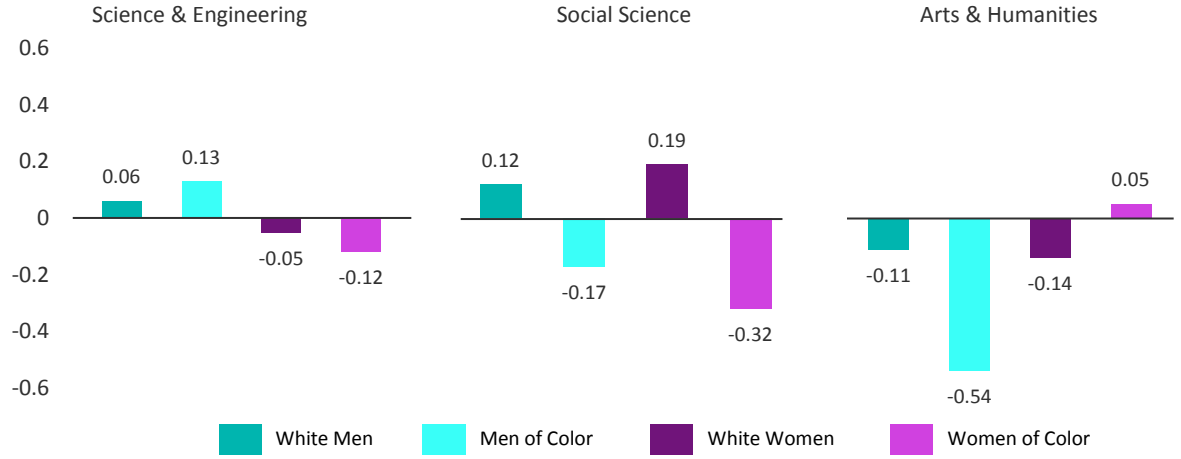
GENDER AND RACE-ETHNICITY DIFFERENCES: In 2012 and 2017 women in all three discipline groups rated the general climate significantly less positively than men in all but one instance: mean scores on the general climate were not different by gender in 2017 for arts and humanities faculty. Social science faculty of color reported a significantly less positive general climate than white faculty in 2017 but not in 2012. There were no significant differences comparing white faculty and faculty of color in the two other disciplinary groups.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Mean scores on the general climate measure remained statistically constant over time for each of the gender/race-ethnicity groups within each of the discipline areas, suggesting no improvement, but also no decline, in what was observed in 2012. We do, however, note decreases in mean scores (from 2012 to 2017) for men of color in the social sciences and arts and humanities and women of color in science and engineering and the social sciences that were not statistically significant.

[5] The Cronbach alpha for this scale was .88 for tenure-track faculty in 2017.

[6] The Cronbach alpha for this scale was .73 for all tenure-track faculty in 2017.

Figure 6: Change in mean scores of general climate ratings from 2012-2017



BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: There continue to be important differences in the experience of the general climate by the gender/race-ethnicity groups. For science and engineering faculty, white women reported a significantly less positive general climate compared to white men at both times. Moreover, women of color reported significantly less positively than men of color in 2017 (but not in 2012). There were no statistically significant differences in the reports of women of color compared to white women or men of color compared to white men at either time point.

In the social sciences white men reported a more positive general climate than white women and men of color at both time (however, in 2012 the difference between the two groups of men only approached statistical significance). In addition there was a trend for white women to report a more positive general climate compared to women of color in 2017.

In the arts and humanities we found statistically significant differences in 2012 reports comparing white men to white women and men of color to women of color: in both cases women reported a less positive general climate. However, there were no observed statistically significant differences in 2017 comparing any of the gender/race-ethnicity groups.

DEPARTMENT CLIMATE RELATED TO GENDER AND RACE-ETHNICITY

The climate for diversity scale scores were also above the midpoint and ranged from a low of 3.37 to 4.35 (on a five-point scale). However, in all instances mean scores for the gender/race-ethnicity groups by discipline were lower in 2017 and many of these differences approached or reached statistical significance, demonstrating some decrement in the climate for diversity over time.

GENDER AND RACE-ETHNICITY DIFFERENCES: Women reported a significantly less positive climate for diversity than men at both times and across all three discipline areas. In 2017 faculty of color in all three disciplinary groups also reported a less positive climate for diversity compared to their white colleagues (the difference approached statistical significance for faculty in the arts and humanities). In 2012 faculty of color in the social sciences also reported a significantly less positive climate for diversity compared to their white colleagues. Considering URM and Asian and Asian American faculty separately we found that

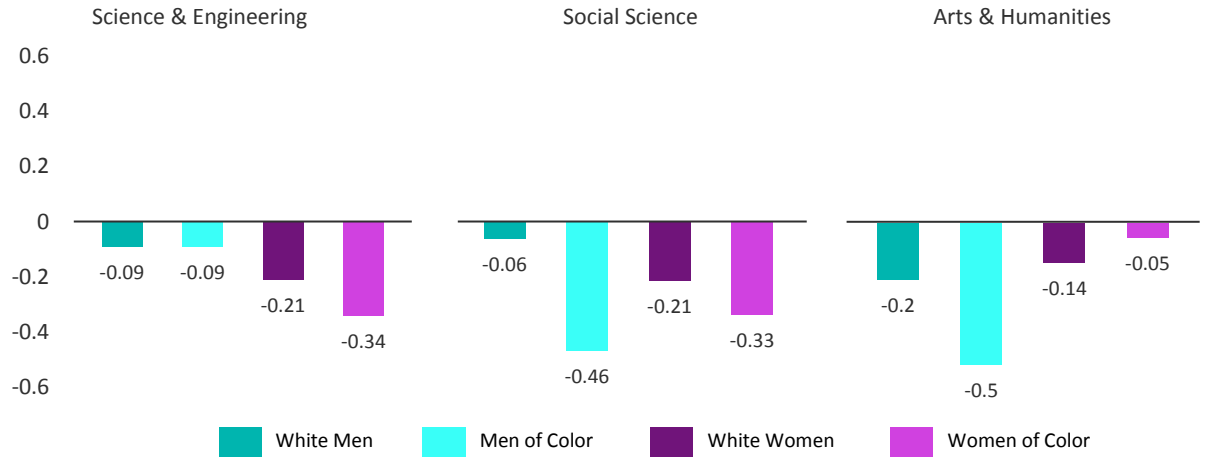
only URM faculty in science and engineering reported a less positive climate for diversity; the differences were statistically significant in 2012 and 2017. In the case of social science faculty, both URM and Asian and Asian American faculty reported significantly lower climate for diversity scores compared to white faculty in 2017; in 2012 only URM faculty reported more negatively. In the arts and humanities, Asian and Asian American faculty reported a less positive climate for diversity than URM and white faculty in 2012; the differences were not statistically different in 2017.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: In the sciences and engineering, both groups of white faculty reported a significantly less positive climate for diversity in 2017 compared to 2012. Women of color also reported a less positive mean score in 2017; however, this was a trend.

White women in the social sciences reported a significantly less positive mean climate for diversity scores in 2017 compared to 2012 mean scores; in addition, there were trends for both groups of faculty of color to report more negatively over time.

In arts and humanities both groups of men reported a significantly less positive climate for diversity in 2017 compared to 2012; mean scores for the two groups of women were not different over time.

Figure 7: Change in mean scores of climate for diversity ratings from 2012-2017



BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In science and engineering women of color and white women reported significantly less positive climates for diversity than their male counterparts at both times. Moreover, men of color reported significantly less positive mean scores compared to white men at both times. There were no differences comparing the two groups of women.

In the social sciences white men again reported a significantly more positive climate for diversity compared to white women and men of color at both times. In addition, there was a trend for white women to describe a more positive climate for diversity compare to women of color in 2017 only.

Arts and humanities white male faculty reported significantly more positively than white female faculty in 2012 and 2017. They also reported more significantly positively compared to men of color in 2017. In 2012 (but not in 2017) men of color reported a significantly more positive climate for diversity compared to women of color.

WORK SATISFACTION (TABLE 4A-C)

We also considered faculty work satisfaction, particularly as it relates to experiences of their workplace climate. Work satisfaction was assessed with 12 items (e.g., level of satisfaction with sense of being valued for their research, scholarship, or creativity by members of their department/unit or sense of being valued as a teacher by their students). These items were combined to create an overall work satisfaction score. Responses were on a five-point scale from "very dissatisfied to "very satisfied." Mean scores across groups and time were above the mid-point, ranging from 3.56 to 4.10. In most instances scores were slightly higher in 2017 compared to 2012 but in only two instances did these differences approach or obtain statistical significance.

GENDER AND RACE-ETHNICITY DIFFERENCES: Women in science and engineering and the social sciences reported significantly lower overall work satisfaction compared to men in 2017; the difference also approached statistical significance by gender in the same direction for social science faculty in 2012. Moreover, social science faculty of color, compared to white faculty, reported significantly lower work satisfaction in 2017. Mean scores did not differ by gender or race-ethnicity differences for faculty in the arts and humanities.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: For science and engineering faculty there was only one over time statistically significant difference: men of color reported higher average overall career satisfaction in 2017 compared to 2012; there was a trend for women of color to report in the reverse direction (lower satisfaction in 2017). There were no overtime differences in reports of work satisfaction for the four gender/race-ethnicity groups within the other two disciplinary groups.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: Science and engineering women expressed significantly lower overall work satisfaction compared to their male counterparts in 2017; white faculty reported a similar relationship (white women reporting lower means) in 2012. In addition, men of color reported significantly lower satisfaction compared to white men in 2012 (but not 2017); there was also a trend for women of color to report higher satisfaction compared to white women in 2012 (but, again, not in 2017).

There was only one statistically significant gender/race-ethnicity comparison within social science faculty: white women reported lower overall work satisfaction compared to white men in 2017. We found no statistically significant differences comparing gender/race-ethnicity groups within the arts and humanities faculty.

OVERALL CAREER SATISFACTION AT UM (TABLE 5A-C)

Overall career satisfaction was assessed with one item: all things considered, how satisfied are you with your current position at UM? Responses were rated on the five-point scale (from "very dissatisfied" to very satisfied"). Mean scores across groups were high, ranging from 3.59 to 4.25 (all closest to the "satisfied" rating). Mean scores for all but two gender/race-ethnicity group increased from 2012 to 2017 and in a few instances the differences were statistically significant.

GENDER AND RACE-ETHNICITY DIFFERENCES: The only statistically significant difference by gender on overall career satisfaction was for science and engineering faculty: women reported lower satisfaction compared to men in 2017. There was also a trend for women in the arts and humanities to report lower satisfaction in 2012. There were no differences comparing faculty of color and white faculty on this variable within any disciplinary group at either time. However, in the social sciences we found that overall career satisfaction for URM faculty was significantly lower than that for Asian and Asian American faculty in 2017.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Overall career satisfaction was significantly higher in 2017 for men of color and white women in the sciences and engineering. [Satisfaction levels were also higher for white men and women of color in 2017 compared to 2012 but the differences were not statistically different.] In the social sciences we found the mean scores higher for all but women of color in 2017, but, again, these differences were not statistically different. In the arts and humanities overall career satisfaction was statistically significantly higher in 2017 for white men. Mean scores were higher in 2017 for all but men of color, but as reported for many other groups, these differences were not statistically significant.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: Science and engineering white men expressed higher overall work satisfaction compared to white women and men of color in 2012 but not 2017. Similarly, white men in arts and humanities reported higher career satisfaction in 2017 compared to white women. There were no statistically significant differences between the gender/race-ethnicity groups in 2012 or 2017 for social science faculty.

INTENTION TO LEAVE UM (TABLE 5A-C)

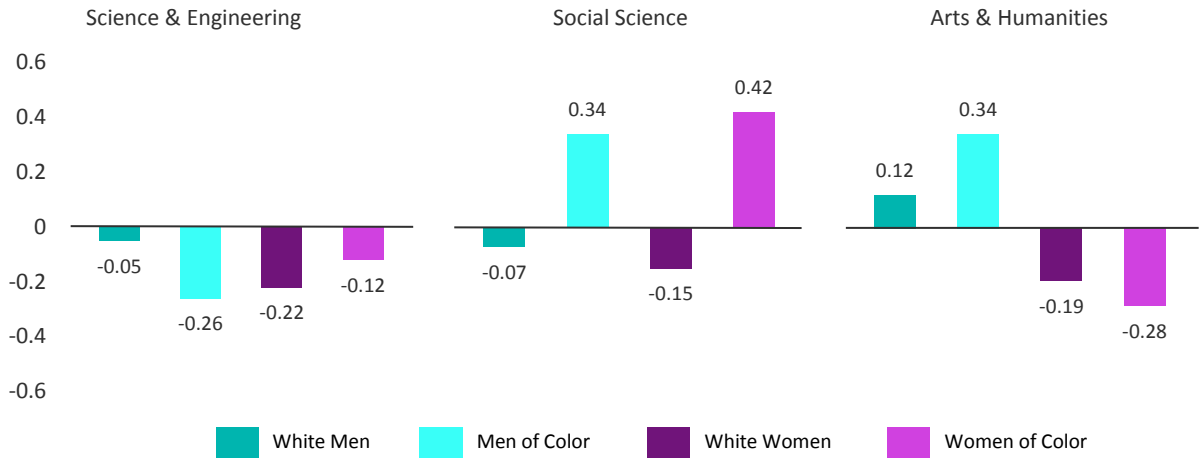
We also asked respondents two questions about their intention to stay at UM or to leave: how much would you like to stay at UM for your entire career (on a five point scale ranging from "not at all" to "very much"), and how often do you think about leaving UM (again, on a five point scale ranging from "never" to "often"). These were combined to create a scale assessing intention to leave (with a higher score associated with a greater intention to leave). Mean scores were generally just below the mid-point and ranged from a low of 2.23 to a high of 2.95. For most groups scores decreased over time but in only one instance was this difference statistically significant.

GENDER AND RACE-ETHNICITY DIFFERENCES: There were no significant gender differences in intention to leave UM within each of the three discipline groups in 2012 and 2017 with one exception: women in arts and humanities were more likely to report an interest in leaving UM compared to men in 2012 but not in

2017. Similarly, there were no significant differences by race-ethnicity with one exception: social science faculty of color expressed more interest in leaving UM compared to white faculty in 2017, but not in 2012.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Science and engineering male faculty of color reported significantly less interest in leaving UM in 2017 compared to 2012. We found no over-time differences for the four gender/race-ethnicity groups in the social sciences or arts and humanities.

Figure 8: Change in mean scores of wanting to leave U-M from 2012-2017



BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: Science and engineering white men expressed significantly less interest in leaving UM than white women and men of color (the latter was a trend) in 2012; there was also a trend for white men to express less interest in leaving than white women in 2017. In the social sciences, white women reported significantly less interest in leaving UM compared to women of color in 2017 (but not 2012). Mean group scores did not differ for faculty in the arts and humanities.

INTERCORRELATIONS: WORK SATISFACTION AND CLIMATE INDICATORS WITH OVERALL CAREER SATISFACTION AND DESIRE TO LEAVE UM (TABLE 6)

We next examined the relationship between overall career satisfaction and desire to leave UM with faculty experiences of the climate and job satisfaction.

Overall career satisfaction was significantly and positively correlated with work satisfaction and overall climate (combined measure of general climate and climate for diversity) for all four gender/race-ethnicity groups of faculty in each of the three disciplinary groups in 2017 and in almost all instances in 2012.

The same pattern generally held in the expected direction for *intention to leave UM*; this measure was significantly and negatively correlated with both work satisfaction and overall climate for white men and women faculty in the three discipline groups in 2012 and 2017. Results were similar for faculty of color but not quite as strong or consistent over time, particularly in 2012. In fact, in the case of women of color, overall work satisfaction and overall climate were not associated with a desire to leave UM in 2012; this was also true of men of color in the arts and humanities.

Gender discrimination was significantly associated with both overall career satisfaction and desire to leave (in the expected directions) for white women in all three discipline groups in 2012 and 2017 (in two instances the correlations approached statistical significance). By contrast, there were only two statistically significant associations for women of color in 2017: overall career satisfaction was negatively correlated with gender discrimination for arts and humanities women of color and negatively correlated with intentions to leave UM for women of color in science and engineering (this association also trended toward significance in 2012).

Racial-ethnic discrimination. In almost all instances racial-ethnic discrimination was significantly associated with overall career satisfaction at UM and desire to leave UM in the expected directions for men of color in science and engineering and the social sciences; there was no relationship among these variables for men of color in the arts and humanities. In the case of women of color, racial-ethnic discrimination was negatively associated with overall career satisfaction for those in science and engineering and arts and humanities in 2017. It was positively associated with a desire to leave UM for women of color in arts and humanities for the same time period.

SUMMARY OF FINDINGS

UNIVERSITY CLIMATE INDICATORS

SCIENCE AND ENGINEERING FACULTY

The University climate indicators reflected no improvement, and in some cases, a decrement, for science and engineering women and faculty of color. One-third of all women reported experiences of gender discrimination in 2017 (slightly higher than 2012 rates) and reported more gender discrimination than their male counterparts. Moreover, faculty across groups reported more experiences of overhearing disparaging comments about women in 2017 than in 2012. By contrast, rates of reported experiences of unwanted sexual attention were low and constant over time.

Reports of racial-ethnic discrimination were relatively low and fairly stable over time but were significantly higher for faculty of color compared to white faculty at both times. Reports of overhearing disparaging comments about racial-ethnic minorities and/or religious groups were also generally low but showed an increase over time for all groups and increases that approached or obtained statistical significance for the two groups of women faculty.

SOCIAL SCIENCE FACULTY

Similarly, the data suggest no improvement in the University climate for faculty in the social sciences. One-third of women reported experiences of gender discrimination in 2017 and these rates were higher than in 2012 (although the difference did not reach statistical significance). Women also reported more experiences of gender discrimination compared to men. Reports about overhearing disparaging comments about women in 2017 were generally low (although slightly higher than in 2012). Reported rates of unwanted sexual attention were also low across groups. Importantly, in 2017 significantly more white women (47%) reported that at least one person had reported experiences of unwanted sexual attention to them in the past five years (up from 24% in AY2012).

Approximately one-quarter of faculty of color reported experiences of racial-ethnic discrimination in 2017; 2012 rate was similar for women of color but the rate increased by 12 percentage points for male faculty of color from 2012 to 2017. Reported rates of overhearing disparaging comments about racial-ethnic minorities and/or religious groups were low both years but increased slightly for all but white men between 2012 and 2017; this difference approached or obtained statistical significance for men of color and white women. Not surprisingly, rates were higher for faculty of color compared to white faculty but these differences were only statistically significant in 2017.

ARTS AND HUMANITIES FACULTY

Approximately one-third of female faculty in arts and humanities reported experiences of gender discrimination in 2017; the rates were slightly lower compared to those in 2012 although the over time differences did not approach statistical significance for either white women or women of color. By contrast, rates of gender discrimination increased over time for both groups of male faculty, but, again, the differences were not statistically significant. White women reported higher levels of gender discrimination compared to white men both years; women of color reported higher levels than men of

color in 2012 only. Rates of overhearing disparaging comments about women were generally low across groups, but in all cases increased from 2012 to 2017 (these over time differences were not statistically significant except in the case of men of color). Reported experiences of unwanted sexual attention were also generally low, but higher for women than for men (this difference was statistically significant in the case of white faculty); that rate for women of color increased over time to a rate comparable to white women in 2017. Rates of others' reports of unwanted sexual attention also increased across all four groups and were quite high in 2017, ranging from 44% to 62%; however, the over time differences were not statistically significant.

While relatively low, reported rates of overhearing disparaging comments about racial-ethnic minorities and/or religious groups increased over time for all groups; the differences were statistically significant for the faculty of color. Racial-ethnic discrimination also increased over time for all groups, but were higher for faculty of color. Women of color reported more experiences of racial-ethnic discrimination compared to white women and men of color.

Department Climate Indicators

Science and Engineering Faculty

Ratings of the general climate did not improve for the four gender/race-ethnicity groups in science and engineering. Moreover, there was a decrement in reports on the climate for diversity for all but men of color (their ratings also decreased over time but the difference was not statistically significant). In addition, women continued to report a more negative general climate and climate for diversity compared to men. Men of color also reported a more negative climate for diversity compared to white men.

Social Science Faculty

Ratings of the general climate also did not improve for the four gender/race-ethnicity groups in the social sciences. As in science and engineering, several groups also reported a less positive climate for diversity in 2017 (only white men did not). Faculty of color also reported less positively about both the general climate and climate for diversity compared to white faculty.

Arts and Humanities Faculty

As we found for the other two groups of faculty, there was no improvement in faculty ratings of the general climate in arts and humanities. Similarly, the climate for diversity ratings were less positive over time for both groups of men faculty. Nevertheless, white men reported a more positive climate for diversity compared to men of color and white women in 2017.

Career Satisfaction

Science and Engineering Faculty

Rates of work satisfaction were high and showed some improvement over time; in particular satisfaction levels were higher in 2017 for men of color; by contrast, rates for women of color were lower (a trend). Rates of overall career satisfaction were also generally high and showed some improvement over time; the differences were statistically significant in the case of men of color and white women but women of

color and white men also reported higher satisfaction in 2017. Similarly, reported interest in leaving UM decreased over time for all groups; in the case of men of color that difference was statistically significant. Moreover, in 2012 mean scores for white men reflected higher satisfaction compared to white women and men of color; however, those comparisons were not statistically different in 2017.

Social Science Faculty

Mean scores for work satisfaction were generally high both years; however, for all but white men, ratings decreased slightly in 2017 (these differences were not statistically significant). Ratings of overall career satisfaction were also generally high both years--slightly higher than overall work satisfaction. Similarly, interest in leaving UM was, on average, moderately low and fairly stable. Nevertheless, it is important to note that while differences did not achieve statistical significance (likely due to low numbers) overall career satisfaction decreased for women of color and interest in leaving UM increased for both men and women of color; the reverse pattern was observed for white faculty. Moreover, in 2017 faculty of color were more likely to express an interest in leaving UM than white faculty.

Arts and Humanities Faculty

Work satisfaction scores were moderately high and fairly consistent for arts and humanities faculty from 2012 to 2017; moreover, rates were similar by gender and race-ethnicity. Overall career satisfaction scores were slightly higher on average but only increased significantly over time for white male faculty. Moreover, white men reported higher overall career satisfaction compared to white women (their mean score was also quite a bit higher than that for men of color but the difference was not significant). Interest in leaving mean scores were below the midpoint across years. There was a slight decline in mean scores for women and a slight increase for men but these differences were not statistically significant.

It should also be reiterated that the climate survey reports aggregate data, and only represents experiences for these groups of faculty in general. Specific experiences that differ from the general pattern, for example in a particular department, cannot be revealed with these data.

CONCLUSIONS

The findings suggest some aspects of the **broader University climate** continue to be less welcoming for women and faculty of color. Across disciplinary groups, one-third of women faculty reported experiences of gender discrimination within the previous five years (the most often cited area of discrimination was related to salary) and they were more likely than their male colleagues to report discrimination based on their gender. Moreover, faculty reports of overhearing insensitive and disparaging comments about women, although generally low, increased from 2012 to 2017 (in some cases the difference was statistically significant).

Rates of racial-ethnic discrimination were generally low, except for some women of color, and consistent over time, except for some men of color for whom rates increased. Reports of overhearing insensitive and disparaging comments about racial-ethnic minorities and/or religious groups were also generally low, but,

again, demonstrated an increasing trend over time, particularly for faculty of color for whom, perhaps with larger numbers, these differences might be statistically significant.

Department general climate ratings were generally high and consistent with 2012 mean scores; however, there was also evidence of a decline over time in ratings for faculty of color that did not obtain statistical significance (again, perhaps due to low numbers). **Climate for diversity** scale scores were also high as in 2012; however, again, there was evidence of an overtime decline in scores and white men generally reported a more positive climate for diversity.

The lack of much over time improvement (and in some cases a decrement) in experiences of the climate for faculty, especially women and faculty of color is disappointing, particularly when we saw a significant improvement in 2012 for science and engineering faculty for whom we had over time data. Moreover, we continue to see instances of more negative climate ratings for women and faculty of color, coupled with their higher experiences of discrimination compared with men and white faculty. The lack of clear disciplinary differences in aggregated faculty experiences of the climate suggests that some aspects of the climate related to gender and race/ethnicity may well be quite pervasive across disciplines and supports ADVANCE's expanded focus beyond the science and engineering fields.

Assessment of **career satisfaction** revealed fairly stable reporting over time. Science and engineering women faculty and faculty of color showed significantly higher overall career satisfaction in 2017 compared to 2012. However, these differences were not in evidence for faculty in the other disciplinary areas and only white men in arts and humanities reported significantly higher career satisfaction in 2017 compared to 2012.

Our cumulative data suggest that many of the same factors influence different groups of faculty members' overall career satisfaction and intention to leave. Thus, addressing these different climate factors are likely to benefit all faculty, rather than benefiting some at the expense of others. Given the clear relationship between faculty members' ratings of the climate and work satisfaction with their overall satisfaction and intention to leave UM, it is important to continue our efforts to improve the campus climate for all faculty.

Table 1a - Gender Related University Climate Indicators: Means and Percentages by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012 n=112	2017 n=112	2012 n=51	2017 n=54	2012 n=440	2017 n=355	2012 n=154	2017 n=201
Disparaging comments about women	1.29	1.48	1.34	1.64	1.33	1.41	1.65	1.85
	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017
Gender discrimination	5%	6%	24%	31%	3%	5%	29%	39%
Hiring	3%	4%	6%	7%	1%	3%	11%	8%
Promotion	4%	5%	10%	2%	1%	3%	12%	14%
Salary	4%	2%	16%	20%	2%	1%	25%	32%
Space/equipment, other resources	2%	0%	10%	13%	0%	1%	10%	15%
Access to administrative staff	0%	0%	4%	13%	0%	0%	7%	11%
Graduate student or resident/fellow assignments	1%	0%	4%	2%	1%	0%	3%	7%
Unwanted sexual attention	1%	1%	4%	2%	1%	1%	10%	9%
Individuals reporting others reported unwanted sexual attention	10%	19%	11%	22%	15%	23%	22%	33%

Table 1b - Gender Related University Climate Indicators: Differences within Race-Ethnicity-Gender Groups within Disciplines across Time for Science and Engineering Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Disparaging comments about women	0.19 t	0.30 *	0.08 t	0.20 *
	2017-2012	2017-2012	2017-2012	2017-2012
Gender discrimination	0%	8%	1%	10%
Hiring	1%	1%	2%	-3%
Promotion	1%	-8% t	2%	1%
Salary	-1%	4%	-1%	6%
Space/equipment, other resources	-2%	3%	1%	5%
Access to administrative staff	0%	9%	0%	5%
Graduate student or resident/fellow assignments	-1%	-2%	0%	3%
Unwanted sexual attention	0%	-2%	0%	-2%
Individuals reporting others reported unwanted sexual attention	9%	11%	8% *	11% t

Table 1c - Gender Related University Climate Indicators: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Disparaging comments about women	-0.04	0.07	-0.31 *	-0.21 t	-0.33 *	-0.45 *	-0.05	-0.17
	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Gender discrimination	2%	1%	-6%	-8%	-26% *	-34% *	-18% *	-25% *
Hiring	2%	1%	-5%	-2%	-10% *	-6% *	-3%	-3%
Promotion	3%	2%	-3%	-12% t	-11% *	-11% *	-6% *	3%
Salary	1%	1%	-10%	-12%	-23% *	-30% *	-12% *	-18% *
Space/equipment, other resources	2%	-1%	0%	-2%	-10% *	-14% *	-8% t	-13%
Access to administrative staff	0%	0%	-3%	2%	-6% *	-11% *	-4%	-13%
Graduate student or resident/fellow assignments	0%	0%	1%	-4%	-3% *	-6% *	-3%	-2%
Unwanted sexual attention	0%	0%	-6%	-6%	-9% *	-7% *	-3%	-1%
Individuals reporting others reported unwanted sexual attention	-6%	-4%	-12%	-11%	-7% *	-10% *	-1%	-3%

Notes: Means and percentages are from non-weighted data, while significance determinations are made from weighted data. Significance indicators are from statistical analyses using ANOVA and Logistic Regression. Comparisons were not run when 0% was present.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level; a Cannot compute, at least 1 criteria is too small.

†Represents instances where comparisons were not run because 0% was present

Table 1a - Gender Related University Climate Indicators: Means and Percentages by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012 n=38	2017 n=31	2012 n=36	2017 n=44	2012 n=143	2017 n=99	2012 n=119	2017 n=118
Disparaging comments about women	1.42	1.80	1.59	1.75	1.35	1.39	1.65	1.79
	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017
Gender discrimination	5%	15%	14%	33%	4%	7%	25%	33%
Hiring	3%	8%	0%	6%	3%	2%	2%	5%
Promotion	3%	8%	0%	18%	1%	4%	8%	9%
Salary	3%	8%	11%	30%	3%	5%	20%	28%
Space/equipment, other resources	3%	8%	6%	6%	0%	0%	8%	5%
Access to administrative staff	0%	8%	3%	9%	1%	0%	3%	7%
Graduate student or resident/fellow assignments	3%	8%	0%	6%	1%	0%	3%	4%
Unwanted sexual attention	6%	4%	3%	9%	1%	4%	5%	7%
Individuals reporting others reported unwanted sexual attention	21%	16%	15%	29%	15%	25%	24%	47%

Table 1b - Gender Related University Climate Indicators: Differences within Race-Ethnicity-Gender Groups within Disciplines across Time for Social Science Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Disparaging comments about women	0.38 t	0.16	0.04	0.14
	2017-2012	2017-2012	2017-2012	2017-2012
Gender discrimination	10%	19%	3%	8%
Hiring	5%	6%	0%	4%
Promotion	5%	18%	2%	1%
Salary	5%	19%	2%	8%
Space/equipment, other resources	5% t	1%	0% †	-2%
Access to administrative staff	8%	6%	-1%	3%
Graduate student or resident/fellow assignments	5% t	6%	-1%	2%
Unwanted sexual attention	-2%	6%	3%	2%
Individuals reporting others reported unwanted sexual attention	-5%	13%	10%	23% *

Table 1c - Gender Related University Climate Indicators: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Disparaging comments about women	0.07	0.41 *	-0.07	-0.04	-0.31 *	-0.40 *	-0.17	0.05
	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Gender discrimination	1%	8%	-11%	0%	-21% *	-26% *	-9%	-18% t
Hiring	0%	5% t	-2%	1%	1%	-3%	3%	2%
Promotion	1%	4%	-8%	10% t	-6% t	-5%	3%	-11%
Salary	0%	3%	-9%	2%	-17% *	-23% *	-9%	-23% *
Space/equipment, other resources	3%	8%	-2%	1%	-8%	-5%	-3%	2%
Access to administrative staff	-1%	8%	-1%	3%	-3%	-7%	-3%	-1%
Graduate student or resident/fellow assignments	2%	8%	-3%	2%	-2%	-4%	3%	2%
Unwanted sexual attention	5%	0%	-2%	2%	-4%	-3%	3%	-5%
Individuals reporting others reported unwanted sexual attention	5%	-9%	-9%	-19%	-9%	-22% *	5%	-13%

Notes: Means and percentages are from non-weighted data, while significance determinations are made from weighted data. Significance indicators are from statistical analyses using ANOVA and Logistic Regression. Comparisons were not run when 0% was present.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level; a Cannot compute, at least 1 criteria is too small.

†Represents instances where comparisons were not run because 0% was present

Table 1a - Gender Related University Climate Indicators: Means and Percentages by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts & Humanities Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012 n=22	2017 n=34	2012 n=23	2017 n=34	2012 n=125	2017 n=105	2012 n=93	2017 n=90
Disparaging comments about women	1.47	1.88	1.80	2.09	1.41	1.58	1.69	1.84
	% 2012	% 2017	% 2012	% 2017	% 2012	%	% 2012	%
Gender discrimination	5%	20%	44%	31%	5%	11%	36%	34%
Hiring	5%	12%	4%	3%	2%	6%	12%	8%
Promotion	5%	8%	17%	14%	2%	5%	11%	16%
Salary	5%	20%	26%	28%	2%	7%	32%	26%
Space/equipment, other resources	0%	8%	4%	0%	1%	2%	9%	9%
Access to administrative staff	0%	8%	4%	0%	2%	1%	4%	7%
Graduate student or resident/fellow assignments	5%	8%	9%	7%	1%	2%	5%	4%
Unwanted sexual attention	5%	4%	5%	14%	2%	5%	15%	12%
Individuals reporting others reported unwanted sexual attention	31%	44%	47%	50%	32%	45%	48%	62%

Table 1b - Gender Related University Climate Indicators: Differences within Race-Ethnicity-Gender Groups within Disciplines across Time for Arts & Humanities Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Disparaging comments about women	0.41 *	0.29	0.17	0.15
	2017-2012	2017-2012	2017-2012	2017-2012
Gender discrimination	16%	-13%	6%	-1%
Hiring	7%	-1%	3%	-4%
Promotion	4%	-4%	3%	5%
Salary	16%	2%	5% t	-6%
Space/equipment, other resources	8%	-4%	2%	1%
Access to administrative staff	8%	-4%	0%	2%
Graduate student or resident/fellow assignments	4%	-2%	2%	-2%
Unwanted sexual attention	-1%	9%	3%	-3%
Individuals reporting others reported unwanted sexual attention	13%	3%	13%	15%

Table 1c - Gender Related University Climate Indicators: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts & Humanities Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Disparaging comments about women	0.05	0.30	0.11	0.25	-0.28 *	-0.26 *	-0.33	-0.21
	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Gender discrimination	0%	10%	8%	-3%	-31% *	-24% *	-39% *	-11%
Hiring	2%	6%	-8%	-5%	-9% *	-2%	0%	8%
Promotion	3%	3%	7%	-2%	-9% *	-11% *	-13%	-6%
Salary	2% t	13% t	-6%	1%	-30% *	-19% *	-22% t	-8%
Space/equipment, other resources	-1%	6%	-4%	-9%	-8%	-7% t	-4%	8%
Access to administrative staff	-2%	7%	0%	-7%	-3%	-5%	-4%	8%
Graduate student or resident/fellow assignments	4%	6%	3%	3%	-5%	-2%	-4%	1%
Unwanted sexual attention	3%	-1%	-9%	2%	-13% *	-7% *	0%	-10%
Individuals reporting others reported unwanted sexual attention	-1%	-1%	-1%	-12%	-16%	-18% t	-16%	-6%

Notes: Means and percentages are from non-weighted data, while significance determinations are made from weighted data. Significance indicators are from statistical analyses using ANOVA and Logistic Regression. Comparisons were not run when 0% was present.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level; a Cannot compute, at least 1 criteria is too small.

†Represents instances where comparisons were not run because 0% was present

Table 2a - Race Related University Climate Indicators: Means and Percentages by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012 n=112 0	2017 n=112 0	2012 n=51 0	2017 n=54 0	2012 n=440 0	2017 n=355 0	2012 n=154 0	2017 n=168
Disparaging comments about racial-ethnic minorities and/or religious groups	1.25	1.39	1.25	1.34	1.19	1.24	1.25	1.39
	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017
Racial-ethnic discrimination	13%	14%	22%	16%	1%	1%	2%	4%
Hiring	6%	12%	6%	4%	1%	1%	2%	4%
Promotion	5%	9%	12%	2%	1%	1%	0%	1%
Salary	6%	9%	14%	9%	1%	0%	1%	1%
Space/equipment, other resources	4%	2%	18%	7%	0%	0%	1%	1%
Access to administrative staff	4%	1%	8%	7%	0%	0%	0%	0%
Graduate student or resident/fellow assignments	5%	2%	8%	0%	1%	0%	0%	0%

Table 2b - Race Related University Climate Indicators: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Science and Engineering Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Disparaging comments about racial-ethnic minorities and/or religious groups	0.13	0.09 t	0.04	0.13 *
	2017-2012	2017-2012	2017-2012	2017-2012
Racial-ethnic discrimination	1%	-6%	0%	2%
Hiring	5%	-2%	0%	2%
Promotion	5%	-10% t	0%	1%
Salary	3%	-5%	0% †	0%
Space/equipment, other resources	-1%	-11% t	0% †	0%
Access to administrative staff	-2%	-1%	0%	0% †
Graduate student or resident/fellow assignments	-3% t	-8%	0%	0% †

Table 2c - Race Related University Climate Indicators: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Disparaging comments about racial-ethnic minorities and/or religious groups	0.06 t	0.15 *	0.00	-0.05	-0.06	-0.15 *	0.00	0.05
	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Racial-ethnic discrimination	12% *	13% *	20% *	11% *	-1%	-3% t	-8%	-2%
Hiring	6% *	11% *	4%	0%	-1%	-3% t	0%	7%
Promotion	4% *	9% *	12%	2%	1%	0%	-7%	7%
Salary	6% *	9% *	13% *	8% *	0%	0%	-7%	0%
Space/equipment, other resources	4%	2%	17% *	6% *	-1%	-1%	-14% *	-4%
Access to administrative staff	4%	1%	8%	7%	0% †	0% †	-4%	-6%
Graduate student or resident/fellow assignments	5% *	2% t	8%	0% †	1%	0%	-2%	2%

Notes: Means and percentages are from weighted data. Significance indicators are from statistical analyses using ANOVA and Logistic Regression. Comparisons were not run when 0% was present.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level; a Cannot compute, at least 1 criteria is too small.

Table 2a - Race Related University Climate Indicators: Means and Percentages by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=38 0	n=26 0	n=36 0	n=34 0	n=143 0	n=82 0	n=119 0	n=118
Disparaging comments about racial-ethnic minorities and/or religious groups	1.46	1.80	1.59	1.71	1.35	1.28	1.29	1.52
	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017
Racial-ethnic discrimination	11%	23%	28%	30%	4%	6%	3%	4%
Hiring	3%	19%	11%	12%	3%	4%	0%	2%
Promotion	3%	12%	11%	18%	2%	4%	2%	2%
Salary	8%	15%	11%	18%	3%	5%	1%	1%
Space/equipment, other resources	0%	8%	6%	0%	0%	0%	0%	0%
Access to administrative staff	0%	8%	8%	3%	1%	0%	0%	0%
Graduate student or resident/fellow assignments	3%	8%	8%	3%	1%	1%	1%	0%

Table 2b - Race Related University Climate Indicators: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Social Science Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Disparaging comments about racial-ethnic minorities and/or religious groups	0.34 t	0.12	-0.07	0.23 *
	2017-2012	2017-2012	2017-2012	2017-2012
Racial-ethnic discrimination	13%	3%	2%	2%
Hiring	17%	1%	1%	2%
Promotion	9%	7%	2%	1%
Salary	8%	7%	2%	0%
Space/equipment, other resources	8%	-6%	0% †	0% †
Access to administrative staff	8%	-5%	-1%	0% †
Graduate student or resident/fellow assignments	5% t	-5%	0%	-1%

Table 2c - Race Related University Climate Indicators: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Disparaging comments about racial-ethnic minorities and/or religious groups	0.11	0.52 *	0.30	0.19 *	0.06	-0.24 *	-0.13	0.09
	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Racial-ethnic discrimination	6%	17% *	25% *	26% *	2%	2%	-17% *	-7%
Hiring	0%	16% *	11%	10% t	3%	2%	-9%	7%
Promotion	1%	8%	9% *	16% *	0%	2%	-9%	-7%
Salary	5%	11% t	10% *	17%	2%	4%	-3%	-3%
Space/equipment, other resources	0% †	8%	6%	0% †	0% †	0% †	-6%	8%
Access to administrative staff	-1%	8%	8%	3%	1%	0% †	-8%	5%
Graduate student or resident/fellow assignments	1%	7%	8% *	3%	1%	1%	-6%	5%

Notes: Means and percentages are from weighted data. Significance indicators are from statistical analyses using ANOVA and Logistic Regression. Comparisons were not run when 0% was present.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level; a Cannot compute, at least 1 criteria is too small.

Table 2a - Race Related University Climate Indicators: Means and Percentages by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts and Humanities Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012 n=22 0	2017 n=25 0	2012 n=23 0	2017 n=34 0	2012 n=125	2017 n=86 0	2012 n=93	2017 n=76
Disparaging comments about racial-ethnic minorities and/or religious groups	1.45	1.87	1.81	2.10	1.38	1.48	1.36	1.50
	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017	% 2012	% 2017
Racial-ethnic discrimination	5%	20%	35%	38%	6%	14%	5%	12%
Hiring	5%	19%	9%	3%	4%	7%	3%	9%
Promotion	5%	20%	17%	24%	2%	7%	2%	7%
Salary	5%	16%	17%	21%	2%	8%	1%	5%
Space/equipment, other resources	0%	8%	9%	7%	1%	4%	0%	0%
Access to administrative staff	0%	12%	4%	3%	2%	1%	0%	1%
Graduate student or resident/fellow assignments	5%	12%	13%	17%	2%	5%	1%	3%

Table 2b - Race Related University Climate Indicators: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Arts and Humanities Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Disparaging comments about racial-ethnic minorities and/or religious groups	0.42 *	0.29 *	0.10	0.15
	2017-2012	2017-2012	2017-2012	2017-2012
Racial-ethnic discrimination	16%	3%	8% t	6%
Hiring	15%	-5%	3%	6%
Promotion	16%	7%	5%	4%
Salary	12%	3%	6% t	4%
Space/equipment, other resources	8%	-2%	3%	0% †
Access to administrative staff	12%	-1%	0%	1%
Graduate student or resident/fellow assignments	8%	4%	3%	2%

Table 2c - Race Related University Climate Indicators: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts and Humanities Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Disparaging comments about racial-ethnic minorities and/or religious groups	0.07	0.39 *	0.45 t	0.59 *	0.02	-0.03	-0.36	-0.23
	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Racial-ethnic discrimination	-1%	6%	29% *	26% *	0%	2%	-30% t	-18% t
Hiring	1%	12% t	6%	-6%	1%	-2%	-4%	16% t
Promotion	2%	13% t	15% *	18% *	0%	0%	-13%	-4%
Salary	2%	8%	16% *	15% *	1%	3%	-13%	-5%
Space/equipment, other resources	-1%	5%	9%	7%	1%	4%	-9%	1%
Access to administrative staff	-2%	11% *	4%	2%	2%	0%	-4%	9%
Graduate student or resident/fellow assignments	3%	7%	12% *	15% *	1%	2%	-9%	-5%

Notes: Means and percentages are from weighted data. Significance indicators are from statistical analyses using ANOVA and Logistic Regression. Comparisons were not run when 0% was present.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level; a Cannot compute, at least 1 criteria is too small.

Table 3a - Department Climate: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=91 0	n=94 0	n=46 0	n=49 0	n=393 0	n=308 0	n=139 0	n=183
General climate	3.78	3.91	3.67	3.55	3.93	3.99	3.56	3.51
Climate for diversity	4.14	4.05	3.71	3.37	4.32	4.23	3.67	3.46

Table 3b - Department Climate: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Science and Engineering Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
General climate	0.13	-0.12	0.06	-0.05
Climate for diversity	-0.09	-0.34 t	-0.09 *	-0.20 *

Table 3c - Department Climate: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
General climate	-0.15 t	-0.08	0.11	0.04	0.37 *	0.48 *	0.11	0.37 *
Climate for diversity	-0.18 *	-0.18 *	0.04	-0.09	0.65 *	0.77 *	0.43 *	0.67 *

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 3a - Department Climate: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=33 0	n=29 0	n=30 0	n=38 0	n=125 0	n=88 0	n=99 0	n=104
General climate	3.67	3.50	3.72	3.40	3.89	4.01	3.54	3.73
Climate for diversity	4.04	3.58	3.79	3.46	4.35	4.29	3.86	3.65

Table 3b - Department Climate: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Social Science Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
General climate	-0.17	-0.32	0.12	0.19
Climate for diversity	-0.46 t	-0.33 t	-0.06	-0.21 *

Table 3c - Department Climate: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
General climate	-0.22 t	-0.51 *	0.18	-0.33 t	0.35 *	0.28 *	-0.05	0.10
Climate for diversity	-0.31 *	-0.71 *	-0.07	-0.20 t	0.49 *	0.64 *	0.26	0.13

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 3a - Department Climate: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts and Humanities Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=17 0	n=27 0	n=20 0	n=31 0	n=111	n=92	n=86	n=85
General climate	3.91	3.37	3.49	3.61	3.94	3.83	3.50	3.55
Climate for diversity	3.94	3.44	3.53	3.48	4.20	4.00	3.63	3.49

Table 3b - Department Climate: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Arts and Humanities Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
General climate	-0.55	0.13	-0.11	0.05
Climate for diversity	-0.50 *	-0.05	-0.19 *	-0.14

Table 3c - Department Climate: Differences between Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts and Humanities Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
General climate	-0.03	-0.47	-0.01	0.06	0.45 *	0.28	0.43 *	-0.25
Climate for diversity	-0.26	-0.56 *	-0.09	-0.01	0.57 *	0.51 *	0.40 *	-0.04

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 4a - Overall Work Satisfaction: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=94 0	n=101 0	n=48 0	n=50 0	n=407 0	n=324 0	n=142 0	n=189
Overall work satisfaction	3.77	4.01	3.85	3.71	3.99	4.04	3.69	3.82
Opportunity to collaborate with other faculty	4.26	4.37	4.27	4.28	4.43	4.42	4.24	4.25
Amount of social interaction with members of department/unit	3.67	3.95	3.79	3.62	3.88	3.85	3.50	3.60
Level of funding for research or creative efforts	3.53	3.70	3.77	3.80	3.63	3.81	3.46	3.62
Current salary in comparison with the salaries of UM colleagues	3.26	3.55	3.47	3.43	3.71	3.86	3.25	3.56
Ability to attract students to work with me	3.56	3.84	3.60	3.53	3.79	3.87	3.65	3.65
Sense of being valued as a teacher by students	4.10	4.38	4.13	3.73	4.28	4.25	4.27	4.30
Sense of being valued as a mentor or advisor by students	4.33	4.60	4.44	4.00	4.46	4.60	4.54	4.66
Sense of being valued for my teaching by members of department/unit	3.64	3.98	3.73	3.48	3.84	3.80	3.33	3.43
Sense of being valued for research, scholarship, or creativity by members of department/unit	3.64	4.00	3.94	3.50	3.96	3.96	3.44	3.54
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	3.63	3.96	3.83	3.86	3.96	4.06	3.51	3.76
Sense of contributing to theoretical developments in my disciplines	4.10	4.23	4.16	3.82	4.29	4.36	4.02	4.14
Balance between professional and personal life	3.59	3.59	3.19	3.42	3.65	3.62	3.11	3.40

Table 4b - Overall Work Satisfaction: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Science and Engineering Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Overall work satisfaction	0.24 *	-0.14 t	0.05	0.13
Opportunity to collaborate with other faculty	0.11	0.01	-0.01	0.01
Amount of social interaction with members of department/unit	0.28	-0.17	-0.03	0.10
Level of funding for research or creative efforts	0.17	0.03	0.18	0.16
Current salary in comparison with the salaries of UM colleagues	0.29 t	-0.04	0.15	0.31
Ability to attract students to work with me	0.28	-0.07	0.08	0.00
Sense of being valued as a teacher by students	0.28	-0.40 *	-0.03	0.03
Sense of being valued as a mentor or advisor by students	0.27 *	-0.44 *	0.14 t	0.12
Sense of being valued for my teaching by members of department/unit	0.34	-0.25 *	-0.04	0.10
Sense of being valued for research, scholarship, or creativity by members of department/unit	0.36 *	-0.44 *	0.00	0.10
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	0.33 *	0.03	0.10	0.25
Sense of contributing to theoretical developments in my disciplines	0.13	-0.34 *	0.07	0.12
Balance between professional and personal life	0.00	0.23	-0.03	0.29

Table 4c - Overall Work Satisfaction: Differences with Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Overall work satisfaction	-0.22 *	-0.04	0.16 t	-0.11	0.30 *	0.22 *	-0.08	0.29 *
Opportunity to collaborate with other faculty	-0.17 t	-0.05	0.03	0.03	0.19 *	0.17 *	-0.01	0.09
Amount of social interaction with members of department/unit	-0.21	0.10	0.29 *	0.02	0.38 *	0.25 *	-0.12	0.33
Level of funding for research or creative efforts	-0.10	-0.11	0.31 t	0.18	0.17 *	0.19 *	-0.24	-0.10
Current salary in comparison with the salaries of UM colleagues	-0.45 *	-0.31 *	0.22	-0.13	0.46 *	0.30 *	-0.21	0.12
Ability to attract students to work with me	-0.23	-0.03	-0.05	-0.12	0.14 t	0.22 *	-0.04	0.31
Sense of being valued as a teacher by students	-0.18	0.13 t	-0.14	-0.57 *	0.01	-0.05	-0.03	0.65 *
Sense of being valued as a mentor or advisor by students	-0.13	0.00	-0.10	-0.66 *	-0.08 t	-0.06	-0.11	0.60 *
Sense of being valued for my teaching by members of department/unit	-0.20	0.18 t	0.40 *	0.05	0.51 *	0.37 *	-0.09	0.50 *
Sense of being valued for research, scholarship, or creativity by members of department/unit	-0.32 *	0.04	0.50 *	-0.04	0.52 *	0.42 *	-0.30 t	0.50 *
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	-0.33 *	-0.10	0.32	0.10	0.45 *	0.30 *	-0.20 t	0.10
Sense of contributing to theoretical developments in my disciplines	-0.19 *	-0.13	0.14	-0.32 *	0.27 *	0.22 *	-0.06	0.41 *
Balance between professional and personal life	-0.06	-0.03	0.08	0.02	0.54 *	0.22	0.40	0.17

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 4a - Overall Work Satisfaction: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Sciences Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=33 0	n=30 0	n=31 0	n=39 0	n=129 0	n=93 0	n=104 0	n=108
Overall work satisfaction	3.96	3.88	3.85	3.59	3.92	4.10	3.91	3.86
Opportunity to collaborate with other faculty	4.12	4.10	3.87	3.56	4.22	4.37	4.04	3.91
Amount of social interaction with members of department/unit	3.73	3.70	3.87	3.44	3.94	3.95	3.74	3.74
Level of funding for research or creative efforts	3.84	3.87	3.83	3.44	3.80	4.06	3.76	3.79
Current salary in comparison with the salaries of UM colleagues	3.55	3.43	3.67	3.41	3.41	3.68	3.69	3.66
Ability to attract students to work with me	3.69	3.86	3.55	3.77	3.71	3.95	3.84	3.89
Sense of being valued as a teacher by students	4.34	4.24	4.26	4.11	4.20	4.40	4.39	4.50
Sense of being valued as a mentor or advisor by students	4.55	4.55	4.30	4.39	4.44	4.59	4.62	4.63
Sense of being valued for my teaching by members of department/unit	4.03	3.66	4.03	3.74	3.75	3.96	3.93	3.76
Sense of being valued for research, scholarship, or creativity by members of department/unit	4.03	3.60	3.87	3.42	3.87	4.13	3.73	3.64
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	3.79	3.79	3.67	3.33	3.80	4.10	3.67	3.72
Sense of contributing to theoretical developments in my disciplines	4.36	4.07	4.10	3.79	4.21	4.34	4.28	3.96
Balance between professional and personal life	3.58	3.53	3.19	2.69	3.72	3.76	3.28	3.21

Table 4b - Overall Work Satisfaction: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Social Sciences Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Overall work satisfaction	-0.08	-0.27	0.18	-0.05
Opportunity to collaborate with other faculty	-0.02	-0.31	0.15	-0.13
Amount of social interaction with members of department/unit	-0.03	-0.43	0.01	0.00
Level of funding for research or creative efforts	0.03	-0.39	0.26	0.03
Current salary in comparison with the salaries of UM colleagues	-0.12	-0.26	0.27	-0.03
Ability to attract students to work with me	0.17	0.22	0.24	0.05
Sense of being valued as a teacher by students	-0.10	-0.15	0.20	0.11
Sense of being valued as a mentor or advisor by students	0.00	0.09	0.15	0.01
Sense of being valued for my teaching by members of department/unit	-0.37	-0.29	0.21	-0.17
Sense of being valued for research, scholarship, or creativity by members of department/unit	-0.43	-0.45	0.26	-0.09
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	0.00	-0.34	0.30 t	0.05
Sense of contributing to theoretical developments in my disciplines	-0.29	-0.31	0.13	-0.32
Balance between professional and personal life	-0.05	-0.50	0.04	-0.07

Table 4c - Overall Work Satisfaction: Differences with Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Sciences Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Overall work satisfaction	0.04	-0.22	-0.06	-0.27	0.01	0.24 *	0.11	0.29
Opportunity to collaborate with other faculty	-0.10	-0.27	-0.17	-0.35	0.18	0.46 *	0.25	0.54
Amount of social interaction with members of department/unit	-0.21	-0.25	0.13	-0.30	0.20	0.21	-0.14	0.26
Level of funding for research or creative efforts	0.04	-0.19	0.07	-0.35	0.04	0.27	0.01	0.43
Current salary in comparison with the salaries of UM colleagues	0.14	-0.25	-0.02	-0.25	-0.28	0.02	-0.12	0.02
Ability to attract students to work with me	-0.02	-0.09	-0.29	-0.12	-0.13	0.06	0.14	0.09
Sense of being valued as a teacher by students	0.14	-0.16	-0.13	-0.39 t	-0.19	-0.10	0.08	0.13
Sense of being valued as a mentor or advisor by students	0.11	-0.04	-0.32	-0.24	-0.18	-0.04	0.25	0.16
Sense of being valued for my teaching by members of department/unit	0.28	-0.30	0.10	-0.02	-0.18	0.20	0.00	-0.08
Sense of being valued for research, scholarship, or creativity by members of department/unit	0.16	-0.53 *	0.14	-0.22	0.14	0.49 *	0.16	0.18
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	-0.01	-0.31	0.00	-0.39	0.13	0.38 *	0.12	0.46 t
Sense of contributing to theoretical developments in my disciplines	0.15	-0.27	-0.18	-0.17	-0.07	0.38 *	0.26	0.28
Balance between professional and personal life	-0.14	-0.23	-0.09	-0.52 t	0.44 *	0.55 *	0.39 *	0.84 *

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 4a - Overall Work Satisfaction: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts and Humanities Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=18 0	n=28 0	n=21 0	n=32 0	n=115	n=94	n=88	n=85
Overall work satisfaction	3.56	3.67	3.58	3.61	3.81	3.74	3.62	3.69
Opportunity to collaborate with other faculty	3.61	3.77	3.70	3.76	4.06	3.86	3.69	3.93
Amount of social interaction with members of department/unit	3.39	3.63	3.43	3.52	3.67	3.59	3.59	3.48
Level of funding for research or creative efforts	3.24	3.50	4.19	3.74	3.62	3.57	3.39	3.65
Current salary in comparison with the salaries of UM colleagues	3.06	3.26	3.00	2.84	3.21	3.36	2.80	3.08
Ability to attract students to work with me	3.41	3.46	3.30	3.38	3.63	3.47	3.61	3.46
Sense of being valued as a teacher by students	4.06	4.32	4.29	4.69	4.39	4.38	4.45	4.49
Sense of being valued as a mentor or advisor by students	4.17	4.46	4.10	4.39	4.49	4.51	4.39	4.52
Sense of being valued for my teaching by members of department/unit	3.76	3.57	3.62	3.78	3.74	3.81	3.64	3.65
Sense of being valued for research, scholarship, or creativity by members of department/unit	3.76	3.68	3.52	3.50	3.85	3.81	3.61	3.51
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	3.22	3.41	3.24	3.60	3.67	3.38	3.48	3.43
Sense of contributing to theoretical developments in my disciplines	3.82	4.32	3.95	3.94	4.09	3.91	4.01	4.11
Balance between professional and personal life	3.06	3.00	2.62	2.25	3.38	3.32	2.78	2.98

Table 4b - Overall Work Satisfaction: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Arts and Humanities Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Overall work satisfaction	0.11	0.02	-0.07	0.07
Opportunity to collaborate with other faculty	0.16	0.06	-0.20	0.24
Amount of social interaction with members of department/unit	0.24	0.09	-0.08	-0.11
Level of funding for research or creative efforts	0.26	-0.45	-0.05	0.26
Current salary in comparison with the salaries of UM colleagues	0.20	-0.16	0.15	0.28
Ability to attract students to work with me	0.05	0.08	-0.16	-0.15
Sense of being valued as a teacher by students	0.26	0.40 *	-0.01	0.04
Sense of being valued as a mentor or advisor by students	0.29	0.29	0.02	0.13
Sense of being valued for my teaching by members of department/unit	-0.19	0.16	0.07	0.01
Sense of being valued for research, scholarship, or creativity by members of department/unit	-0.08	-0.02	-0.04	-0.10
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	0.19	0.36	-0.29	-0.05
Sense of contributing to theoretical developments in my disciplines	0.50	-0.01	-0.18	0.10
Balance between professional and personal life	-0.06	-0.37	-0.06	0.20

Table 4c - Overall Work Satisfaction: Differences with Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts and Humanities Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Overall work satisfaction	-0.25	-0.07	-0.04	-0.08	0.19	0.05	-0.03	0.06
Opportunity to collaborate with other faculty	-0.45	-0.09	0.01	-0.17	0.37 t	-0.07	-0.09	0.01
Amount of social interaction with members of department/unit	-0.28	0.04	-0.16	0.04	0.08	0.11	-0.04	0.11
Level of funding for research or creative efforts	-0.38	-0.07	0.80 *	0.09	0.23 t	-0.08	-0.95	-0.24
Current salary in comparison with the salaries of UM colleagues	-0.15	-0.10	0.20	-0.24	0.41	0.28	0.06	0.42
Ability to attract students to work with me	-0.22	-0.01	-0.31	-0.08	0.02	0.01	0.11	0.08
Sense of being valued as a teacher by students	-0.33 t	-0.06	-0.16	0.20	-0.06	-0.11	-0.23	-0.37
Sense of being valued as a mentor or advisor by students	-0.32	-0.05	-0.29	-0.13	0.10	-0.01	0.07	0.07
Sense of being valued for my teaching by members of department/unit	0.02	-0.24	-0.02	0.13	0.10	0.16	0.14	-0.21
Sense of being valued for research, scholarship, or creativity by members of department/unit	-0.09	-0.13	-0.09	-0.01	0.24	0.30	0.24	0.18
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	-0.45	0.03	-0.24	0.17	0.19	-0.05	-0.02	-0.19
Sense of contributing to theoretical developments in my disciplines	-0.27	0.41 *	-0.06	-0.17	0.08	-0.20	-0.13	0.38
Balance between professional and personal life	-0.32	-0.32	-0.16	-0.73	0.60 *	0.34 t	0.44	0.75 t

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 5a - Overall Career Satisfaction and Desire to Leave UM: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012 n=29	2017 n=84	2012 n=26	2017 n=35	2012 n=112	2017 n=352	2012 n=95	2017 n=133
Overall career satisfaction	3.59	4.25	3.74	4.00	4.06	4.17	3.67	4.03
Want to leave	2.50	2.24	2.50	2.38	2.28	2.23	2.64	2.42

Table 5b - Overall Career Satisfaction and Desire to Leave UM: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Science and Engineering Faculty

	differences within							
	men of color		women of color		white men		white women	
	2017-2012		2017-2012		2017-2012		2017-2012	
Overall career satisfaction	0.66	*	0.26		0.11		0.36	*
Want to leave	-0.26	*	-0.12		-0.05		-0.22	

Table 5c - Overall Career Satisfaction and Desire to Leave UM: Differences with Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Science and Engineering Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Overall career satisfaction	-0.47 *	0.08	0.07	-0.03	0.39 *	0.14	-0.15	0.25
Want to leave	0.22 t	0.00	-0.14	-0.04	-0.36 *	-0.19 t	0.00	-0.14

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 5a - Overall Career Satisfaction and Desire to Leave UM: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012 n=13	2017 n=27	2012 n=19	2017 n=24	2012 n=57	2017 n=115	2012 n=50	2017 n=91
Overall career satisfaction	4.06	4.13	4.19	3.83	4.07	4.21	3.91	4.13
Want to leave	2.42	2.76	2.35	2.77	2.43	2.36	2.60	2.45

Table 5b - Overall Career Satisfaction and Desire to Leave UM: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Social Science Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Overall career satisfaction	0.07	-0.36	0.14	0.22
Want to leave	0.34	0.42	-0.07	-0.16

Table 5c - Overall Career Satisfaction and Desire to Leave UM: Differences with Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Social Science Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Overall career satisfaction	-0.01	-0.08	0.28	-0.30	0.16 t	0.08	-0.13	0.30
Want to leave	-0.01	0.39	-0.25	0.32 *	-0.17	-0.08	0.07	-0.01

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 5a - Overall Career Satisfaction and Desire to Leave UM: Means by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts & Humanities Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2012	2017	2012	2017	2012	2017	2012	2017
	n=13	n=27	n=19	n=24	n=57	n=115	n=50	n=91
Overall career satisfaction	4.00	3.82	3.67	3.82	3.82	4.21	3.69	3.92
Want to leave	2.38	2.72	2.95	2.67	2.46	2.58	2.63	2.44

Table 5b - Overall Career Satisfaction and Desire to Leave UM: Differences by Race-Ethnicity-Gender Groups within Disciplines across Time for Arts & Humanities Faculty

	differences within			
	men of color	women of color	white men	white women
	2017-2012	2017-2012	2017-2012	2017-2012
Overall career satisfaction	-0.18	0.15	0.39 *	0.23
Want to leave	0.34	-0.28	0.12	-0.19

Table 5c - Overall Career Satisfaction and Desire to Leave UM: Differences with Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Arts & Humanities Faculty

	differences between							
	(men of color - white men)		(women of color - white women)		(white men - white women)		(men of color - women of color)	
	2012	2017	2012	2017	2012	2017	2012	2017
Overall career satisfaction	0.18	-0.39	-0.02	-0.10	0.13	0.29 *	0.33 t	0.00
Want to leave	-0.08	0.14	0.32	0.23	-0.17	0.14	-0.57 t	0.05

Notes: Means are from weighted data. Significance indicators are from statistical analyses using ANOVA.

Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

*Represents significance at p≤.05 level; t Represents a trend at p≤.10 level.

Table 6 - Correlations of Overall Career Satisfaction and Wanting to Leave UM with Climate and Work Satisfaction Indicators by Race-Ethnicity-Gender Groups within Disciplines for One or Two Timepoints for Faculty

Science and Engineering	Overall career satisfaction								Want to leave UM							
	2012				2017				2012				2017			
	men of color n=76	women of color n=33	white men n=317	white women n=111	men of color n=136	women of color n=47	white men n=357	white women n=146	men of color n=75	women of color n=33	white men n=317	white women n=111	men of color n=133	women of color n=46	white men n=353	white women n=146
Overall work satisfaction	0.74 ***	0.60 ***	0.69 ***	0.68 ***	0.62 ***	0.75 ***	0.64 ***	0.61 ***	-0.51 ***	-0.32 t	-0.53 ***	-0.47 ***	-0.43 ***	-0.45 **	-0.58 ***	-0.47 ***
Overall climate	0.61 ***	0.30 t	0.56 ***	0.62 ***	0.51 ***	0.62 ***	0.49 ***	0.58 ***	-0.55 ***	-0.18	-0.48 ***	-0.49 ***	-0.28 **	-0.43 **	-0.47 ***	-0.45 ***
Disparaging comments about women	0.04	0.15	-0.09	-0.21 *	-0.16 t	-0.18	-0.02	-0.25 **	0.05	-0.16	0.09	0.20 *	0.21 *	0.00	0.00	0.28 **
Disparaging comments about racial-ethnic minorities	0.04	-0.15	-0.15 **	-0.11	0.02	-0.21	-0.02	-0.21 *	-0.06	0.12	0.17 **	0.15	0.05	-0.04	0.01	0.26 **
Unwanted sexual attention	0.15	0.00	-0.10 t	-0.12	0.10	-0.01	-0.12 *	-0.07	-0.13	0.11	0.12 *	0.02	-0.10	0.12	0.14 *	0.15
Gender discrimination	-0.23	-0.43 *	-0.22 ***	-0.39 ***	-0.18 t	-0.13	-0.13 *	-0.32 ***	0.05	0.32 t	0.17 **	0.35 ***	-0.04	0.33 *	0.10 t	0.36 ***
Racial-ethnic discrimination	-0.24 *	-0.08	-0.11 t	-0.08	-0.26 **	-0.31 *	-0.05	-0.03	0.24 *	-0.12	0.11 t	0.05	0.03	0.25	0.10 t	0.09

Social Sciences	Overall career satisfaction								Want to leave UM							
	2012				2017				2012				2017			
	men of color n=26	women of color n=23	white men n=102	white women n=87	men of color n=40	women of color n=37	white men n=103	white women n=83	men of color n=25	women of color n=23	white men n=98	white women n=85	men of color n=39	women of color n=36	white men n=102	white women n=83
Overall work satisfaction	0.70 ***	0.74 ***	0.64 ***	0.77 ***	0.77 ***	0.71 ***	0.59 ***	0.68 ***	-0.61 ***	-0.40 t	-0.40 ***	-0.65 ***	-0.83 ***	-0.57 ***	-0.52 ***	-0.57 ***
Overall climate	0.45 *	0.60 **	0.60 ***	0.56 ***	0.78 ***	0.64 ***	0.58 ***	0.66 ***	-0.50 *	-0.24	-0.42 ***	-0.52 ***	-0.82 ***	-0.50 **	-0.44 ***	-0.35 **
Disparaging comments about women	-0.34	0.11	0.09	-0.24 *	-0.35 *	-0.09	-0.01	-0.13	0.35 t	0.14	0.04	0.35 ***	0.24	0.24	0.07	0.28 *
Disparaging comments about racial-ethnic minorities	-0.40 *	-0.28	-0.01	0.01	-0.25	0.06	0.00	-0.17	0.41 *	-0.37 t	0.09	-0.04	0.32 t	0.25	0.05	0.28 *
Unwanted sexual attention	0.12	-0.03	0.00	-0.19 t	-0.48 ***	0.02	-0.11	0.10	-0.13	0.11	0.00	0.17	0.43 *	0.06	0.06	-0.03
Gender discrimination	-0.34 t	-0.07	-0.23 *	-0.25 *	-0.54 **	-0.15	-0.21 *	-0.44 ***	0.24	0.15	0.08	0.30 **	0.37 *	0.09	0.07	0.22 t
Racial-ethnic discrimination	-0.34 t	-0.23	-0.23 *	-0.15	-0.50 **	-0.03	-0.43 ***	-0.15	0.24	-0.01	0.08	0.05	0.58 ***	-0.08	0.22 *	-0.01

Arts and Humanities	Overall career satisfaction								Want to leave UM							
	2012				2017				2012				2017			
	men of color n=14	women of color n=17	white men n=89	white women n=68	men of color n=37	women of color n=28	white men n=106	white women n=65	men of color n=13	women of color n=17	white men n=89	white women n=67	men of color n=37	women of color n=27	white men n=103	white women n=62
Overall work satisfaction	0.76 **	0.72 ***	0.78 ***	0.70 ***	0.70 ***	0.56 **	0.65 ***	0.71 ***	-0.37	-0.29	-0.55 ***	-0.53 ***	-0.57 ***	-0.45 *	-0.56 ***	-0.49 ***
Overall climate	0.62 *	0.50 *	0.56 ***	0.65 ***	0.67 ***	0.51 **	0.53 ***	0.66 ***	-0.33	0.05	-0.59 ***	-0.52 ***	-0.44 **	-0.23	-0.56 ***	-0.48 ***
Disparaging comments about women	-0.66 *	0.35	-0.21 *	-0.28 *	-0.31 t	-0.38 t	-0.10	-0.17	0.40	0.07	0.23 *	0.36 **	0.39 *	0.39 t	0.27 *	0.17
Disparaging comments about racial-ethnic minorities	-0.53 t	0.41	-0.10	-0.24 *	-0.25	-0.18	0.01	-0.08	0.54 t	0.13	0.26 *	0.30 *	0.31 t	0.31	0.22 *	0.03
Unwanted sexual attention	0.27	-0.31	0.11	-0.21 t	-0.16	-0.41 *	-0.06	-0.20	-0.18	0.39	-0.04	0.15	0.26	-0.14	0.07	0.23 t
Gender discrimination	-0.29	0.27	-0.13	-0.33 **	-0.29	-0.75 ***	-0.08	-0.24 t	0.12	0.12	0.13	0.32 **	0.36 *	0.32	0.13	0.33 *
Racial-ethnic discrimination	-0.29	0.39	-0.29 **	-0.41 ***	-0.29	-0.69 ***	-0.25 *	-0.29 *	0.12	0.09	0.16	0.39 ***	0.25	0.45 *	0.11	0.30 *

Notes: Correlations were run with weighted data.
Ns vary slightly by item; N=max # of responses by group for items in table.
*p≤.05, **p≤.01, ***p≤.001; t trend at p≤.10; a Cannot compute, at least 1 variable is constant.