
**ASSESSING THE ACADEMIC WORK ENVIRONMENT FOR
TENURED/TENURE-TRACK FACULTY
AT THE UNIVERSITY OF MICHIGAN
IN 2006 AND 2012:
GENDER, RACE, & DISCIPLINE IN DEPARTMENT- AND
UNIVERSITY-RELATED CLIMATE FACTORS**

UM ADVANCE PROGRAM

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INTRODUCTION

This report is a companion to the report recently released by the UM ADVANCE Program, *Assessing the Academic Work Environment for Science and Engineering Tenured/Tenure Track Faculty at the University of Michigan in 2001, 2006, and 2012: Gender and Race in Department- and University-Related Climate Factors*. That report assessed data from UM science and engineering faculty in 2001, 2006, and 2012 about their experiences of their work environment. This report draws on the same 2006 and 2012 data for science and engineering faculty and comparable data collected from social science faculty at the same time, as well as data for arts and humanities faculty surveyed for the first time in 2012. For detailed information about the study and data collection procedures, please refer to the initial report¹.

The purpose of this report is comparison of the gender and race differences examined within discipline groups. For science and engineering and social science faculty, we were also able to assess over time differences (comparing 2006 data with 2012 data). We only have data for 2012 for arts and humanities faculty.

SAMPLE SURVEYED

In fall 2012 all tenure-track, research, and clinical faculty with paid appointments at the University of Michigan-Ann Arbor were surveyed. For this analysis our focus is tenure-track faculty; those surveyed included:

- All female tenure-track science and engineering faculty at or above the rank of assistant professor (N=432).
- All male tenure-track science and engineering faculty at or above the rank of assistant professor (N=1,307).
- All female tenure-track social science faculty at or above the rank of assistant professor (N=316).
- All male tenure-track social science faculty at or above the rank of assistant professor (N=455).
- All female tenure-track arts and humanities faculty at or above the rank of assistant professor (N=157).
- All male tenure-track arts and humanities faculty at or above the rank of assistant professor (N=251).

All faculty of color from underrepresented groups (African Americans, Latinos, and Native Americans) and Asians and Asian Americans were surveyed. A total of 715 faculty of color were surveyed, including 440 from science and engineering, 199 from the social sciences, and 76 from arts and humanities.

¹ <http://sitemaker.umich.edu/advance/files/advance-report-1-2012.pdf>

RESPONSE RATE

The overall response rate for the study in 2012 was 47%. The total sample of respondents for this study of tenure-track faculty campus-wide is 1,085; the breakdown by discipline group is as follows:

- 626 science and engineering faculty (174 female faculty; 125 faculty of color)
- 265 social science faculty (117 female faculty; 54 faculty of color)
- 194 arts and humanities faculty (88 female faculty; 35 faculty of color)

The response rate for all tenure-track faculty was 37%. The response rate for tenure-track faculty in the arts and humanities (48%) was higher than that for science and engineering faculty (36%) and social science faculty (34%).

In 2006 the sample of respondents included 262 science and engineering faculty (121 female faculty and 55 faculty of color) and 143 social science faculty (71 female faculty and 33 faculty of color). No arts and humanities faculty were surveyed in 2006.

In both the 2006 and 2012 samples, 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 similar 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 also 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). In the case of science and engineering and social science faculty we were also able to examine time differences (comparing 2006 ratings with 2012 ratings) within each of the four gender/race-ethnicity groups (e.g., women of color, white men). Preliminary analyses were conducted comparing Asians 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 and underrepresented minority faculty, particularly in some disciplinary groups; thus, in the discussion of findings we note those instances where we found significant results that vary for Asian and Asian American and underrepresented

minority faculty. Since there are few of them relative to all the analyses computed, they may simply be the result of chance; nevertheless, we thought it important to report them in the event that 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 minority 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 three-way ANOVA (gender X race X discipline). 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 samples 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^{2,3}. 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). When data were available we also report differences within the four groups, by discipline group, over time. Each table reports means or frequencies for each gender/race-ethnicity group by discipline group at two time points (2006 and 2012) for science and engineering and social science faculty; and at one time point (2012) for arts and humanities faculty. A more complete set of tables, including standard deviations, is appended at the end of this report.

² Data tables with indicators of significance are available at <http://www.advance.rackham.umich.edu/ADV-FacultyClimate-Rpt2-final-sigind.pdf>.

³ Data tables with standard deviations are available at <http://www.advance.rackham.umich.edu/ADV-FacultyClimate-Rpt2-final-stdev.pdf>.

Scales created for the initial study (2001) to assess climate were replicated in the 2006 and 2012 data⁴. 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 of these 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)
- tolerance of diversity (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

Our approach in this report is to compare gender and race-ethnicity differences within the three discipline groups (science and engineering, social sciences, and arts and humanities) for 2012 (between race-ethnicity and gender groups within time comparisons) and when possible (i.e., for science and engineering and social science faculty) to compare 2012 data to 2006 for each race X gender X discipline group (within group over time comparisons). We begin by describing the findings concerning the general university climate for these 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.

⁴ In the initial 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). See report, <http://www.umich.edu/~advproj/climatereport.pdf>, for explanation of how scales were created.

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 disparaging comments about women and men; gender; and unwanted and uninvited sexual attention.

DISPARAGING COMMENTS ABOUT WOMEN AND MEN

GENDER AND RACE-ETHNICITY DIFFERENCES: In 2012 women in science and engineering and arts and humanities were more likely than men to report overhearing disparaging comments about women; in the social sciences this difference was not statistically significant but was a trend. There were no statistically significant differences comparing faculty of color and white faculty on this variable in the three disciplinary groups.

There were no differences by gender or race-ethnicity for overhearing disparaging comments about men for the three disciplinary groups in 2012 (or in 2006 for science and engineering and social sciences faculty).

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: White male and female science and engineering faculty were less likely to report overhearing disparaging comments about women in 2012 than in 2006; there were no over time differences for faculty of color in science and engineering or for any social science faculty.

The only over time difference for faculty reports of overhearing disparaging comments about men occurred for white men in science and engineering: their mean rate was significantly lower in 2012 compared to 2006.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In both 2006 and 2012 white women in science and engineering and the social sciences were more likely to report overhearing disparaging comments about women compared to their white male colleagues. In the arts and humanities, women of color were more likely than men of color to report overhearing disparaging comments about women in 2012; there were no differences by gender for faculty of color in the other two discipline groups in 2012.

Women of color in science and engineering were less likely to report overhearing disparaging comments about women, compared to white women in 2006, but not in 2012.

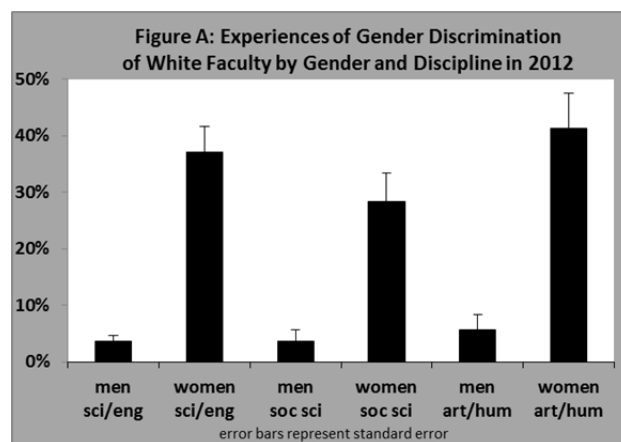
There were few statistically significant differences in reports of overhearing disparaging comments about men. In 2012 white science and engineering male faculty reported significantly fewer instances than white female faculty.

GENDER DISCRIMINATION

Survey respondents were asked about their experiences of gender discrimination in six specific areas (hiring, promotion, salary, space/equipment and other resources, access to administrative staff, and graduate student or resident/fellow assignments). We assessed an overall felt gender discrimination score based on experience of discrimination in any of the six areas.

GENDER AND RACE-ETHNICITY DIFFERENCES: Women were more likely than men to report some form of gender discrimination in all three discipline groups in 2012 (and in 2006 for both science and engineering and social science faculty). In 2012 Asian and Asian American faculty in the arts and humanities were more likely to report some form of gender discrimination compared to their white colleagues; there were no group differences by race-ethnicity for faculty in the other two disciplinary groups.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: The only significant within group over time difference on gender discrimination was for women of color in the social sciences; their mean scores were significantly lower in 2012 compared to 2006 (and the biggest change was in the area of salary, for which they reported significantly less gender discrimination in 2012).



BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: Rates of felt gender discrimination were higher for white women than their white male colleagues in all three discipline groups in 2012 (as they were in 2006 for science and engineering and social science faculty); see Figure A. Women of color in the sciences and engineering and social sciences were more likely to report some form of gender discrimination than their male counterparts in 2006; these findings held in 2012 for science and engineering faculty of

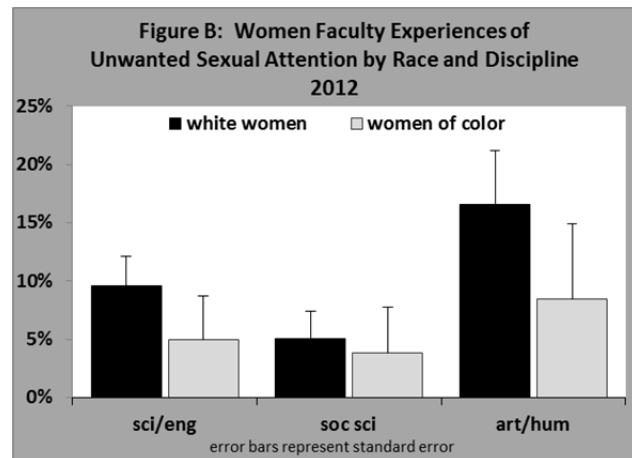
color but not for those in the social sciences. There was no difference in mean scores for gender discrimination for male and female faculty of color in the arts and humanities (perhaps due to small numbers).

UNWANTED AND UNINVITED SEXUAL ATTENTION

GENDER AND RACE-ETHNICITY DIFFERENCES: In 2012 women in science and engineering and in the arts and humanities reported significantly more unwanted sexual attention than their male colleagues. In 2006 women in the social sciences reported significantly more unwanted sexual attention than men but not in 2012 (however, it was a trend).

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: White women in the social sciences were significantly less likely to report experiences of sexual harassment in 2012 compared to 2006. There were no over time differences within faculty race and gender groups in the sciences and engineering and in the social sciences on others' reports of unwanted sexual attention.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In both 2006 and 2012 mean rates of unwanted sexual attention (or others' reports of the same) were not different by gender or race-ethnicity for faculty in science and engineering. There was only one significant difference for social science faculty: women of color were significantly more likely than their male counterparts to report others' experiences of unwanted sexual attention in 2006, but not in 2012. The mean rate of unwanted sexual attention in the arts and humanities was 17% for white women and 9% for women of color in 2012 (see Figure B); white women in this discipline group reported significantly more unwanted sexual attention than their white male colleagues. Rates of individuals' reports of others' experiences of unwanted sexual attention was high for women in the arts and humanities (46% for white women and 47% for women of color; comparable rates for women in the other discipline groups ranged from 15% to 24% in 2012).



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

GENDER AND RACE-ETHNICITY DIFFERENCES: There were no differences in reports of overhearing disparaging comments about racial-ethnic minorities and/or religious groups by gender for the three disciplinary groups in 2012 (or in 2006 for science and engineering and social sciences faculty).

There were differences by race-ethnicity. In science and engineering the mean difference between white faculty and faculty of color was not statistically significant, but it was a trend. When we considered underrepresented minority and Asian and Asian American faculty separately, we found that underrepresented minority faculty in science and engineering were more likely than Asian and Asian American and white faculty to report overhearing disparaging comments about racial-ethnic minorities and religious groups in 2012.

Faculty of color in the social sciences were more likely than white faculty to report overhearing disparaging comments about racial-ethnic minorities and/or religious groups. Further analyses revealed that the difference was between underrepresented minority faculty and white faculty (there was no significant difference between Asian and Asian American and white faculty).

There were no differences on this variable by race-ethnicity for faculty in the arts and humanities.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: White men and women in science and engineering reported overhearing fewer disparaging comments about racial-ethnic minorities and/or religious groups in 2012 compared to 2006; there were no over time differences for faculty of color in science and engineering nor for any faculty in the social sciences.

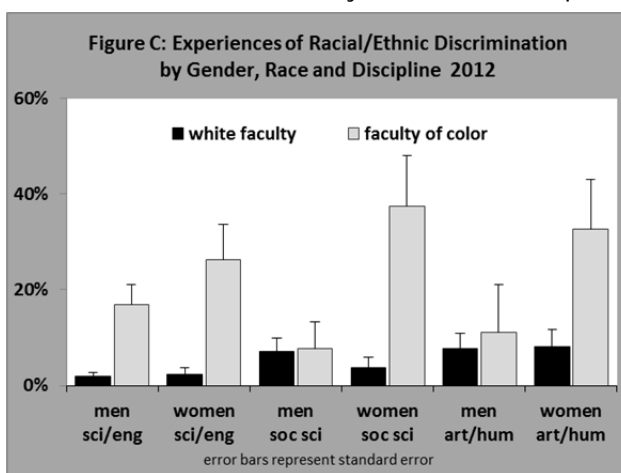
BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In 2012 women of color in the social sciences and in arts and humanities were more likely to report overhearing disparaging comments about racial-ethnic minorities and/or religious groups than their white female colleagues. There were no differences in 2006 for the social science faculty, and no differences for science and engineering faculty in either year.

RACIAL-ETHNIC DISCRIMINATION

As with gender discrimination, survey respondents were asked about their experiences of racial-ethnic discrimination 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 examined a measure of any racial-ethnic discrimination assessed across the six areas.

GENDER AND RACE-ETHNICITY DIFFERENCES: In 2012 Asian-Asian American faculty in all three discipline groups were more likely to report some form of racial-ethnic discrimination than their white colleagues (this was also true in 2006 for science and engineering and social sciences faculty); underrepresented minority faculty in science and engineering and the social sciences also reported this in 2012 and 2006

In the social sciences rates for women of color were significantly higher than those for men of color in 2012. Female faculty of color in this discipline were also more likely to report some form of racial-ethnic discrimination than white women in 2006 and 2012. In 2012 women of color in the arts and humanities were more likely to report some form of racial-ethnic discrimination compared to white women (see Figure C for rates for all gender/race-ethnicity groups). The largest areas of difference for women in both the social sciences and the arts and humanities in 2012 were salary and promotion; for both disciplinary groups, women of



color were more likely than their white female colleagues to report experiences of racial-ethnic discrimination in these two areas.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Reports of racial-ethnic discrimination did not change significantly from 2006 to 2012 for any group for whom we have data.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: Men of color in science and engineering reported more racial-ethnic discrimination compared to white men at both time points, and women of color in science and engineering reported more racial-ethnic discrimination compared to white women in 2012.

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 scale⁶.

GENERAL DEPARTMENT CLIMATE

GENDER AND RACE-ETHNICITY DIFFERENCES: In 2012 women in all three discipline groups rated the general climate less positively than men; these gender differences were also significant in 2006 for faculty in science and engineering and the social sciences.

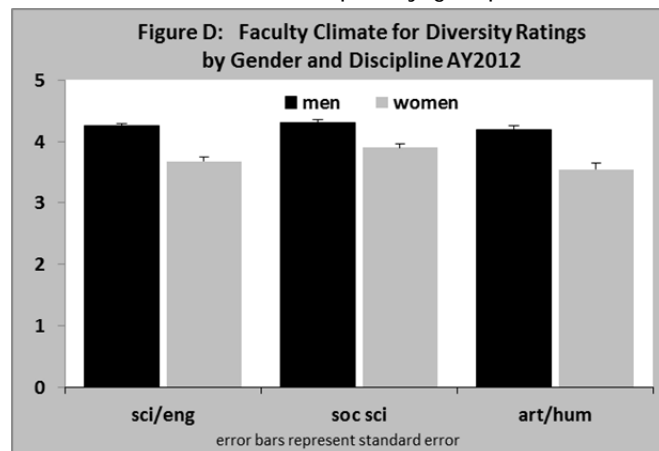
In 2006 underrepresented minority and Asian and Asian American faculty in science in engineering reported a less positive general climate compared to white faculty; there were no significant differences between these groups of faculty on this measure in 2012. There were no significant differences on this measure comparing faculty of color and white faculty in the social sciences in 2006 or 2012, nor comparing the same groups in the arts and humanities in 2012. However, Asian and Asian American faculty to report a less positive general climate than white faculty.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: In the sciences and engineering, all but men of color reported an improved general climate in 2012 compared to 2006. Over time rates were not different for any social science faculty group; however, their 2012 mean scores appear similar to those for the science and engineering faculty.

⁵ The Cronbach alpha for this scale was .65 for all faculty in 2012.

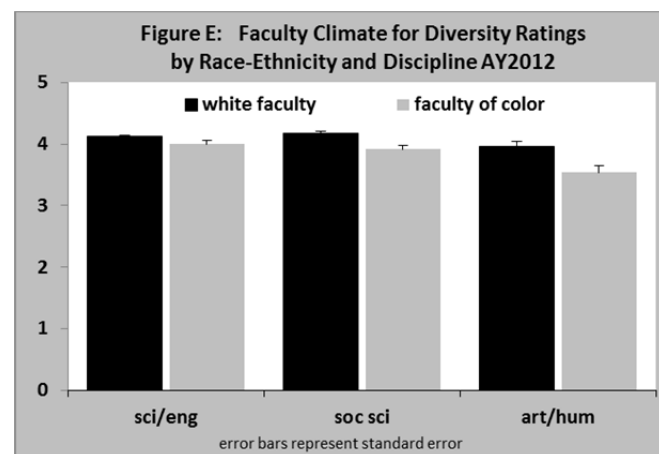
⁶ The Cronbach alpha for this scale was .84 for all faculty in 2012.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In all three disciplinary groups, white men reported a more positive general climate than white women in 2012 (the same was true in 2006 for white science and engineering and social science faculty; see Figure D). Also in 2012 men of color reported a more positive general climate compared to women of color in arts and humanities (see Figure E). In the sciences and engineering men of color and white women reported a more positive general climate compared to women of color in 2006 but not in 2012. In the social sciences white men reported a more positive general climate compared to men of color in 2012.



DEPARTMENT CLIMATE RELATED TO GENDER AND RACE-ETHNICITY

The differences in the general climate scores are also reflected in similar differences in the climate for diversity score, revealing both gender and race-ethnicity differences, but also demonstrating some improvement in the climate, especially in the sciences and engineering.



GENDER AND RACE-ETHNICITY DIFFERENCES: In 2012 women in all three disciplinary groups reported a less positive climate for diversity compared to their male colleagues (results were identical in 2006 for science and engineering and social science faculty); see Figure D.

In 2006 and 2012 science and engineering faculty of color reported a less positive climate for diversity compared to their white colleagues (see Figure E). Specifically, mean scores for underrepresented minority faculty were lower than those for white faculty at both times; in 2006 (but not 2012) mean scores for Asian and Asian American faculty were also lower than those for white faculty.

In 2006 and 2012 faculty of color in the social sciences also reported a less positive climate for diversity than white faculty. This difference can be attributed to significant differences between underrepresented minority faculty and white faculty at both time points (there were no statistically significant differences on this measure comparing Asian and Asian American and white faculty).

Similarly, faculty of color in the arts and humanities reported a less positive climate for diversity compared to white faculty in 2012; however, in this case the difference can be attributed to a significant

difference between Asian and Asian American faculty and white faculty (there was no difference comparing underrepresented minority faculty and white faculty).

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: In the sciences and engineering, all four gender/race-ethnicity groups reported an improved climate for diversity in 2012 compared to 2006.

In the social sciences, the mean rating for women of color was significantly higher in 2012 compared to 2006; there were no changes in mean ratings for the other three groups.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In 2012 white women rated the department climate for diversity less positively than their male colleagues in all three disciplinary groups (in 2006 white women's average scores were also significantly lower than those for white men in science and engineering and the social sciences). In 2006 white women reported a more positive climate for diversity than women of color in science and engineering and in social sciences; there were no differences between these two groups of women in 2012 in any disciplinary group. In science and engineering and the social sciences men of color reported a less positive climate for diversity than white men at both time points. However, they reported a more positive climate for diversity than women of color in 2006 and 2012 in science and engineering and in 2012 in arts and humanities.

DO THESE DIFFERENCES IN CLIMATE MATTER?

It is fair to ask whether the differences we have found in the climate as experienced by women and faculty of color in these discipline groups really matter. It is always difficult to address the question of the magnitude of a difference found on a survey scale as the absolute values (from 1 as low, or negative to 5 as high, or positive) do not correspond to any external standard (the way the values on a thermometer do). One way of getting at this is to look at the middle of the distributions in absolute terms. Across discipline group and race-ethnicity differences, the median rating for women of the total climate score (combined general climate and climate for diversity scale) was midpoint between 3 and 4 (3.60) on a five-point scale while the mean rating for men was closest to 4 (4.07).

Equally, we can examine the distribution of scores along the scale. When we examine the four gender/race-ethnicity groups separately for the three discipline groups we find a similar pattern within each discipline group – where far more men than women rate the climate above 4, and far more women than men rate the climate below 3 (especially for faculty in the arts and humanities; see Figures F, G, and H on the next page).

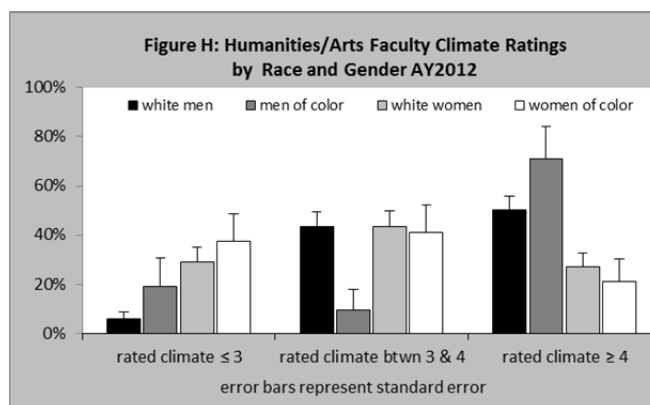
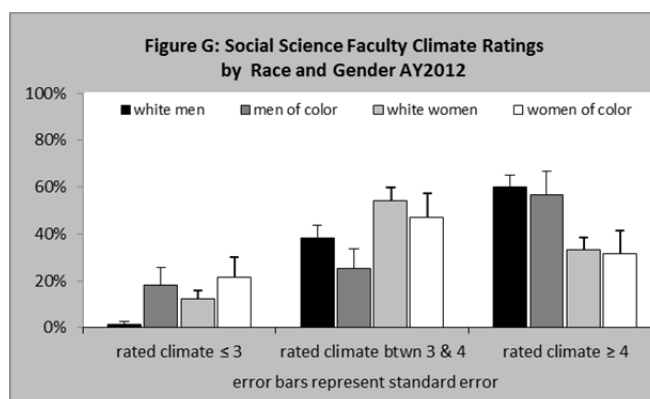
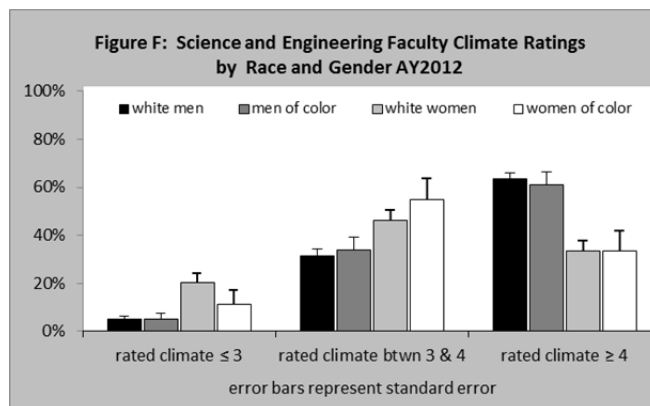
On the basis of these findings, we believe it is reasonable to conclude that the difference in felt climate between men and women across the three discipline groups is meaningful. The difference between white and minority women is also worth noting. A similar assessment was carried out using two different climate scores (one created by averaging the four scales assessing climate specifically related to gender and/or race-ethnicity and one created by averaging the five scales assessing climate more

generally). These analyses suggest an even more negative climate for women and faculty of color compared to white men when assessing climate scores specifically related to gender and race-ethnicity.

WORK SATISFACTION (TABLE 4A-C)

Another way to evaluate the importance of the climate differences is to examine work satisfaction. Work satisfaction was assessed with 12 items (e.g., how satisfied I am with sense of being valued for my research, scholarship, or creativity by members of my department/unit or sense of being valued as a teacher by my students). These items were also combined to create an overall work satisfaction score.

GENDER AND RACE-ETHNICITY DIFFERENCES: In 2012 women in science and engineering as well as the arts and humanities reported lower overall work satisfaction compared to their male counterparts; women in science and engineering and the social sciences reported lower satisfaction in 2006. There were no differences on this measure comparing faculty of color and white faculty in science and engineering and the social sciences. Asian and Asian American faculty in the arts and humanities reported lower work satisfaction compared to white and underrepresented minority faculty in 2012.



WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: In science and engineering women of color and white men showed improved work satisfaction in 2012 compared to 2006. Ratings for women of color also improved in seven of the 12 areas that comprise the overall measure (including sense of being valued as a teacher and mentor and for their research). White women showed no overall increase in their work satisfaction; however, they reported higher levels of satisfaction in three areas: opportunity to collaborate with other faculty, amount of social interaction with colleagues, and sense of being valued as a mentor by their students. Men of color in the sciences and engineering reported higher satisfaction in one area in 2012: level of funding for their research.

There were no differences in the overall work satisfaction measure for faculty in the social sciences from 2006 to 2012, and only a single item was different for one group: white women reported higher satisfaction with their current salary in 2012.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: White men in science and engineering rated their overall work satisfaction significantly higher than white women in 2012 and 2006. Specifically, they reported higher satisfaction in nine of the 12 areas comprising overall work satisfaction in 2012, including: sense of being valued for their research by colleagues, sense of contributing to theoretical developments in their discipline groups, and opportunity to collaborate with other faculty. In 2006 male faculty of color in science and engineering reported higher overall work satisfaction compared to female faculty of color and also higher satisfaction on several of the areas comprising the overall work satisfaction measure. In 2012 there were no gender differences in the overall measure or in any of the individual areas for the faculty of color in science and engineering.

In the social sciences and arts and humanities there were no differences on the overall work satisfaction measure between any two groups.

OVERALL CAREER SATISFACTION (TABLE 5A-C)

Overall career satisfaction was assessed with one item: how satisfied are you with your current position at UM?

GENDER AND RACE-ETHNICITY DIFFERENCES: In 2006 men reported higher overall career satisfaction compared to women in science and engineering and the social sciences. There were no statistically significant gender differences on this variable for faculty in all three discipline groups in 2012.

There were no race-ethnicity group differences that reached statistical significance for science and engineering faculty in 2006 and for science and engineering faculty as well as arts and humanities faculty in 2012. In the social sciences underrepresented minority faculty reported lower overall career satisfaction compared to white faculty in 2006; however, as with the other two disciplinary groups, there were no race-ethnicity differences on this variable in 2012.

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: For science and engineering faculty there was only one over time difference: women of color reported higher average overall career satisfaction in 2012 compared to 2006. In the social sciences both male and female faculty of color reported higher satisfaction in 2012.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: Group comparisons for science and engineering faculty revealed two differences in 2012: men of color and white women reported lower overall career satisfaction compared to white men (white women also reported lower levels in 2006 compared to white men). Men of color reported higher overall career satisfaction compared to women of color in 2006; however, there was no difference between these two groups in 2012.

Social science group comparisons revealed no differences in 2012. In 2006 white men reported higher overall career satisfaction than men of color and white women. There were no significant group differences in 2012 on overall career satisfaction for faculty in the humanities.

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 you would like to stay at UM for your entire career, and how often do you think about leaving UM. These were combined to create a scale assessing intention to leave.

GENDER AND RACE-ETHNICITY DIFFERENCES: There were no significant gender or race-ethnicity differences in intention to leave UM in the three disciplinary groups in 2012 (nor for science and engineering and social science faculty in 2006).

WITHIN GENDER/RACE-ETHNICITY GROUPS OVER TIME: Over time comparisons for science and engineering faculty revealed that all groups except men of color were less likely to indicate a desire to leave UM in 2012 compared to 2006. In contrast, for social science faculty, there were no differences except for white women: they were less likely to express an interest in leaving in 2012.

BETWEEN GENDER/RACE-ETHNICITY GROUPS WITHIN TIME: In science and engineering white men were less likely than white women to report a desire to leave UM in 2012 and in 2006. Men of color were also less likely to report this in 2006 compared to women of color, but there was no difference between men and women of color in 2012. There were no group differences on this measure for social science faculty at either time point. And the only difference for humanities faculty was for faculty of color: men of color were less likely than women to report an interest in leaving UM.

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

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 white men and white women in all three disciplinary groups in 2012, and also for white science and engineering and social science faculty in 2006. The same pattern 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 both groups of white faculty in the three discipline groups in 2012 (and for science and engineering and social science faculty in 2006).

The pattern was similar for faculty of color but not quite as strong or consistent over time. In science and engineering, work satisfaction and overall climate were positively correlated with overall career satisfaction for men of color in 2012 and 2006; in the case of women of color work satisfaction was correlated in the expected direction with overall career satisfaction at both time points, but overall climate was only correlated in 2006. Work satisfaction and overall climate were both negatively correlated with intention to leave UM in 2012 for men of color in science and engineering; only overall

climate was significantly correlated in 2006. Neither measure was correlated with intention to leave UM for women of color in 2012 or 2006.

For social science faculty of color, both work satisfaction and overall climate were associated positively with overall career satisfaction for men and women in 2012; in 2006 only overall climate was associated with overall career satisfaction and only for women of color. Both measures were negatively correlated with intention to leave UM for men of color at both time points; neither was correlated at either time point for women of color.

Finally, in the arts and humanities, both work satisfaction and overall climate were significantly and positively correlated with overall career satisfaction for men and women of color in 2012. Neither measure was correlated with intention to leave UM for faculty of color.

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. There was only one significant association, however, for women of color across the three discipline groups: gender discrimination was negatively correlated with overall career satisfaction for women of color in science and engineering in 2012.

Racial-ethnic discrimination was significantly correlated with overall career satisfaction and desire to leave UM in the expected directions for men of color in science and engineering in 2012, but not for women of color. Neither overall career satisfaction nor intention to leave was associated with racial-ethnic discrimination for faculty of color in the social sciences and arts and humanities.

SUMMARY OF FINDINGS

UNIVERSITY CLIMATE INDICATORS

SCIENCE AND ENGINEERING FACULTY

The University climate indicators reflected little in the way of improvement for science and engineering women and faculty of color. Rates of gender discrimination were similar for women of color and white women at both time points, and both continued to report more gender discrimination than their male counterparts, especially in the areas of promotion, salary, and space/equipment and other resources. White women were less likely to report overhearing disparaging comments about women in 2012 than in 2006, but they were more likely to report such events compared to white men at both time points. There were, however, no differences between white women and white men, as well as women of color and men of color, in rates of unwanted sexual attention at either data collection point.

Reports of racial-ethnic discrimination did not change for faculty of color from 2006 to 2012. In 2006 and 2012 both underrepresented minority and Asian and Asian American faculty were more likely to report some form of racial-ethnic discrimination compared to their white colleagues. Underrepresented minority faculty were also more likely to report overhearing disparaging comments about racial-ethnic minorities and/or religious groups than white and Asian and Asian American faculty in 2012 (but not in 2006).

SOCIAL SCIENCE FACULTY

There were some signs of improvement in the University climate, particularly in the area of gender discrimination, for faculty in the social sciences. Specifically, women of color were significantly less likely to report some form of gender discrimination in 2012 compared to 2006 (there was no difference in reported rates for white women). Both groups of women were more likely to report some form of gender discrimination than their male counterparts in 2006; only white women were significantly more likely to do so in 2012. White women were also more likely than white men to report overhearing disparaging comments about women at both time points. However, the rate of unwanted sexual attention was significantly lower for white women in 2012 compared to 2006.

Reports of racial-ethnic discrimination did not change for faculty of color from 2006 to 2012 and faculty of color were more likely than white faculty to report racial-ethnic discrimination at both time points and overhearing disparaging comments about racial-ethnic and/or religious groups in 2012. Women of color were more likely to report some form of racial-ethnic discrimination compared to men of color and white women, and reported overhearing more disparaging comments about racial-ethnic minorities and/or religious groups than white women, in 2012.).

ARTS AND HUMANITIES FACULTY

The University climate appears less positive in some areas for women and faculty of color. Specifically, white women were more likely to report felt gender discrimination and experiences of unwanted sexual attention than white men. Women of color were more likely to report some form of racial-ethnic

discrimination, especially in the areas of salary and promotion, and to report overhearing disparaging comments about racial-ethnic minorities and/or religious groups, compared to white women. And women of color also were more likely than men of color to report overhearing disparaging comments about women in 2012. Asian and Asian American faculty in the arts and humanities, in particular, were more likely than white faculty to report both gender and racial-ethnic discrimination.

DEPARTMENT CLIMATE INDICATORS

SCIENCE AND ENGINEERING FACULTY

All but men of color in science and engineering reported an improved general department climate in 2012 compared to 2006; rates for women of color in particular showed an improvement in the climate relative to their colleagues. And all four groups reported an improved climate for diversity in 2012.

White women rated the general department climate as well as the climate for diversity less positively than white men in 2006 and 2012. At the same time, white women rated both more positively than women of color in 2006; however, mean ratings of both climate measures were not different for the two groups of women in 2012. And mean ratings of the general department climate in 2012 were not different comparing men of color to either white men or women of color; however, men of color reported a less positive climate for diversity compared to white men and a more positive climate for diversity compared to women of color at both time points. Some of this difference may be explained by the finding in 2006 and 2012 that underrepresented minority faculty reported a less positive climate for diversity compared to white faculty.

SOCIAL SCIENCE FACULTY

There were no over time improvements in the ratings of the general climate for the four gender/race-ethnicity groups in the social sciences. However, mean ratings of white men were significantly higher than those of white women in 2012 and 2006 and of men of color in 2012.

Women of color (but no other group) reported an improved climate for diversity in 2012 compared to 2006. Nevertheless, white men reported a more positive climate for diversity than white women and men of color in 2006 and 2012. It is also important to note that white faculty reported a more positive climate for diversity than underrepresented minority faculty at both time points.

ARTS AND HUMANITIES FACULTY

In 2012 men (both white men and men of color) reported a more positive general climate, as well as climate for diversity, than their female faculty counterparts in the arts and humanities. White faculty reported a more positive climate for diversity compared to faculty of color in 2012; this difference may be attributed to a significant difference between the rating of Asian and Asian American and white faculty (there was no statistically significant difference comparing underrepresented minority and white faculty).

CAREER SATISFACTIONS

SCIENCE AND ENGINEERING FACULTY

Measures of work satisfaction reflected an improvement for women of color in science and engineering. Women of color reported significantly higher work satisfaction in 2012 compared to 2006 and reported higher average rates on seven of the 12 individual measures that comprise the overall work satisfaction scale. Their level of work satisfaction was not significantly different from that of men of color or white women in 2012 (in 2006 it was lower than that for men of color). In 2012 women of color were more likely to report a sense of being valued for their teaching and for their research by colleagues compared to white women.

White men reported significantly higher work satisfaction in 2012 compared to 2006. They also reported higher overall work satisfaction than white women both years, and in 2012 reported more positive scores on nine of the 12 individual measures that comprise the overall measure compared to white women. White men were also more likely to report satisfaction with their salary and sense of being valued for their research compared to men of color in 2012.

Women of color reported significantly higher overall career satisfaction in 2012 compared to 2006, and all but men of color were less likely to report an intention to leave UM. White women were more likely to report an intention to leave UM, and less likely to indicate overall career satisfaction, compared to white men in both 2006 and 2012. The same pattern of findings held for women of color in 2006 compared to men of color; there were no significant differences between these groups in 2012. Men of color were less likely to report overall career satisfaction compared to white men in 2012.

SOCIAL SCIENCE FACULTY

Reported rates of overall work satisfaction did not change from 2006 to 2012 for any of the four gender/race-ethnicity groups, nor were there differences between groups within time on this measure for social sciences faculty. However, both men and women of color reported higher overall career satisfaction in 2012 compared to 2006, and white women were less likely to report an interest in leaving UM in 2012. In addition, white men reported higher overall career satisfaction in 2006 than white women and men of color; however, there were no group differences in 2012.

ARTS AND HUMANITIES FACULTY

There were no differences in the levels of work satisfaction or overall career satisfaction between the four gender/race-ethnicity groups in 2012. Men of color were less likely to express a desire to leave UM compared to women of color.

CONCLUSIONS

The findings suggest some aspects of the **broader University climate** are less welcoming for women and faculty of color. Across disciplinary groups, women, particularly white women, were more likely than their male colleagues to report experiences of some form of gender discrimination. However, the rate of reported gender discrimination decreased between 2006 and 2012 for women of color in the social sciences. The findings related to experiences of unwanted sexual attention were mixed: rates of their own and others' reports of sexual harassment were not significantly different for science and engineering faculty, but rates of both decreased for white women in the social sciences. Moreover, white women in the arts and humanities were more likely than their white male colleagues to report experiences of sexual harassment, and in this same disciplinary group, women's reporting of others' reports of sexual harassment were high in 2012.

Rates of racial-ethnic discrimination did not change over time for faculty in science and engineering and the social sciences, and faculty of color were also more likely than their white colleagues to report experiences of racial-ethnic discrimination across the disciplinary groups. In reviewing the findings related to race-ethnicity, it is important to note that the sample size for faculty of color was relatively small, and that with the statistical power of a larger sample more differences might have emerged.

Department climate also appears to be experienced differently by women and faculty of color. Across disciplinary groups white men reported a more positive general climate as well as climate for diversity in 2012 compared to white women; men of color reported a more positive climate for diversity compared to their female counterparts in science and engineering and the arts and humanities.

Faculty of color continued to report a less positive climate for diversity compared to white faculty. In the case of science and engineering and social science faculty in 2012, that finding can be attributed to a significant difference between the ratings for underrepresented minority faculty and white faculty on this measure (there were no differences comparing Asian and Asian American and white faculty). In the case of arts and humanities faculty the difference can be accounted for by a significant difference in the mean ratings of Asian and Asian American faculty and white faculty (there was no difference in the ratings of underrepresented minority and white faculty in the arts and humanities).

There were, however, some signs of improvement in the department climate in the over time data. All four gender/race-ethnicity groups in science and engineering and women of color in the social sciences reported an improved climate for diversity in 2012 compared to 2006, and mean ratings of the general climate were higher for all but men of color in science and engineering.

Assessment of **career satisfaction** revealed improved satisfaction for faculty in the sciences and engineering (particularly for women of color). All but men of color reported less interest in leaving UM in 2012. However, white men reported higher overall career satisfaction and less interest in leaving UM

than white women at both time points. And men of color reported less career satisfaction than white men.

There were few differences in overall career satisfaction among social science faculty; however, men and women of color reported higher overall career satisfaction in 2012 compared to 2006, and white women were less likely to report an intention to leave. Finally, men of color in the arts and humanities were less likely than their female colleagues to report the same.

The overall findings from the survey indicate that the climate is relatively positive for white male faculty in all disciplinary groups, but less so for white women and faculty of color. Nevertheless, the faculty members' reports suggest an improved department climate for faculty in the sciences and engineering and increased career satisfaction for women of color in this discipline and a decreased desire to leave the University for them and for both groups of white faculty.

In the social sciences there were few climate related or career satisfaction differences; in most instances they reflected a more positive situation for white men compared to white women and men of color. However, both men and women faculty of color reported higher overall career satisfaction in 2012.

Faculty in the arts and humanities (for whom we only have 2012 data) generally reported a more positive climate for men, and specifically a more positive climate for white men compared to white women. In addition, Asian and Asian American faculty rated some aspects of the department climate less positively than both white and underrepresented minority faculty. Moreover, white women reported a high rate of unwanted sexual attention compared to white men; they and women of color also reported high rates of reports from others of those kinds of contacts.

These data suggest that many of the same factors influence different groups of faculty members' overall career satisfaction and intention to leave. This pattern—of the same climate features benefiting different groups of faculty (groups differing in race, gender, and discipline)—indicates that improvements in the climate are likely to benefit all faculty, rather than benefiting some perhaps at the expense of others. This appears most evident in the case of science and engineering faculty where ADVANCE has directed its efforts for the longest period of time (since 2001 compared to 2006 for other disciplines); in 2012 we found improved climate ratings for all four gender/race-ethnicity groups of science and engineering faculty and improved career satisfaction for all but men of color.

It should 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.

However, the lack of clear disciplinary differences in 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 support ADVANCE's expanded focus beyond the science and engineering fields. Given the clear relationship between faculty members' ratings of the climate and work satisfaction with their

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overall satisfaction and intention to leave UM, it is important to continue our efforts to improve the campus climate for all faculty. The positive changes evident for faculty in the sciences and engineering suggest that this is possible, but that the process takes time.

Table 1a - Gender Related University Climate Indicators: Means and Percentages for Two Timepoints for Science and Engineering Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006 n=29	2012 n=83	2006 n=26	2012 n=36	2006 n=112	2012 n=349	2006 n=95	2012 n=134
Disparaging comments about women	1.45	1.26	1.65	1.46	1.47	1.31	1.87	1.64
Disparaging comments about men	1.50	1.38	1.32	1.50	1.63	1.40	1.62	1.55
	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012
Gender discrimination	6%	7%	47%	31%	6%	4%	41%	38%
Hiring	2%	3%	8%	6%	2%	1%	6%	12%
Promotion	0%	3%	14%	17%	2%	1%	11%	14%
Salary	4%	5%	41%	25%	3%	2%	32%	31%
Space/equipment, other resources	0%	2%	21%	17%	1%	0%	13%	11%
Access to administrative staff	0%	0%	7%	9%	0%	0%	13%	10%
Graduate student or resident/fellow	2%	2%	12%	8%	0%	1%	8%	6%
Unwanted sexual attention	6%	1%	3%	5%	5%	1%	9%	10%
Individuals reporting others reported unwanted sexual attention	9%	11%	27%	15%	15%	16%	24%	21%

Table 1b - Gender Related University Climate Indicators: Means and Percentages for Two Timepoints for Social Science Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006 n=13	2012 n=27	2006 n=19	2012 n=24	2006 n=57	2012 n=114	2006 n=51	2012 n=89
Disparaging comments about women	1.50	1.38	1.67	1.60	1.43	1.32	1.79	1.62
Disparaging comments about men	1.64	1.39	1.52	1.55	1.63	1.48	1.86	1.61
	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012
Gender discrimination	8%	8%	43%	18%	2%	6%	0%	28%
Hiring	0%	4%	5%	0%	0%	4%	0%	3%
Promotion	0%	4%	10%	0%	0%	2%	0%	9%
Salary	8%	4%	37%	13%	2%	3%	0%	22%
Space/equipment, other resources	0%	4%	10%	4%	0%	0%	0%	8%
Access to administrative staff	0%	0%	10%	5%	0%	0%	0%	2%
Graduate student or resident/fellow	0%	4%	0%	0%	0%	0%	0%	4%
Unwanted sexual attention	8%	4%	10%	4%	4%	0%	0%	5%
Individuals reporting others reported unwanted sexual attention	9%	14%	47%	24%	21%	17%	0%	22%

Table 1c - Gender Related University Climate Indicators: Means and Percentages for One Timepoint for Arts and Humanities Faculty

	men of color mean	women of color mean	white men mean	white women mean
	2012 n=14	2012 n=21	2012 n=88	2012 n=66
Disparaging comments about women	1.32	2.01	1.41	1.73
Disparaging comments about men	1.44	1.70	1.47	1.58
	% 2012	% 2012	% 2012	% 2012
Gender discrimination	11%	48%	6%	41%
Hiring	11%	4%	3%	17%
Promotion	11%	23%	3%	13%
Salary	11%	31%	1%	36%
Space/equipment, other resources	0%	4%	0%	8%
Access to administrative staff	0%	4%	0%	3%
Graduate student or resident/fellow	11%	8%	1%	3%
Unwanted sexual attention	6%	9%	1%	17%
Individuals reporting others reported unwanted sexual attention	25%	47%	34%	46%

Notes: Means and percentages are from weighted data. Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

Table 2a - Race Related University Climate Indicators: Means and Percentages for Two Timepoints for Science and Engineering Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006 n=29	2012 n=82	2006 n=26	2012 n=35	2006 n=112	2012 n=349	2006 n=95	2012 n=133
Disparaging comments about racial-ethnic minorities and/or religious groups	1.35	1.25	1.65	1.31	1.32	1.18	1.40	1.22
	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012
Racial-ethnic discrimination	20%	18%	32%	26%	3%	2%	0%	2%
Hiring	8%	8%	7%	9%	1%	1%	0%	2%
Promotion	8%	6%	21%	17%	1%	1%	0%	1%
Salary	20%	8%	28%	17%	1%	1%	0%	2%
Space/equipment, other resources	8%	5%	17%	23%	0%	0%	0%	2%
Access to administrative staff	8%	5%	4%	9%	0%	0%	0%	1%
Graduate student or resident/fellow assignments	0%	7%	13%	8%	1%	1%	0%	1%

Table 2b - Race Related University Climate Indicators: Means and Percentages for Two Timepoints for Social Science Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006 n=13	2012 n=25	2006 n=19	2012 n=22	2006 n=57	2012 n=89	2006 n=51	2012 n=77
Disparaging comments about racial-ethnic minorities and/or religious groups	1.55	1.45	1.75	1.69	1.45	1.31	1.46	1.34
	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012	% 2006	% 2012
Racial-ethnic discrimination	16%	8%	42%	38%	2%	7%	0%	4%
Hiring	0%	4%	5%	19%	0%	6%	0%	0%
Promotion	0%	4%	16%	14%	0%	2%	0%	3%
Salary	8%	4%	27%	13%	2%	3%	0%	1%
Space/equipment, other resources	8%	0%	5%	10%	0%	0%	0%	0%
Access to administrative staff	8%	0%	5%	15%	0%	0%	0%	0%
Graduate student or resident/fellow assignments	8%	4%	10%	10%	0%	2%	0%	1%

Table 2c - Race Related University Climate Indicators: Means and Percentages for One Timepoint for Arts and Humanities Faculty

	men of color mean	women of color mean	white men mean	white women mean
	2012 n=14	2012 n=21	2012 n=87	2012 n=65
Disparaging comments about racial-ethnic minorities and/or religious groups	1.41	1.73	1.41	1.38
	% 2012	% 2012	% 2012	% 2012
Racial-ethnic discrimination	11%	33%	8%	8%
Hiring	11%	8%	5%	5%
Promotion	11%	16%	3%	3%
Salary	11%	16%	2%	2%
Space/equipment, other resources	0%	8%	0%	0%
Access to administrative staff	0%	4%	2%	0%
Graduate student or resident/fellow assignments	11%	12%	1%	2%

Notes: Means and percentages are from weighted data. Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

Table 3a - Department Climate: Means for Two Timepoints for Science and Engineering Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006	2012	2006	2012	2006	2012	2006	2012
	n=27	n=88	n=25	n=34	n=106	n=355	n=90	n=132
Overall climate	3.68	3.98	2.70	3.68	3.93	4.11	3.38	3.63
General climate:	3.66	3.89	2.76	3.68	3.73	3.94	3.34	3.58
Positive climate	3.56	4.00	2.93	3.99	3.76	4.05	3.33	3.56
Scholarly isolation	2.09	2.13	2.61	2.08	1.98	1.93	2.33	2.19
Felt surveillance	2.33	2.42	3.40	2.57	2.35	2.07	2.88	2.61
Department chair as fair	3.61	3.95	2.52	3.58	3.68	3.88	3.31	3.52
Department chair creates positive environment	3.46	3.85	2.50	3.53	3.50	3.84	3.28	3.59
Climate for diversity:	3.81	4.15	2.64	3.63	4.14	4.29	3.42	3.70
Tolerant climate	4.01	4.14	3.03	3.89	4.09	4.30	3.48	3.78
Gender egalitarian atmosphere	3.78	4.15	2.84	3.56	3.97	4.26	3.08	3.47
Tokenism	2.18	1.99	3.46	2.73	1.61	1.54	2.71	2.29
Department chair committed to racial-ethnic diversity	3.94	4.13	2.30	3.68	3.97	4.14	3.74	3.81

Table 3b - Department Climate: Means for Two Timepoints for Social Science Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006	2012	2006	2012	2006	2012	2006	2012
	n=13	n=27	n=18	n=23	n=54	n=109	n=47	n=88
Overall climate	3.66	3.83	3.42	3.65	4.11	4.19	3.48	3.72
General climate:	3.67	3.66	3.45	3.57	3.92	4.39	3.33	3.56
Positive climate	3.75	3.79	3.43	3.67	3.79	4.26	3.20	3.61
Scholarly isolation	2.32	2.08	2.32	2.38	1.92	4.21	2.43	2.14
Felt surveillance	2.87	2.49	2.89	2.67	2.21	1.34	2.75	2.45
Department chair as fair	3.84	3.52	3.57	3.62	4.06	4.22	3.42	3.44
Department chair creates positive environment	3.93	3.53	3.32	3.59	3.91	0.00	3.35	3.36
Climate for diversity:	3.70	4.05	3.40	3.75	4.31	4.39	3.69	3.94
Tolerant climate	3.85	4.10	3.65	3.81	4.26	4.26	3.76	3.96
Gender egalitarian atmosphere	3.68	4.20	3.21	3.61	4.08	4.21	3.16	3.68
Tokenism	2.50	2.06	2.88	2.11	1.60	1.34	1.99	1.92
Department chair committed to racial-ethnic diversity	4.15	3.96	3.55	3.52	4.46	4.22	3.90	4.10

Table 3c - Department Climate: Means for One Timepoint for Arts and Humanities Faculty

	men of color mean	women of color mean	white men mean	white women mean
	2012	2012	2012	2012
	n=14	n=20	n=81	n=63
Overall climate	3.88	3.18	3.95	3.50
General climate:	3.79	3.20	3.76	3.38
Positive climate	3.55	2.96	3.72	3.43
Scholarly isolation	2.13	2.64	2.05	2.30
Felt surveillance	2.28	3.22	2.29	2.76
Department chair as fair	3.82	3.41	3.78	3.33
Department chair creates positive environment	3.89	3.45	3.65	3.28
Climate for diversity:	4.05	3.24	4.21	3.64
Tolerant climate	3.99	3.26	4.24	3.71
Gender egalitarian atmosphere	4.02	3.20	4.16	3.55
Tokenism	2.19	2.97	1.68	2.39
Department chair committed to racial-ethnic diversity	4.24	3.58	4.18	3.79

Notes: Means and percentages are from weighted data. Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

Table 4a - Overall Work Satisfaction: Means for Two Timepoints for Science and Engineering Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2006 n=29	2012 n=84	2006 n=26	2012 n=36	2006 n=111	2012 n=354	2006 n=95	2012 n=133
Overall work satisfaction	3.80	3.88	3.41	4.04	3.86	4.02	3.58	3.77
Opportunity to collaborate with other faculty	4.25	4.33	3.99	4.31	4.40	4.50	3.91	4.28
Amount of social interaction with members of department/unit	3.80	3.82	2.68	3.87	3.73	3.88	3.14	3.56
Level of funding for research or creative efforts	3.05	3.75	3.35	3.80	3.45	3.65	3.34	3.41
Current salary in comparison with the salaries of UM colleagues	3.22	3.44	2.72	3.66	3.62	3.81	3.25	3.37
Ability to attract students to work with me	3.98	3.66	3.54	3.74	3.76	3.90	3.40	3.71
Sense of being valued as a teacher by students	4.25	4.14	3.99	4.30	4.18	4.30	4.05	4.29
Sense of being valued as a mentor or advisor by students	4.33	4.40	4.18	4.55	4.47	4.46	4.24	4.61
Sense of being valued for my teaching by members of department/unit	3.90	3.68	2.83	3.95	3.66	3.89	3.51	3.47
Sense of being valued for research, scholarship, or creativity by members of department/unit	3.78	3.73	2.86	4.11	3.70	3.98	3.40	3.58
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	3.77	3.72	3.02	4.01	3.87	4.02	3.48	3.69
Sense of contributing to theoretical developments in my discipline	4.16	4.08	4.20	4.25	4.21	4.29	3.86	4.07
Balance between professional and personal life	3.51	3.59	2.74	3.24	3.51	3.64	3.01	3.21

Table 4b - Overall Work Satisfaction: Means for Two Timepoints for Social Science Faculty

	men of color		women of color		white men		white women	
	mean		mean		mean		mean	
	2006 n=13	2012 n=27	2006 n=19	2012 n=24	2006 n=56	2012 n=115	2006 n=51	2012 n=91
Overall work satisfaction	3.80	4.08	3.63	3.77	3.98	3.91	3.73	3.95
Opportunity to collaborate with other faculty	4.01	4.39	3.94	3.77	4.26	4.24	4.03	4.07
Amount of social interaction with members of department/unit	3.77	4.07	3.57	3.79	3.92	3.84	3.55	3.68
Level of funding for research or creative efforts	3.77	3.89	3.32	3.50	3.68	3.92	3.58	3.78
Current salary in comparison with the salaries of UM colleagues	2.85	3.64	2.78	3.20	3.35	3.40	3.05	3.71
Ability to attract students to work with me	3.98	3.81	3.22	3.54	4.00	3.68	3.71	3.83
Sense of being valued as a teacher by students	4.22	4.32	4.50	4.40	4.40	4.27	4.25	4.38
Sense of being valued as a mentor or advisor by students	4.61	4.50	4.70	4.36	4.52	4.45	4.61	4.58
Sense of being valued for my teaching by members of department/unit	3.63	4.18	3.59	4.04	3.99	3.88	3.60	3.97
Sense of being valued for research, scholarship, or creativity by members of department/unit	4.09	4.03	3.40	3.83	4.13	3.83	3.70	3.74
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	3.77	3.89	3.49	3.57	4.12	3.77	3.38	3.70
Sense of contributing to theoretical developments in my discipline	3.84	4.46	4.34	4.09	4.24	4.20	4.35	4.29
Balance between professional and personal life	3.11	3.75	3.23	2.99	3.52	3.75	2.86	3.28

Table 4c - Overall Work Satisfaction: Means for One Timepoint for Arts and Humanities Faculty

	men of color	women of color	white men	white women
	mean	mean	mean	mean
	2012 n=15	2012 n=20	2012 n=91	2012 n=66
Overall work satisfaction	3.65	3.30	3.85	3.67
Opportunity to collaborate with other faculty	3.56	2.95	4.04	3.66
Amount of social interaction with members of department/unit	3.22	2.77	3.73	3.58
Level of funding for research or creative efforts	3.33	3.79	3.63	3.35
Current salary in comparison with the salaries of UM colleagues	3.14	3.25	3.20	2.99
Ability to attract students to work with me	3.50	2.83	3.59	3.60
Sense of being valued as a teacher by students	3.81	4.14	4.39	4.47
Sense of being valued as a mentor or advisor by students	4.08	4.06	4.46	4.45
Sense of being valued for my teaching by members of department/unit	3.85	3.54	3.85	3.59
Sense of being valued for research, scholarship, or creativity by members of department/unit	3.85	3.43	3.91	3.68
Level of intellectual stimulation in day-to-day contacts with faculty colleagues	3.19	2.57	3.65	3.46
Sense of contributing to theoretical developments in my discipline	3.81	3.34	4.09	4.14
Balance between professional and personal life	3.11	2.59	3.36	2.87

Notes: Means and percentages are from weighted data. Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.

Table 5a - Overall Career Satisfaction and Desire to Leave UM: Means for Two Timepoints for Science and Engineering Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006	2012	2006	2012	2006	2012	2006	2012
	n=29	n=84	n=26	n=35	n=112	n=352	n=95	n=133
Overall career satisfaction	3.77	3.76	3.20	3.93	3.93	4.09	3.47	3.78
Want to leave	2.59	2.44	3.18	2.45	2.44	2.21	2.82	2.55

Table 5b - Overall Career Satisfaction and Desire to Leave UM: Means for Two Timepoints for Social Science Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2006	2012	2006	2012	2006	2012	2006	2012
	n=13	n=27	n=19	n=24	n=57	n=115	n=50	n=91
Overall career satisfaction	3.10	4.14	3.42	4.12	4.11	4.17	3.63	3.96
Want to leave	3.07	2.47	2.97	2.45	2.54	2.23	3.00	2.51

Table 5c - Overall Career Satisfaction and Desire to Leave UM: Means for One Timepoint for Arts and Humanities Faculty

	men of color mean		women of color mean		white men mean		white women mean	
	2012		2012		2012		2012	
	n=15		n=20		n=91		n=66	
Overall career satisfaction	4.03		3.30		3.91		3.77	
Want to leave	2.40		3.04		2.39		2.59	

Notes: Means and percentages are from weighted data. Ns vary slightly by item; N=max number of responses by group for items in table. Differences may vary slightly due to rounding.