

**Assessing the Academic Work Environment for Science and Engineering Faculty
at the University of Michigan in 2001 and 2006: Gender and Race in
Department- and University-Related Climate Factors**

UM ADVANCE Program

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INTRODUCTION

The University of Michigan was awarded a five-year NSF ADVANCE Institutional Transformation grant in fall, 2001 to focus on recruitment, retention through climate improvement, and promotion of women science and engineering faculty. Over the past five years faculty and staff associated with the program have worked to engage discussion, stimulate new efforts, and develop optimal practices related to these efforts throughout the campus. More recently the focus of UM ADVANCE has broadened to include other underrepresented faculty, especially faculty of color.

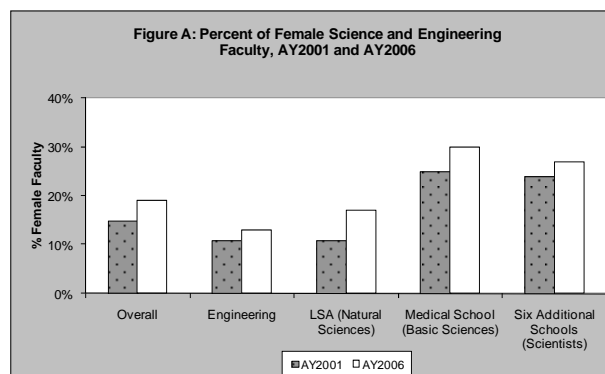
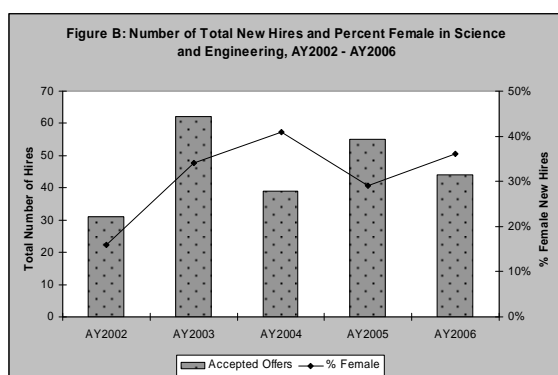
ADVANCE's activities and initiatives have taken place in an "uncontrolled" environment of other activities, issues and events as well as the broader political and social context (e.g., 9/11, the passage of Proposal 2 in Michigan). It is therefore difficult for us to assess precisely the effect of the ADVANCE Program on the UM campus. However, we have collected two sources of information that do allow us to assess change over time and consider ADVANCE's role in any changes that are identified: these are systematically collected institutional data on the status of women and faculty of color at UM; and the UM climate surveys conducted in fall 2001 and fall 2006. The former are particularly useful for considering change over time in each of the three areas of focus: recruitment, retention, and promotion. The two cross-sectional surveys, which provide faculty views of the climate at each of these time periods, allow us to assess how these perspectives may be different in 2006 than they were in 2001, looking particularly at the experiences of women faculty and faculty of color in the sciences and engineering.

In this report we first provide a brief overview of the findings from the institutional data in terms of the three areas of focus: recruitment, retention, and promotion. These may provide a useful context for examining the results of the two climate surveys; findings from the climate survey follow this overview.

INSTITUTIONAL DATA

Recruitment

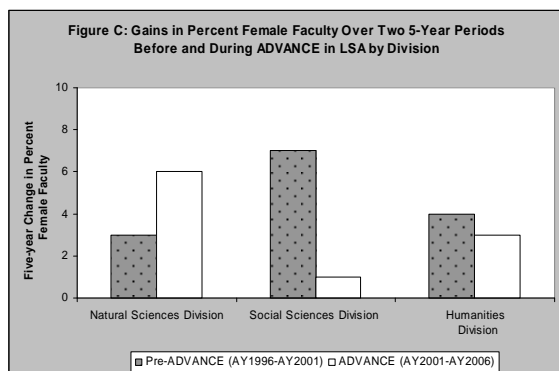
Analysis of UM science and engineering faculty data revealed real progress in the representation of women over the course of the NSF ADVANCE award period. Across the University, the percentage of female science and engineering



faculty increased overall from 15% in AY2001 to 19% in AY2006 (see Figure A¹) in basic science and engineering departments (which were the focus of the NSF award; if we include tenure track faculty in all clinical science departments, the increase is from 18% in 2001 to 23% in 2006).

¹ Note that error bars are not included as the data report values for the entire population.

These gains are due in large part to increased hiring of female faculty. In AY2002 16% of new faculty hires were female; in AY2006 that number had more than doubled to 34% (see Figure B). Considering the proportion of men and women science and engineering faculty hired in each of the three colleges that employ the largest number of scientists and engineers at the University of Michigan (College of Engineering, College of Literature, Science and the Arts, and the Medical School) from the two pre-ADVANCE years (AY2001 and AY2002) compared to the next four years (AY2003 – AY2006), we find significant increase in the proportion of women hired over this time period. Overall the number of science and engineering faculty increased 4% between 2001 and 2006, the number of male faculty decreased overall by 2%, and the number of female faculty increased by 33%.

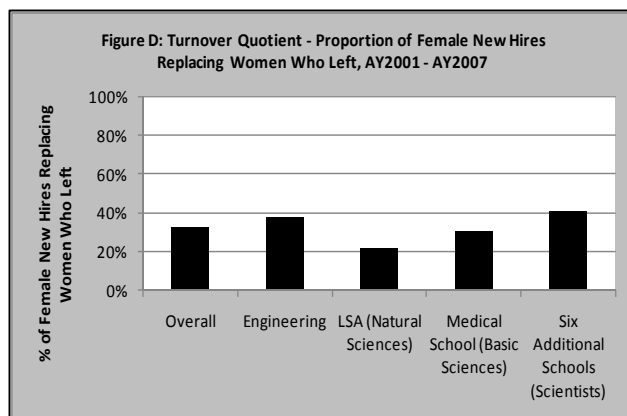


Moreover, while each of the three divisions in the College of Literature, Science, and the Arts (natural sciences, social sciences, and humanities) reported gains in percent female faculty over two five-year periods before and during the ADVANCE Program (1996-2001 and 2001-2006, respectively), the Division of Natural Sciences was the only division to report a larger percent increase during the latter five-year period (i.e., during the first years of ADVANCE) when compared to the earlier period (see Figure C). This constitutes the most direct evidence for the specific impact of ADVANCE.

Retention

One method for evaluating retention is to compare the rates of retention of a single cohort of faculty hired during the same period. We examined a cohort of science and engineering assistant professors hired between 1990 and 1997 (before ADVANCE) and assessed their presence on the faculty as of 2006 (after five years of ADVANCE). Obviously some of those faculty were not affected by the existence of ADVANCE at all. In any case, this analysis, based on a small number of women faculty in particular, revealed similar outcomes by gender in terms of promotion or leaving UM prior to promotion.

Another technique widely used to assess retention focuses less on assistant professors, and more on the question of whether the institution has a “revolving door” with respect to some faculty. That is, in this case, are women in science and engineering being hired and promoted, but not retained as much as men. An assessment of the turnover quotient² for the period 2001-2007 reveals that, overall, 33% of the female hires for this time period went to replacing women who had left, ranging from 22% in the College of Literature, Science, and the Arts (Natural Sciences) to 41% in the six



² To understand the extent to which new hires are simply replacing faculty who have left, Mareno *et al.* (2006) devised the Turnover Quotient. The Turnover Quotient between time 1 and time 2 is defined as 1 minus the ratio of the difference in core faculty between the two times and the total number of new hires during the period time 1 to time 2. That is, $TQ = [1 - (\text{Time 2 faculty count} - \text{Time 1 faculty count}) / N \text{ of new hires}] \times 100$.

smaller with science faculty³; see Figure D. This indicates a relatively successful record of retention for women science and engineering faculty during this period.

Recruitment and Retention of Faculty of Color

Efforts to assess the situation for faculty of color are more recent; however, we have examined hiring of faculty of color over the same time period. The number of minority scientists and engineers (including Asian/Asian American) increased from 232 to 297 from 2001 to 2006; the proportion increased from 15% to 19%. However, the proportion of underrepresented minority scientists and engineers in the population did not change from 2001 to 2006. Similar to women, 39% of new hires went to replace faculty of color who left (50% for underrepresented minorities).

Promotion and Leadership

We find that the percent of female science and engineering faculty at the associate and full professor ranks has increased from AY2001 to AY2006 (from 23% to 27% in the case of associate professors and from 7% to 11% in the case of full professors). However, the percentage of female science and engineering faculty at the assistant professor rank has remained steady at 26% during this same time period.

There are other indications that female science and engineering faculty participate in some activities at about the same rate as their male colleagues (e.g., in tenure and promotion reviews), though not necessarily in all schools and colleges; and that more of them are being asked to chair departments than were asked in the past (the number has increased from one to seven during the award period).

CLIMATE SURVEY

History of the Project

During the fall of 2001, staff at the Institute for Research on Women and Gender (IRWG) administered the University of Michigan Survey of Academic Climate and Activities; a final report from that study, released in fall 2002, is available on the UM ADVANCE website⁴. In January 2004 analyses of the initial 2001 survey data assessing the climate for faculty of color were reported and a further qualitative study of the climate for faculty of color was reported in September 2006⁵. The results from these studies, which generally documented a relatively more negative work environment for women and minority scientists and engineers than for white men, 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 initial survey findings have informed the design and implementation of ADVANCE initiatives at UM.

In fall 2006, a second survey was conducted to assess change in the campus work environment for scientists and engineers at the completion of the five-year NSF supported period of UM's ADVANCE Program. This study was a cross-sectional comparison with the initial 2001 survey data; the initial study

³ The six schools are Dentistry, Information, Kinesiology, Natural Resources, Pharmacy, and Public Health. Because the demographic features are so different in Nursing, this school was not included in the institutional data assessment. However, faculty from all seven schools were included in the climate study analyses.

⁴ <http://www.umich.edu/~advproj/climatereport.pdf>; for tables reporting results of analyses using sampling weights, <http://www.umich.edu/~advproj/weightedanalysis.htm>

⁵ Both reports are available on the ADVANCE website: <http://www.umich.edu/~advproj/S&E%20Race-Ethnicity%20Report.pdf> and http://www.umich.edu/~advproj/ncid/NCIDqualstudyreport_final.pdf

was anonymous and therefore no longitudinal follow-up of identical people was possible. About one-third of the 2006 survey respondents indicated that they had participated in the 2001 study. Another third indicated that they had not, and the remaining respondents were not sure. Because the study was cross-sectional, the new sample (like the original one) includes faculty on campus at the time of the survey, regardless of whether they had been on campus for the entire preceding five-year period.

Goal for the Study

Our goal for this climate study was again to observe how scientists and engineers experience their working environments at UM. The first climate study surveyed women and men scientists and engineers as well as women social scientists. The same design was incorporated in the follow-up study, and included men social scientists as well. However, this report is limited to assessment of the science and engineering tenure track faculty at the two points in time (2001 and 2006)^{6,7}.

The initial study and the 2006 replication discussed in this report were initiated under the assumption 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 and assess how well they 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 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.

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. For example, a particular woman faculty member may feel the climate in her department is quite positive. If that’s so, that is great. But the aggregate data suggest that women, *on average*, find the climate less positive than their male peers. 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 science and engineering faculty experience their departments as positively as male science and engineering faculty.

⁶ In the initial study we added a secondary design analyzing appointment track and gender. This allowed us to compare the experiences of male and female scientists and engineers on the tenure, primary research and clinical tracks. Research and clinical track faculty in the sciences and engineering as well as the social sciences were also surveyed for the follow-up study. However, 2006 response rates for these groups were too low to permit us to replicate the analyses completed at Time 1. This report, then, only addresses findings from the instructional, or tenure track faculty respondents.

⁷ A subsequent report will assess results of analyses by discipline (science and engineering and social science) in the 2006 data.

Sample

The target sample of tenure track faculty surveyed for this study and reported on here included the following groups of faculty with paid appointments at the University of Michigan-Ann Arbor as of August, 2006:

- All female tenure track science and engineering faculty at or above the rank of assistant professor (N=352).
- Random subsample of male tenure track science and engineering faculty at or above the rank of assistant professor, stratified by race and rank (N=620).

Due to the small number of faculty of color in academic science and engineering at the University of Michigan, the ADVANCE Evaluation Advisory Committee⁸ recommended oversampling faculty of color, both to yield numbers large enough to permit analysis by race-ethnicity, and to protect confidentiality. We therefore included nearly all faculty of color from underrepresented groups (African Americans, Latinos and Native Americans) in the target sample and a substantial random sample of the Asians and Asian Americans. A total of 208 faculty of color were surveyed.

The target sample was drawn from all science and engineering faculty on the UM campus. This included faculty from the three largest schools with science and engineering faculty (Engineering, LSA, and Medicine) as well as seven smaller schools (Dentistry, Information, Kinesiology, Natural Resources, Nursing⁹, Pharmacy and Public Health).

Questionnaire Design

The 2006 University of Michigan Survey of Academic Climate and Activities is a 14-page survey focusing on institutional and unit/department climate (see Appendix A for a copy of the survey). There are additional sections on professional employment, teaching, resources, career satisfaction, recognition, productivity, personal life, and demographics included to help us assess equivalence of faculty experiences. The survey generally replicates the 2001 survey to enable overtime comparisons. Minor changes and modifications were suggested by the ADVANCE Program's evaluation advisory committee to address problems identified with the original survey. This report focuses exclusively on those questions that were available at both times and that address faculty experiences of the climate. Future reports will address other areas and include the additional questions added in 2006.

As was true for the initial study, due to the sensitivity of the information collected and the limited number of women scientists and engineers and faculty of color in most science and engineering departments and colleges, the ADVANCE Steering Committee and Evaluation Advisory Committee advised that survey responses should continue to be anonymous, as well as confidential. No identification number connects surveys to the potential respondents. To further preserve anonymity, the questionnaire did not ask faculty to identify their appointing department(s), but only their school or college. This step was critical, since some individuals would be completely identifiable if she or he identified her/his department, gender and race-ethnicity.

⁸Members of the Evaluation Advisory Committee are Deborah Carter (Education), Mark Chesler (Sociology), Mary Corcoran (Political Science, Public Policy, Social Work, Women's Studies), Paul Courant (University Librarian and Dean of Libraries, Public Policy, Economics), Ann Lin (Public Policy, Political Science), Richard Gonzalez (Psychology), Janet Lawrence (Higher Education), Valerie Lee Education), and Yu Xie (Sociology).

⁹The demographic makeup of the Nursing school is quite different from the other schools. However, because preliminary analyses excluding Nursing school respondents were comparable to analyses in which they were included, we decided to keep respondents from all schools in the analysis sample.

Data Collection and Response Rate

The survey was initially sent via e-mail to 1,120 instructional track faculty members¹⁰ during the week of September 18, 2006. The survey was attached to the e-mail in the form of a writable PDF document that recipients could either download and return via campus mail or submit electronically when completed. It was anticipated that a PDF document would facilitate those who preferred an on-line survey and allow respondents to save the document on their computers and complete it as they had time. Unfortunately, although our inquiries indicated that all faculty had access to the necessary PDF software, that turned out not to be the case. In response to respondent reports of difficulties, we subsequently produced the survey in two additional forms: a paper document that was mailed to the entire sample (the procedure followed in the initial survey) and a web survey form (that required respondents to complete the survey in one sitting). The sample was informed of the additional methods for completing the survey on October 25 and the paper surveys were mailed that same week. As of the end of December 2006 we received 349 responses from tenure track faculty, representing an overall response rate of 31%.

This response rate is disappointing, though not atypical of surveys of this kind (that is, surveys of similar length administered to persons of high status, such as university faculty). We cannot be sure what all the factors were that contributed to this response rate, but we suspect that length, as well as the awkward distribution difficulties, were factors. Partly as a result of the need to cover so many different kinds of experience, but also because we hoped to be quite comprehensive, the survey is quite long, requiring individuals to spend, in most cases, more than an hour to complete it. It is also possible that the increased use of web surveys has created some degree of “survey fatigue” among the faculty.

The evidence suggests that the respondent sample was not fully representative of the larger pool of faculty surveyed. There were no differences between the population surveyed and the respondents in terms of rank or race. However, women science and engineering faculty responded at a higher rate than their male counterparts. However, faculty of color were deliberately oversampled in the design. Preliminary analyses revealed few differences among respondents when compared by school (Engineering, LSA, Medicine, and all others); however LSA faculty responded at a higher (34%) rate than those from Engineering and Medicine (response rates for both of these schools was 25%). To address these issues, 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 UM science and engineering faculty population surveyed.

The total sample of science and engineering faculty in 2006 included 276 instructional track faculty. Of these, 128 were female, 148 were male, 207 were white, and 55 were faculty of color¹¹. The comparable sample from the Time 1 data collection included 135 female and 100 male science and engineering faculty; 42 of them were faculty of color. At Time 2 male scientists and engineers were older and had been at UM longer than all women scientists and engineers; they also received their highest degree

¹⁰ This total includes 352 female tenure track science and engineering faculty and 620 male tenure track science and engineering faculty.

¹¹ Four groups were treated as minority or “faculty of color”: Asians and Asian Americans, African Americans, Native Americans and Latinos. Preliminary analyses were conducted comparing Asians and Asian American faculty to underrepresented minority faculty that revealed few significant differences. Given this, and the small total number of faculty of color in the sample, we decided to combine Asian and Asian American faculty with underrepresented minority faculty in these analyses.

longer ago, and were less likely to have been hired within the past 10 years. Similarly, men scientists and engineers were more likely to be full professors than women science and engineering faculty. These findings are similar to Time 1 results.

We found similar differences when comparing the white instructional track faculty with instructional 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 last 10 years. These differences were true both at Time 1 and Time 2. At Time 1 faculty of color were more likely to be at the assistant rank; white faculty were more likely to be at the rank of full professor at both Time 1 and Time 2. 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.

Interpreting Self-Report Data

Survey data are, by necessity, self-report data. For our purposes—assessment of the work environment experienced by faculty—this is actually exactly what we want. By definition, the felt work environment can only be reported on by an individual from her or his point of view.

Nevertheless, it is often tempting to think of self-report differences as “merely” subjective. We must emphasize that the subjective and the objective are identical when we are assessing aspects of personal morale and satisfaction, and perceptions of the work environment. Of course it is possible to ask whether people in general would see the situation the same way. But whether they would or would not is actually not relevant to the assessment of any individual’s perspective. In the same way, a particular individual may find an office or meeting room “too warm,” while another finds it “too cool.” The thermostat may indicate that the temperature is 72 degrees Fahrenheit, but that outside measure is really unrelated to the individual’s perception that the room is too warm (for her) or too cool (for her). Her perception is the felt or relative temperature of the room. In the same way, we are interested in the felt workplace environment for science and engineering faculty.

A somewhat different set of issues arises in the case of individuals’ reports of felt discrimination and unwanted sexual attention (or sexual harassment). One reason an external standard may seem important in these cases is that the legal system applies particular standards when legal remedies are being sought. In this study, as in other studies of faculty experience, we are not limiting our inquiry to experiences that would meet a legal standard (and in fact legal remedies are not in question); we are interested in experiences that may affect morale, whether or not they meet a legal standard.

Data Analysis Strategy

In this study we assessed experiences of women scientists and engineers on the tenure track compared to men scientists and engineers on the tenure track; in addition, we assessed race-ethnicity by comparing science and engineering faculty of color with white faculty. Preliminary analyses were conducted comparing Asians and Asian American faculty to underrepresented minority faculty that 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. Analyses were completed using analyses 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 scientists and engineers, and white and minority men scientists and engineers at both data collection points (Time 1 and Time 2).

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 four faculty groups (white women scientists and engineers, minority women scientists and engineer, white men scientists and engineers, and minority men scientists and engineers)—at Time 1 and Time 2. This design allows for a three-way ANOVA (gender X race X 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. In this report we discuss the comparisons by gender or race, when overall effects were important, and for gender within race, or race within gender, when more complex findings were indicated. 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 several instances the frequency of "presence" (e.g., report of unwanted sexual attention or discrimination) on a dichotomous variable was rare. In those instances (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). Data tables follow the report. Four comparable tables are produced for each set of analyses to allow us to show differences among the four groups (i.e., comparing male faculty by race-ethnicity, female faculty by race-ethnicity, white faculty by gender, and faculty of color by gender). Each table reports means or frequencies by group at Time 1 and Time 2 and identifies significant group differences within time as well as within group differences over time.¹²

Scales created or the initial study analyses to assess climate were replicated in the Time 2 data¹³. Three scales assess university climate; eight assess departmental climate. One additional item—evaluation of department leader as committed to racial/ethnic diversity—was also used to assess departmental climate. Following are the scales created by category.

¹² A more complete set of tables, including standard deviations, is available on the ADVANCE website.

¹³ 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.

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 from students and faculty (4 items)
- unwanted sexual attention
- experiences of gender discrimination
- experiences of racial-ethnic discrimination

Departmental Climate

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

Overview of Results

Our approach in this report is to describe gender differences (differences between men and women) and racial-ethnic differences (differences between white faculty and faculty of color), as well as time differences (comparing 2001 ratings to 2006 ratings) in the work climate for science and engineering faculty. We begin by describing the findings concerning the general university climate for these faculty, looking at issues specifically related to gender in these areas, and then move to a discussion of issues specifically related to race-ethnicity. We follow with a discussion of the experiences of the department climate more directly, considering first those variables in which both race and gender issues are implicated, and then those which are more broadly based.

We next examine the relationship between the climate ratings and individuals' overall job satisfaction for white men and women and men and women of color. These relationships suggest that negative ratings are related to lower satisfaction and a greater desire to leave the University for all four groups of faculty.

University Climate

The survey asked several questions regarding institutional climate that faculty may experience on the UM campus: overheard disparaging comments about women and men, and about racial-ethnic minorities, gender and racial-ethnic discrimination, and unwanted and uninvited sexual attention.

Assessments Related to Gender

Disparaging Comments about Men and Women: Overall, women scientists and engineers reported hearing more disparaging comments about women, but this effect resulted from the fact that white women reported more disparaging comments about women than white men scientists and engineers at both Time 1 and Time 2 (see Table 1c).

Male faculty of color also reported hearing more disparaging comments about women than white male faculty at Time 1 (see Table 1a). However, over time male faculty of color were less likely to report these and there were no differences between the two groups of male faculty at Time 2.

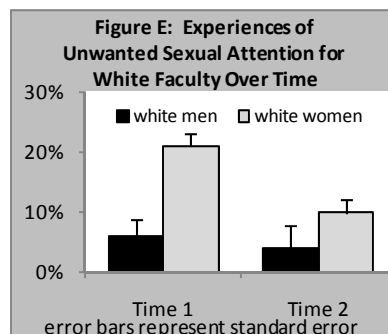
White women also reported more disparaging comments about men than white men at Time 1 but not Time 2. There were no other differences among the four groups (see Tables 1a-1d).

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 examined each of these areas; however, in many instances frequencies were too low to compare the four groups statistically. We did, however, find that across race/ethnicity groups that women reported more gender discrimination than men in four of the six areas (promotion, salary, space/equipment and other resources, and access to administrative staff) at both Time 1 and Time 2, as well as more discrimination on graduate student or resident/fellow assignments at Time 2.

To test for gender discrimination in these areas among the four groups we created an overall felt gender discrimination score based on experience of discrimination in any of the six areas. Rates of felt gender discrimination for women were relatively high at both times (32% and 47% of women of color reported some experience of gender discrimination at Time 1 and Time 2 respectively; the comparable rates for white women were 41% and 42%); see Tables 1c and 1d. Both groups of women reported higher levels of gender discrimination than their male counterparts at Time 1 and Time 2.

Reports of gender discrimination by men were rare and did not show an overall change over time (see Table 1a). The overall rate was 6% at both times for male faculty of color and 1% and 6% respectively for white males; these were not significantly different.

Unwanted sexual attention: At Time 1 white women reported higher levels than white men of their own experiences of unwanted sexual attention, as well as of others' reports to them of experiences of unwanted sexual attention (see Table 1c). However, rates for both of these items were significantly lower at Time 2 than Time 1 for white women (from 21% to 10% in the case of their own experiences of unwanted sexual attention), resulting in no differences between these two groups of white faculty at Time 2 (see Figure E). There were no differences between the male and female faculty of color on these items (see Table 1d). However, male faculty of color indicated significantly fewer reports of others' experiences of unwanted sexual attention at Time 2 than at Time 1.



Assessments Related to Race-Ethnicity

Disparaging Comments about Racial-Ethnic Minorities: Overall among scientists and engineers, faculty of color reported hearing more disparaging remarks about racial-ethnic minorities than did white faculty. Male science and engineering faculty of color reported hearing more disparaging comments about racial-ethnic minorities than white male science and engineering faculty at Time 1 (see Table 2a). This difference did not persist at Time 2 and, in fact, the level of reporting by male science and engineering faculty of color was significantly lower at Time 2 than Time 1. The same was not true for women of color; however, there were no differences on this variable between women of color and white women at either time (see Table 2b).

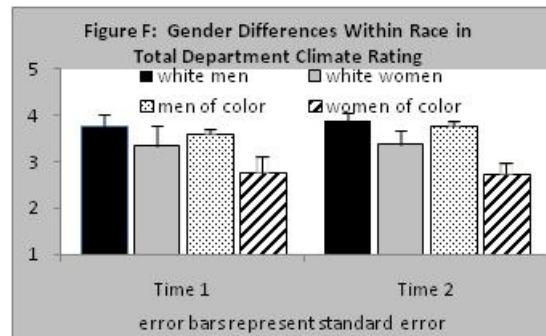
Racial-Ethnic Discrimination: As with gender discrimination, survey respondents were asked about their experiences of racial-ethnic discrimination in the same six specific areas (hiring, promotion, salary, space/equipment and other resources, access to administrative staff, and graduate student or resident/fellow assignments). Again, frequencies on the individual items were generally too low to make statistical comparisons among the four groups. However, examining across gender groups we found that faculty of color reported more racial-ethnic discrimination than white faculty in promotion, salary, space/equipment and other resources, and access to administrative staff at Time 2. The last, as well as graduate student or resident/fellow assignments, was also true at Time 1.

As with gender discrimination, we created a measure of any racial-ethnic discrimination (assessed across the six areas). Faculty of color reported relatively high rates of racial-ethnic discrimination experiences. Overall, men and women faculty of color reported more racial-ethnic discrimination than white faculty counterparts at Time 1 and Time 2 (see tables 2a and 2b); white faculty generally reported very low levels of racial-ethnic discrimination (white women reported none). At Time 1, 36% of male faculty of color reported discrimination in at least one area in the past five years; at Time 2, 20% did. Comparable percentages for female faculty of color were 18% and 31% respectively. [These overtime differences were not statistically significant for either group of minority faculty.]

Department Climate

The department climate was assessed with eight scales and one single item. Four of the scales address climate issues specifically related to gender and/or race-ethnicity: tolerant climate, gender egalitarian atmosphere, tokenism, and department chair committed to racial/ethnic diversity. The remaining scales assess the climate more generally: positive climate, scholarly isolation, felt surveillance, department chair as fair and department chair creates positive environment. All of the individual scales were also combined to create an overall climate score (where a higher number represents a more positive rating of the climate; thus, negative scales were reverse-scored before combining with the positive scales).

Both groups of men reported higher mean scores on the total climate measure than their female counterparts at Time 1 and Time 2 (see Tables 3c and 3d and Figure F). In addition, the mean scores for white women were significantly higher than those for women of color at both times (see Table 3b). There were no differences between the two groups of male science and engineering faculty at either time, although mean scores for white male faculty were higher at Time 2 than Time 1 (see Table 3a).



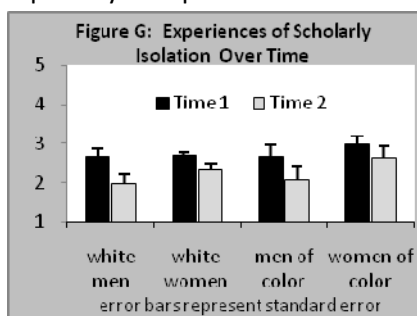
Department Climate Assessments Related to Gender and Race-Ethnicity

The differences in the total climate scores are also reflected in similar differences for the individual scales that comprise the total climate measure, revealing both gender and race differences. White men reported a more gender egalitarian climate and less tokenism than white women at both Time 1 and Time 2 as well as a more tolerant climate at Time 2 (see Table 3c). In fact, white men's overall rating of the climate improved from Time 1 to Time 2. A similar pattern emerged for faculty of color. Male faculty of color were more likely to report tolerance, gender egalitarianism and that the chair was committed to racial-ethnic diversity at Time 1 than female faculty of color (see Table 3d). These differences persisted at Time 2. In addition, male faculty of color also reported less tokenism from Time 1 to Time 2, and less tokenism than female faculty of color at Time 2.

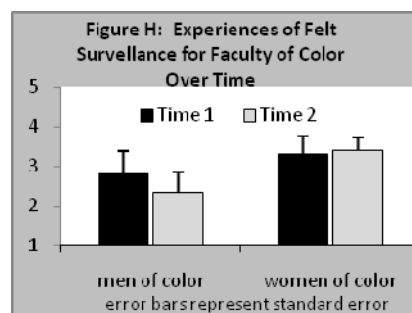
White male faculty reported a higher level of gender egalitarianism at Time 1 and less tokenism at both times than male faculty of color (even though reports of tokenism from male faculty of color were lower at Time 2 than Time 1 (see Table 3a). Similarly, white women faculty were more likely to report less tokenism and that the chair was committed to racial-ethnic diversity at both times, as well as a more tolerant climate at Time 1 than women of color (see Table 3b).

Assessments Related to General Department Climate

White male faculty reported a more positive general climate at Time 2 than white female faculty, especially compared to Time 1. At Time 2 white men's mean scores were more positive on positive climate, scholarly isolation, felt surveillance and department chair as fair than white women's means score; at Time 1 only positive climate and felt surveillance were more positive. However, scores on scholarly isolation were lower at Time 2 than Time 1 for both groups of white faculty (as well as for male faculty of color; see Figure G).

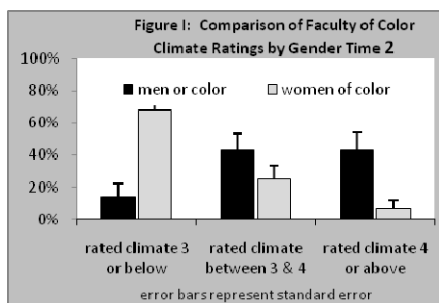


Male and female faculty of color reported significantly different means for all five scales related to general department climate at Time 2 (see Table 3d); in every instance male faculty of color reported a more positive climate. These findings contrast with those at Time 1 when only two items were significantly different (in the same direction): chair is fair and creates a positive environment. Part of this difference from Time 2 is explained by the significantly lower reporting of scholarly isolation and felt surveillance by male faculty of color at Time 2 than Time 1 (see Figure H).



Do These Differences in Climate Matter?

It is fair to ask whether the differences we have found in the climate as experienced by women scientists and engineers and science and engineering faculty of color really "matter." It is always difficult to address the question of the magnitude of a difference found on a survey scale. 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), so we can't tell whether a mean difference of nearly 1/2 point (which is the difference, for example, between white female scientists' and engineers' scores on the aggregate climate scale and white male scientists' and engineers' scores) is large or small. One way of getting at this is to look at the middle of the distributions in absolute terms. The middle (both mean and median) rating of the climate for white and minority women scientists and engineers is closest to a 3 on the 5 point scale (2.74 for women of color and 3.36 for white women at Time 2), while the average rating for men scientists and engineers is closer to 4 (3.76 for minority men and 3.89 for white men at Time 2).

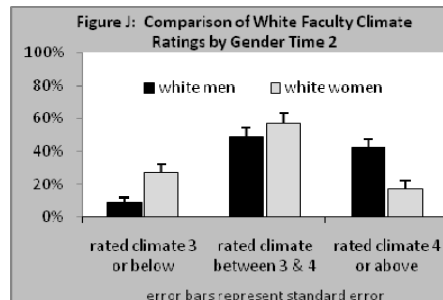


Equally, we can examine the distribution of scores along the scale. The distributions of ratings do overlap, but they are also quite different (see Figures I and J). There are some women who rated the climate at or above 4 (7% of the women of color and 17% of the white women) but far more of the men did (43% for men of color and 42% for white men). Similarly, some men rated the climate at or below 3 (14% of men of color and 9% of white men) but again, far more women did so (68% of women of color and 27% of white women). On the basis of these findings, we believe it is reasonable to conclude that the difference in felt climate (between white and minority

women scientists and their male comparison groups) is substantial. The difference between white and minority women is also considerable.

Career Satisfaction

Another way to evaluate the importance of the climate differences is to examine career satisfaction. Career 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 career satisfaction score.



There were no differences comparing racial groups within gender on any of these items at Time 1 or Time 2 (see Tables 4a and 4b). Differences were revealed, however, comparing men and women within race. At Time 2 both groups of men reported higher overall career satisfaction than their female counterparts (see Table 4c and 4d). Men of color also reported more satisfaction with the amount of social interaction with department members, sense of being valued for teaching by the department, and sense of being valued for research, scholarship, or creativity by the department than women of color. There were no differences between these two groups on any career satisfaction items at Time 1.

At Time 2 white men also reported more satisfaction with opportunities to collaborate with other faculty and the amount of social interaction with department members than white women. White women reported more satisfaction with their ability to attract students at Time 1, but not at Time 2; in contrast white men reported more satisfaction with the ability to balance professional and personal lives at Time 1, though not at Time 2. Moreover, white men's mean scores were higher on five satisfaction items at Time 2 than Time 1 (current salary, opportunity to collaborate with other faculty, ability to attract students, level of intellectual stimulation in day-to-day contact with colleagues, and sense of contributing to theoretical developments in my discipline) and lower on a sixth (level of funding for research).

Overall Job Satisfaction

Overall job satisfaction was assessed with the item, how satisfied are you with your current position at UM? Mean scores were generally similar across the four groups; however white men reported higher satisfaction than white women at both times (see Table 5).

We calculated correlations of the overall climate indicator and career satisfaction with overall satisfaction with current position at UM separately for the four groups of tenure track faculty at both data collection points. At Time 1 and Time 2 both career satisfaction and total climate scores were significantly and strongly correlated with overall job satisfaction for all four groups of faculty (positive total climate scores were associated with higher levels of job satisfaction); see Table 6. Experiencing disparaging comments was also important for some groups. Disparaging comments about women were negatively related to white women's overall satisfaction at Time 1 and minority women's overall satisfaction at Time 2. Gender discrimination was also negatively related to white women's overall satisfaction at Time 2.

At Time 2 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 wanting to leave just at Time 2¹⁴. There were no differences among the four groups in mean score on wanting to leave (see Table 5). However, correlations of this scale with the same climate items produced results like those with career satisfaction (see Table 6). The intention to leave UM was strongly negatively correlated with the overall climate score for all four groups and career satisfaction for white faculty. In addition, hearing disparaging racial-ethnic comments was correlated with wanting to leave UM for the two groups of male faculty and gender discrimination was correlated with wanting to leave for white women.

Summary of Findings

University Climate Indicators

Gender: In 2006 as in 2001 the University climate appears to be more positive for men science and engineering faculty than women science and engineering faculty. In particular, reported rates of gender discrimination were relatively higher for both groups of women faculty in comparison to their male colleagues. White women (but not women of color) also reported more experiences overhearing disparaging comments about women than white men and this pattern persisted over time.

However, reports of experiences of unwanted sexual attention showed improvement for women from Time 1 to Time 2 as white women's reports of those experiences, as well as others' reports to them, were significantly lower at Time 2 than Time 1. This change resulted in no statistically significant difference on this item between white male and female faculty at Time 2, which is different from what was found at Time 1.

Race-ethnicity: Faculty reports also suggest that the University climate is more positive for white science and engineering faculty than faculty of color in 2006 as in 2001. Rates of racial-ethnic discrimination were significantly higher for minority faculty than white faculty

Male faculty of color reported fewer disparaging comments about racial-ethnic minorities at Time 2 than at Time 1. Moreover, significant differences between minority and white male faculty on that variable were present at Time 1 but not at Time 2.

Departmental Climate Indicators

Gender: In 2006 men faculty continue to report a more positive department climate than women faculty, as they had in 2001—both in the more general assessments of climate as well as those measures more specifically related to issues of gender. Moreover, there was little improvement in the department climate ratings at Time 2 compared to Time 1 for women; in the case of white women in particular we found more instances at Time 2 where their mean score ratings were significantly less positive than those of men.

Race-ethnicity: White faculty also reported a generally more positive department climate than faculty of color. This was especially true when assessing indicators directly related to race-ethnicity issues (e.g., tolerance, tokenism, chair committed to racial-ethnic diversity). The reported climate was particularly negative for women of color who rated their departments' climates significantly lower than white women at both times.

¹⁴ The Cronbach alpha for this scale was .75 for the science and engineering faculty.

Job Satisfaction and Career Satisfactions

Rates of overall job satisfaction were lower for white women compared to white men at both times. Ratings of career satisfactions produced more gender differences. Reports from both groups of women revealed differences with their male colleagues in some areas of career satisfaction, particularly social interaction with department colleagues and their sense of being valued for their work. There were, however, many areas of satisfaction that revealed no gender differences. Moreover, there were no differences comparing faculty of color with white faculty.

CONCLUSIONS

There were clear and consistent reported gender differences concerning aspects of the climate at both the University and the department level indicating a more negative climate for women science and engineering faculty. In most instances these differences were relatively large and stable across time. They also tended to be consistent across race.

In the same way, race-ethnicity differences on measures directly addressing race and ethnicity revealed a similarly negative climate for science and engineering faculty of color. And again, these differences were generally stable across time and consistent by gender. In all instances these differences cannot be accounted for by differences in experience (e.g., rank, years at UM) or by school. However, there were fewer differences between the two groups of men and more evidence that the situation is worse for women of color.

Overall, these findings suggest little change in the climate for science and engineering faculty from Time 1 to Time 2 and a consistent pattern of a more negative climate for women faculty and faculty of color (especially female faculty of color).

Despite this overall picture, there were, however, some indications that things may be 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 at Time 2 than Time 1.

The results for male faculty of color suggested a slightly better climate for them in some areas at Time 2. They reported fewer disparaging comments about racial-ethnic minorities at Time 2 than Time 1; moreover, the significant difference between minority and white male faculty on that variable at Time 1 (minority men's scores were lower at Time 2 than at Time 1) was not present at Time 2. It is impossible to be sure why the findings for women of color and men of color are more different at Time 2 than at Time 1. On the one hand, the men of color seem to be finding the climate more positive in many of the ways that white men do. On the other hand, the women of color seem to be experiencing a climate that is more negative than before. It is possible that this is due to women of color and men of color being hired in different departments, a possibility that we cannot explore within these data.

Despite a few areas of positive change identified in this study (as well as those revealed in the institutional data), the overall findings from the survey indicate that the climate is relatively positive (and, in some areas, improving) for white male science and engineering faculty but less so for white women, faculty of color, and especially women of color in the sciences and engineering. It is important to reiterate that the climate survey reports aggregate data and only represents experiences for these four groups of faculty in general. Specific experiences to the contrary, for example in a particular department, cannot be revealed with these data. For this reason, the ADVANCE Program uses several approaches (e.g., quantitative surveys and qualitative studies at the departmental level and of other

Assessing the Academic Work Environment for Science and Engineering Faculty at the University of Michigan in 2001 and 2006: Gender and Race in Department- and University-Related Climate Factors

groups of faculty as well as institutional data) to assess the effect of the program on the campus climate. Nevertheless, given the clear relationship between science and engineering faculty ratings of the climate and career satisfaction with their overall satisfaction and desire to leave UM, it is important to redouble our efforts to improve the campus climate. The fact that there is only very limited evidence of an improved climate for women and minority science and engineering faculty after more than five years of institutional effort suggests both that the change process is slow and that more creative approaches to transforming the work environment may be necessary.

*Assessing the Academic Work Environment for Science and Engineering Faculty at the University of Michigan in 2001 and 2006:
Gender and Race in Department- and University-Related Climate Factors*

Table 1a - Gender Related University Climate Indicators for Male Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|---|--|------------|-------|-----|---|-------------|-------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=107 | T1-T2 | | | |
| Disparaging comments about women | 1.80 | 1.45 | -0.35 | * | 1.42 | 1.42 | 0.00 | | * | |
| Disparaging comments about men | 1.77 | 1.51 | -0.26 | | 1.52 | 1.59 | 0.07 | | | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Gender discrimination | 6% | 6% | 0% | | 1% | 6% | 5% | | | |
| Hiring | 0% | 3% | 3% | | 2% | 2% | 1% | | | |
| Promotion | 0% | 0% | 0% | | 0% | 3% | 3% | | | |
| Salary | 2% | 5% | 3% | | 0% | 4% | 4% | | | |
| Space/equipment, other resources | 0% | 0% | 0% | | 0% | 1% | 1% | | | |
| Access to administrative staff | 0% | 0% | 0% | | 0% | 0% | 0% | | | |
| Graduate student or resident/fellow assignments | 6% | 3% | -3% | | 0% | 0% | 0% | | | |
| Unwanted sexual attention | 6% | 6% | 0% | | 6% | 4% | -2% | | | |
| Individuals reporting others reported unwanted sexual attention | 35% | 9% | -26% | * | 17% | 14% | -3% | | | |

Table 1b - Gender Related University Climate Indicators for Female Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|---|--|------------|-------|-----|---|------------|-------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=17 | T2 n=26 | T1-T2 | | T1 | T2 n=91 | T1-T2 | | | |
| Disparaging comments about women | 1.83 | 1.65 | -0.17 | | 1.94 | 1.89 | -0.05 | | | |
| Disparaging comments about men | 1.66 | 1.32 | -0.34 | | 1.91 | 1.66 | -0.25 | | | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Gender discrimination | 32% | 47% | 15% | | 41% | 42% | 1% | | | |
| Hiring | 0% | 9% | 9% | | 6% | 7% | 1% | | | |
| Promotion | 15% | 15% | 0% | | 16% | 13% | -3% | | | |
| Salary | 26% | 46% | 20% | | 41% | 38% | -2% | | | |
| Space/equipment, other resources | 15% | 24% | 8% | | 18% | 15% | -3% | | | |
| Access to administrative staff | 0% | 8% | 8% | | 12% | 16% | 4% | | * | |
| Graduate student or resident/fellow assignments | 7% | 13% | 7% | | 6% | 10% | 4% | | | |
| Unwanted sexual attention | 6% | 3% | -3% | | 21% | 10% | -11% | * | | |
| Individuals reporting others reported unwanted sexual attention | 23% | 27% | 4% | | 39% | 24% | -16% | * | | |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

*Assessing the Academic Work Environment for Science and Engineering Faculty at the University of Michigan in 2001 and 2006:
Gender and Race in Department- and University-Related Climate Factors*

Table 1c - Gender Related University Climate Indicators for White Faculty by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|---|--------------------------------|------------|-------|-----|----------------------------------|-------------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=107 | T1-T2 | | | |
| Disparaging comments about women | 1.42 | 1.42 | 0.00 | | 1.94 | 1.89 | -0.05 | | * | * |
| Disparaging comments about men | 1.52 | 1.59 | 0.07 | | 1.91 | 1.66 | -0.25 | | * | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Gender discrimination | 1% | 6% | 5% | | 41% | 42% | 1% | | * | * |
| Hiring | 2% | 2% | 1% | | 6% | 7% | 1% | | | |
| Promotion | 0% | 3% | 3% | | 16% | 13% | -3% | | * | |
| Salary | 0% | 4% | 4% | | 41% | 38% | -2% | | * | * |
| Space/equipment, other resources | 0% | 1% | 1% | | 18% | 15% | -3% | | * | * |
| Access to administrative staff | 0% | 0% | 0% | | 12% | 16% | 4% | | * | * |
| Graduate student or resident/fellow assignments | 0% | 0% | 0% | | 6% | 10% | 4% | | | |
| Unwanted sexual attention | 6% | 4% | -2% | | 21% | 10% | -11% | * | * | |
| Individuals reporting others reported unwanted sexual attention | 17% | 14% | -3% | | 39% | 24% | -16% | * | * | |

Table 1d - Gender Related University Climate Indicators for Faculty of Color by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|---|--------------------------------|------------|-------|-----|----------------------------------|------------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=26 | T1-T2 | | | |
| Disparaging comments about women | 1.80 | 1.45 | -0.35 | * | 1.83 | 1.65 | -0.17 | | | |
| Disparaging comments about men | 1.77 | 1.51 | -0.26 | | 1.66 | 1.32 | -0.34 | | | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Gender discrimination | 6% | 6% | 0% | | 32% | 47% | 15% | | * | * |
| Hiring | 0% | 3% | 3% | | 0% | 9% | 9% | | | |
| Promotion | 0% | 0% | 0% | | 15% | 15% | 0% | | * | * |
| Salary | 2% | 5% | 3% | | 26% | 46% | 20% | | * | * |
| Space/equipment, other resources | 0% | 0% | 0% | | 15% | 24% | 8% | | * | * |
| Access to administrative staff | 0% | 0% | 0% | | 0% | 8% | 8% | | | |
| Graduate student or resident/fellow assignments | 6% | 3% | -3% | | 7% | 13% | 7% | | | |
| Unwanted sexual attention | 6% | 6% | 0% | | 6% | 3% | -3% | | | |
| Individuals reporting others reported unwanted sexual attention | 35% | 9% | -26% | * | 23% | 27% | 4% | | | |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

Table 2a - Race-Ethnicity Related University Climate Indicators for Male Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|---|--|------------|-------|-----|---|------|-------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Disparaging comments about racial-ethnic minorities | 1.68 | 1.35 | -0.33 | * | 1.29 | 1.30 | 0.02 | | * | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Racial-ethnic discrimination | 36% | 20% | -15% | | 3% | 3% | 0% | | * | * |
| Hiring | 14% | 9% | -5% | | 2% | 1% | -1% | | | |
| Promotion | 0% | 9% | 9% | | 2% | 1% | 0% | | | |
| Salary | 12% | 25% | 12% | | 4% | 1% | -2% | | | * |
| Space/equipment, other resources | 6% | 9% | 3% | | 2% | 0% | -2% | | | |
| Access to administrative staff | 19% | 9% | -10% | | 0% | 0% | 0% | | * | |
| Graduate student or resident/fellow assignments | 6% | 0% | -6% | | 0% | 1% | 1% | | | |

Table 2b - Race-Ethnicity Related University Climate Indicators for Female Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|---|--|------------|-------|-----|---|------|-------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=17 | T2 n=26 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Disparaging comments about racial-ethnic minorities | 1.66 | 1.65 | 0.00 | | 1.46 | 1.39 | -0.07 | | | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Racial-ethnic discrimination | 18% | 31% | 14% | | 0% | 0% | 0% | | * | * |
| Hiring | 0% | 8% | 8% | | 0% | 0% | 0% | | | |
| Promotion | 20% | 23% | 3% | | 0% | 0% | 0% | | * | * |
| Salary | 13% | 31% | 18% | | 0% | 0% | 0% | | * | * |
| Space/equipment, other resources | 13% | 19% | 6% | | 0% | 0% | 0% | | * | * |
| Access to administrative staff | 13% | 4% | -9% | | 0% | 0% | 0% | | * | * |
| Graduate student or resident/fellow assignments | 13% | 15% | 2% | | 0% | 0% | 0% | | * | * |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

Table 2c - Race-Ethnicity Related University Climate Indicators for White Faculty by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|---|--------------------------------|------------|-------|-----|----------------------------------|-------------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=107 | T1-T2 | | | |
| Disparaging comments about racial-ethnic minorities | 1.29 | 1.30 | 0.02 | | 1.46 | 1.39 | -0.07 | | | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Racial-ethnic discrimination | 3% | 3% | 0% | | 0% | 0% | 0% | | | |
| Hiring | 2% | 1% | -1% | | 0% | 0% | 0% | | | |
| Promotion | 2% | 1% | 0% | | 0% | 0% | 0% | | | |
| Salary | 4% | 1% | -2% | | 0% | 0% | 0% | | | |
| Space/equipment, other resources | 2% | 0% | -2% | | 0% | 0% | 0% | | | |
| Access to administrative staff | 0% | 0% | 0% | | 0% | 0% | 0% | | | |
| Graduate student or resident/fellow assignments | 0% | 1% | 1% | | 0% | 0% | 0% | | | |

Table 2d - Race-Ethnicity Related University Climate Indicators for Faculty of Color by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|---|--------------------------------|------------|---------|-----|----------------------------------|------------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=26 | T1-T2 | | | |
| Disparaging comments about racial-ethnic minorities | 1.68 | 1.35 | -0.33 * | | 1.66 | 1.65 | 0.00 | | | |
| | % | % | diff | sig | % | % | diff | sig | | |
| | T1 | T2 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Racial-ethnic discrimination | 36% | 20% | -15% | | 18% | 31% | 14% | | | |
| Hiring | 14% | 9% | -5% | | 0% | 8% | 8% | * | | |
| Promotion | 0% | 9% | 9% | | 20% | 23% | 3% | * | | |
| Salary | 12% | 25% | 12% | | 13% | 31% | 18% | | | |
| Space/equipment, other resources | 6% | 9% | 3% | | 13% | 19% | 6% | | | |
| Access to administrative staff | 19% | 9% | -10% | | 13% | 4% | -9% | | | |
| Graduate student or resident/fellow assignments | 6% | 0% | -6% | | 13% | 15% | 2% | | * | |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

Table 3a - Department Climate for Male Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|---|--|------------|-------|-----|---|-------------|-------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=107 | T1-T2 | | | |
| Overall climate | 3.60 | 3.76 | 0.16 | | 3.75 | 3.89 | 0.14 | * | | |
| Climate for diversity: | | | | | | | | | | |
| Tolerant climate | 3.65 | 4.02 | 0.37 | | 3.88 | 4.10 | 0.22 | * | | |
| Gender egalitarian atmosphere | 3.60 | 3.79 | 0.18 | | 3.93 | 3.99 | 0.06 | | * | |
| Tokenism | 2.72 | 2.17 | -0.54 | * | 1.46 | 1.61 | 0.16 | | * | * |
| Department chair committed to racial-ethnic diversity | 3.94 | 3.92 | -0.02 | | 3.81 | 3.95 | 0.14 | | | |
| General climate: | | | | | | | | | | |
| Positive climate | 3.51 | 3.58 | 0.07 | | 3.51 | 3.79 | 0.28 | * | | |
| Scholarly isolation | 2.68 | 2.08 | -0.60 | * | 2.65 | 1.97 | -0.69 | * | | |
| Felt surveillance | 2.81 | 2.33 | -0.48 | * | 2.32 | 2.31 | -0.01 | | * | |
| Department chair as fair | 3.80 | 3.60 | -0.19 | | 3.62 | 3.70 | 0.07 | | | |
| Department chair creates positive environment | 3.73 | 3.44 | -0.29 | | 3.46 | 3.50 | 0.03 | | | |

Table 3b - Department Climate for Female Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|---|--|------------|-------|-----|---|------------|-------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=17 | T2 n=26 | T1-T2 | | T1 | T2 n=91 | T1-T2 | | | |
| Overall climate | 2.78 | 2.74 | -0.04 | | 3.33 | 3.36 | 0.03 | | * | * |
| Climate for diversity: | | | | | | | | | | |
| Tolerant climate | 2.99 | 3.03 | 0.04 | | 3.62 | 3.49 | -0.13 | | * | |
| Gender egalitarian atmosphere | 2.85 | 2.84 | -0.01 | | 3.23 | 3.09 | -0.14 | | | |
| Tokenism | 3.43 | 3.46 | 0.04 | | 2.61 | 2.69 | 0.08 | | * | * |
| Department chair committed to racial-ethnic diversity | 2.33 | 2.29 | -0.05 | | 3.69 | 3.74 | 0.04 | | * | * |
| General climate: | | | | | | | | | | |
| Positive climate | 2.85 | 2.92 | 0.08 | | 3.15 | 3.34 | 0.19 | | | |
| Scholarly isolation | 2.99 | 2.62 | -0.37 | | 2.71 | 2.33 | -0.37 | * | | |
| Felt surveillance | 3.30 | 3.41 | 0.11 | | 2.85 | 2.87 | 0.02 | | | |
| Department chair as fair | 2.58 | 2.50 | -0.07 | | 3.33 | 3.33 | 0.00 | | * | * |
| Department chair creates positive environment | 2.67 | 2.48 | -0.19 | | 3.16 | 3.31 | 0.15 | | | * |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

Table 3c - Department Climate for White Faculty by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|---|--------------------------------|------------|-------|-----|----------------------------------|-------------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=107 | T1-T2 | | | |
| Overall climate | 3.75 | 3.89 | 0.14 | * | 3.33 | 3.36 | 0.03 | | * | |
| Climate for diversity: | | | | | | | | | | |
| Tolerant climate | 3.88 | 4.10 | 0.22 | * | 3.62 | 3.49 | -0.13 | | * | |
| Gender egalitarian atmosphere | 3.93 | 3.99 | 0.06 | | 3.23 | 3.09 | -0.14 | * | * | |
| Tokenism | 1.46 | 1.61 | 0.16 | | 2.61 | 2.69 | 0.08 | * | * | |
| Department chair committed to racial-ethnic diversity | 3.81 | 3.95 | 0.14 | | 3.69 | 3.74 | 0.04 | | | |
| General climate: | | | | | | | | | | |
| Positive climate | 3.51 | 3.79 | 0.28 | * | 3.15 | 3.34 | 0.19 | * | * | |
| Scholarly isolation | 2.65 | 1.97 | -0.69 | * | 2.71 | 2.33 | -0.37 | * | * | |
| Felt surveillance | 2.32 | 2.31 | -0.01 | | 2.85 | 2.87 | 0.02 | * | * | |
| Department chair as fair | 3.62 | 3.70 | 0.07 | | 3.33 | 3.33 | 0.00 | | * | |
| Department chair creates positive environment | 3.46 | 3.50 | 0.03 | | 3.16 | 3.31 | 0.15 | | | |

Table 3d - Department Climate for Faculty of Color by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|---|--------------------------------|------------|-------|-----|----------------------------------|------------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 n=26 | T1-T2 | | | |
| Overall climate | 3.60 | 3.76 | 0.16 | | 2.78 | 2.74 | -0.04 | | * | |
| Climate for diversity: | | | | | | | | | | |
| Tolerant climate | 3.65 | 4.02 | 0.37 | | 2.99 | 3.03 | 0.04 | * | * | |
| Gender egalitarian atmosphere | 3.60 | 3.79 | 0.18 | | 2.85 | 2.84 | -0.01 | * | * | |
| Tokenism | 2.72 | 2.17 | -0.54 | * | 3.43 | 3.46 | 0.04 | | * | |
| Department chair committed to racial-ethnic diversity | 3.94 | 3.92 | -0.02 | | 2.33 | 2.29 | -0.05 | * | * | |
| General climate: | | | | | | | | | | |
| Positive climate | 3.51 | 3.58 | 0.07 | | 2.85 | 2.92 | 0.08 | | * | |
| Scholarly isolation | 2.68 | 2.08 | -0.60 | * | 2.99 | 2.62 | -0.37 | | * | |
| Felt surveillance | 2.81 | 2.33 | -0.48 | * | 3.30 | 3.41 | 0.11 | | * | |
| Department chair as fair | 3.80 | 3.60 | -0.19 | | 2.58 | 2.50 | -0.07 | * | * | |
| Department chair creates positive environment | 3.73 | 3.44 | -0.29 | | 2.67 | 2.48 | -0.19 | * | * | |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

*Assessing the Academic Work Environment for Science and Engineering Faculty at the University of Michigan in 2001 and 2006:
Gender and Race in Department- and University-Related Climate Factors*

Table 4a - Career Satisfaction for Male Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|--|--|------------|-------|-----|---|------|---------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Overall career satisfaction | 3.73 | 3.85 | 0.13 | | 3.71 | 3.88 | 0.17 | | | |
| Opportunity to collaborate with other faculty | 4.21 | 4.27 | 0.06 | | 3.88 | 4.39 | 0.52 * | | | |
| Amount of social interaction with members of department/unit | 3.72 | 3.82 | 0.10 | | 3.62 | 3.76 | 0.14 | | | |
| Level of funding for research or creative efforts | 3.68 | 3.07 | -0.61 | | 3.82 | 3.44 | -0.39 * | | | |
| Current salary in comparison with the salaries of UM colleagues | 3.61 | 3.22 | -0.38 | | 3.18 | 3.62 | 0.43 * | | | |
| Ability to attract students to work with me | 3.48 | 4.01 | 0.53 | | 3.37 | 3.75 | 0.38 * | | | |
| Sense of being valued as a teacher by students | 4.06 | 4.28 | 0.22 | | 4.10 | 4.17 | 0.07 | | | |
| Sense of being valued as a mentor or advisor by students | 4.21 | 4.36 | 0.15 | | 4.35 | 4.46 | 0.11 | | | |
| Sense of being valued for my teaching by members of department/unit | 3.86 | 3.91 | 0.05 | | 3.50 | 3.67 | 0.17 | | | |
| Sense of being valued for research, scholarship, or creativity by members of department/unit | 3.44 | 3.77 | 0.33 | | 3.61 | 3.71 | 0.10 | | | |
| Level of intellectual stimulation in day-to-day contacts with faculty colleagues | 3.62 | 3.79 | 0.16 | | 3.59 | 3.91 | 0.32 * | | | |
| Sense of contributing to theoretical developments in my discipline | 3.74 | 4.16 | 0.42 | | 3.92 | 4.20 | 0.28 * | | | |
| Balance between professional and personal life | 3.21 | 3.50 | 0.29 | | 3.28 | 3.50 | 0.22 | | | |

Table 4b - Career Satisfaction for Female Faculty by Race-Ethnicity

| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
|--|--|------------|-------|-----|---|------|-------|-----|------------------------|------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=17 | T2 n=26 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Overall career satisfaction | 3.28 | 3.31 | 0.04 | | 3.58 | 3.56 | -0.02 | | | |
| Opportunity to collaborate with other faculty | 3.78 | 3.98 | 0.20 | | 3.76 | 3.93 | 0.17 | | | |
| Amount of social interaction with members of department/unit | 2.86 | 2.66 | -0.20 | | 3.41 | 3.16 | -0.25 | | | |
| Level of funding for research or creative efforts | 3.46 | 3.33 | -0.13 | | 3.50 | 3.33 | -0.18 | | | |
| Current salary in comparison with the salaries of UM colleagues | 2.84 | 2.71 | -0.13 | | 3.03 | 3.31 | 0.28 | | | |
| Ability to attract students to work with me | 3.51 | 3.54 | 0.04 | | 3.87 | 3.45 | -0.42 | | | |
| Sense of being valued as a teacher by students | 3.90 | 3.99 | 0.10 | | 4.27 | 4.07 | -0.20 | | | |
| Sense of being valued as a mentor or advisor by students | 4.25 | 4.18 | -0.08 | | 4.60 | 4.25 | -0.34 | | | |
| Sense of being valued for my teaching by members of department/unit | 2.96 | 2.81 | -0.14 | | 3.44 | 3.53 | 0.09 | | | |
| Sense of being valued for research, scholarship, or creativity by members of department/unit | 2.67 | 2.84 | 0.17 | | 3.38 | 3.40 | 0.02 | | | |
| Level of intellectual stimulation in day-to-day contacts with faculty colleagues | 3.28 | 2.99 | -0.29 | | 3.45 | 3.50 | 0.06 | | | |
| Sense of contributing to theoretical developments in my discipline | 3.54 | 4.21 | 0.66 | | 3.98 | 3.84 | -0.14 | | | |
| Balance between professional and personal life | 3.47 | 2.73 | -0.74 | | 2.68 | 3.02 | 0.35 | | | |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

*Assessing the Academic Work Environment for Science and Engineering Faculty at the University of Michigan in 2001 and 2006:
Gender and Race in Department- and University-Related Climate Factors*

Table 4c - Career Satisfaction for White Faculty by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|--|--------------------------------|------------|-------|-----|----------------------------------|------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Overall career satisfaction | 3.71 | 3.88 | 0.17 | | 3.58 | 3.56 | -0.02 | | * | |
| Opportunity to collaborate with other faculty | 3.88 | 4.39 | 0.52 | * | 3.76 | 3.93 | 0.17 | | * | |
| Amount of social interaction with members of department/unit | 3.62 | 3.76 | 0.14 | | 3.41 | 3.16 | -0.25 | | * | |
| Level of funding for research or creative efforts | 3.82 | 3.44 | -0.39 | * | 3.50 | 3.33 | -0.18 | | | |
| Current salary in comparison with the salaries of UM colleagues | 3.18 | 3.62 | 0.43 | * | 3.03 | 3.31 | 0.28 | | | |
| Ability to attract students to work with me | 3.37 | 3.75 | 0.38 | * | 3.87 | 3.45 | -0.42 | * | | |
| Sense of being valued as a teacher by students | 4.10 | 4.17 | 0.07 | | 4.27 | 4.07 | -0.20 | | | |
| Sense of being valued as a mentor or advisor by students | 4.35 | 4.46 | 0.11 | | 4.60 | 4.25 | -0.34 | | | |
| Sense of being valued for my teaching by members of department/unit | 3.50 | 3.67 | 0.17 | | 3.44 | 3.53 | 0.09 | | | |
| Sense of being valued for research, scholarship, or creativity by members of department/unit | 3.61 | 3.71 | 0.10 | | 3.38 | 3.40 | 0.02 | | | |
| Level of intellectual stimulation in day-to-day contacts with faculty colleagues | 3.59 | 3.91 | 0.32 | * | 3.45 | 3.50 | 0.06 | | | |
| Sense of contributing to theoretical developments in my discipline | 3.92 | 4.20 | 0.28 | * | 3.98 | 3.84 | -0.14 | | | |
| Balance between professional and personal life | 3.28 | 3.50 | 0.22 | | 2.68 | 3.02 | 0.35 | * | | |

Table 4d - Career Satisfaction for Faculty of Color by Gender

| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
|--|--------------------------------|------------|-------|-----|----------------------------------|------|-------|-----|--------------------------|--------------------------|
| | mean | mean | diff | sig | mean | mean | diff | sig | | |
| | T1 n=24 | T2 n=28 | T1-T2 | | T1 | T2 | T1-T2 | | | |
| Overall career satisfaction | 3.73 | 3.85 | 0.13 | | 3.28 | 3.31 | 0.04 | | * | |
| Opportunity to collaborate with other faculty | 4.21 | 4.27 | 0.06 | | 3.78 | 3.98 | 0.20 | | * | |
| Amount of social interaction with members of department/unit | 3.72 | 3.82 | 0.10 | | 2.86 | 2.66 | -0.20 | | * | |
| Level of funding for research or creative efforts | 3.68 | 3.07 | -0.61 | | 3.46 | 3.33 | -0.13 | | | |
| Current salary in comparison with the salaries of UM colleagues | 3.61 | 3.22 | -0.38 | | 2.84 | 2.71 | -0.13 | | | |
| Ability to attract students to work with me | 3.48 | 4.01 | 0.53 | | 3.51 | 3.54 | 0.04 | | | |
| Sense of being valued as a teacher by students | 4.06 | 4.28 | 0.22 | | 3.90 | 3.99 | 0.10 | | | |
| Sense of being valued as a mentor or advisor by students | 4.21 | 4.36 | 0.15 | | 4.25 | 4.18 | -0.08 | | | |
| Sense of being valued for my teaching by members of department/unit | 3.86 | 3.91 | 0.05 | | 2.96 | 2.81 | -0.14 | | * | |
| Sense of being valued for research, scholarship, or creativity by members of department/unit | 3.44 | 3.77 | 0.33 | | 2.67 | 2.84 | 0.17 | | * | |
| Level of intellectual stimulation in day-to-day contacts with faculty colleagues | 3.62 | 3.79 | 0.16 | | 3.28 | 2.99 | -0.29 | | | |
| Sense of contributing to theoretical developments in my discipline | 3.74 | 4.16 | 0.42 | | 3.54 | 4.21 | 0.66 | | | |
| Balance between professional and personal life | 3.21 | 3.50 | 0.29 | | 3.47 | 2.73 | -0.74 | | | |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

Table 5 - Overall Satisfaction and Desire to Leave UM by Gender and Race-Ethnicity

| | males | | | | | | | | females | | | | | | | | | | | |
|----------------------|--|------------|---------------|-----|---|------------|---------------|-----|--------------------------|--------------------------|--|------------|---------------|------|---|------------|---------------|-----|--------------------------|--------------------------|
| | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff | faculty of color scientists & engineers | | | | white faculty scientists & engineers | | | | T1 sig race diff | T2 sig race diff |
| | mean T1 | mean T2 | diff T1-T2 | sig | mean T1 | mean T2 | diff T1-T2 | sig | | | mean T1 | mean T2 | diff T1-T2 | sig | mean T1 | mean T2 | diff T1-T2 | sig | | |
| | n=24 | n=28 | | | n=70 | n=107 | | | n=17 | n=26 | | | n=106 | n=91 | | | | | | |
| Overall satisfaction | 3.60 | 3.79 | 0.19 | | 3.81 | 3.91 | 0.10 | | | 3.09 | 3.20 | 0.11 | | 3.36 | 3.49 | 0.13 | | | | |
| Want to leave | | 2.82 | | | | 2.81 | | | | | 3.49 | | | 3.27 | | | | | | |
| | white faculty | | | | | | | | faculty of color | | | | | | | | | | | |
| | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff | male scientists & engineers | | | | female scientists & engineers | | | | T1 sig gender diff | T2 sig gender diff |
| | mean T1 | mean T2 | diff T1-T2 | sig | mean T1 | mean T2 | diff T1-T2 | sig | | | mean T1 | mean T2 | diff T1-T2 | sig | mean T1 | mean T2 | diff T1-T2 | sig | | |
| | n=24 | n=28 | | | n=70 | n=107 | | | n=24 | n=28 | | | n=17 | n=26 | | | | | | |
| Overall satisfaction | 3.81 | 3.91 | 0.10 | | 3.36 | 3.49 | 0.13 | * | * | 3.60 | 3.79 | 0.19 | | 3.09 | 3.20 | 0.11 | | | | |
| Want to leave | | 2.81 | | | | 3.27 | | | | | 2.82 | | | 3.49 | | | | | | |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*Symbol represents significant differences at the $p \leq .05$ level of significance

Table 6 - Correlations of Overall Satisfaction and Wanting to Leave UM with Climate and Career Satisfaction Indicators

| Time 1 | overall satisfaction | | | | want to leave UM | | | |
|---|----------------------|-------------|--------------|----------------|------------------|-------------|--------------|----------------|
| | white men | white women | men of color | women of color | white men | white women | men of color | women of color |
| | n=70 | n=106 | n=24 | n=17 | | | | |
| Overall career satisfaction | 0.57 *** | 0.71 *** | 0.86 *** | 0.78 *** | | | | |
| Overall climate | 0.35 ** | 0.57 *** | 0.63 *** | 0.67 ** | | | | |
| Disparaging comments about women | -0.13 | -0.23 * | 0.04 | -0.39 | | | | |
| Disparaging comments about men | 0.13 | -0.15 | 0.22 | -0.20 | | | | |
| Disparaging comments about racial-ethnic minorities | -0.02 | -0.09 | -0.01 | -0.07 | | | | |
| Unwanted sexual attention | -0.23 | -0.15 | 0.07 | -0.48 | | | | |
| Gender discrimination | -0.23 | -0.18 | 0.00 | -0.07 | | | | |
| Racial-ethnic discrimination | -0.04 | | -0.19 | -0.30 | | | | |

| Time 2 | overall satisfaction | | | | want to leave UM | | | |
|---|----------------------|-------------|--------------|----------------|------------------|-------------|--------------|----------------|
| | white men | white women | men of color | women of color | white men | white women | men of color | women of color |
| | n=107 | n=91 | n=28 | n=26 | n=107 | n=91 | n=28 | n=26 |
| Overall career satisfaction | 0.68 *** | 0.61 *** | 0.48 ** | 0.74 *** | -0.45 *** | -0.44 *** | -0.28 | -0.36 |
| Overall climate | 0.54 *** | 0.61 *** | 0.46 ** | 0.70 *** | -0.46 *** | -0.54 *** | -0.54 ** | -0.59 ** |
| Disparaging comments about women | -0.05 | -0.14 | 0.08 | -0.46 * | -0.03 | 0.22 * | 0.15 | 0.37 |
| Disparaging comments about men | -0.10 | 0.01 | 0.01 | -0.16 | 0.06 | 0.18 | 0.20 | 0.01 |
| Disparaging comments about racial-ethnic minorities | -0.21 * | 0.01 | -0.12 | -0.02 | 0.21 * | 0.07 | 0.40 * | 0.25 |
| Unwanted sexual attention | 0.08 | -0.08 | 0.04 | -0.07 | 0.09 | 0.20 | 0.00 | 0.07 |
| Gender discrimination | -0.03 | -0.22 * | 0.08 | 0.03 | -0.02 | 0.22 * | -0.17 | 0.30 |
| Racial-ethnic discrimination | 0.01 | | -0.37 | -0.06 | 0.01 | | 0.17 | 0.37 |

Note: Ns vary slightly by item; Ns reported represent the maximum number of responses by group for the items in the table

*p<.05, **p<.01, ***p<.001

Appendix A
University of Michigan Survey of Academic Climate and Activities (2006)

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

PROFESSIONAL EMPLOYMENT

In the chart below, please select the appropriate dates to indicate when you obtained your highest academic degree, your first UM appointment, and when you started on the tenure track at UM (if applicable).

| | 1960-64 | 1965-69 | 1970-74 | 1975-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-06 |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| year of highest degree | | | | | | | | | |
| year of 1st UM appointment | | | | | | | | | |
| year began tenure track at UM | | | | | | | | | |

How would you classify the primary field of your UM appointment? (check only one)

- Social Science
 Science or Engineering (basic, natural, clinical, and applied science)

Please indicate, in the following chart, your budgeted appointment for July 2005-June 2006 at UM, including the School or College in which you held the appointment, as well as the rank and fraction of time associated with that appointment. If you had multiple budgeted appointments, please list information for second, third, and fourth budgeted appointments, where applicable, as well; *fraction amounts should not equal more than 100%*. To list your rank, please use the following codes. *Note that all ranks include adjunct appointments.*

Instructional Track:

- 1 lecturer
- 2 instructor
- 3 asst. professor
- 4 assoc. professor
- 5 professor

Primary Research Track:

- 6 research investigator
- 7 asst. research scientist
- 8 assoc. research scientist
- 9 senior assoc. research scientist
- 10 research scientist
- 11 senior research scientist
- 12 research assistant professor
- 13 research associate professor
- 14 research professor

Clinical Track:

- 15 lecturer
- 16 instructor
- 17 asst. professor
- 18 assoc. professor
- 19 professor

Administrative:

- 20 any administrative appointment

| | school/college | rank code | appointment fraction (e.g., 100%, 50%) |
|---|----------------|-----------|--|
| 1 st (only) budgeted appointment | | | |
| 2 nd budgeted appointment | | | |
| 3 rd budgeted appointment | | | |
| 4 th budgeted appointment | | | |

Do you *currently* have one or more dry (unfunded) appointments? Yes No

How many years (including 0) were you employed full-time as a researcher in a non-academic setting? _____

How many years (including 0) were you employed part-time as a researcher in a non-academic setting? _____

How many years (including 0) were you employed in a non-academic, non-research setting? _____

Since receiving your final degree, for how many years (including 0) were you *not* employed at all? _____

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

Please check which, if any, of the following were part of any aspect of your *initial contract negotiation*, and in what ways, according to the four categories listed below. *Please check all that apply.*

| | offered by university | asked/bargained for by me | promised (in my offer letter) | received | | offered by university | asked/bargained for by me | promised (in my offer letter) | received |
|-------------------------|-----------------------|---------------------------|-------------------------------|----------|---|-----------------------|---------------------------|-------------------------------|----------|
| course release time | | | | | signing bonus | | | | |
| lab equipment | | | | | summer salary | | | | |
| lab space | | | | | special timing of tenure clock | | | | |
| renovation of lab space | | | | | moving expenses | | | | |
| research assistant | | | | | housing subsidy | | | | |
| clerical/admin. support | | | | | child care | | | | |
| discretionary funds | | | | | assistance with position for spouse/partner | | | | |
| travel funding | | | | | other (<i>please specify</i>): | | | | |
| office space | | | | | | | | | |

TEACHING If *not* teaching, please check here ; and then go to section labeled **SERVICE** (p. 3).

What is the *typical teaching load* each year in your primary department/unit?

Number of undergraduate courses? _____ Number of student contact hours? _____
 Number of graduate courses? _____ (not covered by formal courses)

In the past 5 years, how many *new* courses (courses that you have not taught previously—do not include major revisions of courses you have taught before) have you prepared for your primary department/unit? _____

Of these, how many did *you* propose? _____

How many were you *asked or required* to develop? _____

In the past 5 years, how many courses have you been released from teaching for the following reasons: (*indicate how many next to each category*) _____ with your own grant or fellowship funds?
 _____ by your department/unit?

For which of the following reasons were you released from teaching?

(*check all that apply*):

- course development
- administrative work
- modified duties
- routine leave (e.g., "nurturance leave"/leave after certain duties)
- sabbatical
- other: _____

For how many of each of the following types of individuals (including 0) do you currently serve as *official advisor*?

_____ undergraduates _____ PhD students _____ post-docs _____ junior faculty
 _____ MA students _____ medical students _____ residents/fellows

How would you evaluate your overall teaching performance compared to your department/unit average? *Please circle the number that best corresponds to your rating.*

Much lower 1 2 3 4 5 6 7 8 9 10 Much higher

How do you think your department/unit views your teaching performance compared to your department/unit average? *Please circle the number that best corresponds to your rating.*

Much lower 1 2 3 4 5 6 7 8 9 10 Much higher

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

How would you rate your overall enjoyment of teaching compared to your department/unit average? Please circle the number that best corresponds to your rating.

Much lower 1 2 3 4 5 6 7 8 9 10 Much higher

SERVICE

We are interested in knowing your level of involvement in committee work at UM over the *past 5 years*. For each of the following levels, please choose 3-5 of the committees you consider important, whether or not you have served on them, by checking the box to the left of the committee name. Then specify your level of participation on those selected by checking the appropriate categories to the right of the committee name; you may need to identify more than one level of participation (e.g., "volunteered" and "served"). Please note: important committees are those which *you feel* address significant/substantive issues and on which *you feel* you have/could play a meaningful role.

Please check all that apply for each committee you choose.

| | no participation | volunteered | asked to serve | served | chaired |
|--|------------------|-------------|----------------|--------|---------|
| Department/unit level committees: | | | | | |
| <input type="checkbox"/> curriculum | | | | | |
| <input type="checkbox"/> department/unit executive | | | | | |
| <input type="checkbox"/> faculty search | | | | | |
| <input type="checkbox"/> fellowship | | | | | |
| <input type="checkbox"/> graduate admissions | | | | | |
| <input type="checkbox"/> space | | | | | |
| <input type="checkbox"/> other (please list): | | | | | |
| School/college level committees: | | | | | |
| <input type="checkbox"/> college curriculum | | | | | |
| <input type="checkbox"/> college executive | | | | | |
| <input type="checkbox"/> department/unit head search | | | | | |
| <input type="checkbox"/> other (please list): | | | | | |
| University level committees: | | | | | |
| <input type="checkbox"/> please list: | | | | | |
| <input type="checkbox"/> please list: | | | | | |
| <input type="checkbox"/> please list: | | | | | |

In a typical year, how many committees do you serve on? _____ In a typical year, how many do you chair? _____
 Please list any other committees you have served on in the past 5 years. _____

Have you ever been asked to serve and/or served as department chair, department section/area/program chair, or center/lab/institute/program director or administrator?
 asked to serve: Yes No
 served: Yes No

How important to you is having a department/unit or college leadership position? Please circle the appropriate number.
 Not at all important 1 2 3 4 5 Very important

How willing are you to take on time-consuming service tasks (e.g., chairing an important committee)? Please circle the appropriate number.
 Not at all willing 1 2 3 4 5 Very willing

Do you feel you have been excluded from participating in important decision-making college and/or department level committees?
 Yes No

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

RESOURCES

In the chart below, please indicate your level of satisfaction with your current allocations of each of the following items by checking the appropriate column.

| | very dissatisfied | somewhat dissatisfied | neutral | somewhat satisfied | very satisfied | not applicable |
|---|-------------------|-----------------------|---------|--------------------|----------------|----------------|
| office space: | | | | | | |
| amount of space | | | | | | |
| location | | | | | | |
| computer equipment | | | | | | |
| research space: | | | | | | |
| amount of space | | | | | | |
| location appropriate to needs of research | | | | | | |
| contiguity of space | | | | | | |
| computer equipment | | | | | | |
| lab equipment | | | | | | |
| service from vendors (e.g., repairs, supplies, upgrades) | | | | | | |
| safety | | | | | | |
| ability to control temperature | | | | | | |
| maintenance (i.e., building problems addressed by physical plant) | | | | | | |
| other (please specify): | | | | | | |

Please describe any resource allocation issues that concern you:

Please estimate the overall amount of square footage (including office and lab space) allocated to you and your post-docs and graduate students: _____ square feet

Do you think the overall square footage allocated to you is adequate? Yes No

Have you received any of the following resources listed below since your initial contract at UM as a result of your own negotiations, the terms of an award, or offered by the university? Yes No Not applicable

If yes, please check all that apply.

| | asked/ bargained for by me | terms of an award | offered by university | | asked/ bargained for by me | terms of an award | offered by university |
|-------------------------|----------------------------------|----------------------|--------------------------|---|----------------------------------|----------------------|--------------------------|
| course release time | | | | special bonus | | | |
| lab equipment | | | | summer salary | | | |
| lab space | | | | special timing of tenure clock | | | |
| renovation of lab space | | | | moving expenses | | | |
| research assistant | | | | housing subsidy | | | |
| clerical/admin. support | | | | child care | | | |
| discretionary funds | | | | assistance with position for spouse/partner | | | |
| travel funding | | | | other (please specify): | | | |

Have you *ever* had an outside offer while at UM? Yes No

If yes, has an outside offer ever resulted in a salary increase? Yes No

If no, why not: _____

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

Many of the following questions ask you to rate conditions in your department or unit. If you have multiple appointments, we would like you to rate the unit that you consider to be your primary appointment. Normally this would be the unit in which you spend the most time (regardless of percentage of budgeted appointment). However, we are most interested in learning about instructional units, so if you have an administrative position and an additional instructional appointment in another unit, please check the instructional unit. If you teach in two units to an equal degree, please simply choose one to rate for this questionnaire. Please identify the school/college in which the unit you are rating is located as well as your appointment in that unit by checking the appropriate category.

| | School/College (check one) | | | | Appointment (check one) | | |
|-------------------------|----------------------------|------|-----|-------|-------------------------|----------|----------|
| | Engin. | Med. | LSA | Other | Instructional | Research | Clinical |
| Primary department/unit | | | | | | | |

TENURE CLOCK

If you are a tenured or tenure-track faculty member:

Is it possible to stop or extend the tenure clock in your department/unit? Yes No I don't know

If yes, and if you were ever an assistant professor at UM, did you stop or extend the tenure clock for any of the following reasons? Check all that apply.

- Yes, as part of my start-up package.
- Yes, because of a professional opportunity.
- Yes, because of childbirth/other dependent care duties.
- Yes, for health/medical reasons.
- Yes, for other reasons; please specify: _____

Did you choose *not* to stop the tenure clock even though you were entitled to? Yes No Not applicable

If yes, why? _____

If you have chosen to stop the tenure clock for any reason, how supportive was your department/unit in facilitating this choice? Please circle the appropriate number for your primary unit.

Not at all supportive 1 2 3 4 5 Very supportive

CAREER SATISFACTION

How satisfied are you with the following dimensions of your professional development? *Check the rating that best expresses your level of satisfaction.*

| | very dissatisfied | somewhat dissatisfied | neutral | somewhat satisfied | very satisfied | not applicable |
|--|-------------------|-----------------------|---------|--------------------|----------------|----------------|
| opportunity to collaborate with other faculty | | | | | | |
| amount of social interaction with members of my department/unit | | | | | | |
| level of funding for my research or creative efforts | | | | | | |
| current salary in comparison to the salaries of my UM colleagues | | | | | | |
| ability to attract students to work with me | | | | | | |
| sense of being valued as a teacher by my students | | | | | | |
| sense of being valued as a mentor or advisor by my students | | | | | | |
| sense of being valued for my teaching by members of my department/unit | | | | | | |
| sense of being valued for my research, scholarship, or creativity by members of my department/unit | | | | | | |
| level of intellectual stimulation in my day-to-day contacts with faculty colleagues | | | | | | |
| sense of contributing to theoretical developments in my discipline | | | | | | |
| balance between professional and personal life | | | | | | |
| other (please specify): | | | | | | |

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

All things considered, how satisfied are you with your current position at UM? Please circle the number on the scale that is closest to how you feel.

Very dissatisfied 1 2 3 4 5 Very satisfied

How often do you think about leaving UM? Please circle the number on the scale that is closest to how you feel.

Never 1 2 3 4 5 Often

How much would you like to stay at UM for your entire career? Please circle the number on the scale that is closest to how you feel.

Not at all 1 2 3 4 5 Very much

How likely is it that you will stay at UM for your entire career? Please circle the number on the scale that is closest to how you feel.

Very unlikely 1 2 3 4 5 Very likely

RECOGNITION

Has your department/unit ever nominated you for an award in the following areas? teaching Yes No
research Yes No
clinical Yes No
service Yes No

Has your department/unit failed to nominate you for an award for which you were qualified? Yes
 No
 I don't know

If yes, please elaborate: _____

PRODUCTIVITY

What are the most reliable and informative indicators of productivity in your area of research? Please check up to five items.

- number of external grant proposals (PI or co-PI)
- total dollar amount of external grants (PI or co-PI)
- number of external fellowships
- number of articles published in refereed academic or professional journals
- number of monographs written
- number of books edited
- number of book chapters
- number of dissertations chaired
- number of presentations at national/international conferences
- number of patents
- other (please specify): _____

Using the criteria you selected above, how would you rate your overall level of productivity compared to researchers in your area and at your rank nationwide? Please circle the number that best corresponds to your rating.

Much less productive 1 2 3 4 5 6 7 8 9 10 Much more productive

Using the same criteria, how do you think your department/unit views your productivity, compared to the departmental/unit average? Please circle the number that best corresponds to your rating.

Much less productive 1 2 3 4 5 6 7 8 9 10 Much more productive

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, “faculty” refers to all tenured and tenure-track, primary research, and clinical track faculty.

In the chart below please indicate *how many* male and female faculty members for whom you provide career advising, and the *kinds of support/advice you provide*, according to their institutional affiliation category. *Please answer separately for male and female mentees, as appropriate, and check all that apply.* If you feel this is not applicable to you, please leave the chart blank and check here:

| | male mentees (N=) | | | | female mentees (N=) | | | |
|--|--------------------------|-------------------------------|----------------------------------|------------------------------|--------------------------|-------------------------------|----------------------------------|------------------------------|
| | UM same unit (1 or more) | UM different unit (1 or more) | at other institution (1 or more) | outside aca-deme (1 or more) | UM same unit (1 or more) | UM different unit (1 or more) | at other institution (1 or more) | outside aca-deme (1 or more) |
| As a mentor/career advisor, I... | | | | | | | | |
| serve as a role model for my mentees | | | | | | | | |
| promote my mentees’ careers through networking | | | | | | | | |
| advise about preparation for advancement (e.g. promotion/tenure, leadership positions) | | | | | | | | |
| advise about getting my mentees’ work published | | | | | | | | |
| advise about department/unit politics | | | | | | | | |
| advise about obtaining the resources my mentees need | | | | | | | | |
| advocate for my mentees | | | | | | | | |
| advise about balancing work and family | | | | | | | | |
| other (<i>please specify</i>): | | | | | | | | |

On average, how many hours per month do you spend on *informal* interactions with individuals or groups to advise about non-standard mentoring issues (e.g., advising students and/or junior faculty about how to balance work and family, meeting with female applicants to the department/unit, organizing social activities, advocating for students and/or junior faculty who are not your advisees)? _____

Please rate the climate of your department/unit on the following continuum by *circling the appropriate number*.

| | | | | | | |
|----------------|---|---|---|---|---|-----------------|
| Friendly | 1 | 2 | 3 | 4 | 5 | Hostile |
| Racist | 1 | 2 | 3 | 4 | 5 | Non-racist |
| Homogeneous | 1 | 2 | 3 | 4 | 5 | Diverse |
| Disrespectful | 1 | 2 | 3 | 4 | 5 | Respectful |
| Collegial | 1 | 2 | 3 | 4 | 5 | Contentious |
| Non-sexist | 1 | 2 | 3 | 4 | 5 | Sexist |
| Collaborative | 1 | 2 | 3 | 4 | 5 | Individualistic |
| Cooperative | 1 | 2 | 3 | 4 | 5 | Competitive |
| Homophobic | 1 | 2 | 3 | 4 | 5 | Non-homophobic |
| Non-supportive | 1 | 2 | 3 | 4 | 5 | Supportive |

Please indicate your level of agreement with each of the following statements concerning conditions in your department/unit, and your relationships with your department/unit colleagues by *checking the appropriate rating*.

| | strongly disagree | tend to disagree | neutral | tend to agree | strongly agree | not applicable |
|--|-------------------|------------------|---------|---------------|----------------|----------------|
| My research interests are valued by my colleagues. | | | | | | |
| I feel pressured to change my research agenda in order to fit in. | | | | | | |
| I feel/felt pressured to change my research agenda to make tenure/be promoted. | | | | | | |
| I am comfortable asking questions about performance expectations. | | | | | | |
| I am/was reluctant to bring up issues that concern me for fear that it will/would affect my promotion/tenure. | | | | | | |
| My colleagues expect me to represent “the point of view” of my gender. | | | | | | |
| My colleagues expect me to represent “the point of view” of my race/ethnicity. | | | | | | |
| My colleagues solicit my opinions about their research ideas and problems. | | | | | | |
| My colleagues have lower expectations of me than of other faculty. | | | | | | |
| I constantly feel under scrutiny by my colleagues. | | | | | | |
| I have/had to work harder than I believe my colleagues do, in order to be/have been perceived as a legitimate scholar. | | | | | | |
| There are many unwritten rules concerning how one is expected to interact with unit colleagues. | | | | | | |
| Others seem to find it easier than I to “fit in.” | | | | | | |

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

How would you rate your department/unit's executive leader (chair or director) in each of the following areas? *Check the appropriate rating for each item.*

| The chair/director of my department/unit... | poor | below average | average | above average | superior |
|---|------|---------------|---------|---------------|----------|
| maintains high academic standards. | | | | | |
| is open to constructive criticism. | | | | | |
| is an effective administrator. | | | | | |
| shows interest in faculty. | | | | | |
| encourages and empowers faculty. | | | | | |
| treats faculty in an even-handed way. | | | | | |
| helps me obtain resources I need. | | | | | |
| gives me useful feedback about my performance. | | | | | |
| articulates a clear vision. | | | | | |
| articulates clear criteria for promotion/tenure. | | | | | |
| honors agreements. | | | | | |
| handles disputes/problems effectively. | | | | | |
| communicates consistently with faculty. | | | | | |
| creates a cooperative and supportive environment. | | | | | |
| shows commitment to racial-ethnic diversity. | | | | | |

For each item, please *check the level* that best corresponds to how much influence you feel you have over the following matters in your department/unit:

| | really no influence | minor influence | some influence | substantial influence | tremendous influence | not applicable |
|--|---------------------|-----------------|----------------|-----------------------|----------------------|----------------|
| unit curriculum decisions | | | | | | |
| size of salary increases I receive | | | | | | |
| obtaining money for travel to professional meetings (beyond standard unit allocations) | | | | | | |
| securing the facilities or equipment I need for my research | | | | | | |
| selecting new graduate students or residents/fellows | | | | | | |
| selecting new faculty members to be hired | | | | | | |
| determining who gets tenure | | | | | | |
| selecting the next unit head | | | | | | |
| affecting the overall unit climate/culture | | | | | | |

Please indicate in the chart below any job-related discrimination you have experienced *at UM within the last five years*, noting the basis for the discrimination (race/ethnicity, gender, sexual orientation, etc.) and the areas in which the discriminatory behavior has affected your career at UM. *Please check all that apply.*

| | not applicable | race/ ethnicity | gender | sexual orientation | physical disability | religious affiliation | Other (please describe): |
|---|----------------|-----------------|--------|--------------------|---------------------|-----------------------|--------------------------|
| hiring | | | | | | | |
| promotion | | | | | | | |
| salary | | | | | | | |
| space/equipment, other resources | | | | | | | |
| access to administrative staff | | | | | | | |
| graduate student or resident/fellow assignments | | | | | | | |
| other (please specify): | | | | | | | |

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

Please indicate your level of agreement with each of the following statements concerning the atmosphere in your department/unit by *checking the appropriate level*:

| | strongly disagree | disagree | neutral | agree | strongly agree |
|--|-------------------|----------|---------|-------|----------------|
| Some faculty have a condescending attitude toward women. | | | | | |
| Sexist remarks are heard in the classroom. | | | | | |
| There is equal access for both men and women to lab/research space. | | | | | |
| The environment promotes adequate collegial opportunities for women. | | | | | |
| Men receive preferential treatment in the areas of recruitment and promotions. | | | | | |
| Men are more likely than women to receive helpful career advice from colleagues. | | | | | |
| In meetings, people pay just as much attention when women speak as when men do. | | | | | |
| Women are appropriately represented in senior positions. | | | | | |
| Sex discrimination is a big problem in my department. | | | | | |

How often within the last five years at UM have you overheard insensitive or disparaging comments about the following types of people in general, or about particular people as a member of that group, made by faculty or students? [This does not refer to comments about an individual as an individual.] Please check one rating for each row. Check "never" if not applicable.

| | | never | once or twice/year | couple of times/term | more than once/month | weekly |
|---|----------|-------|--------------------|----------------------|----------------------|--------|
| about women in general, or about particular women as "typical" of women | faculty | | | | | |
| | students | | | | | |
| about men in general, or about particular men as "typical" of men | faculty | | | | | |
| | students | | | | | |
| about racial/ethnic minorities, or about particular persons of color as "typical" of a racial/ethnic group | faculty | | | | | |
| | students | | | | | |
| about a religious group, or about particular persons as "typical" of a religious group | faculty | | | | | |
| | students | | | | | |
| about sexual minorities (that is, gay, lesbian, bisexual, and transgender individuals), or about particular persons as "typical" of a sexual minority | faculty | | | | | |
| | students | | | | | |
| about individuals based on their political perspectives | faculty | | | | | |
| | students | | | | | |

Please check all categories in the following table that accurately describe group memberships within your department (your own and those of your co-workers):

In my department:

| | men | women | inter-national | racial/ethnic minorities | sexual minorities | disabled |
|--|-----|-------|----------------|--------------------------|-------------------|----------|
| I belong to this group. | | | | | | |
| as far as I know, there are NO faculty who belong to this group. | | | | | | |
| there is a supportive department community for these faculty. | | | | | | |
| some faculty members have a condescending attitude toward members of this group. | | | | | | |
| the department environment is one in which these faculty feel comfortable and are included. | | | | | | |
| these faculty members voice their ideas in meetings as often as faculty members not belonging to this group. | | | | | | |
| some faculty members expect more from these faculty than from others. | | | | | | |
| some faculty member expect less from these faculty than from others. | | | | | | |

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

Within the past 5 years, have you experienced any unwanted and uninvited sexual attention (defined as including unwanted sexual teasing, jokes, remarks, or questions; unwanted pressure for dates; unwanted letters, phone calls, or e-mails; unwanted touching, leaning over, cornering, or pinching; unwanted pressure for sexual favors; stalking; rape or assault)? Yes No

If yes, did you make an official report of it to anyone? Yes No

Why/why not? _____

In your department/unit, how prevalent are instances of unwanted and uninvited sexual attention? Please circle the appropriate number for your unit.

Not at all prevalent 1 2 3 4 5 Very prevalent

Within the past five years, how many individuals from UM have come to you concerned about behavior they experienced that either you or they would define as uninvited and unwanted sexual attention? _____

Are you now, or in the past five years have you ever been, the officially designated person to whom people report incidences of unwanted sexual attention? Yes No

PERSONAL LIFE

Do you have a spouse/partner? Yes No

(If no, please go to the section labeled **DEMOGRAPHICS**, below)

What, if any, is your spouse's/partner's employment or career field? _____

What is your spouse's/partner's employment status? Full-time Part-time Not employed

What is your spouse's/partner's preferred employment status at this time? Full-time Part-time Not employed

If your spouse/partner is employed at UM, what type of appointment does he or she have? Check all that apply.

faculty member administrative/professional staff office or support staff

primary research appointment technical health field

post-doctoral or fellowship librarian/curator other (please specify): _____

Have you ever sought help from UM in attempting to find appropriate employment for your spouse/partner? Yes No

If yes, how satisfied were you with UM's help in locating appropriate opportunities for your spouse/partner?

Please circle the appropriate number.

Very dissatisfied 1 2 3 4 5 Very satisfied

Have you ever considered leaving UM to improve career opportunities for your spouse/partner? Yes No

How often have you seriously considered leaving UM to improve your own career opportunities? Please circle the appropriate number.

Never 1 2 3 4 5 Always

DEMOGRAPHICS

Age: _____ (years)

Sex: Male Female

US citizen?: Yes No

Racial/Ethnic Identification

(Check one):

African American

Asian American

Euro American

Latina/o or Hispanic American

Native American/American Indian

Mixed (please describe): _____

Other (please describe): _____

University of Michigan Survey of Academic Climate and Activities

Throughout this survey, "faculty" refers to all tenured and tenure-track, primary research, and clinical track faculty.

Number of children for whom you do, or have, provide(d) care: _____

Age of youngest: _____

Age of oldest: _____

If you have children and a spouse/partner, how would you describe, in general, the distribution of parenting responsibilities between you and your spouse/partner (*please circle the appropriate number*)?

I handle most of the
parenting
responsibilities.

1

2

The parenting
responsibilities are
shared equally.

3

4

My spouse/partner
handles most of the
parenting
responsibilities.

5

Did you complete a similar academic climate survey in fall, 2001? Yes No Maybe

Please list or describe below both the most positive or favorable aspects of your department/unit, as well as the most negative or unfavorable aspects of it. (Feel free to add an additional page if that is helpful.)

**Thank you very much for taking the time to complete
and return the survey!**

Please be sure to return it via campus mail in the envelope provided to:

**NSF ADVANCE Project
Institute for Research on Women and Gender
1136 Lane Hall
1290**

Or U.S. mail:

**NSF ADVANCE Project
Institute for Research on Women and Gender
1136 Lane Hall
204 S. State Street
Ann Arbor, MI 48109-1290**

**After you have submitted the survey (or if you don't want to participate in the survey),
you can e-mail lyris@listserver.itd.umich.edu and type "unsubscribe Advance06" in the
subject header. This will ensure that you don't receive future reminders.**