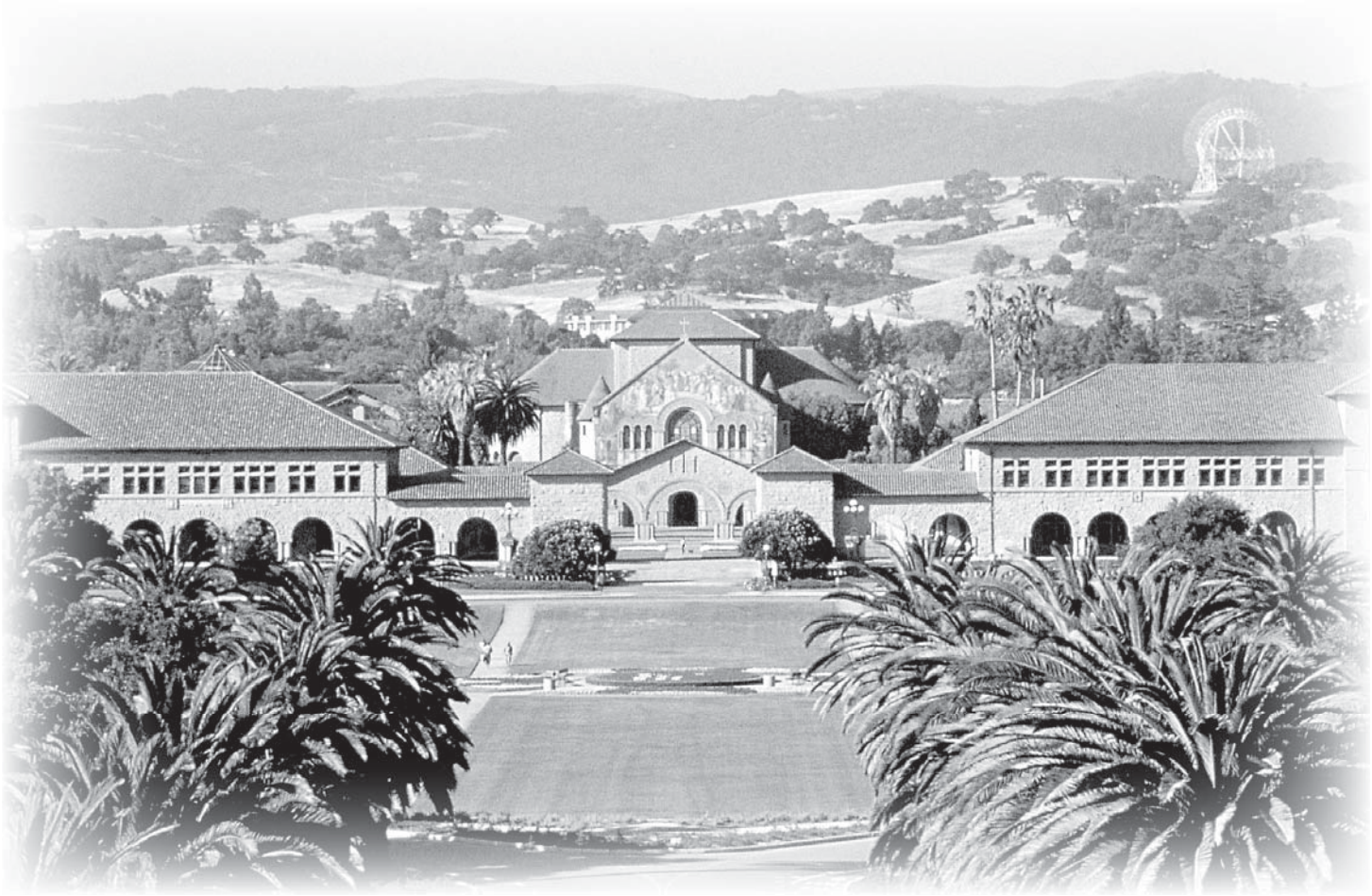
Report on the Quality of Life of Stanford Faculty



Stanford University

Panel on Faculty Equity and Quality of Life

January 2010

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Executive Summary

This report summarizes the results from a survey of the Stanford University faculty that was conducted by the Panel on Faculty Equity and Quality of Life in November, 2008. The survey included questions about satisfaction with being a faculty member, perceptions of workplace climate and reasonableness of workload, and satisfaction with life beyond work. Some questions permitted comparison to an earlier survey of the Stanford faculty conducted in 2003, and other questions allowed for comparisons with select peer institutions.

The main findings are: 1) Overall satisfaction with being a faculty member at Stanford is high, with 79% of faculty reporting being satisfied with their job. 2) Overall satisfaction, perceptions of workplace climate, and perceived opportunities for women and minorities all show improvement since the last survey in 2003. 3) The overall satisfaction levels of Stanford faculty are similar, and in some cases higher, than our peers. 4) Although overall satisfaction levels for Stanford faculty do not differ significantly by gender or race/ethnicity, significant gender and racial/ethnic differences persist in some important areas, including perceptions of unit and colleague support, sense of inclusion, and the perception of having to work harder to be perceived as a legitimate scholar. 5) There is some variation in overall satisfaction and in climate and other measures by gender among Stanford's seven schools and their major divisions. 6) Perceptions of positive support from one's unit and one's colleagues are the biggest predictors of being satisfied with being a faculty member at Stanford. 7) Among the small proportion (21%) of faculty who indicated that they are likely to leave Stanford in the next three years, the key reasons are to find a more supportive work environment, to enhance their academic career, to reduce their cost of living, and to reduce stress. 8) For faculty overall, the greatest source of stress outside the workplace is the high cost of living in the Bay Area. Childcare is the greatest source of stress for faculty with young children.

The main conclusion from the report is that while improvements have been observed in the last five years and while the overall level of satisfaction is quite high among faculty, significant concerns remain. Faculty who are women and/or members of under-represented minority groups continue to perceive lower levels of support from their units and colleagues, which depresses their satisfaction with being a faculty member at Stanford. For example, such faculty report lower levels of collegiality and respect for their scholarship.

The main limitations of this study are: 1) No identifying information was collected in the 2003 or 2008 survey; therefore comparisons of the responses of the same faculty over time cannot be made. As a result, caution should be used in comparing findings across the two time periods. 2) The response rate, while higher in 2008 than 2003, was still lower than desired. Sixty-four percent of the faculty answered at least some of the survey questions and fifty-four percent answered all items. 3) The small number of faculty of color in the survey sample frequently limited the comparisons that can be made across racial/ethnic groups.

Based on the results of the survey, the Panel on Faculty Equity and Quality of Life recommends that the university: 1) Improve workplace climate by enhancing efforts to diversify departments and leadership positions. 2) Develop more effective ways of assessing and improving workplace climate issues, especially those affecting women and/or faculty of color. 3) Better address the high cost of living through competitive salaries and enhanced housing and dependent care assistance. 4) Continue efforts to enhance options for on-campus day care and for emergency and back-up dependent care. 5) Increase efforts to assist with the employment of spouses and partners. 6) Continue periodic surveys of the faculty and other research projects to monitor progress over time and to allow for comparisons with peer institutions.

Survey Findings and Recommendations

Panel on Faculty Equity and Quality of Life

Members:

Deborah Rhode (Law), Chair (until 8/31/09)

Shelley Correll (Sociology), Chair (as of 9/1/09)

Anthony Antonio (Education)

Patricia Jones (Biology; Vice Provost for Faculty Development & Diversity)

Sarah Soule (Graduate School of Business, as of 9/1/09)

Robert Weisberg (Law; Special Assistant to the Provost for Faculty Recruitment and Retention)

Hannah Valantine (Medicine; Sr. Associate Dean for Diversity and Leadership, School of Medicine)

With support from:

Jacyn Lewis (Associate Vice Provost, Faculty Development & Diversity)

Jill Crowley (Research Analyst, Faculty Development & Diversity)

Corrie Potter (Research Assistant)

I. Background

In 2001, following the release of a widely circulated report on gender bias at MIT, a group of nine leading university presidents agreed to explore equity-related concerns at their own institutions and to share strategies for any necessary change. As part of that initiative, President Hennessy and Provost Etchemendy created the Provost's Advisory Committee on the Status of Women Faculty (PACSWF), chaired by Law Professor Deborah L. Rhode. Over the next several years, the committee collected data on non-salary forms of support/compensation, and recruitment, promotion, and retention practices from all seven of Stanford's schools and their major divisions.[1] The Committee also designed the university's first Faculty Quality of Life Survey, administered in Spring 2003. In response to the information collected, the Committee issued a report with recommendations in May, 2004, available at http://facultydevelopment.stanford.edu/reports. Among its proposals was that the university create an ongoing faculty panel on equity and quality

[1] Earth Sciences, Education, Engineering, Graduate School of Business (GSB), Humanities and Sciences (H&S) [three divisions: Humanities, Natural Sciences, and Social Sciences], Law, and Medicine (two divisions: Basic Sciences and Clinical Sciences)

of life, and that it continue to monitor the university's performance on these issues.

The Provost did so, with Rhode staying on as chair. Over the next several years, the renamed Panel on Gender Equity and Quality of Life followed up with deans of each of the schools to discuss issues specific to their faculty, and conducted focus groups on strategies to improve the quality of life. The Faculty Diversity Committee of the Diversity Action Council, chaired by Professor Ewart Thomas, also conducted a follow-up analysis of Faculty Quality of Life race/ethnicity data, in order to guide Council recommendations.

In recent years the university has developed a variety of resources, programs, policies, and recommended practices for enhancing the recruitment and retention of an excellent and diverse faculty and for supporting faculty with family responsibilities. These are detailed in two publications from the Office of the Vice Provost for Faculty Development and Diversity[2].

To update its assessment of climate and equity issues for faculty, in 2008 the Panel (now named the Panel on Faculty Equity and Quality of Life) designed a second Quality of Life Survey, and began again collecting data from the schools concerning non-salary forms of compensation and support. The survey, administered in November 2008, provides some basis for comparison with the 2003 results, although neither the respondents nor all the questions remained the same. The 2008 survey incorporated a number of common core questions on quality of life issues developed by the American Association of Universities Data Exchange (AAUDE) that have been used by other institutions in their surveys. In designing the 2008 Stanford survey, the Panel balanced the value of retaining questions from the 2003 survey, which would permit comparisons over time, against modifying questions to permit comparison with peer universities.

The 2008 Stanford Faculty Quality of Life Survey was distributed to Stanford faculty in all seven schools and the SLAC National Accelerator Center, including those in all faculty lines (tenure line, non-tenure line, and Medical Center line). The survey did not devote special attention to the experiences of untenured tenure-line faculty, as Stanford had participated in 2005 in the Tenure-Track Faculty Job Satisfaction Survey conducted by The Collaborative on Academic Careers in Higher Education (COACHE)[3].

II. Summary: Major Findings of the 2008 Faculty Quality of Life Survey

1. Satisfaction is high at the university generally and across schools; about four-fifths of survey participants were somewhat satisfied (36.1%) or very satisfied (43.0%) with being a faculty member at Stanford. Also, nearly three-fourths said they would decide again to be faculty at Stanford.
2. Measures of work climate, perceived workload, opportunities for advancement, sense of inclusion, and perceptions of opportunities for women and faculty of color[4] show improvement over the last five years.
3. The overall satisfaction levels of Stanford faculty are similar, and in some cases higher, than at several peer private research universities.
4. Despite such improvement, significant gender and race/ethnic differences persist along several important dimensions, including perceptions of unit and colleague support, sense of inclusion, and the perception of having to work harder to be perceived as a legitimate scholar.

[2] *Building on Excellence: Guide to Recruiting and Retaining an Excellent and Diverse Faculty at Stanford University*, and *Family Matters @ Stanford for Faculty*, both available at http://facultydevelopment.stanford.edu/reports.html.

[3] The COACHE Institutional Report for Stanford University is available at http://facultydevelopment.stanford.edu/reports.html

[4] The definitions of racial and ethnic groups used in the survey for respondents' self-identification were: Black, non-Hispanic; American Indian/Alaskan Native; Mexican American/Chicano; Other Hispanic; Asian/Pacific Islander; and White, non-Hispanic. Because of the small numbers of individuals in groups other than Asian/Pacific Islander and White, non-Hispanic, for reporting responses of faculty from these traditionally-underrepresented groups, they are combined in a group referred to as Underrepresented Minorities ("URM"). In this report White, non-Hispanic is abbreviated as "White" or "WNH", and Asian/Pacific Islander is abbreviated as "Asian" or "API".

5. There is some variation in overall satisfaction and in climate and other measures by gender among Stanford's seven schools and their major divisions.
6. The best predictor of overall satisfaction is the support of the faculty member's unit, followed by the support of colleagues.
7. Among the 21% of faculty who indicate that they are somewhat or very likely to leave Stanford within the next three years, the key reasons are work climate, a desire to enhance their academic career, cost-of-living, and stress.
8. The greatest source of stress outside the workplace for faculty overall is cost of living. Faculty with young children rank childcare as the greatest source of stress.

III. Methodology: 2008 Faculty Quality of Life Survey

A. Sample Characteristics

The survey was administered through an online application in the fall of 2008 to all Stanford faculty. About two thirds of the Stanford faculty (64%) responded to the survey; over half (56%) of the faculty completed the entire questionnaire. The respondents were representative of university population across faculty gender, race/ethnicity, and rank. There was significant variation across schools in the response rate, with Med-Clinical, SLAC, and Independent Labs, Centers and Institutes underrepresented. The sample was similar to 2003 in the distribution and representativeness of responses across the schools. The survey instrument is included as Appendix I. Details of sample characteristics can be found in Appendix II.

B. Core Measure Indices

To aid evaluation, survey items were analyzed to identify core measures that would be relevant to faculty satisfaction. These core indices were constructed by combining questions, focusing primarily on climate issues that shared conceptual coherence and elicited similar patterns of responses. The questions making up each of the indices and reliability statistics are listed in Appendix III.

C. Multivariate Analysis

After core measure indices were developed and bivariate relationships examined through correlation and difference of means testing, hierarchical (block) logistic regression was used to model faculty satisfaction, likelihood of leaving Stanford, and whether the faculty member would again choose to be a faculty member at Stanford. The blocks grouped independent variables into demographic/personal characteristics, individual work-life factors, and perceptions of unit climate. For more details on these analyses, see *Special Report III, Regression Analyses of Predictors of Faculty Satisfaction and Intention to Remain at Stanford*.

IV. Survey Findings

A. Faculty Satisfaction

Of all faculty who responded to the survey, 79.1% (872/1102) are "somewhat" or "very" satisfied being a faculty member at Stanford (Fig. 1). The percentage of faculty who say they are "very satisfied" has increased from 24% in 2003 to 43% in 2008[5]. Most schools show increases in satisfaction since 2003. There is substantial variation among schools in mean levels of satisfaction, with the Law School faculty indicating the most satisfaction; 84% of Law professors are very satisfied and 8% are somewhat satisfied (see Figures 1 and 2). There is no university-wide gender effect, and male faculty were statistically significantly more satisfied than female faculty in only one school/division, Clinical Sciences in the School of Medicine, while female faculty were statistically significantly more satisfied in Engineering (Fig. 3). There are no statistically significant effects of rank or race/ethnicity on overall satisfaction (Fig. 4, 5).

[5] This increase should be interpreted with caution because the satisfaction question was worded slightly differently in the 2003 and 2008 surveys, and the question had different placement in the order of the two surveys. The increase in percentage saying they are "Very Satisfied" is large enough (19%) and consistent with over-time comparisons of the other satisfaction items to convince the Panel that it reflects a real increase over time, despite these methodological issues.

Figure 1
"Overall, how satisfied are you being a faculty member at Stanford?"

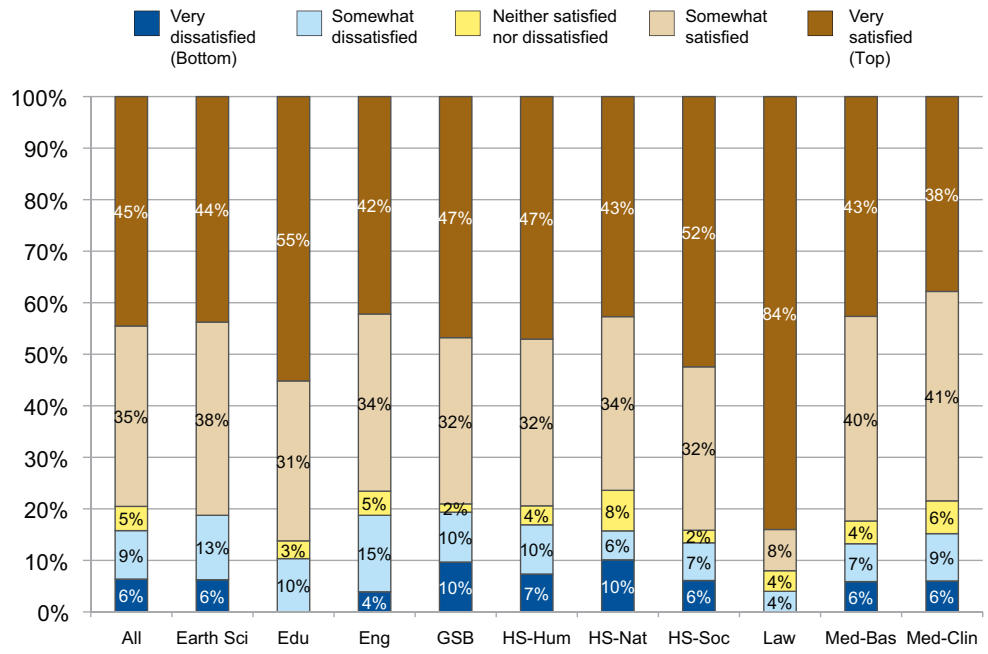


Figure 2
Overall Satisfaction, Ranking by School

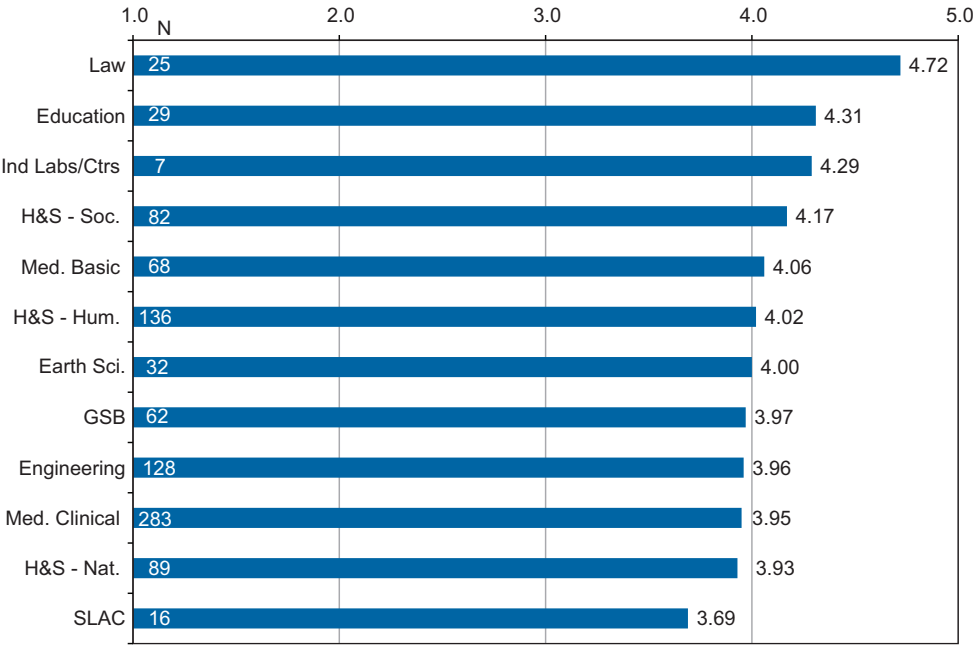
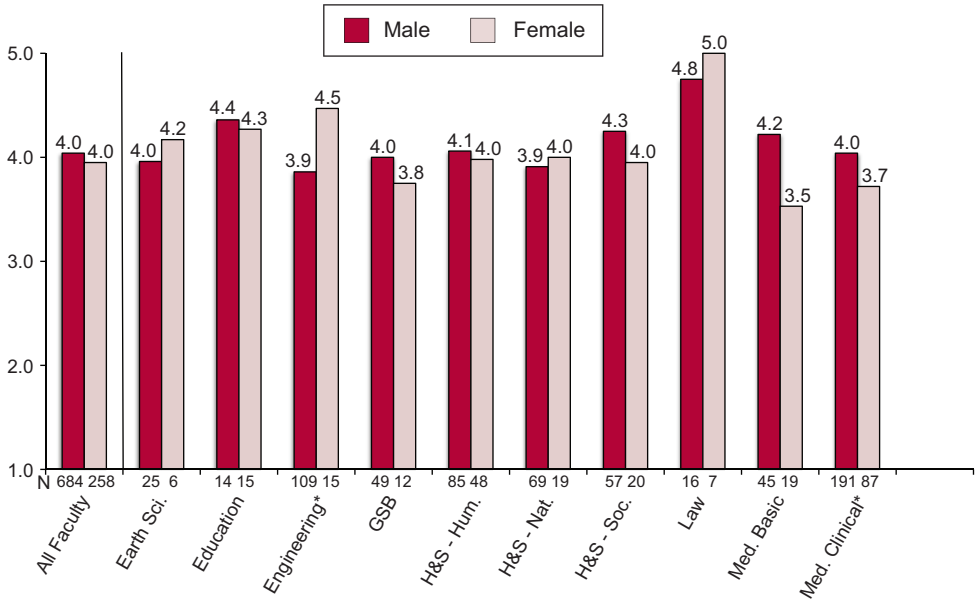
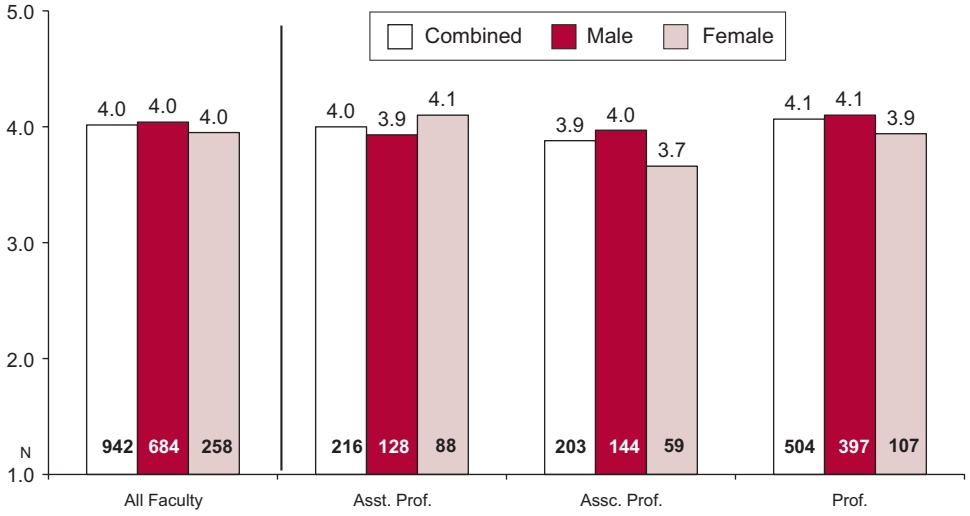


Figure 3
Overall Satisfaction by School and Gender



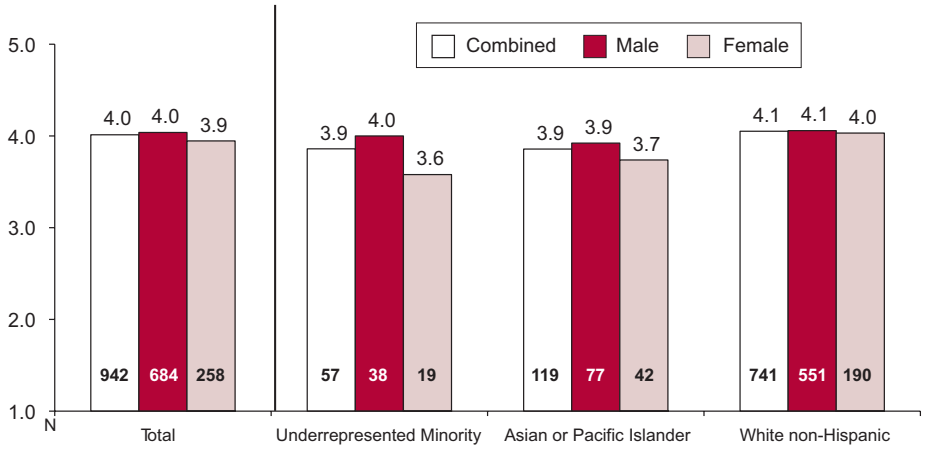
* = p<0.05; ** = p<0.01; *** = p<0.001
Asterisks indicate a significant difference between male and female means within each school (T-test, equal variances not assumed).
In this and subsequent figures, "N" refers to the number of survey respondents represented by each column.

Figure 4
Overall Satisfaction by Rank and Gender



There were no significant differences between genders within ranks (equal variances not assumed) and no significant differences between overall means across ranks.
The coding of the variable is 1 "Very Dissatisfied," 2 "Somewhat Dissatisfied," 3 "Neither Satisfied nor Dissatisfied," 4 "Somewhat Satisfied," and 5 "Very Satisfied".

Figure 5
Overall Satisfaction by Race/Ethnicity and Gender



There were no significant differences between genders within race/ethnic categories (equal variances not assumed) and no significant differences between overall means across race/ethnic categories. The coding of the variable is 1 "Very Dissatisfied," 2 "Somewhat Dissatisfied," 3 "Neither Satisfied nor Dissatisfied," 4 "Somewhat Satisfied," and 5 "Very Satisfied".

Stanford faculty include a higher proportion (43%) who are very satisfied than the mean of a set of seven peer private research institutions for which survey data are available through the AAU Data Exchange (41.2%, range 33.5-50%) (Fig. 6). Women and URM faculty at Stanford also include more very satisfied faculty than the mean of these peer institutions (Fig. 7).

Figure 6
Satisfaction Comparison with 7 Private Research Universities

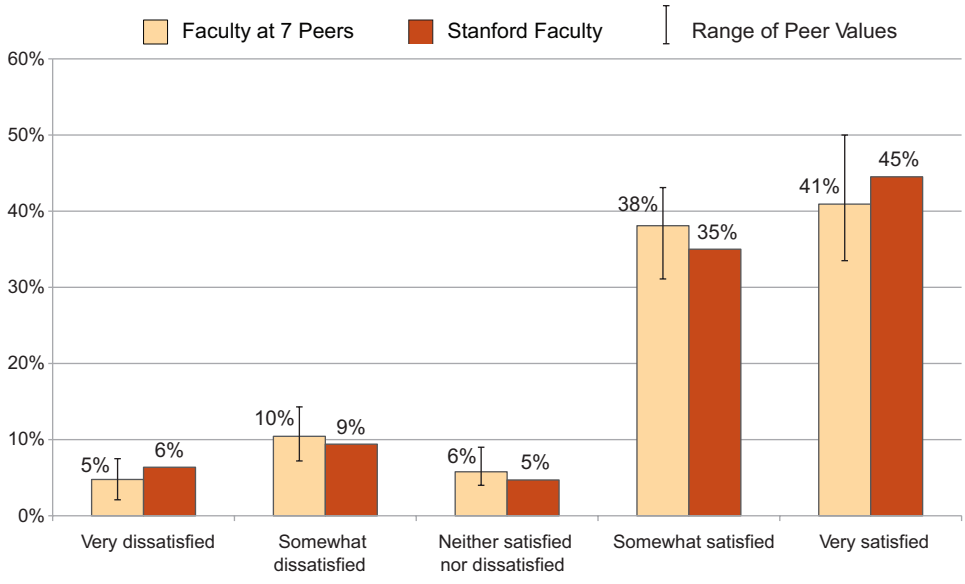


Figure 7
Faculty Satisfaction Comparison with 7 Peer Private Research Institutions

	Percent 'Somewhat' and 'Very' Satisfied			Percent 'Very' Satisfied		
	Stanford	7 Peers		Stanford	7 Peers	
		Mean	Range		Mean	Range
All Faculty	79.1	78.8	75.1 - 85.3	43.0	41.2	33.5 - 50.0
Women	76.4	77.3	72.9 - 81.3	43.8	36.0	29.0 - 46.1
URM*	75.5	77.5	68.8 - 86.5	45.3	40.4	29.7 - 53.5

*In this table for Stanford and peers, the URM data do not include those faculty members who are also non-resident alien faculty. The non-resident category is considered its own race/ethnic category in the AAUDE.

A second question related to faculty satisfaction was whether faculty would again decide to be a faculty member at Stanford. Of all respondents, 72% would choose to be a faculty member at Stanford again, up from 63% in 2003 (Fig. 8). In most schools, the proportion of respondents indicating that they would choose again to be a faculty member at Stanford has increased since 2003 (Fig. 9)

Figure 8
Cross-Year Comparison: Percent Who Would Choose to be a Faculty Member Again, by School

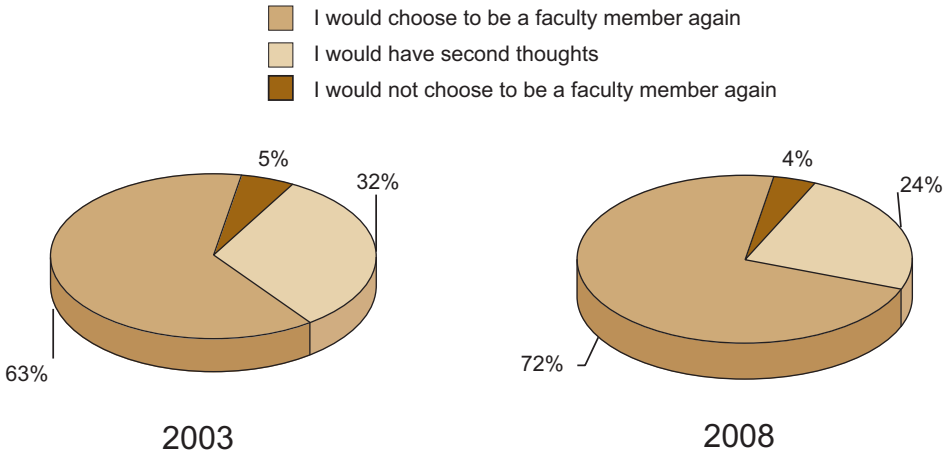
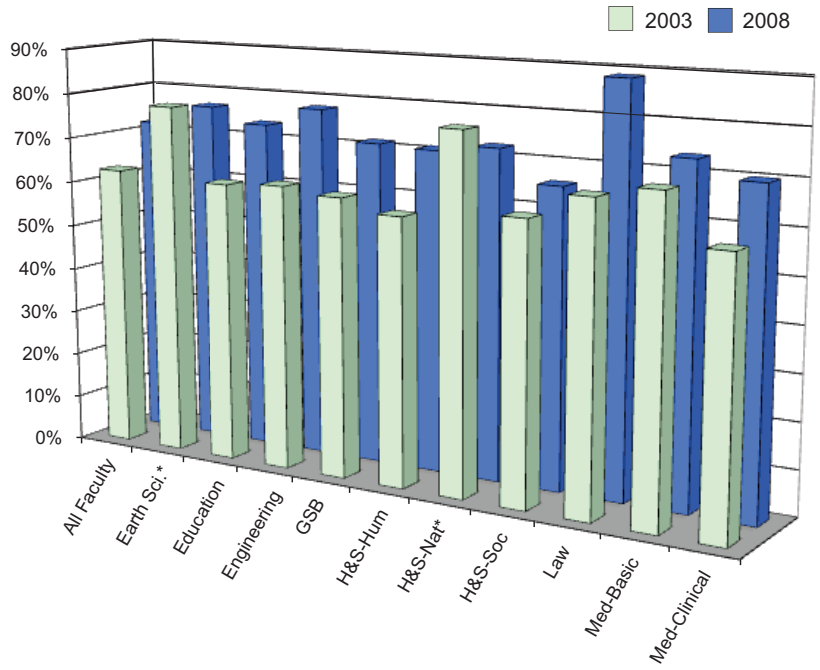


Figure 9
Cross-Year Comparison: Percent Who Would Choose to be a Faculty Member Again, by School



*In 2003, Earth Sciences and H&S Natural Sciences samples were combined.
The 2003 value for each school displayed in this graphic is the combined percent.

A third question was asked that is related to faculty members' satisfaction with their position: "In the next 3 years how likely are you to leave Stanford?" The majority of respondents (58.8%) said they are either somewhat or very unlikely to leave in the next three years; only 5.1% said they were very likely to leave, and an additional 16.4% said they are somewhat likely to leave. Responses differed somewhat by rank, gender, and race/ethnicity. The reason most commonly cited by faculty of all three ranks who said that they are somewhat or very likely to leave Stanford was "to find a more supportive work environment." See *Special Report I*: *Likelihood of Faculty Leaving*, for more details of faculty responses to this question.

In addition to measures of overall satisfaction with Stanford, the survey also asked questions designed to measure faculty's perceptions of their unit and their colleagues. The next sections of this report (Sections B-I) discuss separately survey findings on these and other dimensions of faculty satisfaction before discussing how well each of these factors predicts satisfaction in regression models (Section J).

B. Supportive Unit

The Supportive Unit Index reflects questions about the following: feeling support from the environment created by the head of the academic unit; feeling respected by the unit head and encouraged and respected by the unit, having a voice in decision-making; feeling comfortable raising personal/family issues; having adequate access to resources; and feeling that opportunities and support for personal

advancement are at least as good at Stanford as they would be at comparable institutions. See Appendix III for the list of questions included in the indices. As one example, faculty were asked to respond to the statement "My department/unit is a good fit for me" on a five-point scale from "Strongly disagree" to "Strongly Agree."

Faculty perceptions of support from their academic unit vary by school, gender, and race/ethnicity. Among schools and divisions there is considerable variation in the Supportive Unit Index (Fig. 10); overall for the university the index value is 3.9 on a scale of 1 to 5, where higher numbers reflect more support. Female faculty generally report lower unit support than men across the schools (except in the Law School), with significant differences in H&S Natural Sciences, H&S Social Sciences, and Medicine-Clinical Sciences[6] (Fig. 11). That women report lower unit support than men is consistent across ranks (Fig. 12). Underrepresented minority faculty overall report lower perceptions of unit support than their white colleagues (Fig. 13). Underrepresented minority assistant Professors report lower unit support than both Asian and white assistant professors.

[6] It should be noted that there is more statistical power to detect differences by gender or race/ethnicity in larger schools than smaller schools. The same size gender gap, for instance, could be statistically significant in a large school and non-significant in a small school because of the difference in sample sizes. Sample sizes are included in the figures.

Figure 10
Supportive Unit Index, Ranking by School

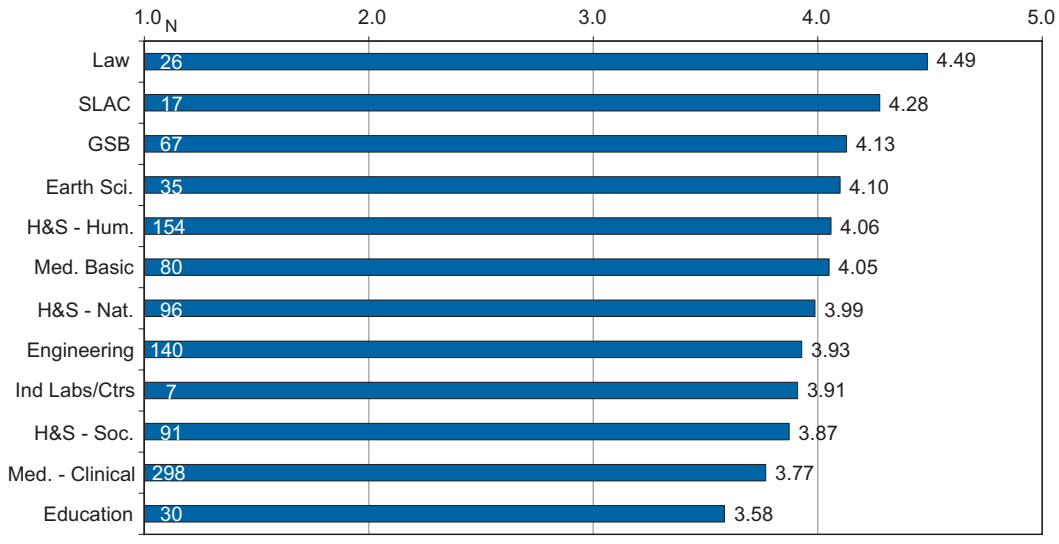
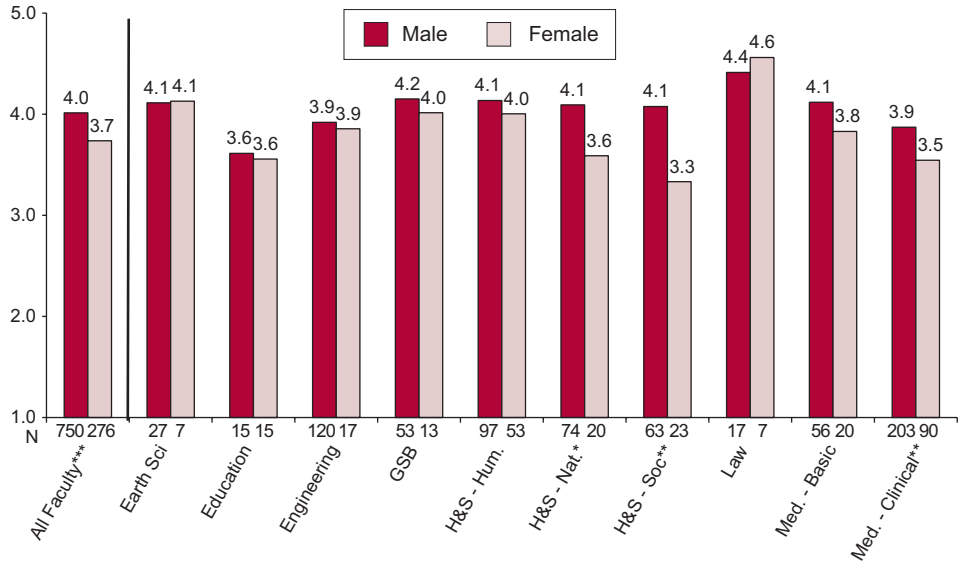
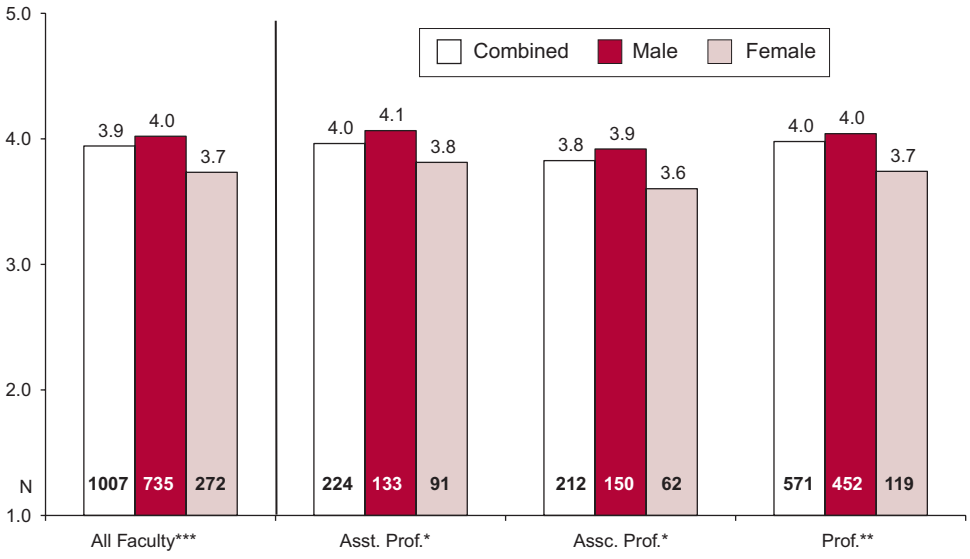


Figure 11
Supportive Unit Index by School and Gender



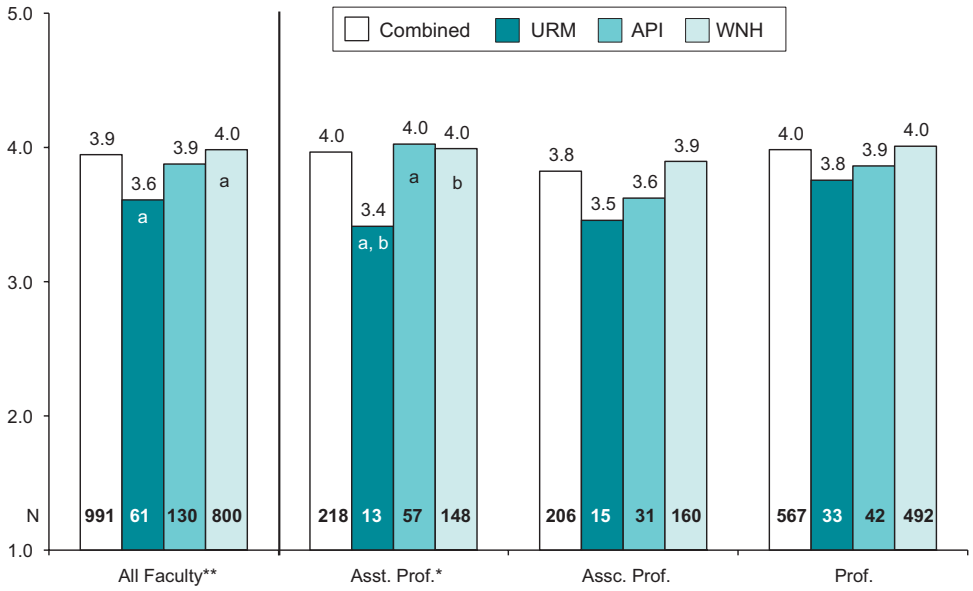
* = p<0.05; ** = p<0.01; *** = p<0.001
Asterisks indicate a significant difference between male and female means within each school (T-test, equal variances not assumed).

Figure 12
Supportive Unit Index by Rank and Gender



* = p<0.05, ** = p<0.01, *** = p<0.001
Asterisks denote significance of gender comparison within rank. No significant interaction. Equal variances not assumed.

Figure 13
Supportive Unit Index by Rank and Race/Ethnicity



*=p<0.05, **=p<0.01, ***=p<0.001
Asterisks denote significance of ethnicity comparison within rank. No significant interaction. Letters indicate which groups differ. Equal variances not assumed.

C. Supportive Colleagues

The Supportive Colleagues Index is based on responses to questions about collegial support, including the faculty's sense of feeling valued and respected by one's colleagues and their sense of inclusion. See Appendix III for the list of questions included in this index. As one example, faculty were asked to respond to the statement "My colleagues value my research/scholarship" on a five-point scale from "Strongly disagree" to "Strongly Agree."

Among schools and divisions there is considerable variation in the Supportive Colleague Index (Fig. 14); overall for the university the index value is 4.0. Male and female faculty differ in their sense of collegial support. With the exception of the Law School, female faculty report lower collegial support among the various schools and divisions, with significant gender differences in the GSB, H&S Social Sciences, and Medicine-Clinical Sciences (Fig. 15). This difference is consistent across ranks (Fig. 16). Underrepresented minority assistant professors (but not URM associate or full professors) report significantly lower colleague support than both Asian and white assistant professors (Fig. 17).

Figure 14
Supportive Colleagues Index, Ranking by School

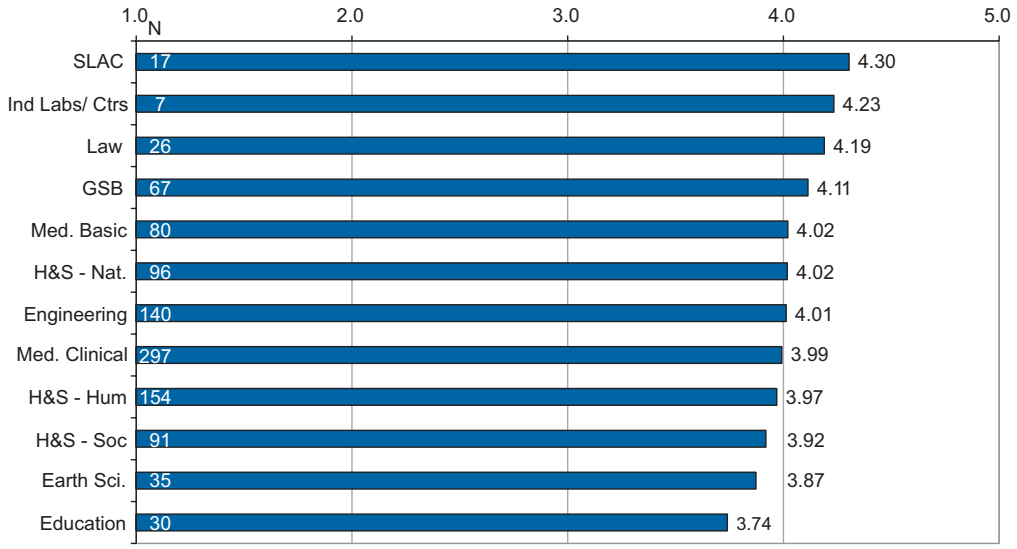
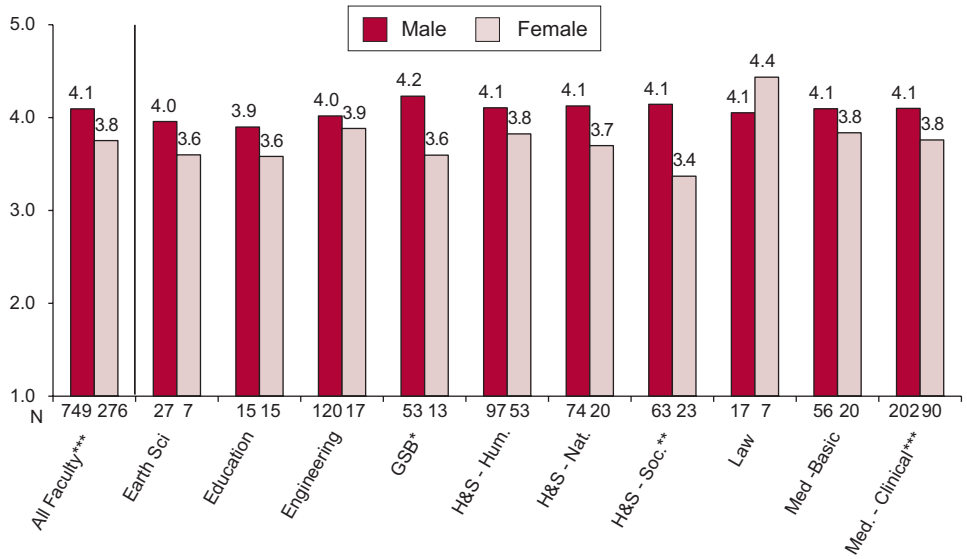
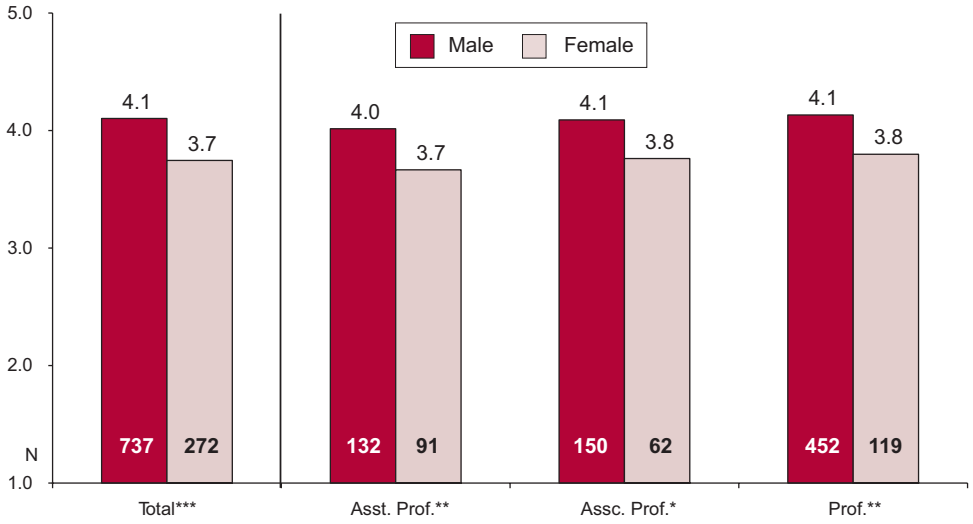


Figure 15
Supportive Colleagues Index by School and Gender



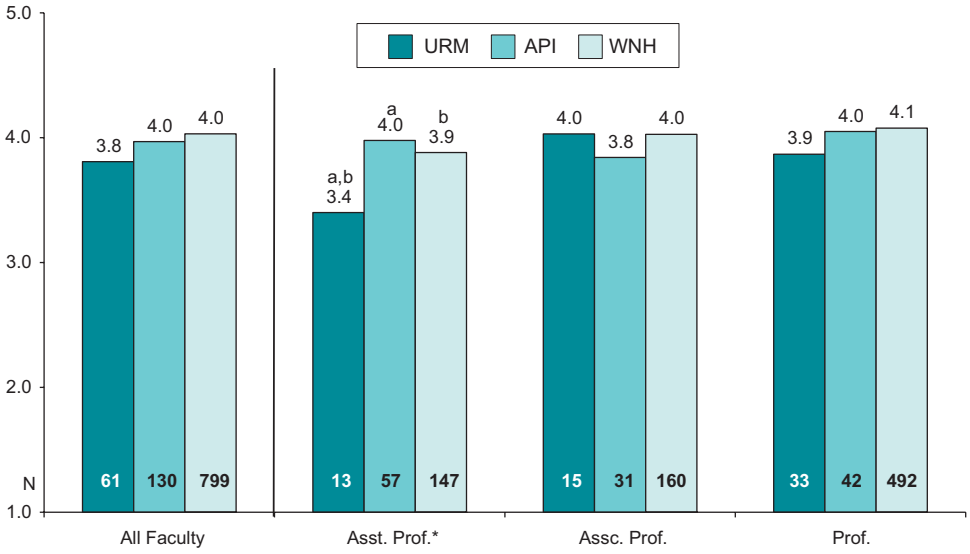
* = p<0.05; ** = p<0.01; *** = p<0.001 Asterisks indicate a significant difference between male and female means within each school (T-test, equal variances not assumed).

Figure 16
Supportive Colleagues Index by Rank and Gender



* = p<0.05, ** = p<0.01, *** = p<0.001
Asterisks denote significance of gender comparison within rank. No significant interaction. Equal variances not assumed.

Figure 17
Supportive Colleagues Index by Rank and Race/Ethnicity



*=p<0.05, **=p<0.01, ***=p<0.001
Asterisks denote significance of ethnicity comparison within rank. No significant interaction. Letters indicate which groups differ. Equal variances not assumed.

Figure 18
Peer Institution Comparisons: Supportive Colleagues/Unit

	Percent of Faculty who "Somewhat Agree" or "Strongly Agree"								
	Stanford			6 Peer Research Universities					
	Male	Female	Combined	Male Mean	Male Range	Female Mean	Female Range	Combined Mean	Combined Range
My colleagues value my research/ scholarship.	82.2	70.1	78.9	76.1	70.2 - 79.3	68.0	60.9 - 73.3	73.7	67.1 - 77.4
I am satisfied with opportunities to collaborate with faculty in my department/ unit.	74.1	60.8	70.5	69.6	66.1 - 73.6	57.9	48.2 - 64.0	66.1	62.0 - 69.9
I have a voice in the decision-making that affects the direction of my department/unit.	72.0	57.7	68.1	64.9	58.0 - 70.2	54.1	44.4 - 60.2	61.5	55.7 - 66.8
I can navigate the unwritten rules concering how one is to conduct oneself as a faculty member.*	82.4	67.9	78.5	77.2	74.0 - 80.2	70.7	68.3 - 72.7	75.2	72.9 - 77.6
My department/unit is a place where individual faculty may comfortably raise personal and/ or family responsibilities when scheduling departmental/ unit obligations.	71.8	64.0	69.7	70.1	65.6 - 72.7	64.2	52.7 - 73.7	68.2	61.8 - 72.3

*The comparison group of 6 universities is slightly different for this item than for the other items in this table. It contains one additional university that the others do not, and is missing one university that the others have.

Comparative peer institution data are available for several of the questions included in the Supportive Unit and Supportive Colleagues indices. For these questions the responses of all Stanford faculty, and both male and female faculty, were similar to those of faculty at six private peer research institutions (Fig. 18).

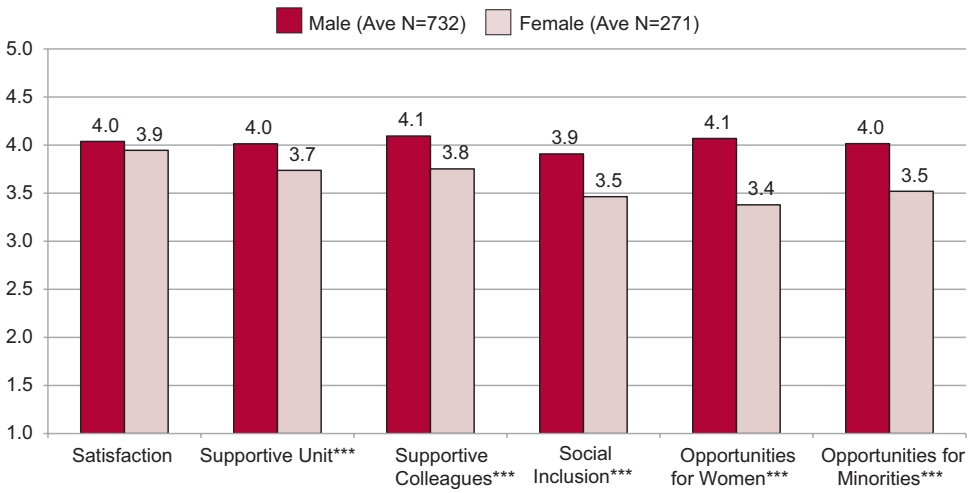
D. Climate Indices: Summary of Results by Gender and Race/Ethnicity.

In addition to Supportive Unit and Supportive Colleagues, described above, other climate indices also found significant differences among faculty by gender, race, and ethnicity. Figures 19 through 20 show that there are common patterns of response across the indices. Women had lower values than men on all of the indices, and the differences were statistically significant for all of the multi-item indices (Fig. 19). Across race and ethnic categories, URM faculty have the lowest average index value on all of the indices except for "Social Inclusion," where Asian faculty had the lowest average. White faculty have the highest average index value on all indices (Fig. 20).

For women faculty, the differences by race/ ethnicity are particularly pronounced, with women URM faculty having the lowest average index values on all climate indexes, although the differences were statistically significant only for some pair-wise comparisons for Supportive Colleagues, Social Inclusion, and Opportunities for Minorities (Fig. 21)[7] For most of these indices, White, Asian, and URM male faculty responded similarly and generally more positively than did the corresponding populations of female faculty (Figs. 21 and 22).

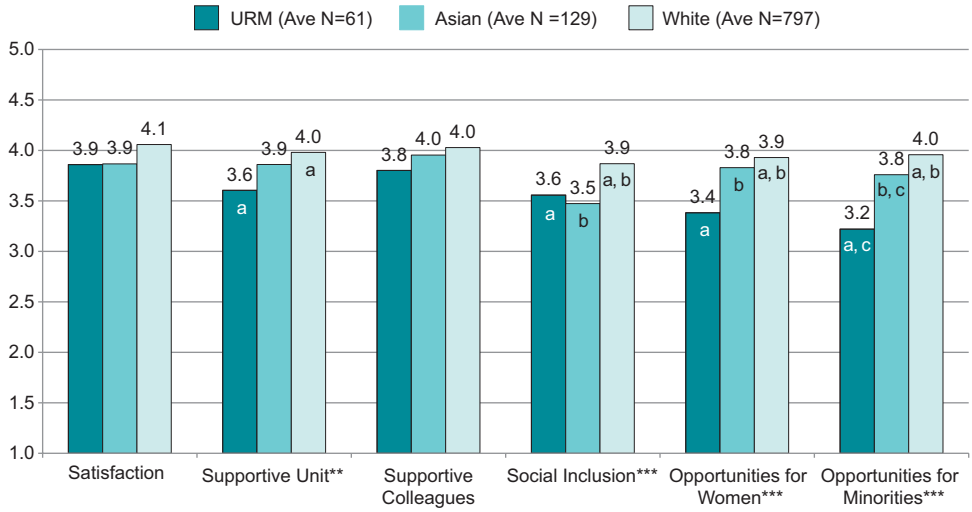
[7] The small numbers of women URM faculty in the survey sample mean that there is low statistical power; quite large differences may not be statistically significant because of low power.

Figure 19
Climate Indices by Gender



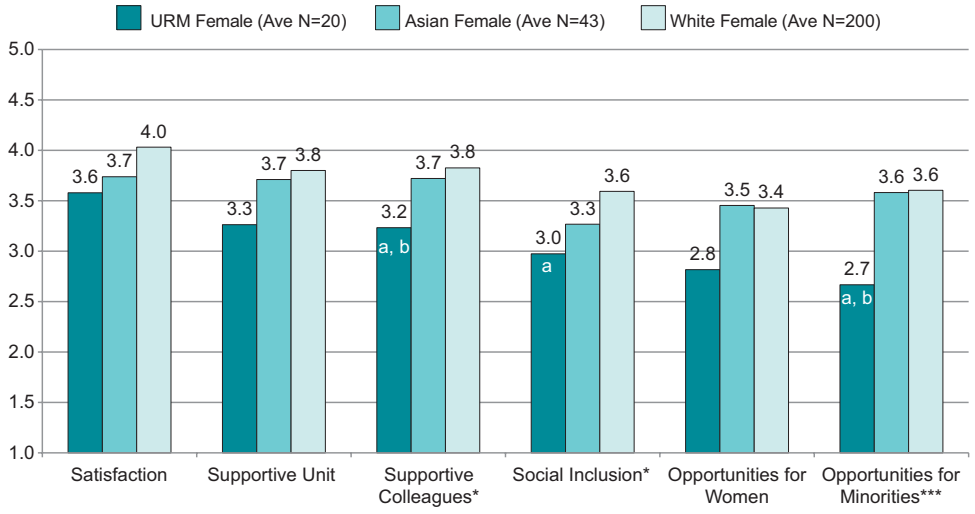
Notes: *=p<0.05; **=p<0.01; ***=p<0.001
Asterisks denote significance of difference-of-means test (equal variances not assumed).
Satisfaction represents a single item "Overall, how satisfied are you being a faculty member at Stanford?"
The other measures are all multi-item indices.

Figure 20
Climate Indices by Race/Ethnicity



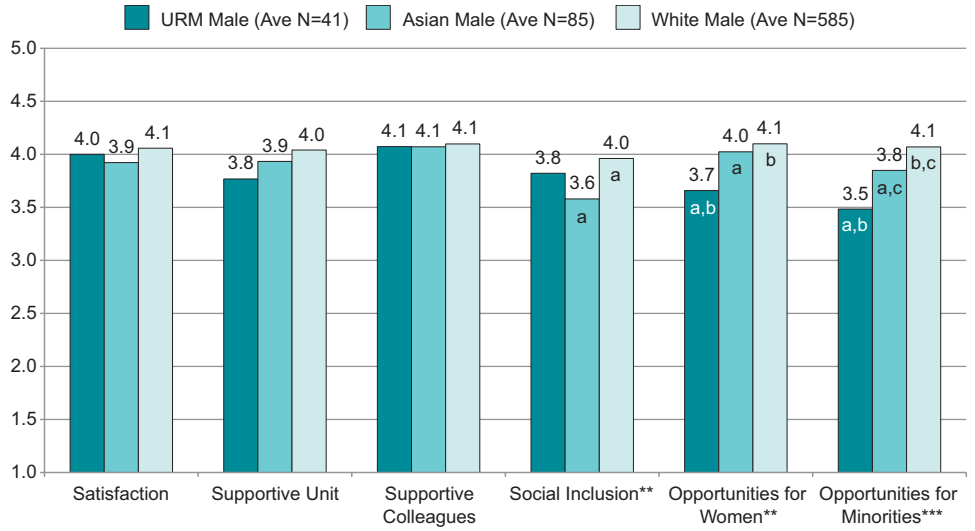
Notes: * = p<0.05, ** = p<0.01, *** = p<0.001
Asterisks denote significance of ANOVA across ethnicity for each index. Letters indicate which groups differ (Ethnicity categories followed by the same letter denote contrasts significant at alpha <0.05). Satisfaction represents a single item "Overall, how satisfied are you being a faculty member at Stanford?" The other measures are all multi-item indices.

Figure 21
Climate Indices for Female Faculty by Race/Ethnicity



Notes: * = p<0.05, ** = p<0.01, *** = p<0.001
Asterisks denote significance of ANOVA across ethnicity for each index. Letters indicate which groups differ (Ethnicity categories followed by the same letter denote contrasts significant at alpha <0.05).
Satisfaction represents a single item "Overall, how satisfied are you being a faculty member at Stanford?"
The other measures are all multi-item indices.

Figure 22
Climate Indices for Male Faculty by Race/Ethnicity



Notes: * = p<0.05, ** = p<0.01, *** = p<0.001
Asterisks denote significance of ANOVA across ethnicity for each index. Letters indicate which groups differ (Ethnicity categories followed by the same letter denote contrasts significant at alpha <0.05).
Satisfaction represents a single item "Overall, how satisfied are you being a faculty member at Stanford?"
The othermeasures are all multi-item indices.

E. Workload

Faculty were asked about the reasonableness of their workload, as well as the total time they actually spent on their professional responsibilities and how this time was allocated to various activities. See *Special Report II: Workload*, for more details on this topic.

Overall, faculty are evenly split on their perceptions of the reasonableness of their workload. About half (49.8%) rate their workload "about right" and another half (49.8%) rate it "too heavy" or "much too heavy." Two faculty members actually indicated that their workload was "too light" and another two indicated that their workload was "much too light." The percentage of faculty rating their workload "too heavy" or "much too heavy" differed by gender. Overall 59.5% of women compared with 45.1% of men ($p<.01$) found their workload excessive. About a third (33.3%) of women compared with a quarter (24.4%) of men ($p<.001$) believed that their research demands were "too heavy" or "much too heavy." Close to a third (30.7%) of women compared with a fifth (19.4%) of men ($p<.01$) said the same about meeting/communicating with students (including advising). Female associate and full professors report less reasonable workloads than male associate or full professors.

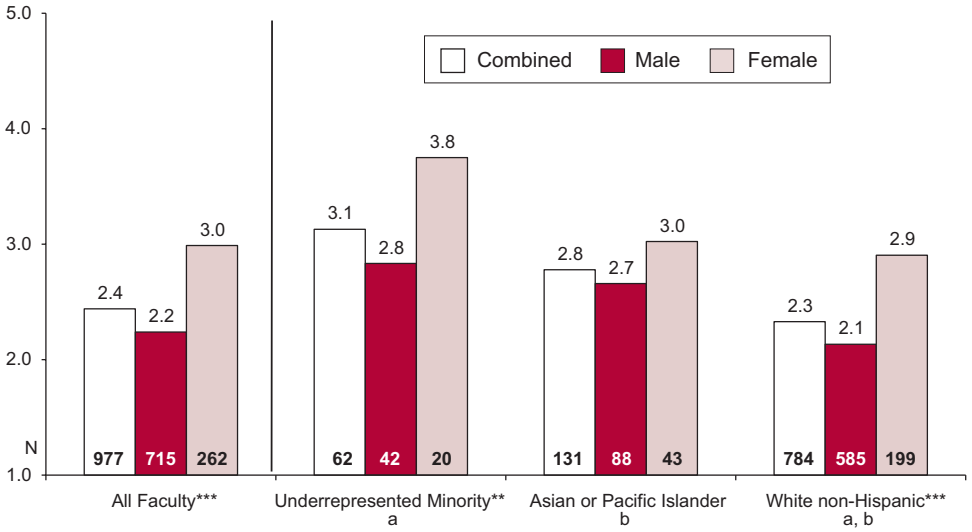
On average women faculty report that they work slightly more hours per week than do male faculty (61.9 vs. 60.0 hours/week), but this difference might be explained by women being more highly represented in schools with higher-than-average weekly workloads (Medicine-Clinical Sciences and Education) than some of the other schools. Contrary to expectations, female faculty do not report spending a higher proportion of their time meeting with students or in administrative/committee responsibilities than male faculty. Across all ranks, male and female faculty report spending similar proportions of their time in the major faculty activities. However, women assistant and associate professors spend a higher proportion of their time teaching than do men.

There were no significant race/ethnicity-associated differences either in perceptions of workload reasonableness or in average total reported hours worked. There are a few differences in time spent in specific tasks; URM faculty report the highest proportion of time teaching, and Asian faculty report the highest proportion of time in clinical responsibilities.

Examination of the correlation between the perception of workload unreasonableness and the time spent on various responsibilities indicates that faculty who think their workload is unreasonable do, in fact, report working longer hours on average than faculty who think their workload is fine.

One additional question related to workload was asked: faculty were asked whether they agree or disagree with the statement "I have to work harder than some of my colleagues to be perceived as a legitimate scholar." Underrepresented minority faculty and Asian faculty were significantly more likely than white faculty to agree with this statement (Fig. 23). Among URM faculty and White faculty, but not Asian faculty, women were significantly more likely to agree with this statement than men. Faculty who feel they have to work harder than their colleagues to be perceived as a legitimate scholar report higher average hours worked than faculty who don't feel that they have to work harder than their colleagues (see *Special Report II: Workload*).

Figure 23
"I have to work harder than some of my colleagues to be perceived as a legitimate scholar"



*=p<0.05, **=p<0.01, ***=p<0.001
Asterisks denote significance of gender comparison within ethnicity, using independent samples T-test (equal variances not assumed). Univariate analysis shows main effect of ethnicity and gender, no significant interaction of gender and ethnicity. Letters indicate which groups differ. The coding of the variable is 1 "Strongly disagree," 2 "Somewhat disagree," 3 "Neither agree nor disagree," 4 "Somewhat agree," 5 "Strongly agree."

F. Comments about Workplace Climate

A variety of concerns and suggestions emerged in response to the open-ended question: "If you would like to see improvements in the climate of your academic unit or more generally at Stanford, what remedies or strategies would you suggest?" Typical comments included:

"Unfortunately, Stanford, especially in my School, is still an old boys club…I am embarrassed to be a part of this most of the time."

White male engineering professor

"There are still 'old boy networks' that exclude or marginalize [underrepresented minorities and females] in H&S. There seem to be no consequences when they misbehave or exclude women faculty."

Underrepresented Minority
Female faculty member, H&S

"It's really quite lonely around here…. Faculty have voted with their feet."

Female Asian/Pacific Islander
assistant professor

"Support hiring of conservatives."

White male humanities professor

"Support socioeconomic diversity rather than racial diversity."

Asian female medical clinical professor

To increase faculty members' sense of inclusiveness, respondents proposed a variety of initiatives, including:

"More regular social activities."

White male H&S professor

"More opportunities for interaction with other faculty in related research areas."

White female earth sciences professor

"Regular lunches for associate professors."

WHITE MALE ASSOCIATE PROFESSOR

Some faculty members also suggested improvements in mentoring:

"Better mentoring of non-tenured faculty"

FEMALE WHITE H&S PROFESSOR

"Evaluate the effectiveness of tenure mentoring."

FEMALE WHITE HUMANITIES ASSISTANT PROFESSOR

A number of faculty also raised concerns about leadership opportunities and their unit's responsiveness to diversity-related issues.

"Schools or departments should "keep statistics on which faculty are asked (over and over again) to serve on major task forces and the like… and enlist new voices. There seem to be a handful of H&S faculty who run everything."

WHITE FEMALE NATURAL SCIENCES PROFESSOR

"The same people are repeatedly selected for leading positions regardless of their actual contribution and performance in previous roles/ positions."

WHITE MALE HUMANITIES ASSOCIATE PROFESSOR

To address these concerns, faculty proposed greater efforts to:

Select for "interpersonal" skills not just "academic achievement" and "fundraising ability."

WHITE MALE PROFESSIONAL SCHOOL PROFESSOR

"Increase 'accountability for diversity'."

UNDERREPRESENTED MINORITY
CLINICAL MEDICAL SCHOOL PROFESSOR

"Work on hiring women, tenuring them, and moving them into genuine leadership positions…. Progress has been made but much more needs to be done."

WHITE FEMALE H&S ASSOCIATE PROFESSOR

G. Sources of Stress Outside the Workplace

For faculty overall, the most frequently cited source of "extensive" stress outside the workplace is cost of living (Fig. 24). Not surprisingly, assistant and associate professors reported greater stress from cost of living than full professors (Fig. 25). There was also some variation among the schools and divisions (Fig. 26). More Stanford faculty (25.5%) reported cost of living to be an extensive source of stress than did faculty at five other peer universities (mean 12.4%; range 8.2-15.7%) (Fig. 27). There are no gender differences in the percentage of Stanford faculty citing cost of living as an extensive source of stress. There are, however, such differences concerning other sources of stress. Almost a third of women (30.3%) but less than a fifth of men (16.6%) cited household responsibilities as an extensive source of stress, and about the same percentages listed childcare (31.3% of women; 16.4% of men). ($p<.001$)

URM faculty were significantly more likely to identify community outside the university as a source of stress than white or API faculty (chi-square $p<.001$). 43.6% of URM faculty identified community outside the university as a source of stress (11.3% "extensive", 32.3% "somewhat") while only 26.1% of API faculty and 19.7% of white faculty identified community outside the university as a source of stress (API: 2.3% "extensive", 23.8% "somewhat"; white: 3.4% "extensive", 16.3% "somewhat").

For faculty with very young children (aged 0-4 yrs; N=189), childcare is the most frequently cited source of stress; 92.6% of both male and female faculty with very young children cited childcare as a "somewhat" or "extensive" source of stress.

Figure 24
Percent of Faculty Indicating Sources of Stress to be "Extensive"

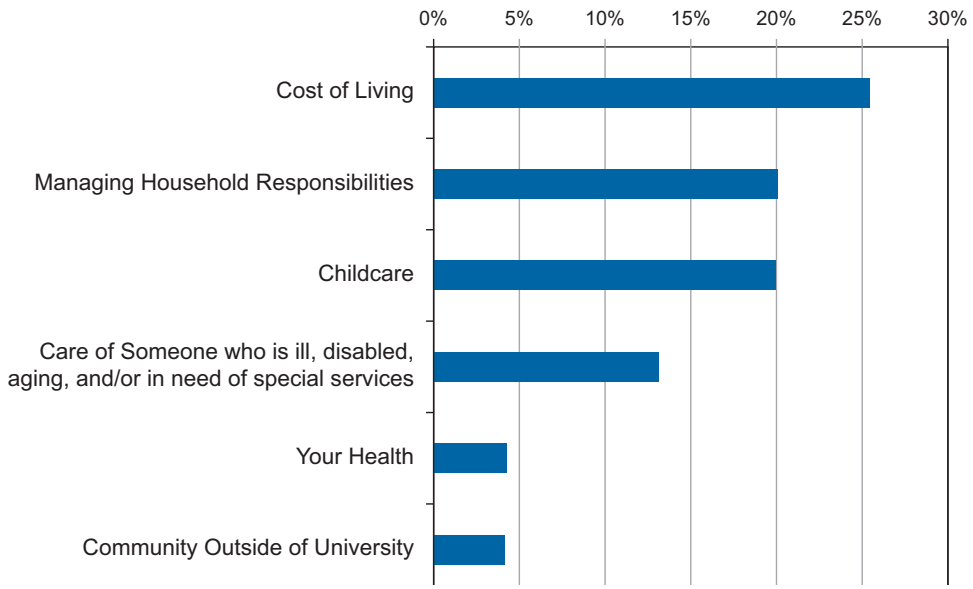
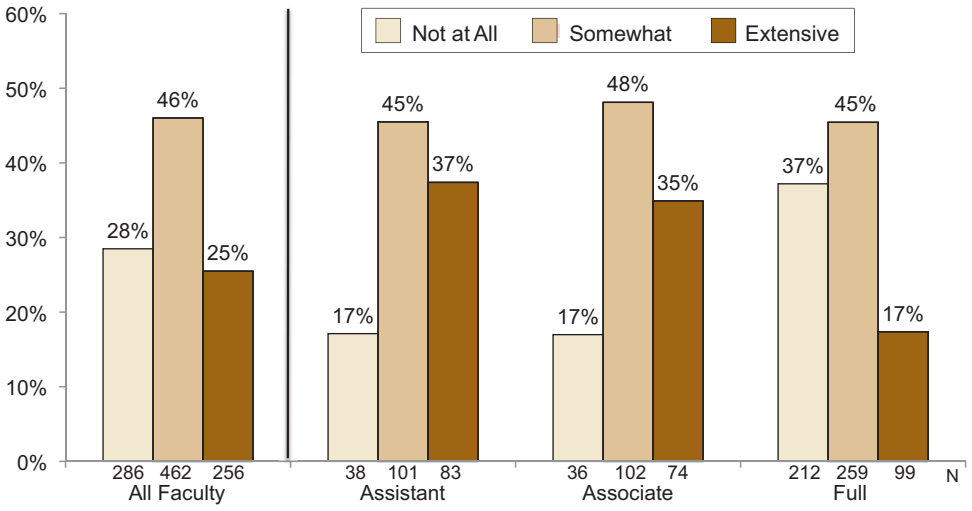


Figure 25
Cost of Living as a Source of Stress by Rank



The distribution of Cost of Living as a Source of Stress differs significantly across ranks, chi2 p<0.001.

Figure 26
Cost of Living as "Extensive" and "Somewhat"
a Source of Stress by School

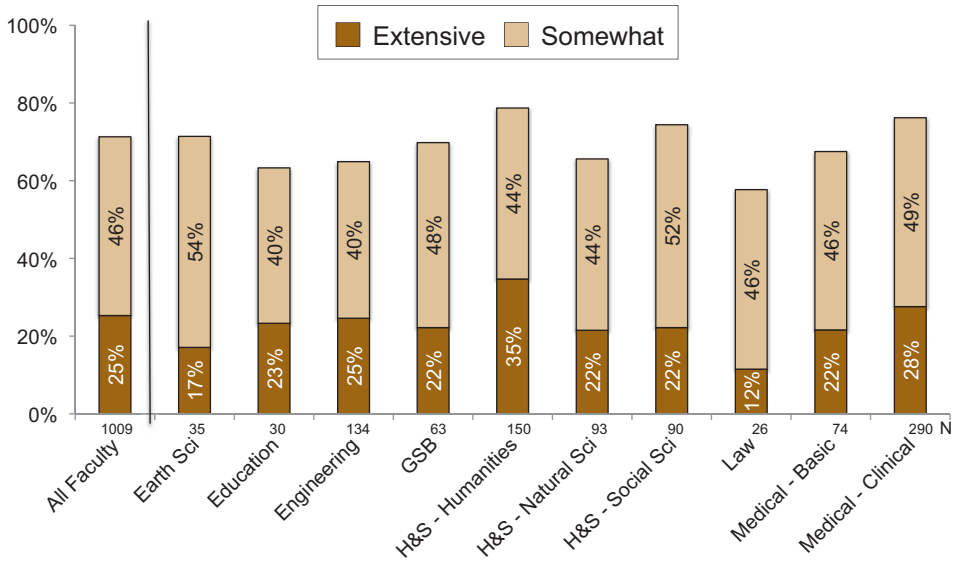


Figure 27
Peer Institution Comparisons:
Cost of Living as a Source of Stress

	Percent of Faculty Reporting Cost of Living as a Source of Stress		
	Stanford	5 Peer Research Universities	
		Mean	Range
Extensive	25.5	12.4	8.2 - 15.7
Somewhat	45.8	37.3	33.2 - 43.6
Not at All	28.7	50.3	46.2 - 56.3

H. Comments about Childcare

Sources of dissatisfaction with current childcare policies include long waiting lists, income eligibility limits, and insufficient hours, emergency care, and travel assistance. In response to the question "What University-sponsored remedies or strategies would you suggest to help you better manage your work and personal/family responsibilities?," most comments focused on childcare. Faculty want greater availability, affordability, and accessibility. Among the typical responses were:

> *"Increase the benefits for childcare by eliminating the salary cap. I pay $4000 a month for child care and after school care… I don't care what kind of money you are making that is a burden."*
>
> White male Medical School
> Clinical assistant professor

> *"Backup care for children, while theoretically available, seems very difficult to access on the kind of last-minute basis that most often arises. Is there any way this can be made easier?"*
>
> White Engineering associate professor

Some faculty also suggested other initiatives, such as help with care for elder parents, effective time/resource management training that is specifically geared to faculty and "greater flexibility in spouse/partner hiring."

I. Satisfaction With and Use of Family-Friendly Policies

Additional analyses were done on questions related to policies for spouses/partners and for faculty parents (see *Special Report III: Family/Personal Issues*). Higher proportions of female than male faculty have received tenure clock extensions and reduced teaching/clinical responsibilities for personal reasons. Among faculty without children, however, there is no significant gender difference in the proportions taking a tenure clock extension or reduced teaching/clinical loads. Faculty (both male and female) who have received tenure clock extensions and workload relief generally felt that their units were supportive of their taking advantage of these policies. Assistant Professors reported significantly higher unit support for tenure clock extension than did Associate and Full Professors; this pattern is consistent with a hypothesis that units may have become more supportive over time. Assistant Professors are the most dissatisfied with Stanford's spousal benefits; 41.7% of married or partnered Assistant Professors report that their spouse or partner has had problems finding appropriate employment in the area. There were no statistically significant gender or race/ethnicity differences on items relating to spouse/domestic partner employment or benefits.

J. Predictors of Faculty Satisfaction

Regression analyses were performed to determine what aspects of the faculty's academic and personal lives are the best predictors of faculty satisfaction. The three survey questions used to assess faculty satisfaction—whether one would choose Stanford if the decision were to be made again, likelihood of leaving Stanford in the next three years, and overall satisfaction—were the dependent variables that were modeled. See *Special Report IV: Regression Analyses of Predictors of Faculty Satisfaction and Intention to Remain at Stanford* for details on the hierarchical (block) regression analyses performed and the results obtained. In addition to the general question of what predicts overall faculty satisfaction, these analyses addressed two sub-questions:

1. What are the effects of individual work-life factors (such as family sources of stress) on satisfaction, controlling for demographic characteristics of faculty?
2. What are the effects of perceptions of unit climate on satisfaction, controlling for individual work-life factors and demographic characteristics? This focus on perceptions of unit climate was motivated by the high correlations found between the dependent variables and the perceptions of unit climate measures.

The Supportive Unit Index is the most consistent significant predictor of faculty satisfaction and staying at Stanford. The Supportive Unit Index has a strong, statistically- significant effect for all three dependent variables modeled. When faculty perceive their unit to be supportive, they are more likely to be satisfied, to say they would choose to join the faculty at Stanford again, and less likely to leave in the next three years. The Supportive Colleagues Index is also a strong predictor of faculty satisfaction. In addition, faculty who perceive their workload to be unreasonable (controlling for actual hours worked) are statistically significantly less likely to say they would choose to be faculty at Stanford again if they had it to do over.

The analyses revealed that sources of stress outside the academic environment – including stress from cost of living, care of others, and community outside the university – decreased the probability of faculty saying they would choose Stanford again and/or increased the likelihood of a faculty-member leaving in the next three years. However, the effects of these sources of stress variables were largely eliminated once the perceptions of unit and climate variables were included in the model. The unit and climate variables explain significantly more variation in responses to all three satisfaction-related questions than do the sources of stress and other individual work-life variables.

While there were no significant gender effects in any of the models, there were differences among racial/ethnic groups. After controlling for other demographic factors, API faculty are more likely to say they would choose to be a faculty member at Stanford again and less likely to leave in the next three years than white faculty. After controlling for work-life characteristics and sources of stress, URM faculty are more likely to say they would choose to be a faculty member at Stanford again than White faculty (the comparison category).

V. Discussion and Recommendations

Since November 2008, when faculty completed the second Quality of Life Survey, the economic recession has had a substantial adverse affect on the university's financial circumstances. Panel members recognize that budget constraints will increase the challenges in responding to some of our recommendations. However, especially in these difficult times, as professors face their own economic pressures as well as additional workplace stresses due to downsizing, the university must make every effort to address concerns that compromise faculty quality of life.

A. Work Climate Issues

Although the vast majority of faculty indicate overall satisfaction with their professional lives, and their satisfaction has improved since the last survey in 2003, significant concerns remain. Faculty of color and women in some areas of the university continue to rate their sense of unit and collegial support significantly lower than do white male colleagues. We recommend:

1. The university should enhance efforts to increase faculty diversity, broadly defined, especially the representation of faculty of color and women in units where they are underrepresented. These initiatives should include continued allocation of resources (such as the Faculty Incentive Fund and the CCSRE Faculty Development Initiative), as well as assistance to schools, departments, and their search committees in identifying and recruiting faculty from underrepresented groups.
2. The university should make additional efforts to increase women and faculty of color in positions of leadership, including: deans; department chairs; division chiefs; directors of programs, centers, and institutes; heads of important committees and task forces; and other senior leadership positions

at the school and university levels. Adequate resources should be available to assist the recruitment and internal development of leaders from diverse backgrounds. A focused approach toward leadership assessment should guide the selection process, and should take into account interpersonal and managerial skills as well as other academic and fundraising capabilities.

3. The university should develop more effective ways of assessing and addressing workplace climate issues, particularly those faced by women and faculty of color. Interviews with members of underrepresented groups and exit interviews with departing faculty should seek a richer understanding of factors that support or impede faculty advancement and retention. Additional effort should focus on identifying initiatives at Stanford and peer institutions that have yielded particular progress along these dimensions. Opportunities should be available for faculty and academic leaders to learn from these findings, as well as from scholarly research concerning the experiences of members of underrepresented groups. The Panel should identify those units (schools, divisions, departments) in which faculty report low support from their units/colleagues and meet with the deans to discuss strategies for improving the climate in these units. All units—particularly those with significant racial, ethnic, and gender disparities in work climate evaluations—should develop specific strategies to address these issues.
4. Those in leadership positions in the schools and the central administration should assess the effectiveness of current guidelines and practices that involve mentoring of junior faculty. Specific performance metrics should be established to ensure that adequate, individualized career guidance is available to all assistant and associate professors.

B. Work/Family and Cost of Living Issues

Faculty with children and adult dependents often face severe challenges in managing their academic and family responsibilities. Stanford faculty face additional pressures due to the high cost of living in the Bay Area. We acknowledge and support the university's allocation of extensive resources to reduce those pressures through the faculty housing program, continuing financial support for on-campus childcare centers, construction of additional centers, and recently-developed programs such as the Child Care Subsidy Grants, Junior Faculty Child Care Assistance, and Junior Faculty Dependent Care Travel Grants. However, despite such efforts, the current cost of living adversely affects the quality of life of many professors and compromises the university's recruitment and retention efforts. We recommend:

1. The university should do more to address the high cost of living not only through competitive salaries, but also through enhanced housing and dependent care assistance programs. Eligibility for dependent care benefits should be expanded beyond junior faculty.
2. The university should continue its efforts to meet faculty demand for on-campus child care by building additional centers, facilitating increased hours at existing centers and nursery schools, and promoting quality after-school programs.
3. The university should develop a new, more effective approach to providing emergency and back-up dependent care. A promising possibility is to contract with an agency that arranges for such assistance for children and adult dependents.
4. The university should strengthen its efforts to reduce work/family conflicts. Policies such as those governing tenure clock extension and reduced teaching and clinical loads should be evaluated in light of faculty utilization and satisfaction, the effects on retention and promotion, and comparisons with similar initiatives at peer institutions. Schools and departments should schedule meetings and, to the extent possible, other events and programs during normal working hours.
5. The university should increase its efforts to assist the employment of spouses and partners and to ensure that such assistance is accessible to all faculty.

C. Evaluation and Accountability

The university should expand efforts to assess the effectiveness of policies and practices concerning faculty diversity, equity, and quality of life. It should also hold individuals in leadership positions accountable for their performance on those issues. We recognize that for some initiatives it is difficult and costly to develop adequate methods of evaluation. However, given the importance of faculty diversity, equity, and quality of life to the university's core mission, we believe that more attention should focus on developing strategies for assessment and accountability. We recommend:

1. The university should continue to conduct periodic general surveys on faculty quality of life, as well as focused studies of the effectiveness of policies and practices concerning diversity, mentoring, academic climate, and financial and work/family issues, such as housing and dependent care.
2. The university should continue to compare its policies and programs concerning diversity, equity, and quality of life with those of peer institutions. It should also work with those institutions to develop common metrics of evaluation and opportunities for sharing results and best practices.
3. The university should set specific goals and timetables for achieving results in areas involving diversity, equity, and quality of life. Progress toward goals should be part of annual performance evaluations of academic leaders.
4. The university should continue to have a panel and senior administrative positions that address issues of faculty equity, diversity and quality of life. The panel should periodically meet with individual deans and department chairs to discuss concerns specific to their units, and to identify appropriate remedies.
5. Appropriate evaluation metrics should be developed to assess progress in subsequent years. The panel should also collaborate with other university administrators and entities to promote diversity, equity, and quality of life initiatives.

Special Reports

I. Special Report on Likelihood of Faculty Leaving

II. Special Report on Workload

III. Special Report on Family/Personal Issues

IV. Special Report on Regression Analyses of Predictors of Faculty Satisfaction and Intention to Remain at Stanford

Special Report I:
Likelihood of Faculty Leaving

Highlights:

- 21.5 % of faculty indicate they are very or somewhat likely to leave Stanford in the next three years, whereas 58.8% are very or somewhat likely to leave during this period.
- Underrepresented (URM) faculty are somewhat more likely to leave than white or Asian/ Pacific Islander (API) faculty.
- URM Assistant Professors are significantly more likely to leave than white or Asian/PI Assistant Professors. Nearly half of the URM Assistant Professors surveyed said they were 'somewhat' or 'very likely' to leave in the next three years.
- Among Full Professors, women are somewhat more likely to leave than men.
- In all ranks, the top reason given for being likely to leave by those who say they are 'somewhat' or 'very likely' to leave is "To find a more supportive work environment".

Findings

Question 22: "In the next 3 years, how likely are you to leave Stanford?"

Table 1	Frequency	Percent
Very Unlikely	401	37.9
Somewhat Unlikely	221	20.9
Neither Likely Nor Unlikely	208	19.7
Somewhat Likely	173	16.4
Very Likely	54	5.1
Total	1057	100.0

The majority of faculty (58.8%) are either 'somewhat' or 'very' unlikely to leave Stanford in the next 3 years. But a substantial number (227 faculty or 21.5%) are 'somewhat' or 'very' likely to leave in the next three years.

For this analysis, the original 5-category variable was dichotomized into 'not likely to leave or neutral' and 'somewhat or very likely to leave'.

Who are the faculty who report that they are 'somewhat' or 'very likely' to leave?

Across ranks, URM faculty (27%) are more likely to leave than white faculty (22%), who are more likely to leave than Asian/PI faculty (15%). The chi2 test for whether race/ethnicity is independent of likelihood of leaving was marginally significant at p=0.086. (Table 2 below)

Table 2: Race/Ethnicity and Likeliness to Leave

			Neutral	Very Likely	Total
Race/ Ethnicity	Underrepresented Minority	Count	45	17	62
		% within Ethnicity	72.6%	27.4%	100.0%
	Asian or Pacific Islander	Count	111	19	130
		% within Ethnicity	85.4%	14.6%	100.0%
	White non-Hispanic	Count	634	175	809
		% within Ethnicity	78.4%	21.6%	100.0%
Total		Count	790	211	1001
		% within Ethnicity	78.9%	21.1%	100.0%
Chi2 test p-value =0.086					

There are no significant gender differences in the percentages of faculty who say they are likely to leave until you break the data out by rank.

Likelihood to Leave by Rank

Table 3: Rank and Likeliness to Leave

Rank	Number of faculty in each rank who are 'somewhat' or 'very' likely to leave	Percent of faculty in each rank who are 'somewhat' or 'very' likely to leave
Assistant	57	25.4%
Associate	45	20.9%
Full	119	20.2%

Table 3 shows that a higher percentage of Assistant Professors report that they are likely to leave than Associate or Full Professors. The chi2 test for significance on the binary likely-to-leave variable was not significant, but the ANOVA on the mean of the original variable by rank was significant at p=.003.

Assistant Professors

Table 4 shows that for Assistant Professors there is a significant difference by race/ethnicity in their response to this question (p=0.023).

Nearly half of the URM Assistant Professors surveyed (6 out of 13, or 46.2%) said that they are 'somewhat' or 'very likely' to leave in the next three years.

Table 4: Assistant Professor Likeliness to Leave by Race/Ethnicity						
			Ethnicity			
			Underrepresented Minority	Asian or Pacific Islander	White non-Hispanic	Total
Likeliness to Leave	Not Likely or Neutral	Count	7	48	102	157
		% within Ethnicity	53.8%	85.7%	70.3%	73.4%
	Somewhat or Very Likely	Count	6	8	43	57
		% within Ethnicity	46.2%	14.3%	29.7%	26.6%
Total		Count	13	56	145	214
		% within Ethnicity	100.0%	100.0%	100.0%	100.0%
Chi2 test p-value = 0.023						

There is no significant difference in the percent of male (26.0%) and female (25.8%) Assistant Professors who say they are 'somewhat' or 'very likely' to leave.

There were no significant differences by race or ethnicity in the reasons given by Assistant Professors in why they are likely to leave. Table 5 shows the reasons given by Assistant Professors, sorted by the percentage saying they considered each reason "to a great extent". Because of small cell sizes, the data in Table 5 cannot be broken down by race/ethnicity or gender.

Table 5: Reasons to Leave Given by Assistant Professors who are "Somewhat Likely" or "Very Likely" to Leave Stanford in the Next Three Years		
	Percent of faculty who considered each reason to leave "To a great extent"	N
To find a more supportive work environment	37%	21
To enhance your academic career in other ways	32%	18
To lower your cost of living	30%	17
To improve your prospects for tenure	30%	17
To increase your salary	25%	14
To increase your time to do research	25%	14
To improve the employment situation of your spouse/partner	23%	13
To reduce stress	23%	13
To address child-related issues	19%	11
To address issues related to family other than spouse, partner, or children	9%	5
Retirement	4%	2
To pursue a nonacademic job	4%	2

Associate Professors

There are no significant gender or race/ethnicity differences in the proportions of Associate Professors saying they were 'somewhat' or 'very likely' to leave.

Table 6 (below) shows the top reasons Associate Professors gave for leaving, sorted by those reasons that the highest number said they considered "to a great extent".

There were no significant differences in reasons given to leave by race/ethnicity among Associate Professors.

Table 6: Reasons to Leave Given by Associate Professors who are "Somewhat Likely" or "Very Likely" to Leave Stanford in the Next Three Years

	Percent of faculty who considered each reason to leave "To a great extent"	N
To find a more supportive work environment	53%	24
To enhance your academic career in other ways	47%	21
To lower your cost of living	42%	19
To increase your time to do research	40%	18
To increase your salary	33%	15
To reduce stress	33%	15
To improve the employment situation of your spouse/partner	29%	13
To address child-related issues	24%	11
To address issues related to family other than spouse, partner, or children	9%	4
To pursue a nonacademic job	7%	3
To improve your prospects for tenure	4%	2
Retirement	4%	2

Full Professors

Female Full Professors are more likely to say they are "somewhat" or "very likely" to leave in the next 3 years, and this difference is marginally statistically significant (p= 0.075, see Table 7).

There were no significant differences by race/ethnicity in percentages of Full Professors saying they were "somewhat" or "very likely" to leave.

Table 7, below, shows the top reasons to leave cited by Full Professors.

Table 7: Likeliness to Leave and Reasons to Leave Given by Full Professors who are "Somewhat Likely" or "Very Likely" to Leave Stanford in the Next Three Years							
	Male %	Male N	Female %	Female N	Combined %	Combined N	Significance Pearson Chi-Squared
Full Professors who are "Somewhat Likely" or "Very Likely" to Leave Stanford in the Next Three Years	18.8%	85	26.3%	31	20.4%	116	+
Full Professors who are "Not Likely" to Leave Stanford in the Next Three Years or "Neutral"	81.2%	366	73.7%	87	79.6%	453	
	Percent of faculty who considered each reason to leave "To a great extent"						
	Male %	Male N	Female %	Female N	Combined %	Combined N	
To find a more supportive work environment	35%	30	39%	12	36%	42	
To enhance your academic career in other ways	34%	29	23%	7	31%	36	
Retirement	31%	26	29%	9	30%	35	
To reduce stress	24%	20	39%	12	28%	32	
To increase your time to do research	26%	22	23%	7	25%	29	
To lower your cost of living	18%	15	23%	7	19%	22	
To increase your salary	19%	16	19%	6	19%	22	
To improve the employment situation of your spouse/partner	7%	6	19%	6	10%	12	
To pursue a nonacademic job	11%	9	10%	3	10%	12	
To address child-related issues	6%	5	16%	5	9%	10	
To improve your prospects for tenure	0%	0	13%	4	3%	4	**
To address issues related to family other than spouse, partner, or children	2%	2	3%	1	3%	3	
+ p<.10, * p<.05, ** p<.01, ***p<.001							

Special Report II: Workload

Highlights:

- It appears that women faculty report working a small number of hours more a week than male faculty on average, but that this difference might be explained by women being concentrated in schools with higher-than-average weekly hours.
- There is not evidence of significant differences in reported average hours worked by race/ethnicity.
- Contrary to expectations, female faculty do not report spending a higher proportion of their time meeting with students or in administrative responsibilities than male faculty. Female faculty do, however, spend a higher proportion of their time on "Other work-related activities on campus" than men. Male faculty spend a higher proportion of time than women faculty on external paid consulting. Female Assistant and Associate Professors spend a higher proportion of their time teaching than do men.
- The survey data do not show evidence that faculty of color spend more time meeting with students or on administrative responsibilities than white faculty. URM faculty report the highest proportion of time teaching, and API faculty report the highest proportion of time in clinical responsibilities.
- Female faculty have a significantly higher mean on the unreasonableness of their workload compared to male faculty. Of the specific job activities, female faculty rate their teaching and mentoring duties as unreasonable significantly more than male faculty.
- Female, URM and API faculty are significantly more likely than white male faculty to believe that they have to work harder than their colleagues to be taken seriously as a scholar. Faculty who feel they have to work harder than their colleagues to be taken seriously do report higher average hours worked than faculty who don't feel that they have to work harder than their colleagues.
- Faculty who think their workload is unreasonable do, in fact, report working longer hours on average than do faculty who think their workload is fine.

Findings

This analysis looks at the Faculty Quality of Life survey items on reported hours worked, percent time worked at specific responsibilities, and reasonableness of workload. The following questions were addressed:

1. Are there differences in reported average hours worked by gender, race/ethnicity, and rank (and are these differences found within schools)?
2. Are there differences in percent time allocated to specific responsibilities by gender, race/ethnicity, and rank (and are these differences found within schools)?

3. Are there differences in perceived reasonableness of workload by gender, race/ethnicity and rank?
4. Does a perception of an unreasonable workload correlate with reported hours worked or percent time allocated to different activities?

Are there differences in average reported hours worked?

Table 1: Average Reported Hours Worked per Week			
	Mean	N	
All Faculty	60.82	1140	
Male	59.98	739	t-test p=0.030
Female	61.92	272	
Underrepresented Minority	60.66	62	ANOVA not significant
Asian/ Pacific Islander	62.13	132	
White	60.07	801	
Assistant (a)	63.07	226	ANOVA significant p<0.001
Associate (b)	61.75	216	
Full (a,b)	59.32	579	

Question 4 on the survey asked:

"Over the course of an academic year, how many hours is your average work week? (Including work you do at home related to Stanford activities)"

Answer options: Respondents selected any number between 1 and 100

As Table 1 shows, women reported working almost two more hours a week more than their male colleagues, and the difference is statistically significant.

There were not statistically significant differences in the reported average number of hours worked by race/ethnicity.

There were differences according to rank, with Assistant and Associate Professors both working significantly more hours than Full Professors. Because women and racial/ethnic minorities make up higher proportions of Assistant and Associate Professors than they do Full Professors, average hours worked were analyzed by gender and race/ethnicity within each rank, to exclude rank as a confounding factor.

- Female faculty reported higher mean hours per week in all rank categories, though the difference was statistically significant only among Full Professors.
- There was no discernible pattern for race/ethnicity within ranks. The only significant contrast was that API Associate Professors worked more hours per week than White Associate Professors.

Table 2: Average Reported Hours Worked by School			
School	Mean	N	Std. Deviation
Medical - Clinical Sciences	64.5	296	11.4
Education	61.9	30	8.2
Medical - Basic Sciences	61.1	79	11.5
Humanities and Sciences - Social Sciences	61.0	88	11.3
Engineering	60.8	141	12.9
Humanities and Sciences - Natural Sciences	59.7	93	12.4
Law	58.9	26	14.3
GSB	57.7	65	8.8
SLAC	57.4	17	14.6
Earth Sciences	56.0	35	11.3
Humanities and Sciences - Humanities	55.6	149	15.3
All Schools Average	60.8	1140	12.8

Table 2 shows that the average reported hours worked a week do vary quite a bit by school, with a range of 9 hours between Medical-Clinical (the highest) and H&S Humanities (the lowest). Faculty in all schools report average weekly hours much higher than the 40 hours a week considered full-time.

Once the data were broken down by school, there were no significant differences by gender. The top two schools in average hours worked, Medical-Clinical and Education, have the 3rd and 1st highest proportions of women faculty in their school, respectively. Thus, school might be confounding the relationship between gender and hours worked.

There were only two schools where there were more than 5 URM faculty who responded to these items on the survey, which is the minimum for reporting the results by school and race/ethnicity. Those schools were H&S Humanities and Medical-Clinical. In neither school were there significant differences in the reported average weekly hours worked by race/ethnicity.

Taking the overall, by-rank, and by-school results into consideration, it appears that women faculty do report working a small number of hours more a week than male faculty on average, but that this difference might be explained by women being unequally represented in the different schools.

There is not evidence of significant differences in reported average hours worked by race or ethnicity.

Are there differences in percent time allocated to specific responsibilities by gender, race/ethnicity, and rank (and are these differences found within schools)?

There is a concern that faculty of color and women faculty are unfairly taxed with advising, mentoring, and administrative responsibilities because of their race/ethnicity or gender identity. This section of the analysis uses reported percent time allotted to specific faculty responsibilities to see if there are significant differences by gender or race/ethnicity.

> Question 5 on the survey asked: "As you think about how you spend your time in an academic year, what percent of your average work week do you spend on each of the following work-related activities?" Answer options were provided in a pull-down menu where faculty could choose any number from 1-100, with the note: "Percent of your average work week spent on this activity? (Responses should add to 100%)"[1]
>
> a. Teaching (Including preparing materials for class, lecturing, office hours, etc.)
> b. Meeting or communicating with students outside of class (advising, supervising research, writing letters of recommendation, etc.)
> c. Scholarship/research (including writing grants, attending professional meetings, etc.)
> d. Clinical responsibilities
> e. Administrative responsibilities such as committee work
> f. Other work-related activities on campus
> g. External paid consulting
> h. Other external professional activities

Gender

Table 3 (below) shows the reported percent time breakdown by gender for each of the activities. Contrary to expectations, men reported a higher percentage of time spent "meeting or communicating with students outside of class" than women, though the difference was not significant. Women and men reported essentially equal percentage time spent on administrative responsibilities.

The only items where there were significant gender differences in time allocation were "Other work-related activities on campus", where women reported a higher percentage of time than men, and "External paid consulting", where men reported a higher percentage of time than women. These categories each occupy approximately 2% of the average faculty member's time.

"Other work-related activities on campus"

Respondents who allocated time to other on-campus activities were asked to specify what they were in an open-ended text box. The responses were varied, but a few of the most common activities listed by female faculty include:

[1] Although the question requested that categories sum to 100%, only 88% of respondents' original answers summed to 100. The percentages given for each activity for faculty whose total did not equal 100 were rescaled based on their answers so that the rescaled variables would sum to 100 and the different activities retained their relative proportions.

- Mentoring undergraduates not related to classes, such as being a Resident Fellow, attending dorm nights, serving as an advisor for student groups etc.
- Administrative responsibilities external to home unit, such as serving on the Faculty Senate or doing outreach work
- Administration of a lab or research group
- Attending talks, meeting with visiting scholars, attending seminars

Table 3: Gender and Percent Time Allocated to Faculty Activities

		N	Mean
Teaching	Male	748	20.3%
	Female	271	21.0%
	Total	1136	20.5%
Meeting with Students	Male	748	15.2%
	Female	271	14.2%
	Total	1136	14.7%
Research	Male	748	34.0%
	Female	271	33.4%
	Total	1136	33.8%
Clinical Responsibilities	Male	748	9.8%
	Female	271	11.6%
	Total	1136	10.5%
Administrative Responsibilities	Male	748	13.7%
	Female	271	13.5%
	Total	1136	13.7%
Other On Campus **	Male	748	1.6%
	Female	271	2.6%
	Total	1136	1.9%
External Consulting ***	Male	748	1.9%
	Female	271	0.8%
	Total	1136	1.6%
Other External	Male	748	3.4%
	Female	271	2.9%
	Total	1136	3.3%

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

Because time allocation is different across ranks, it was important to assess whether there were gender differences within each rank separately. In all three ranks, male faculty reported a statistically significantly higher percentage time on External paid consulting than did female faculty ($p<.05$). For Assistant and Associate Professors, women reported a higher percentage time allocated to teaching than did male professors ($p<.05$). Female Full Professors reported a higher percentage time in "Other On Campus" duties than male Full Professors ($p<.05$).

Because expectations about how faculty allocate time are very different across schools, whether there were gender differences within schools on the percent time variables was examined. The following differences were significant at $p<.05$:

- In Earth Sciences, women reported more time on Other on-campus activities
- In Education, women reported more time spent on teaching
- In Engineering, men reported spending more time on External paid consulting
- In H&S Humanities, women reported more time on Other on-campus activities, and men reported more time on external paid consulting
- In H&S Natural Sciences, women reported more time on administrative responsibilities, and more time on Other on-campus activities
- In GSB, H&S Social Sciences, Law, Medicine-Basic and Medicine-Clinical, there were no significant gender differences in percent time allocation.

Taking into consideration the results disaggregated by rank and school, the data from the survey do not indicate that female faculty spend a higher proportion of their time meeting with students or in administrative responsibilities than their male colleagues. There is a consistent finding, however, of female faculty spending more time in "Other work-related activities on campus". Additionally, Female Assistant and Associate Professors report spending more time teaching than their male colleagues.

Across all ranks and in all schools men report a higher percentage time spent on external paid consulting than women.

Race/Ethnicity

The data from the proportion of time variables do not show evidence that faculty of color spend a higher proportion of their time meeting with students or in administrative responsibilities. Table 4, below, shows the proportion of time by ethnicity for the work activities.

Significant differences across race/ethnicity groups occurred in:

- Teaching, where URM faculty report the highest percentage and API faculty are statistically significantly lower than both URM and White faculty.
- Meeting with students, where White faculty report a higher mean proportion of time than URM or API faculty.
- Clinical, where API have a higher mean proportion of time than either URM or White faculty.
- Administrative responsibilities, where API have a lower proportion of time than either URM or White faculty.

Table 4: Proportion of Time Allocated to Work Activities by Race/Ethnicity			
		N	Mean
Teaching *	Underrepresented Minority (a)	62	23.1%
	Asian or Pacific Islander (a, b)	131	17.8%
	White non-Hispanic (b)	810	20.6%
	Total	1003	20.4%
Meeting With Students **	Underrepresented Minority (a)	62	12.0%
	Asian or Pacific Islander (b)	131	13.1%
	White non-Hispanic (a, b)	810	15.4%
	Total	1003	14.9%
Research	Underrepresented Minority	62	31.8%
	Asian or Pacific Islander	131	35.2%
	White non-Hispanic	810	33.9%
	Total	1003	34.0%
Clinical ***	Underrepresented Minority (a)	62	12.0%
	Asian or Pacific Islander (a, b)	131	18.9%
	White non-Hispanic (b)	810	8.9%
	Total	1003	10.4%
Administrative Responsibilities **	Underrepresented Minority (a)	62	14.5%
	Asian or Pacific Islander (a, b)	131	9.5%
	White non-Hispanic (b)	810	14.2%
	Total	1003	13.6%
Other On Campus	Underrepresented Minority	62	2.0%
	Asian or Pacific Islander	131	1.7%
	White non-Hispanic	810	1.8%
	Total	1003	1.8%
External Consulting	Underrepresented Minority	62	1.4%
	Asian or Pacific Islander	131	1.4%
	White non-Hispanic	810	1.7%
	Total	1003	1.6%
Other External	Underrepresented Minority	62	3.3%
	Asian or Pacific Islander	131	2.5%
	White non-Hispanic	810	3.4%
	Total	1003	3.3%
* p<.05, ** p<.01, ***p<.001			
Groups followed by the same letter indicate significantly different contrasts at p<0.05.			

Disaggregating the data by rank and school does not change any of the patterns seen above in the overall differences by race/ethnicity in proportion of time for each activity.

Rank

Table 5: Proportion of Time Allocated to Work Activities by Rank			
		N	Mean
Teaching	Assistant Professor	227	20.1%
	Associate Professor	216	19.3%
	Professor	587	21.1%
	Total	1030	20.5%
Meeting with Students	Assistant Professor	227	14.0%
	Associate Professor	216	15.2%
	Professor	587	15.0%
	Total	1030	14.8%
Research ***	Assistant Professor (a, b)	227	41.2%
	Associate Professor (a)	216	33.3%
	Professor (b)	587	31.8%
	Total	1030	34.2%
Clinical ***	Assistant Professor (a)	227	14.1%
	Associate Professor (b)	216	15.4%
	Professor (a, b)	587	7.1%
	Total	1030	10.4%
Administrative Responsibilities ***	Assistant Professor (a, b)	227	6.9%
	Associate Professor (a, c)	216	11.7%
	Professor (b, c)	587	16.8%
	Total	1030	13.6%
Other On Campus	Assistant Professor	227	1.7%
	Associate Professor	216	1.4%
	Professor	587	2.0%
	Total	1030	1.8%
External Consulting ***	Assistant Professor (a)	227	0.6%
	Associate Professor (b)	216	1.1%
	Professor (a, b)	587	2.2%
	Total	1030	1.6%
Other External ***	Assistant Professor (a, b)	227	1.4%
	Associate Professor (a, c)	216	2.7%
	Professor (b, c)	587	4.2%
	Total	1030	3.3%
* p<.05, ** p<.01, ***p<.001			
Groups followed by the same letter indicate significantly different contrasts at p<0.05.			

Table 5, above, shows that there are significant differences in the distribution of faculty time according to rank. Assistant Professors spend more time doing research and less time on administrative responsibilities and activities external to campus. It seems that efforts to shield Assistant Professors from too much service before tenure do have the desired effect of keeping their proportion of service low.

Full Professors spend more time in external paid consulting and other external activities than do Assistant and Associate Professors, but Full Professors also spend more time on administrative responsibilities than Assistant and Associate Professors.

School

Table 6 gives the mean proportion of time on each activity by school. H&S Humanities faculty spend the highest proportion of their time teaching, followed by GSB, Law, and Education. Medicine Basic reports the highest proportion of time spent on research, followed by GSB, H&S Social Sciences and SLAC. Engineering faculty report the highest proportion of time in External paid consulting.

Table 6: Proportion of Time Allocated to Work Activities by School

	N	Teaching	Meeting Students	Research	Clinical	Administrative Responsibilities	Other On Campus	External Paid Consulting	Other Off Campus
Earth Sciences	35	22%	22%	33%	1%	13%	3%	2%	4%
Education	30	26%	19%	29%	1%	14%	5%	3%	4%
Engineering	141	25%	23%	29%	0%	14%	2%	4%	4%
GSB	67	29%	11%	42%	0%	10%	1%	2%	5%
H&S - Humanities	152	33%	15%	29%	0%	17%	2%	1%	3%
H&S - Natural Sciences	96	24%	21%	36%	0%	12%	2%	1%	4%
H&S - Social Sciences	91	24%	16%	41%	0%	12%	1%	1%	4%
Law	23	28%	10%	35%	6%	15%	1%	2%	3%
Medical - Basic	80	13%	19%	46%	4%	13%	1%	1%	3%
SLAC	17	10%	14%	40%	1%	18%	5%	0%	13%
Sub-Total Non-Clinical Schools	**732**	**25%**	**18%**	**35%**	**1%**	**14%**	**2%**	**2%**	**4%**
Medical - Clinical	296	10%	8%	32%	33%	13%	1%	1%	2%
Total	**1028**	**21%**	**15%**	**34%**	**10%**	**14%**	**2%**	**2%**	**3%**

Are there differences in perceived reasonableness of workload by gender, race/ethnicity and rank?

Question 3 on the survey asked: "Overall, how would you rate the reasonableness of your workload?" Answer options were: "Much too light (1)," "Too light (2)," "About right (3)," "Too heavy (4)," and "Much too heavy (5)".

- The resulting variable "unreasonableness" has high values when faculty think their workload is too heavy and low values when they think their workload is fine or too light.
- Female faculty (mean 3.71) rate their workload as more unreasonable than male faculty (mean 3.56), and the difference is statistically significant with p=0.002.
- There are no differences in reasonableness of workload by race/ethnicity or by rank.

Table 7 gives the mean unreasonableness of workload for each school (Question 8).

Table 7: Mean Unreasonableness of Workload by School
(high numbers indicate workload is perceived as too heavy)

	Mean	N
Engineering	3.84	141
Education	3.77	30
H&S - Natural Sciences	3.68	93
Medical - Clinical	3.66	297
Earth Sciences	3.57	35
Medical - Basic	3.50	78
H&S - Social Sciences	3.46	89
H&S - Humanities	3.45	150
SLAC	3.41	17
GSB	3.38	65
Law	3.35	26
Total	3.61	1151

In addition to overall workload, the survey asked about the reasonableness of specific job responsibilities. The items were:

a. Teaching
b. Mentoring/Advising (all kinds of advising/mentoring activities for undergraduate, graduate and professional students, and postdocs)
c. Administrative/Committee at Stanford
d. Research/Scholarship (include grant writing/administration, compliance, research staff supervision)
e. Clinical
f. External professional opportunities
g. Overall

The mean response on unreasonableness of teaching and mentoring responsibilities was higher for female faculty than for male faculty, with significant differences of $p<0.05$. For teaching, the mean for women was 3.21 while the mean for men was 3.12 ($p=0.036$). For mentoring, the mean for women was 3.29 while the mean for men was 3.16 ($p=0.001$). The other items did not show gender differences.

The only item from the reasonableness of specific activities list that showed a statistically significant difference by race/ethnicity was the unreasonableness of Administrative/Committee work. URM faculty (mean 3.42) and White faculty (mean 3.38) rated Administrative/Committee as more unreasonable than API faculty (mean 3.15) (ANOVA significant at $p=0.003$, URM>API, White>API were significant contrasts).

Table 8, below, shows that there were a number of activities that showed significant differences across ranks.

These differences by rank mirror the differences in reported proportion of time spent on each activity. Assistant Professors, who spend more time on research, rate their research load as significantly more unreasonable than either Associate or Full Professors. Full Professors, who do the most administrative work, rate their administrative/committee responsibilities as more unreasonable than Associate or Assistant faculty do.

Overall unreasonableness compared to specific activity unreasonableness

Faculty rate their overall workload as more unreasonable than they rate any of the individual activities. Comparing the overall unreasonableness mean of 3.61 (closer to "Too Heavy" than "About Right" from Table 7) to the means in Table 8 below, all but one of the means for the individual activities are closer to "About Right" than the overall mean. (The exception is the unreasonableness of Clinical work for Associate Professors, with a mean of 3.62.) This suggests that the unreasonableness in workload comes in overload of all work responsibilities, rather than faculty finding any particular activity onerous.

Table 8: Unreasonable Workload by Rank, Specific Activities			
		N	Mean
Teaching	Assistant	220	3.22
	Associate	213	3.15
	Full	563	3.12
	Total	996	3.15
Mentoring	Assistant	223	3.19
	Associate	214	3.15
	Full	582	3.20
	Total	1019	3.19
Administrative/Committee ***	Assistant (a, b)	214	3.07
	Associate (a, c)	206	3.34
	Full (b, c)	577	3.48
	Total	997	3.36
Research ***	Assistant (a, b)	224	3.29
	Associate (a)	208	2.97
	Full (b)	574	3.09
	Total	1006	3.11
Clinical **	Assistant	77	3.44
	Associate (a)	79	3.62
	Full (a)	154	3.25
	Total	310	3.39
External	Assistant	126	2.94
	Associate	151	2.98
	Full	453	3.04
	Total	730	3.01
* p<.05, ** p<.01, ***p<.001			
Groups followed by the same letter indicate significantly different contrasts at p<0.05.			

Does a perception of an unreasonable workload correlate with average hours worked or percent time allocated to different activities?

This final section looks at the question of whether perceptions of fairness and unreasonableness correlate to actual hours worked and proportion of time spent on different activities. Is there evidence in the data that women and faculty of color are working more hours or in different activities than their male and White colleagues? Or do differences in reasonableness of workload ratings reflect different values and priorities across gender and race/ethnicity groups?

As mentioned above, there was a small difference in average reported hours worked by gender, and no difference in average reported hours worked by race or ethnicity. These group average comparisons, however, may be masking individual experiences where a person feels that they have to work harder to get ahead. Women faculty and faculty of color report that they have to work harder than their colleagues to be "perceived as a legitimate scholar".

> Question 14o: "I have to work harder than some of my colleagues to be perceived as a legitimate scholar." Answer options were: "Strongly disagree"=1, "Somewhat disagree"=2, "Neither agree nor disagree"=3, "Somewhat agree"=4, "Strongly agree"=5

- Women faculty have a significantly higher mean on this item than men, (3.02 compared to 2.24, t-test significant at $p<0.001$).
- URM faculty (mean 3.13) and API faculty (mean 2.79) have significantly higher means on this item than White faculty (mean 2.33). (ANOVA significant at $p<0.001$, URM > White and API >White are significant contrasts.)

There is a weak but statistically significant positive correlation between the response to "I have to work harder to get ahead" and the reported hours worked (Spearman's rho = .111, $p<0.000$). In Table 9, below, the mean value for average hours a week worked increases the more you agree with the statement "I have to work harder than some of my colleagues to be perceived as a legitimate scholar". So while there do not appear to be large systematic inequities in terms of hours worked by gender or race/ethnicity, it does appear that the sense of not being taken seriously as a scholar is associated with working longer hours.

Table 9: Reported Hours Per Week by Response To The Question "I have to work harder than some of my colleagues to be perceived as a legitimate scholar."

	Reported hours worked a week	N
Strongly Disagree	59.6	385
Somewhat Disagree	60.2	181
Neither Agree Nor Disagree	60.5	239
Somewhat Agree	63.1	156
Strongly Agree	62.2	107
Total	60.7	1068

There is an even stronger correlation between reported hours worked and unreasonableness of workload (Question 3) (Spearman's rho = 0.433, $p=0.000$). The faculty who think their workload is too heavy do, in fact, report working longer hours on average than do the faculty who think their workload is fine.

Table 10: Unreasonableness of Work Activity Correlated with Reported Proportion of Time Spent on That Activity

Variables		Correlation Coefficient	Significance
Unreasonable Workload Teaching	Proportion of Time on Teaching	0.412	**
Unreasonable Workload Mentoring	Proportion of Time spent Meeting with Students	0.329	**
Unreasonable Workload Administrative/Committee	Proportion of Time on Administrative responsibilities	0.548	**
Unreasonable Workload Research	Proportion of Time on Research	0.292	**
Unreasonable Workload Clinical	Proportion of Time on Clinical	0.523	**
Unreasonable Workload External	Proportion of Time on Other Off-Campus Activities	0.334	**

** $p<0.01$

As Table 10 above shows, each specific work activity has a moderate to strong correlation with faculty finding that workload responsibility unreasonable. This means that faculty who are putting more time into each activity are more likely to rate their responsibility for that activity as "too heavy". This relationship is strongest for Administrative/Committee and Clinical work, and weakest for Research.

These correlations, and the correlation between total hours worked and unreasonableness of workload, lend weight to faculty concerns about being overworked and finding particular areas of their workload too heavy. These statistically significant relationships show that perceptions of unreasonableness are mirrored in reported hours worked, and are not just the result of idiosyncrasies in faculty values or beliefs.

Special Report III
Family/Personal Issues

Highlights:

- Higher proportions of female faculty than male faculty have received relief of teaching responsibilities for personal reasons and have received tenure clock extensions.
- Among faculty without children, however, there is no significant gender difference in the proportions receiving teaching relief or taking a tenure clock extension.
- Faculty (both male and female) who have received tenure clock extensions and workload relief generally feel that their units were supportive.
- Assistant Professors report significantly higher unit support for tenure clock extension than do Associate and Full Professors, suggesting that units may have become more supportive over time.
- Assistant Professors are the most dissatisfied with Stanford's spousal benefits; 41.7% of married or partnered Assistant Professors report that their spouse or partner has had problems finding appropriate employment in the area.
- There are no statistically significant gender or race/ethnicity differences on items relating to spouse/domestic partner employment or benefits.

One of the recommendations of the Faculty Panel on Gender Equity and Quality of Life is to do more evaluation of current Stanford policies intended to promote diversity and equity. There were a number of items on the survey that speak to current policies on family/personal issues, including questions about tenure clock extensions and workload (teaching and clinical) relief for faculty with new children and other family/personal reasons, and spousal/partner satisfaction.

Findings

Who on the faculty has children?

For those responding to the survey, a majority of faculty in all ranks have children (Table 1, below). For all faculty (all ranks), a significantly higher proportion of male faculty compared to female faculty have children. But when the data are disaggregated by rank, there is not a significant difference at the Assistant and Associate Professor levels in the proportion of male and female faculty with children. The overall difference is being driven by Full Professors, where there is a difference of nearly 15 percentage points between the percentage of male Professors with children (87.8%) and female Professors with children (72.9%). These data are consistent with an interpretation that it is more possible now for women faculty to combine having children and an academic career than it used to be.

Among all faculty, those with children average about 2 children, though men have slightly more than 2 (2.19) and women slightly less (1.9). The difference is most significant for Full Professors, where men have 2.29 children and women 2.05, but even these differences are not great.

Table 1: Who Has Children, and How Many (by Gender and Rank)?					
All Faculty		**Male**	**Female**	**Total**	
No Children	Count	142	80	222	
	% within Gender	19.3%	29.7%	22.1%	
Has Children	Count	594	189	783	
	% within Gender	80.7%	70.3%	77.9%	p=0.000, ***
Total	Count	736	269	1005	
Average number of children among all faculty with children		2.19	1.90	2.12	p=0.000, ***
Assistant Professors		**Male**	**Female**	**Total**	
No Children	Count	60	33	93	
	% within Gender	46.5%	37.9%	43.1%	
Has Children	Count	69	54	123	
	% within Gender	53.5%	62.1%	56.9%	p=0.212
Total	Count	129	87	216	
Average number of children among Assistant Professors with children		1.80	1.67	1.74	p=0.232
Associate Professors		**Male**	**Female**	**Total**	
No Children	Count	26	15	41	
	% within Gender	17.4%	25.0%	19.6%	
Has Children	Count	123	45	168	
	% within Gender	82.6%	75.0%	80.40%	p=0.214
Total	Count	149	60	209	
Average number of children among Associate Professors with children		2.13	1.89	2.05	p=0.088
Full Professors		**Male**	**Female**	**Total**	
No Children	Count	54	32	86	
	% within Gender	12.2%	27.1%	15.3%	
Has Children	Count	389	86	475	
	% within Gender	87.8%	72.9%	84.7%	p=0.000, ***
Total	Count	443	118	561	
Average Number of Children Among Full Professors with Children		2.29	2.05	2.24	p=0.030, *

Workload (Teaching/Clinical) Relief for Care Giving, Health, or Family Crisis

Stanford provides faculty who become new parents with flexibility in their workload (teaching and clinical responsibilities) at the time of the birth or adoption of a child.

Question 9 on the survey asked:

Q9 "At any time since you started working at Stanford, have you received relief from teaching, clinical or other workload duties for personal reasons, including care giving for a child or parent, your own health concerns, or a family crisis?"

(Answer options: Yes or No).

Those that answered yes to question 9 were asked a follow-up:

Q10 "If so, how supportive was your academic unit concerning your relief from teaching, clinical or other workload duties?"

(Answer options: 1=Very Unsupportive, 2=Somewhat unsupportive, 3=Neither supportive or unsupportive, 4=Somewhat supportive, 5=Very supportive).

Table 2: Relief for Personal Reasons by Gender

			Gender		Total
			Male	Female	
Q9: At any time, have you received teaching relief for personal reasons?	Yes	Count	127	91	218
		% within Gender	17.0%	33.0%	21.3%
	No	Count	622	185	807
		% within Gender	83.0%	67.0%	78.7%
Total		Count	749	276	1025
		% within Gender	100.0%	100.0%	100.0%
Chi2 p-value = 0.000					

While both men and women are making use of relief policies, Table 2 shows that a higher proportion of women than men has received relief for personal reasons (difference is significant at p=0.000). Most of these are faculty who have children, as among faculty who do not have children only 12.0% (17 out of 142) of men and 7.5% (6 out of 80) of women have received teaching relief for personal reasons (this difference was not statistically significant).

Table 3 (below) shows that the majority (69.1%) of faculty report that their unit was either Supportive or Very Supportive when they received workload relief. This did not vary by gender, as 70.1% of women and 68.3% of men reported that their unit was supportive. Table 3 also shows, however, that 23% of faculty thought that their unit was unsupportive (either Somewhat or Very), which is a cause for concern. There were not significant differences in the supportiveness of units toward relief for personal reasons by rank or race/ethnicity.

Table 3: Unit Supportiveness Toward Workload Relief		Count / Percent
If you received relief, how supportive was your academic unit?	Very Unsupportive	31 13.9%
	Somewhat Unsupportive	21 9.4%
	Neither Supportive Nor Unsupportive	17 7.6%
	Somewhat Supportive	39 17.5%
	Very Supportive	115 51.6%

Table 4 shows the mean supportiveness for each school toward workload relief, where higher values indicate more support toward relief for personal reasons. Earth Sciences is an outlier on the low end, with a mean below neutral. Law and H&S Natural Sciences had the highest mean supportiveness.

Table 4: Mean Supportiveness of Unit Toward Workload Relief		
School	Mean (1=Very Unsupportive, 5=Very Supportive)	N
Law	4.17	6
H&S - Natural Sciences	4.10	10
Medical - Clinical Sciences	3.97	78
H&S - Social Sciences	3.88	24
H&S - Humanities	3.78	41
Engineering	3.74	31
GSB	3.67	12
Education	3.60	10
Medical - Basic Sciences	3.57	7
Earth Sciences	2.80	5
Total	3.84	252

Tenure Clock Extensions

Stanford has a policy allowing a one-year extension to the tenure clock for faculty who become parents, either by birth or adoption. Since most tenure-clock extensions are granted because of new children, this part of the analysis presents data only for those faculty who indicated on the survey that they have children[2].

[2] Of the faculty who do not have children who responded to the survey, only 3% (7 out of 221) received a tenure clock extension. There was no gender difference in the proportion of men and women without children taking tenure clock extensions.

Question 11 on the survey asked: "At any time since you started working at Stanford, have you had your tenure clock (or promotion clock for non-tenure line or Medical Center line) slowed or stopped for personal reasons, including care giving for a child or parent, your own health concerns, or a family crisis?"

(Answer options: Yes or No).

For those who answered yes to Q11, there was a follow-up:

Q12 "If so, how supportive was your academic unit concerning your having your tenure clock (or promotion clock for non-tenure line or Medical Center line) stopped or slowed?

(Answer options: 1=Very Unsupportive, 2=Somewhat unsupportive, 3=Neither supportive or unsupportive, 4=Somewhat supportive, 5=Very supportive).

As Table 5 (below) shows, a higher proportion of female faculty have had their tenure clock extended than have male faculty, and the difference is statistically significant within every rank.

Table 5: Tenure Clock Extensions and Supportive Unit by Rank and Gender, for Faculty with Children

Assistant Professors	Male Faculty with Children	Female Faculty with Children	Significance
Tenure Clock Extension	11 (15.9%)	21 (38.9%)	Chi2 p=0.004, **
No Tenure Clock Extension	58 (84.1%)	33 (61.1%)	
Mean Unit Supportiveness, Assistant Professors	4.33	4.67	T-test p=0.287
Associate Professors			
Tenure Clock Extension	11 (9.2%)	11 (24.4%)	Chi2 p=0.010, *
No Tenure Clock Extension	109 (90.8%)	34 (75.6%)	
Mean Unit Supportiveness, Associate Professors	3.82	3.91	T-test p=0.893
Full Professors			
Tenure Clock Extension	3 (0.8%)	9 (10.7%)	Chi2 p=0.000, ***
No Tenure Clock Extension	383 (99.2%)	75 (89.3%)	
Mean Unit Supportiveness, Full Professors	3.50	2.91	T-test p=0.530

The proportions of both female and male faculty with children who have had tenure clock extensions are highest among Assistant Professors, and lowest among Full Professors. Some of the Associate and Full Professors may have had their children after tenure/promotion, or before coming to Stanford. Also, the date at which tenure clock extensions were introduced is not known; this policy may not have existed when some senior full professors had their children. This would not be the case with Associate Professors, and hence it may be possible that faculty are more likely than in the past to take a tenure clock extension when they have children.

Junior faculty with new children are encouraged to take advantage of this policy. Despite this recommendation, that only 38.9% of female Assistant Professor faculty with children have taken tenure clock extensions suggests that not all feel they need or feel comfortable taking this extension. However, some Assistant Professors may have had their children before beginning their Stanford position and hence not be eligible, and some with new children early in their assistant professorships may not have yet requested the extension.

Table 6 shows that the majority (54.4%) of faculty with children report that their unit was Very Supportive concerning their tenure clock extension. Of these faculty there was not a significant difference in the mean values women (4.02) and men (3.96) reported for how supportive their unit was concerning their tenure clock extension. "Very Supportive" was the modal response for both women and men.

Table 6: Unit Supportiveness for Tenure Clock Extension for Faculty with Children

	Frequency	Percent	Cumulative Percent
Very Unsupportive (1)	7	10.3	10.3
Somewhat Unsupportive (2)	3	4.4	14.7
Neither Supportive Nor Unsupportive (3)	11	16.2	30.9
Somewhat Supportive (4)	10	14.7	45.6
Very Supportive (5)	37	54.4	100
Total	68	100	

There were significant differences in how supportive faculty said their units were about tenure clock extensions by rank.

Table 7 (below) shows that Assistant Professors report higher levels of unit supportiveness than either Associate or Full Professors. The data are consistent with increasing levels of unit support for tenure clock extensions over time, as Assistant Professors are most likely to have had recent extensions, whereas the responses for Full Professors might reflect extensions that took place further in the past.

Table 7: Supportiveness of Units Concerning Tenure Clock Extension by Rank, Among Faculty with Children

		N	Mean
Q12: If so, how supportive was your academic unit? (Tenure clock)	Assistant Professor (a, b)	30	4.57
	Associate Professor (a)	22	3.86
	Full Professor (b)	16	3.06
	Total	68	3.99

ANOVA p-value = 0.001 **
Letters indicate which ranks differ. Ranks followed by the same letter indicate significant contrasts a p<0.05.

The data highlighted in Table 5 (on the facing page) show that there were no significant gender differences in supportiveness of units when the data were disaggregated by rank. There also were not significant differences in the supportiveness of units concerning tenure clock extension by race/ethnicity.

Table 8 shows the mean unit supportiveness by school for those schools with more than 5 respondents for the question.

Table 8: Mean Supportiveness of Unit Concerning Tenure Clock Extension		
School	Mean (1=Very Unsupportive, 5=Very Supportive)	N
Medical - Basic Sciences	4.83	6
GSB	4.17	6
Medical - Clinical Sciences	4.16	19
H&S - Social Sciences	3.93	14
Engineering	3.50	8
H&S - Humanities	3.36	11
Earth Sciences	-	-
Education	-	-
H&S - Natural Sciences	-	-
Law	-	-
Total	3.98	83

Satisfaction with Spouse/Domestic Partner Employment and Benefits

The "two-body" problem is increasingly discussed as a major challenge for faculty. The Quality of Life survey included two items that speak to challenges of finding appropriate employment for spouses and domestic partners.

Table 9 shows that while 62.2% of faculty spouses are very or somewhat satisfied with their employment situations, 30.4% of faculty spouses and domestic partners are dissatisfied (either somewhat or very) with their employment situation.

Table 9: Q28. How Satisfied is Your Spouse/domestic Partner with His/Her Employment Situation?			
	Frequency	Percent	Cumulative Percent
Very Dissatisfied	87	10.3	10.3
Somewhat Dissatisfied	169	20.1	30.4
Neither Satisfied Nor Dissatisfied	62	7.4	37.8
Somewhat Satisfied	269	32.0	69.8
Very Satisfied	254	30.2	100.0
Total	841	100.0	

Table 10 shows that while 68.2% of faculty spouses have not had a problem finding an appropriate job in the area, 31.8% of faculty spouses and domestic partners have had trouble finding an appropriate job in the area.

Table 10: Q29. Has Your Spouse/domestic Partner Had Problems Finding an Appropriate Job in this Area?		
	Frequency	Percent
Yes	239	31.8
No	512	68.2
Total	751	100.0

Tables 9 and 10 show that spouse/domestic partner employment is a problem for nearly one-third of married/partnered Stanford faculty.

Table 11 shows that faculty satisfaction with Stanford's spouse/domestic partner benefits is quite high, with 61.4% of faculty being somewhat or very satisfied; only 17.6% of respondents were dissatisfied (either somewhat or very).

Table 11: Q30. How Satisfied are You with Stanford's Spouse/domestic Partner Benefits?			
	Frequency	Percent	Cumulative Percent
Very Dissatisfied	45	5.4	5.4
Somewhat Dissatisfied	101	12.2	17.6
Neither Satisfied Nor Dissatisfied	174	21.0	38.6
Somewhat Satisfied	221	26.6	65.2
Very Satisfied	289	34.8	100.0
Total	830	100.0	

There were no statistically significant gender or race/ethnicity differences in satisfaction with spouse/domestic partner's employment, reported problems for spouse/domestic partner finding an appropriate job, or satisfaction with spouse/domestic partner benefits.

There were, however, significant differences by rank in the proportion of faculty reporting that their spouse or domestic partner had problems finding an appropriate job in the area (Table 12), and in satisfaction with Stanford's spouse/domestic partner benefits (Table 13). In both cases, the pattern is Assistants having the lowest satisfaction, followed by Associates, with Full Professors being the most satisfied.

Table 12: Proportion of Faculty Reporting Spouse/domestic Partner had Problems Finding Employment by Rank					
		Assistant Professor	Associate Professor	Professor	Total
Yes	Count	65	54	117	236
	% within Rank	41.7%	32.9%	28.2%	32.1%
No	Count	91	110	298	499
	% within Rank	58.3%	67.1%	71.8%	67.9%
Total	Count	156	164	415	735
	% within Rank	100.0%	100.0%	100.0%	100.0%
Chi2 p-value = 0.009 **					

Table 13: How Satisfied Are You with Stanford's Spouse/domestic Partner Benefits?		
	Mean (1 = Very Dissatisfied, 5=Very Satisfied)	N
Assistant Professor (a)	3.51	170
Associate Professor (b)	3.63	174
Professor (a,b)	3.86	466
Total	3.74	810
ANOVA p=0.002 ** Letters indicate which ranks differ. Ranks followed by the same letter indicate significant contrasts a p<0.05.		

Comparison with Peer Institutions

The questions about spouse/domestic partner employment and about satisfaction with spouse/domestic partner benefits were included by some peer institutions in their faculty surveys. On the question of whether your spouse/domestic partner has had problems finding appropriate employment (Table 12 above), the proportion of Stanford faculty answering Yes for each rank was within the range of the peer universities' values[3]. The differences by rank at Stanford on this item were also found in some peer universities' responses, where the Assistants reported spouses having the most trouble finding appropriate employment and Professors reporting the least trouble for spouses finding appropriate employment.

On the question about satisfaction with spouse/domestic partner benefits, Stanford faculty responses are within the range of peer values for each rank (Table 14 below). The pattern of Assistants being least satisfied and Professors being most satisfied was also found at three of the peer institutions.

Table 14: Comparson with 5 Peer Private Research Institutions on Satisfaction with Spouse/domestic Partner Benefits by Rank			
	Stanford	5 Peer Research Universities	
	Mean	Mean	Range
Assistant Professor	3.51	3.61	3.42 - 3.84
Associate Professor	3.63	3.66	3.30 - 3.96
Professor	3.86	3.83	3.58 - 4.01
Total	3.74	3.75	3.51 - 3.95

[3] The values for the peer universities cannot be presented because fewer than five universities used this question.

Special Report IV: Regression Analyses of Predictors of Faculty Satisfaction and Intention to Remain at Stanford

Highlights

- Regression analyses were conducted on three dependent variables indicating satisfaction: choosing to be a faculty member at Stanford if you had to decide all over again, likeliness to leave Stanford in the next three years, and overall satisfaction.
- The Supportive Unit Index is the most consistent significant predictor of all three dependent variables.
- The Supportive Colleagues Index is also a strong predictor of faculty satisfaction.
- The significant effects of sources of stress outside the workplace on all three dependent variables were largely eliminated once unit and climate variables were included in the models. The unit and climate variables explain significantly more variation in all three dependent variables than sources of stress and other individual work-life variables.
- There are no significant gender effects on satisfaction, saying you would choose Stanford again, or likeliness to leave Stanford.
- There are no significant race/ethnicity effects on satisfaction, but there are significant race/ethnicity effects on saying you would choose Stanford again and likeliness to leave Stanford in the next three years. After controlling for demographic and work-life characteristics, API and URM faculty are more likely to say they would choose again to be a faculty member at Stanford compared to White faculty. After controlling for demographic characteristics, API faculty are less likely to leave in the next three years than White faculty.

Research Questions

The general question addressed by these analyses is: What are the predictors of faculty satisfaction and intention to remain at Stanford? Three depended variables were modeled: saying that you would choose Stanford again if you had it to do over, likeliness to leave Stanford in the next three years, and overall satisfaction (descriptive statistics for all variables appear in Tables A and B at the end of this Special Report). In addition to the general question of what predicts overall faculty satisfaction, these analyses address two specific sub-questions:

1. What are the effects of individual work-life factors (such as family sources of stress) on satisfaction, controlling for demographic characteristics of faculty?
2. What are the effects of perceptions of unit climate on satisfaction, controlling for individual work-life factors and demographic characteristics? This focus on perceptions of unit climate was motivated by the high correlations found between the dependent variables and the perceptions of unit climate measures.

Methods

Hierarchical (block) regression was used to model each of the dependent variables1. The first block of independent variables are demographics. The second block includes individual work-life variables for each faculty member, such as rank, average hours a week worked, sources of stress, and time at Stanford. The third block includes variables that operationalize unit characteristics, such as the supportive unit index, the supportive colleagues index, and dummy variables for each school. Descriptive statistics for all variables appear at the end of this Special Report.

Variables were chosen to include in the analysis because they:

1. Were of interest to the panel (gender, race/ethnicity, rank, school dummies),
2. Were used in the regression models in the previous report,
3. Have strong bivariate correlations with the dependent variables, or
4. Serve as controls for specific other independent variables.

Notes on the Tables

In Tables 1-3, "b" is the regression coefficient estimate. A positive coefficient is interpreted as predicting a positive relationship between the independent variable and dependent variable; a negative coefficient indicates a negative relationship. Because the model is nonlinear, the size of the effect varies across different levels of the independent and dependent variables.

"S.E." is the standard error of the coefficient estimate.

The "Exp(b)" column represent the Odds Factor or Odds Ratio for each independent variable. The odds factor tells you how much a one-unit change in the independent variable is predicted to change the odds of an outcome on the dependent variable. Odds factors over 1 indicate that the odds increase as the independent variable increases, whereas odds factors less than 1 indicate that the odds decrease when the value of an independent variable increases.

The "p" column gives the p-value for the significance test for each coefficient; significance is also represented by asterisks.

Independent variables Female, Underrepresented Minority, Asian/Pacific Islander, Has Spouse or Domestic Partner, Assistant Professor, Associate Professor, Non Tenure Line, Medical Center Line, and the variables representing each school are all dummy (dichotomous) variables. The variable is coded 1 for those who fit the characteristic (e.g., are female), and 0 for everyone else. The coefficients for these variables are interpreted as the effect of having each characteristic on the odds of the dependent outcome. When you have a set of dummy variables, such as for School, one category has to be omitted from the model to serve as a base or comparison category. H&S Humanities was chosen to serve as the omitted school. Consequently, there are no coefficients estimated for H&S Humanities. The other omitted categories are Male, White, Does Not Have a Spouse or Domestic Partner, Full Professor, and Tenure Line.

Findings

Dependent Variable 1: "I would choose to be a faculty member at Stanford"

Table 1, below, shows the logistic regression results for the first dependent variable, which is a dichotomized response to the question 24:

"If you had to decide all over again whether to be a faculty member at Stanford, what would you decide?"

Respondents who answered, "I would choose to be a faculty member at Stanford" were coded 1, while respondents who answered "I would not choose to be a faculty member at Stanford" and "I would have some second thoughts" were coded 0. This model predicts choosing to be a faculty member at Stanford as the dependent outcome.

Table 1

Logit, Dependent Variable: "I would choose to be a faculty member at Stanford"

Independent Variables	Block 1					Blocks 1, 2					All Blocks				
Block 1	**b**	**S.E.**	**Exp(b)**	**p**		**b**	**S.E.**	**Exp(b)**	**p**		**b**	**S.E.**	**Exp(b)**	**p**	
Female	-0.17	0.19	0.84	0.36		-.16	.20	.85	.43		0.20	0.25	1.22	.44	
Underrepresented Minority	0.66	0.40	1.93	0.10		.90	.42	2.46	.03	*	1.77	0.53	5.85	.00	***
Asian/ Pacific Islander	0.64	0.28	1.89	0.02	*	.72	.29	2.05	.01	*	1.01	0.34	2.74	.00	**
Has Spouse or Domestic Partner	-0.02	0.26	0.98	0.94		-.06	.27	.94	.81		-0.20	0.33	.82	.54	
Number of Children	0.17	0.08	1.18	0.03	*	.24	.09	1.28	.01	**	0.09	0.11	1.09	.41	
Age	0.00	0.08	1.00	0.95		-.29	.14	.75	.04	*	-0.21	0.17	.81	.22	
Block 2															
Assistant Professor						-.14	.33	.87	.66		0.02	0.40	1.02	.95	
Associate Professor						-.42	.26	.66	.10		-0.17	0.31	.84	.57	
Non Tenure Line						.03	.32	1.03	.93		0.51	0.41	1.67	.21	
Medical Center Line						.10	.25	1.10	.70		0.15	0.37	1.16	.69	
Average Hours Worked a Week						-.01	.01	.99	.08	+	0.01	0.01	1.01	.36	
Time at Stanford						.16	.11	1.18	.12		0.41	0.13	1.51	.00	**
Source of Stress: Household						.32	.16	1.37	.04	*	0.28	0.19	1.32	.14	
Source of Stress: Childcare						-.23	.15	.79	.11		-0.05	0.17	.95	.76	
Source of Stress: Care of Other						-.02	.14	.98	.91		-0.02	0.16	.98	.88	
Source of Stress: Your Health						-.15	.15	.86	.32		0.03	0.19	1.03	.88	
Source of Stress: Cost of Living						-.39	.13	.68	.00	**	-0.29	0.15	.75	.05	+
Source of Stress: Community Outside the University						-.38	.16	.68	.02	*	-0.26	0.20	.77	.18	
Block 3															
Earth Sciences											0.74	0.62	2.09	.23	
Education											1.11	0.63	3.04	.08	+
Engineering											0.60	0.39	1.82	.12	
GSB											-0.22	0.47	.80	.64	
H&S Natural Sciences											0.42	0.41	1.52	.31	
H&S Social Sciences											0.15	0.42	1.16	.73	
Law											1.31	1.07	3.70	.22	
Medicine - Basic											0.11	0.48	1.11	.82	
Medicine - Clinical											0.37	0.38	1.44	.34	
Opportunitites for Women											0.10	0.20	1.10	.63	
Opportunities for Minorities											0.07	0.19	1.07	.72	
Supportive Unit Index											1.20	0.20	3.32	.00	***
Supportive Colleagues Index											0.25	0.21	1.29	.23	
Social Inclusion											0.15	0.13	1.16	.24	
Unreasonable Workload											-0.44	0.16	.65	.01	**

Model Fit

N = 786	Block 1			Blocks 1,2			All Blocks		
	Block 1 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.030	*	Block 2 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.000	***	Block 3 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.000	***
	Cox & Snell Pseudo R Square	0.02		Cox & Snell Pseudo R Square	0.060		Cox & Snell Pseudo R Square	0.277	

*** = p<0.001; ** = p<0.01; * = p<0.05; + = p<0.10

Results for the first independent variable, choosing Stanford again

The results for block 1 show that the demographic variables alone do a poor job of accounting for the likelihood that a respondent would choose to be a faculty member again at Stanford.

Results for Blocks 1 and 2

Including the Block 2 variables improves the model fit, increasing the pseudo R-squared from 0.018 to 0.060, meaning that 6% of the variation in likelihood of choosing Stanford again is explained by the independent variables in Blocks 1 and 2.

- The coefficients for Asian/Pacific Islander (API) and for Underrepresented Minority (URM) are significant and positive, meaning that API and URM faculty are more likely to say they would choose to be a faculty-member again than White faculty (the omitted comparison group), controlling for all the other variables in the model. The model predicts that the odds of saying you would choose Stanford again are 2 times higher for API than white faculty (which would lead to a predicted probability of 67% for API compared to 50% for white, for example, everything else being held equal), and 2.5 times higher for URM faculty than for white (which would lead to a predicted probability of 71% of saying you would choose Stanford again for URM faculty instead of a 50% for white faculty, all else being equal). It is important to note that there were not significant differences by race/ethnicity in the raw proportions of faculty saying they would choose Stanford again and these coefficients only become significant when you control for other demographic and individual work-life characteristics in the model. In other words, these coefficients should *not* be interpreted as saying that retention among API and URM faculty is not a concern.
- Number of children has a significant positive coefficient, meaning additional children make a faculty-member more likely to say they would choose Stanford again.
- Age has a negative significant coefficient, meaning that younger faculty are less likely to say they would choose Stanford again than older faculty, independent of any effect of rank.
- The coefficient on Average Hours Worked a Week is negative and marginally significant, indicating that the more hours a week a faculty-member works, the less likely they are to say they would choose Stanford again.
- Among the Sources of Stress variables, Household stress has a significant positive coefficient, which is somewhat surprising, because it means that faculty with high levels of stress from their household are more likely to say they would choose to be a faculty-member at Stanford again than faculty with less household stress. Note that stress from childcare and cost of living are also included in the model, so the coefficient on household stress should be interpreted as being net of childcare and cost of living stresses. One interpretation of this result is that people with high levels of household stress are likely to have constrained mobility due to family commitments (such as wanting to keep older children in their schools). Another interpretation is that household stress would not be any different if the faculty-member chose to work somewhere else, so it makes sense that household stress doesn't decrease the likelihood of a faculty-member saying they would choose Stanford again.
- The other Source of Stress variables that are significant, Cost of Living, and Community Outside the University, show the expected sign, where more stress is predicted to decrease the likelihood of a faculty-member choosing Stanford again.

Results from the Full Model (All three blocks)

The addition of Block 3 results in a big improvement in the fit of the model. The pseudo R-square goes from 0.060 to 0.277. The full model explains 27.7% of the variation in faculty saying they would choose to be a faculty-member at Stanford again.

- The Supportive Unit Index has a large, positive coefficient that is statistically significant at $p<0.001$. The more supportive a faculty-member perceives their unit to be, the more likely they are to say they would choose again to be a faculty-member at Stanford. The size of the effect of Supportive Unit is quite large, with an odds factor of 3.3. A one-point increase in the Supportive Unit scale (which goes from 1 to 5) would move a faculty member from a 50% likelihood of choosing Stanford again to a 77% likelihood of choosing Stanford again.
- The coefficient for Unreasonable Workload is negative and significant, meaning that faculty who perceive their workload to be unreasonable are less likely to say they would choose again to be a faculty member at Stanford. This significant effect is present even though actual reported hours worked were controlled for. In other words, the perception of unreasonableness is having an effect above and beyond the actual hours worked.
- Of the Block 2 variables, none of the Source of Stress variables nor average hours worked a week retain significance after the Block 3 variables are entered. Together with the large change in pseudo R-squared that came with the Block 3 variables, the lack of significance of the Stress variables when Block 3 is in the model means that the unit climate variables in Block 3 have a lot more explanatory power than the Stress and individual factors in Block 2. In other words, perceptions of climate and unit characteristics have a much larger effect on how likely a faculty-member is to say they would choose Stanford again than individual Stress factors.
- The one Block 2 coefficient that is significant in the full model is Time at Stanford, where faculty who are at Stanford longer have a higher likelihood of choosing Stanford again.
- The coefficients for API and URM remain positive and significant, and increase dramatically in size in the full model. After you include the block 3 climate measures, URM are predicted to have 5.9 times higher odds of saying they would choose Stanford again compared to white faculty, and API are predicted to 2.7 times higher odds of saying they would choose Stanford again compared to white faculty. This suggests that increasing the supportiveness of a faculty-member's unit increases the odds of URM and API faculty saying they would choose Stanford again, and that the relationship between unit climate and saying they would choose Stanford again is especially strong for URM faculty.
- Interaction effects for gender and race/ethnicity were tested for the Unit Support Index, but none were significant, and they were not included in the final model.

Dependent Variable 2: Likely to Leave Stanford in the Next Three Years

Table 2, above, shows the logistic regression results for the second dependent variable, which is a dichotomized response to the question 22:

"In the next three years, how likely are you to leave Stanford?"

Respondents who answered "Somewhat Likely" or "Very Likely" were coded 1, while respondents who answered "Very Unlikely," "Somewhat Unlikely, or "Neither Likely nor Unlikely" were coded 0. This model predicts being likely to leave Stanford (either Somewhat or Very) as the dependent outcome.

The Block 1 demographics explain very little variance in being likely to leave Stanford; the pseudo R-squared for Block 1 is only 0.011.

Results for Blocks 1 and 2:

Adding Block 2 improves the fit, but the pseudo R-squared is only 0.044, meaning that about 4% of the variance in being likely to leave is attributable to the variables in the model.

- The coefficient on Source of Stress: Household is negative and significant. This is a somewhat counterintuitive finding that the more Household is a source of stress for faculty, the less likely they are to leave Stanford. This finding is consistent with the effect of household stress on the likelihood a faculty member would choose Stanford again, as discussed in the previous section.
- By contrast, the coefficient on Source of Stress: Childcare is positive, and significant, meaning that the more faculty feel childcare is a source of stress, the more likely they are to leave Stanford.
- Source of Stress: Cost of Living is marginally significant and positive, meaning that more stress from cost of living makes faculty more likely to leave Stanford.
- The coefficient for average hours worked a week is positive and significant, meaning that the more hours a week a faculty-member works, the more likely they are to leave Stanford.
- The coefficient in Asian/Pacific Islander is negative and marginally significant, showing that API faculty are less likely to anticipate leaving in the next three years compared to White faculty (the omitted category).

Results from the Full Model (all 3 blocks)

Adding the Block 3 variables in the full model improves the fit of the model, increasing the pseudo R-squared to 0.158, with about 16% of the variation in likelihood to leave is explained by the model.

- Once the climate measures and school dummies (Block 3) are included, the sources of stress variables from Block 2 are no longer significant, except for Source of Stress: Household. The increase in pseudo-R-squared and the non-significance of the other source of stress variables means that perceptions of unit and climate explain variation in likelihood of leaving much better than individual work-life and source-of-stress variables.
- The Supportive Unit index has a significant negative coefficient, meaning that faculty who perceive their unit as more supportive are less likely to leave. A one-unit increase in

Table 2

Logit, Dependent Variable: Likely to Leave Stanford in the Next Three Years

Independent Variables	Block 1					Blocks 1, 2					All Blocks				
Block 1	**b**	**S.E.**	**Exp(b)**	**p**		**b**	**S.E.**	**Exp(b)**	**p**		**b**	**S.E.**	**Exp(b)**	**p**	
Female	0.17	0.20	1.19	0.39		0.20	0.21	1.22	0.36		-0.08	0.26	0.92	0.75	
Underrepresented Minority	0.23	0.35	1.26	0.51		0.24	0.37	1.27	0.51		-0.04	0.42	0.96	0.93	
Asian/ Pacific Islander	-0.70	0.32	0.50	0.03	*	-0.80	0.33	0.45	0.02	*	-1.00	0.35	0.37	0.01	**
Has Spouse or Domestic Partner	0.24	0.30	1.27	0.43		0.21	0.31	1.24	0.49		0.27	0.34	1.31	0.42	
Number of Children	-0.07	0.08	0.93	0.40		-0.10	0.09	0.90	0.29		0.00	0.11	1.00	0.98	
Age	-0.05	0.09	0.95	0.52		0.07	0.15	1.07	0.63		0.05	0.17	1.05	0.78	
Block 2															
Assistant Professor						0.27	0.36	1.31	0.45		0.13	0.40	1.14	0.74	
Associate Professor						0.08	0.28	1.09	0.76		-0.19	0.31	0.83	0.54	
Non Tenure Line						0.30	0.33	1.36	0.36		0.09	0.37	1.10	0.80	
Medical Center Line						-0.22	0.27	0.80	0.42		-0.36	0.36	0.70	0.32	
Average Hours Worked a Week						0.02	0.01	1.02	0.03	*	0.02	0.01	1.02	0.05	+
Time at Stanford						-0.03	0.12	0.97	0.82		-0.12	0.13	0.89	0.35	
Source of Stress: Household						-0.57	0.17	0.57	0.00	***	-0.47	0.19	0.63	0.01	*
Source of Stress: Childcare						0.32	0.16	1.38	0.04	*	0.25	0.17	1.28	0.15	
Source of Stress: Care of Other						-0.05	0.15	0.95	0.72		-0.08	0.16	0.92	0.62	
Source of Stress: Your Health						0.26	0.17	1.29	0.12		0.22	0.18	1.25	0.22	
Source of Stress: Cost of Living						0.25	0.14	1.29	0.07	+	0.19	0.15	1.20	0.22	
Source of Stress: Community Outside the University						0.28	0.17	1.32	0.11		0.18	0.19	1.19	0.36	
Block 3															
Earth Sciences											0.71	0.54	2.04	0.18	
Education											-0.10	0.62	0.90	0.87	
Engineering											-0.01	0.40	0.99	0.99	
GSB											1.06	0.45	2.90	0.02	*
H&S Natural Sciences											0.00	0.43	1.00	1.00	
H&S Social Sciences											-0.18	0.43	0.84	0.69	
Law											-1.20	1.07	0.30	0.26	
Medicine - Basic											-0.06	0.50	0.95	0.91	
Medicine - Clinical											0.29	0.37	1.33	0.44	
Opportunitites for Women											-0.12	0.19	0.88	0.53	
Opportunities for Minorities											-0.02	0.19	0.98	0.90	
Supportive Unit Index											-0.52	0.19	0.59	0.01	
Supportive Colleagues Index											-0.39	0.21	0.68	0.06	
Social Inclusion											-0.14	0.12	0.87	0.27	
Unreasonable Workload											-0.32	0.17			

Model Fit								
N = 786	**Block 1**		**Blocks 1,2**			**All Blocks**		
	Block 1 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.216	Block 2 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.008	**	Block 3 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.000	***
	Cox & Snell Pseudo R Square	0.011	Cox & Snell Pseudo R Square	0.044		Cox & Snell Pseudo R Square	0.158	

Supportive Unit (on a 1-5 scale) would decrease the odds of a faculty-member leaving in the next three years by a factor of 0.59. For example, the predicted probability of a faculty member saying they are likely to leave would go from .50 down to .37 with a one-unit increase in the Supportive Unit index.

- The coefficients for the Supportive Colleagues index and Unreasonable Workload are marginally significant and negative, meaning that the more supportive a faculty-member perceives their colleagues to be and the more reasonable they perceive their workload to be, the less likely they are to leave.
- API faculty are significantly less likely to leave than White faculty (the omitted category).
- The coefficient on the dummy variable for GSB is positive and significant, meaning that GSB faculty are more likely to leave than faculty in H&S Humanities (the omitted category), controlling for all the other variables in the model.
- Interaction effects for gender and race/ethnicity were tested for the Unit Support Index, but were not significant and were not included in the final model.

Dependent Variable 3: "Overall, How Satisfied Are You Being a Faculty Member at Stanford?"

Table 3, above, shows the ordered logistic regression results for the third dependent variable, which is a recoded response to the question 1:

"Overall, how satisfied are you being a faculty member at Stanford?"

Respondents who responded "Neutral," "Somewhat Dissatisfied," of "Very Dissatisfied" were coded 0; respondents who said they were "Somewhat Satisfied" were coded 1, and respondents who said they were "Very Satisfied" were coded 2. The 3-category coding was used rather than all 5 original answer options because in preliminary ordered logit models, only the cuts between Very/Somewhat and Somewhat/Neutral were statistically significant.

The Block 1 variables do a poor job fitting the data, with no significant independent variables and a pseudo R-squared less than 0.01.

Results for Blocks 1 and 2

The addition of the Block 2 variables improves the model fit, with a pseudo R-squared of 0.042.

- Average Hours Worked a Week is a significant negative predictor of satisfaction, meaning that the more faculty work the less satisfied they are.
- Source of Stress: Cost of Living is a significant negative predictor of satisfaction, meaning that the more faculty are stressed by Cost of Living, the less satisfied they are.
- Source of Stress: Childcare is a negative predictor of satisfaction, but is only marginally significant.

Results from the Final Model (All 3 blocks)

The addition of the Block 3 variables does a much improved job of fitting the data. The pseudo R-squared is 0.280. That means that 28% of the variation in faculty satisfaction can be explained by this model.

Table 3

Ordered Logistic Regression, Dependent Variable: "Overall, How Satisfied Are You Being a Faculty Member at Stanford?"

Independent Variables	Block 1					Blocks 1, 2					All Blocks				
Block 1	**b**	**S.E.**	**Exp(b)**	**p**		**b**	**S.E.**	**Exp(b)**	**p**		**b**	**S.E.**	**Exp(b)**	**p**	
Female	-0.05	0.15	0.95	0.75		0.01	0.16	1.01	0.94		0.22	0.19	1.24	0.24	
Underrepresented Minority	-0.22	0.28	0.80	0.43		-0.14	0.29	0.87	0.64		0.01	0.32	1.01	0.99	
Asian/ Pacific Islander	-0.26	0.20	0.77	0.20		-0.23	0.21	0.79	0.27		-0.26	0.22	0.77	0.25	
Has Spouse or Domestic Partner	-0.08	0.22	0.93	0.73		-0.07	0.22	0.93	0.74		-0.24	0.24	0.78	0.31	
Number of Children	0.03	0.06	1.03	0.68		0.10	0.07	1.11	0.13		0.01	0.08	1.01	0.94	
Age	0.04	0.06	1.04	0.53		-0.06	0.11	0.94	0.59		0.02	0.12	1.02	0.88	
Block 2															
Assistant Professor						-0.06	0.27	0.94	0.82		0.16	0.29	1.17	0.59	
Associate Professor						-0.20	0.21	0.82	0.32		0.03	0.22	1.03	0.88	
Non Tenure Line						-0.03	0.26	0.97	0.91		0.23	0.29	1.26	0.42	
Medical Center Line						-0.20	0.20	0.82	0.30		-0.24	0.27	0.79	0.37	
Average Hours Worked a Week						-0.01	0.01	0.99	0.04	*	0.00	0.01	1.00	0.76	
Time at Stanford						-0.04	0.09	0.96	0.68		0.14	0.10	1.15	0.15	
Source of Stress: Household						0.12	0.12	1.13	0.34		0.12	0.14	1.12	0.40	
Source of Stress: Childcare						-0.21	0.12	0.81	0.07	+	-0.11	0.13	0.90	0.40	
Source of Stress: Care of Other						-0.16	0.11	0.85	0.14		-0.27	0.12	0.76	0.02	*
Source of Stress: Your Health						-0.16	0.13	0.85	0.21		0.00	0.14	1.00	1.00	
Source of Stress: Cost of Living						-0.22	0.10	0.80	0.03	*	-0.16	0.11	0.85	0.16	
Source of Stress: Community Outside the University						-0.21	0.14	0.81	0.13		-0.14	0.15	0.87	0.33	
Block 3															
Earth Sciences											0.20	0.43	1.22	0.65	
Education											0.93	0.47	2.52	0.05	+
Engineering											-0.25	0.28	0.78	0.36	
GSB											-0.05	0.35	0.95	0.88	
H&S Natural Sciences											-0.34	0.30	0.71	0.25	
H&S Social Sciences											0.65	0.33	1.91	0.05	*
Law											2.03	0.79	7.61	0.01	*
Medicine - Basic											-0.17	0.34	0.84	0.61	
Medicine - Clinical											0.05	0.28	1.05	0.87	
Opportunitites for Women											0.03	0.15	1.03	0.84	
Opportunities for Minorities											0.10	0.15	1.10	0.50	
Supportive Unit Index											0.85	0.16	2.34	0.00	***
Supportive Colleagues Index											0.56	0.16	1.75	0.00	***
Social Inclusion											-0.11	0.09	0.89	0.23	
Unreasonable Workload											-0.17	0.12	0.85	0.17	

Model Fit									
N = 786	**Block 1**			**Blocks 1,2**			**All Blocks**		
	Block 1 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.707		Block 2 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.015	*	Block 3 Likelihood Ratio Chi-square p-value (omnibus test of block coefficients)	0.000	***
	Cox & Snell Pseudo R Square	0.005		Cox & Snell Pseudo R Square	0.042		Cox & Snell Pseudo R Square	0.280	

*** = p<0.001; ** = p<0.01; * = p<0.05; + = p<0.10

- Once the Block 3 variables are entered in the model, Cost of Living, Childcare and Average Hours Worked a Week are no longer significant. Source of Stress: Care of Other ("Care of someone who is ill, disabled, aging and/ or in need of special services") is significant and negative, meaning that additional stress from caring for another decreases faculty satisfaction.
- Supportive Unit Index and Supportive Colleagues Index both have positive, significant coefficients. Faculty who perceive their units and colleagues to be more supportive are significantly more satisfied. Supportive Unit and Supportive Colleagues have strong effects on satisfaction with odds factors of 2.3 and 1.8 respectively. A one-unit increase in Supportive Unit (on a 1-5 scale) would move a faculty-member from being 50% likely to be "Very Satisfied" to 70% likely to be "Very Satisfied". A one-unit increase in Supportive Colleagues would move a faculty-member from being 50% likely to be "Very Satisfied" to being 64% likely to be "Very Satisfied".
- Law and H&S Social Sciences both have statistically significant positive coefficients, meaning that – controlling for all of the other variables in the model – faculty in these schools are predicted by the model to be more satisfied than faculty in H&S Humanities (the omitted category). Education has a marginally significant positive coefficient.
- Interaction effects for gender and race/ethnicity were tested for the Unit Support Index and the Supportive Colleagues index, but were not significant and were not included in the final model.

Summary

- The Supportive Unit Index is the most consistent significant predictor of faculty satisfaction and staying at Stanford. The Supportive Unit Index has a strong, statistically significant effect for all three dependent variables modeled. When faculty perceive their Unit to be supportive, they are more likely to be satisfied, to say they would choose to be faculty at Stanford again, and less likely to leave in the next three years.
- The Supportive Colleagues Index is also a strong predictor of faculty satisfaction.
- Faculty who perceive their workload to be unreasonable (controlling for actual hours worked) are statistically significantly less likely to say they would choose to be faculty at Stanford again if they had it to do over.
- Stress from Cost of Living and Care of Other decreased satisfaction; Stress from Cost of Living and Community Outside the University decreased the probability of saying you would choose Stanford again; Stress from Cost of Living increased the likelihood of a faculty-member leaving in the next three years. Household stress had a surprising effect in both the choosing-again and likely to leave models, where more household stress predicts saying you would choose Stanford again and decreases your likelihood of leaving. This is true even though having a spouse and number of children are controlled for in those models.
- The effects of Sources of Stress variables, however, were largely eliminated once the perceptions of unit and climate variables (Block 3) were included in the model. The unit and climate variables explain significantly more variation in all three dependent variables than the Sources of Stress and other individual work-life variables.
- There were no significant gender effects in any of the models.

- After controlling for other demographic factors, API faculty are more likely to say they would choose to be a faculty member at Stanford again and less likely to leave in the next three years than White faculty (the comparison category). After controlling for work-life characteristics and sources of stress, URM faculty are more likely to say they would choose to be a faculty-member at Stanford again than White faculty (the comparison category). After controlling for perceptions of unit climate, the size of the coefficients for API and URM dummy variables increase dramatically, indicating that perceptions of unit climate may be especially important for faculty of color and that improving climate is predicted to increase retention among faculty of color.
- After demographic, unit, climate, and other work-life variables are controlled for, rank is not a significant predictor of choosing to be a faculty-member again, likeliness to leave, or overall satisfaction.

Descriptives

Table A. Dependent Variables		
I Would Choose Again to be a Faculty Member at Stanford		
	Frequency	Percent
I would not choose to be a faculty member at Stanford or I would have some second thoughts	204	26.0%
I would choose to be a faculty member at Stanford	582	74.0%
Total	786	100.0%
Likely to Leave Stanford in the Next Three Years		
	Frequency	Percent
Not Likely to Leave or Neutral	627	79.8%
Somewhat or Very Likely to Leave	159	20.2%
Total	786	100.0%
3-Point Satisfaction Scale		
	Frequency	Percent
Neutral or Dissatisfied	156	19.8%
Somewhat Satisfied	264	33.6%
Very Satisfied	366	46.6%
Total	786	100.0%

Table B. Independent Variables Descriptive Statistics						
	N	Min.	Max.	Mean (or proportion for dummy variables)	Std. Deviation	Coding
Female	786	0	1	27.00%	0.444	
Male (omitted category)	786	0	1	73.00%	0.444	
Underrepresented Minority	786	0	1	6.00%	0.237	
Asian/ Pacific Islander	786	0	1	13.20%	0.339	
White (omitted category)	786	0	1	80.80%	0.394	
Has Spouse or Domestic Partner	786	0	1	87.90%	0.326	
Number of Children	786	0	6	1.67	1.192	
Age	786	1	7	3.44	1.128	1=Age 21-30; 2=31-40; 3=41-50; 4=51-60; 5=61-70; 6=71-80; 7=81 or above
Assistant Professor	786	0	1	21.60%	0.412	
Associate Professor	786	0	1	21.80%	0.413	
Full Professor (omitted category)	786	0	1	55.20%	0.498	
Non-Tenure Line	786	0	1	7.80%	0.268	
Medical Center Line	786	0	1	16.40%	0.371	
Tenure Line (omitted category)	786	0	1	75.30%	0.431	
Average Hours Worked a Week	786	1	100	60.69	12.478	
Time at Stanford	786	1	5	3.06	1.154	1=Less than 1 year; 2=1-7 yrs; 3=8-16 yrs; 4=17-25 yrs; 5=more than 25 yrs
Source of Stress: Household	786	1	3	1.9	0.689	
Source of Stress: Childcare	786	1	3	1.58	0.75	
Source of Stress: Care of Other	786	1	3	1.35	0.645	
Source of Stress: Your Health	786	1	3	1.35	0.552	
Source of Stress: Cost of Living	786	1	3	1.97	0.743	
Source of Stress: Community Outside the University	786	1	3	1.26	0.519	1=Not at All; 2=Somewhat; 3=Extensive

Table B. Independent Variables Descriptive Statistics (continued)						
	N	Min.	Max.	Mean (or proportion for dummy variables)	Std. Deviation	Coding
Earth Sciences	786	0	1	3.40%	0.182	
Education	786	0	1	3.10%	0.172	
Engineering	786	0	1	13.90%	0.346	
GSB	786	0	1	6.40%	0.244	
H&S Humanities (omitted category)	786	0	1	13.60%	0.343	
H&S Natural Sciences	786	0	1	9.20%	0.289	
H&S Social Sciences	786	0	1	8.40%	0.278	
Law	786	0	1	2.80%	0.165	
Med Basic Sciences	786	0	1	6.50%	0.246	
Med Clinical Sciences	786	0	1	28.90%	0.453	
Opportunities for Women Index	786	1	5	3.89	0.91	
Opportunities for Minorities Index	786	1	5	3.89	0.905	
Supportive Unit Index	786	1	5	3.96	0.874	
Supportive Colleagues Index	786	1	5	4.04	0.765	
Social Inclusion Index	786	1	5	3.84	1.021	
						Overall, how would you rate the reasonableness of your workload?
						1=Much too light
						2=Too light
						3=About right
						4=Too heavy
Unreasonable Workload	786	1	5	3.61	0.69	5=Much too heavy

APPENDICES

I. 2008 Faculty Quality of Life Survey Instrument

II. Sample Characteristics

III. Indices: Reliability Statistics and Included Items

APPENDIX I.
2008 STANFORD FACULTY QUALITY OF LIFE SURVEY INSTRUMENT

Close preview

Stanford Faculty Quality of Life Survey

You are now ready to begin the survey. Each time you click the "Next" button on the bottom of a page your answers are submitted and saved. You can come back to the survey to complete it and/or edit existing responses anytime by clicking the "Save & Return Later" button prior to 5 pm on Monday, November 24th, when the survey will close.

The survey takes about 15-25 minutes, depending on the number of free response items completed. If you experience technical difficulties please send an email with detailed information about the problem you are experiencing, the type of computer you are using, your operating system, and which web browser you used to view the survey to Jill Crowley (jcrowley@stanford.edu)

Thank you for your participation!

Start

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Stanford Faculty Quality of Life Survey

SATISFACTION

1. **Overall, how satisfied are you being a faculty member at Stanford?**

- ○ Very dissatisfied
- ○ Somewhat dissatisfied
- ○ Neither satisfied nor dissatisfied
- ○ Somewhat satisfied
- ○ Very satisfied

2. **Specify the degree to which you are satisfied with each of the following**

	Very dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Very satisfied	Not applicable
a. Salary	○	○	○	○	○	○
b. Office space	○	○	○	○	○	○
c. Lab or research space	○	○	○	○	○	○
d. Library resources	○	○	○	○	○	○
e. Computer resources and support	○	○	○	○	○	○
f. Clerical and administrative support	○	○	○	○	○	○
g. Technical and research staff	○	○	○	○	○	○
h. Support for securing grants	○	○	○	○	○	○
i. Other resources to support research	○	○	○	○	○	○

4%

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Stanford Faculty Quality of Life Survey

WORKLOAD

3. **Overall, how would you rate the reasonableness of your workload?**

- ○ Much too light
- ○ Too light
- ○ About right
- ○ Too heavy
- ○ Much too heavy

4. **Over the course of an academic year, how many hours is your average work week? (Including work you do at home related to Stanford activities)**

select...

5. **As you think about how you spend your time in an academic year, what percent of your average work week do you spend on each of the following work-related activities?**

	Percent of your average work week spent on this activity? (Responses should add to 100%)
a. Teaching (including preparing materials for class, lecturing, office hours, etc.)	select...
b. Meeting or communicating with students outside of class (advising, supervising research, writing letters of recommendation, etc.)	select...
c. Scholarship/ research (including writing grants, attending professional meetings, etc.)	select...
d. Clinical responsibilities	select...
e. Administrative responsibilities such as committee work	select...
f. Other work-related activities on campus (please specify in question #6)	select...
g. External paid consulting	select...
h. Other external professional activities (please specify in question #7)	select...

6. **If you included a percent value for "Other work-related activities on-campus" above, please specify the activities in the box below:**

7. **If you included a percent value for "Other external professional activities" above, please specify the activities in the box below:**

14%

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Stanford Faculty Quality of Life Survey

8. **Considering the responsibilities that apply to you, please rate the reasonableness of your workload.**

	Much Too Low	Low	About Right	High	Much Too High	Not Applicable
a. Teaching (include time in class, preparation time, office hours, grading, etc.)	○	○	○	○	○	○
b. Mentoring/Advising (all kinds of advising/mentoring activities for undergraduate, graduate and professional students, and postdocs)	○	○	○	○	○	○
c. Administrative/Committee at Stanford	○	○	○	○	○	○
d. Research/Scholarship (include grant writing/administration, compliance, research staff supervision)	○	○	○	○	○	○
e. Clinical	○	○	○	○	○	○
f. External professional opportunities	○	○	○	○	○	○
g. OVERALL (include time spent on and off campus on all components of your faculty work: research, teaching, clinical work, advising/mentoring, administrative/ committee work, collegial interactions, etc.)	○	○	○	○	○	○

9. **At any time since you started working at Stanford, have you received relief from teaching, clinical or other workload duties for personal reasons, including care giving for a child or parent, your own health concerns, or a family crisis?**

- ○ Yes
- ○ No (please skip to question 11)

10. **If so, how supportive was your academic unit concerning your relief from teaching, clinical or other workload duties?**

- ○ Very unsupportive
- ○ Somewhat unsupportive
- ○ Neither supportive nor unsupportive
- ○ Somewhat supportive
- ○ Very supportive
- ○ Not applicable

11. **At any time since you started working at Stanford, have you had your tenure clock (or promotion clock for non-tenure line or Medical Center line) slowed or stopped for personal reasons, including care giving for a child or parent, your own health concerns, or a family crisis?**

- ○ Yes
- ○ No (Please skip to question 13)

12. **If so, how supportive was your academic unit concerning your having your tenure clock (or promotion clock for non-tenure line or Medical Center line) stopped or slowed?**

- ○ Very unsupportive
- ○ Somewhat unsupportive
- ○ Neither supportive nor unsupportive
- ○ Somewhat supportive

- ◯ Very supportive
- ◯ Not applicable

13. **Have you ever served in any of the following administrative capacities? If so, did you receive teaching relief and/or a salary supplement in exchange for taking on the administrative responsibility? (Select all that apply.)**

	Served in an administrative capacity?	Received teaching relief?	Received salary supplement?
a. Chair of department/unit	Never	N/A	N/A
b. Director of a center, program, or institute	Never	N/A	N/A
c. Dean, associate dean, or assistant dean	Never	N/A	N/A
d. Director of undergraduate study	Never	N/A	N/A
e. Director of graduate study	Never	N/A	N/A
f. Other administrative capacity (please specify in the box below)	Never	N/A	N/A

27%

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Stanford Faculty Quality of Life Survey

CLIMATE OF ACADEMIC UNIT

NOTES: Definition of academic unit: the faculty member's local academic unit: division (in the large clinical departments), department, or school (for schools not divided into departments).

14. **Please indicate your agreement or disagreement with the following statements about your experiences in your primary academic unit [department, clinical division, school (for Education, Law, and GSB)}:**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Not applicable
a. My colleagues value my research/ scholarship.	○	○	○	○	○	○
b. My colleagues value my teaching contribution	○	○	○	○	○	○
c. My colleagues value my clinical contribution	○	○	○	○	○	○
d. My colleagues value my service/administrative contributions	○	○	○	○	○	○
e. I am satisfied with opportunities to collaborate with faculty in my primary department/ unit.	○	○	○	○	○	○
f. I am satisfied with opportunities to collaborate with faculty in other units at my institution.	○	○	○	○	○	○
g. Interdisciplinary research is recognized and rewarded by my department/ unit.	○	○	○	○	○	○
h. The head of my academic unit creates a collegial and supportive environment.	○	○	○	○	○	○
i. The head of my academic unit helps me obtain the resources that I need.	○	○	○	○	○	○
j. I have a voice in the decision-making that affects the direction of my department/ unit.	○	○	○	○	○	○
k. I can navigate the unwritten rules concerning how one is to conduct oneself as a faculty member.	○	○	○	○	○	○
l. My department/ unit is a good fit for me.	○	○	○	○	○	○
m. My department/ unit is a place where individual faculty may comfortably raise personal and/ or family responsibilities when scheduling departmental/ unit obligations.	○	○	○	○	○	○
n. I feel excluded from an informal network in my department/ unit.	○	○	○	○	○	○
o. I have to work harder than some of my colleagues to be perceived as a legitimate scholar.	○	○	○	○	○	○
p. I feel I have received adequate mentoring (informal and formal).	○	○	○	○	○	○
q. I feel I have received adequate information and feedback about what it takes to succeed as a faculty member.	○	○	○	○	○	○

29%

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Stanford Faculty Quality of Life Survey

15. **Please rate your agreement with the following statements:**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Not applicable
a. I feel I am fairly compensated in relation to equivalent colleagues in my unit	○	○	○	○	○	○
b. I feel I have had adequate access to resources in my unit	○	○	○	○	○	○
c. I feel I have had adequate access to graduate students in my unit	○	○	○	○	○	○
d. I feel valued here for my clinical contributions	○	○	○	○	○	○
e. I am given the opportunity to serve on important committees	○	○	○	○	○	○
f. Within my unit, I feel respected by: The head of my unit	○	○	○	○	○	○
g. Within my unit, I feel respected by: The faculty	○	○	○	○	○	○
h. Within my unit, I feel respected by: The staff	○	○	○	○	○	○
i. Within my unit, I feel respected by: The students	○	○	○	○	○	○
j. My colleagues solicit my opinions about their research ideas and problems	○	○	○	○	○	○
k. I constantly feel under scrutiny by my colleages	○	○	○	○	○	○
l. Others seem to find it easier than I do to learn about and fit in with the culture or unwritten rules of my unit	○	○	○	○	○	○
m. The quality of my scholarship is positively affected by my interactions with my Stanford colleagues	○	○	○	○	○	○
n. I feel opportunities and support for my personal advancement have been at least as good at Stanford as they would be at other comparable institutions	○	○	○	○	○	○
o. I feel that the climate and opportunities for women faculty at Stanford are at least as good as those for men	○	○	○	○	○	○
p. I feel that the climate and opportunities for minority faculty at Stanford are at least as good as those for non-minority faculty	○	○	○	○	○	○
q. I feel diversity of opinion is not valued nor respected at Stanford	○	○	○	○	○	○
r. I feel cultural traditions (including definitions of success and standards of etiquette or decorum) are not valued nor respected at Stanford	○	○	○	○	○	○

31%

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Stanford Faculty Quality of Life Survey

16. **In what ways does your academic unit support or constrain your ability to be fully productive in your teaching/clinical/research activities?:**

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Not applicable
a. Provides adequate resources in support of research activities	○	○	○	○	○	○
b. Provides collegial and supportive environment (in ways other than resources)	○	○	○	○	○	○
c. Encourages and respects my work	○	○	○	○	○	○

17. **Please rate your agreement with the following statements.**

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Not applicable
a. The academic leadership within my academic unit at Stanford is supportive of improving the climate and opportunities for women faculty	○	○	○	○	○	○
b. The academic leadership within my academic unit at Stanford is supportive of improving the climate and opportunities for minority faculty	○	○	○	○	○	○
c. The academic leadership of Stanford University is supportive of improving the climate and opportunities for women faculty	○	○	○	○	○	○
d. The academic leadership of Stanford University is supportive of improving the climate and opportunities for minority faculty	○	○	○	○	○	○

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Stanford Faculty Quality of Life Survey

18. **Please rate your sense of inclusion as a member of:**

	Very uncomfortable, isolated, or marginalized	Somewhat uncomfortable, isolated, or marginalized	Neither isolated or included	Somewhat comfortable, included, and valued	Very comfortable, included, and valued	Not applicable
a. Your division (Medical School Clinical Departments)?	○	○	○	○	○	○
b. Your department?	○	○	○	○	○	○
c. Your school?	○	○	○	○	○	○
d. Stanford University?	○	○	○	○	○	○

19. **If you would like to see improvements in the climate of your academic unit or more generally at Stanford, what remedies or strategies would you suggest?**

40%

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Stanford Faculty Quality of Life Survey

HIRING / RETENTION

20. **In the last five years, at Stanford, have you received a formal or informal outside job offer that you took to your unit head (department/ division chair/ dean)?**

- ○ Yes
- ○ No (Please go to question 22)

21. **If yes, has that formal or informal job offer(s) resulted in adjustments to any of the following: (Check all that apply)**

- ☐ Base salary
- ☐ Special timing of the tenure clock
- ☐ Teaching load
- ☐ Administrative responsibilities
- ☐ Clinical responsibilities
- ☐ Leave time
- ☐ Summer salary
- ☐ Equipment/ laboratory/ research support
- ☐ Employment for spouse/ partner
- ☐ None
- ☐ Other (please specify) [ ]

22. **In the next three years, how likely are you to leave Stanford?**

- ○ Very unlikely
- ○ Somewhat unlikely
- ○ Neither likely nor unlikely
- ○ Somewhat likely
- ○ Very likely

23. **To what extent, if at all, have you considered the following as reasons to leave?**

	Not at all	To some extent	To a great extent	Not applicable
a. To increase your salary	○	○	○	○
b. To improve your prospects for tenure	○	○	○	○
c. To find a more supportive work environment	○	○	○	○
d. To increase your time to do research	○	○	○	○
e. To enhance your academic career in other ways	○	○	○	○
f. To pursue a nonacademic job	○	○	○	○
g. To reduce stress	○	○	○	○
h. To improve the employment situation of your spouse/ partner	○	○	○	○

i. To address child-related issues	○	○	○	○
j. To address issues related to family other than spouse, partner or children	○	○	○	○
k. To lower your cost of living	○	○	○	○
l. Retirement	○	○	○	○
m. Other (please specify in the box below)	○	○	○	○

24. **If you had to decide all over again whether to be a faculty member at Stanford, what would you decide? Mark the option that is closest to how you feel:**

- ○ I would not choose to be a faculty member at Stanford
- ○ I would have some second thoughts
- ○ I would choose to be a faculty member at Stanford

51%

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Stanford Faculty Quality of Life Survey

LIFE OUTSIDE THE INSTITUTION

25. **Please indicate the extent to which each of the following aspects of your life outside the Institution has been a source of stress for you over the past twelve months.**

	Not at all	Somewhat	Extensive	Not applicable
a. Managing household responsibilities	○	○	○	○
b. Childcare	○	○	○	○
c. Care of someone who is ill, disabled, aging, and/ or in need of special services	○	○	○	○
d. Your health	○	○	○	○
e. Cost of living	○	○	○	○
f. Community outside the university	○	○	○	○

26. **Do you have a spouse or domestic partner?**

- ○ Yes, I have a spouse
- ○ Yes, I have a domestic partner
- ○ No

55%

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Stanford Faculty Quality of Life Survey

27. **What is your spouse's/ domestic partner's employment status?**

- ☐ Faculty member at Stanford
- ☐ Post-doctoral fellow/ Research associate at Stanford
- ☐ Graduate student at Stanford
- ☐ Employed professional at Stanford in some other capacity
- ☐ Faculty member elsewhere
- ☐ Post-doctoral fellow/ Research associate elsewhere
- ☐ Graduate student elsewhere
- ☐ Employed elsewhere in some other capacity
- ☐ Not employed but actively seeking employment
- ☐ Not employed, not actively seeking employment
- ☐ Retired
- ☐ Other (please specify) [ ]

28. **How satisfied is your spouse/ domestic partner with his/ her employment situation?**

- ◯ Very dissatisfied
- ◯ Somewhat dissatisfied
- ◯ Neither satisfied nor dissatisfied
- ◯ Somewhat satisfied
- ◯ Very satisfied
- ◯ Don't know
- ◯ Not applicable

29. **Has your spouse/ domestic partner had problems finding an appropriate job in this area?**

- ◯ Yes
- ◯ No
- ◯ Not applicable

30. **How satisfied are you with Stanford's spouse/ domestic partner benefits?**

- ◯ Very dissatisfied
- ◯ Somewhat dissatisfied
- ◯ Neither satisfied nor dissatisfied
- ◯ Somewhat satisfied
- ◯ Very satisfied
- ◯ Not applicable

63%

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Stanford Faculty Quality of Life Survey

31. **How many children do you have in total?**

select...

32. **Do you have any children in the following age ranges? (Check all that apply.)**

- 0-4 years
- 5-12 years
- 13-17 years
- 18-23 years
- 24 or older
- I do not have any children

33. **Are you currently caring for or managing care for an aging and/ or ill parent, spouse, or other relative?**

- Yes
- No

34. **What University-sponsored remedies or strategies would you suggest to help you better manage your work and personal/family responsibilities?**

72%

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Stanford Faculty Quality of Life Survey

DEMOGRAPHICS

35. **Time at Stanford as a faculty member:**

select years...

36. **What is your current rank?**

- Professor
- Associate Professor
- Assistant Professor
- Senior Fellow
- Other

37. **Are you currently:**

- Tenured
- Not tenured, and tenure line
- Non-tenure line
- Medical center line

38. **Do you currently hold an endowed chair?**

- Yes
- No

39. **Please select school (if joint appointment, select primary school):**

select school...

40. **Please select department (if joint appointment, select primary department):**

select department...

41. **Employment Status:**

- Full-time
- Part-time

42. **Age**

select...

43. **Gender**

- Male
- Female

44. **Race/ Ethnicity (Check all that apply)**

- ☐ Black, non-Hispanic
- ☐ American Indian/Alaska Native
- ☐ Asian/Pacific Islander
- ☐ Mexican American/Chicano
- ☐ Other Hispanic
- ☐ White, non-Hispanic

45. **Citizenship**

- ○ U.S. Citizen or permanent resident
- ○ Nonresident alien
- ○ Other

46. **In what year did you earn your highest degree?**

select year...

47. **What is the highest degree you have earned? (Check all that apply.)**

- ☐ Master's degree in the Arts and Sciences (MA, MS)
- ☐ Professional master's degree (e.g., MBA, MPA, MSW, MSE, MSN, MAT, MPH, MFA)
- ☐ Ph.D.
- ☐ Medical degree (MD, DO, DDS, DVM)
- ☐ Law degree (JD, LLB)
- ☐ Other doctoral degree (e.g., EdD, DDiv, ScD, DrPH, DBA)
- ☐ Other degree or certificate

100%

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Stanford Faculty Quality of Life Survey

Thank you for your participation in this important project.

As indicated, survey responses are anonymous. If you would like to discuss, specifically and personally, any issues covered by this questionnaire, you are encouraged to contact any of the following individuals or offices:

- Your department chair, associate dean, or dean
- Patricia P. Jones, Vice Provost for Faculty Development (5-4818, patjones@stanford.edu)
- Deborah Rhode, Professor of Law (3-0319, rhode@stanford.edu)

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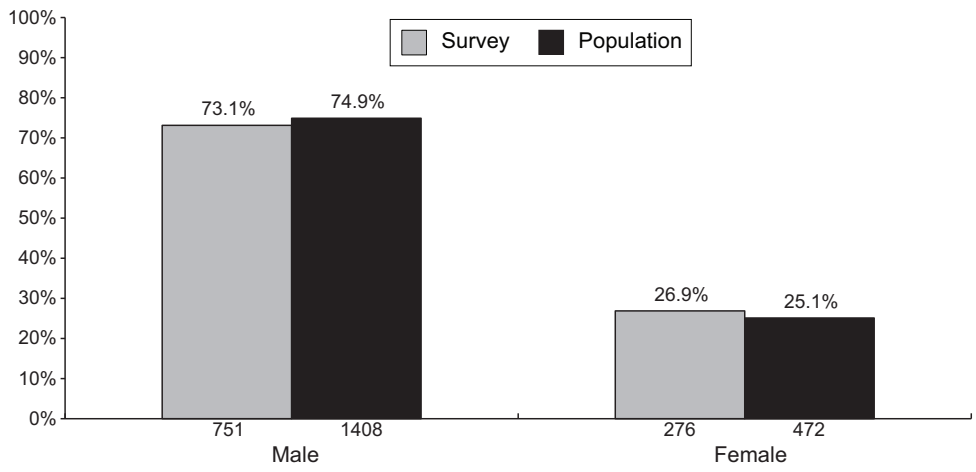
Appendix II.
Sample Characteristics
2008 Stanford Faculty Quality of Life Survey

Gender

The gender distribution of the survey sample is representative of the Stanford faculty. Women had a higher response rate (58.5%) than men (53.3%), but that difference was not statistically significant (the p-value for the chi-squared test of independence df(1) was 0.052)

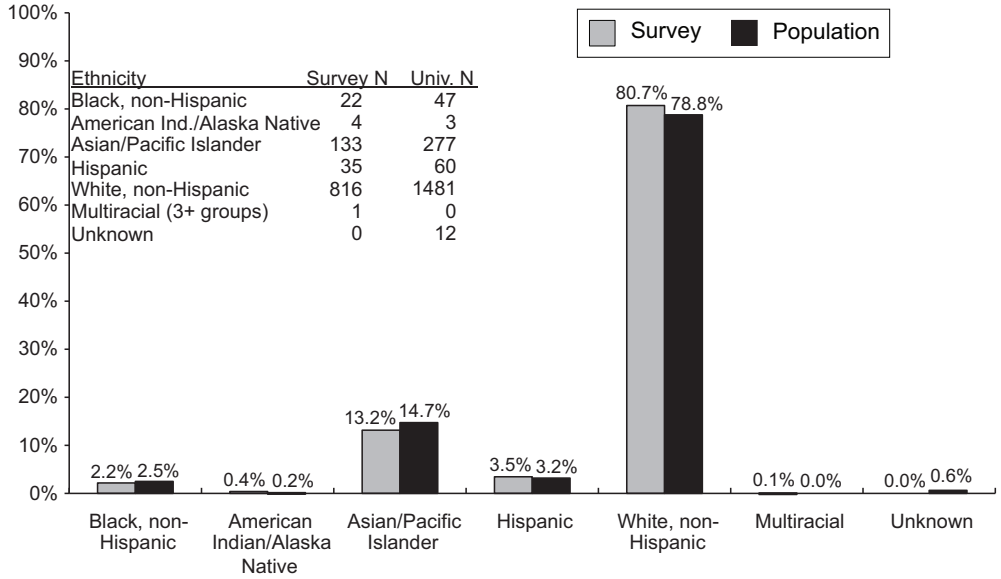
Figure 1
Distribution of Survey Sample and University Population by Gender



Ethnicity

The survey sample is representative of the distribution of ethnicity in the Stanford faculty population. Underrepresented Minority (URM) faculty had the highest response rate (56.4%), White faculty had the next highest response rate (55.1%) and Asian/Pacific Islander (API) faculty had the lowest response rate (48.0%). The differences in response rates were not statistically significant (p-value for chi-squared test of independence df(2) was 0.084).

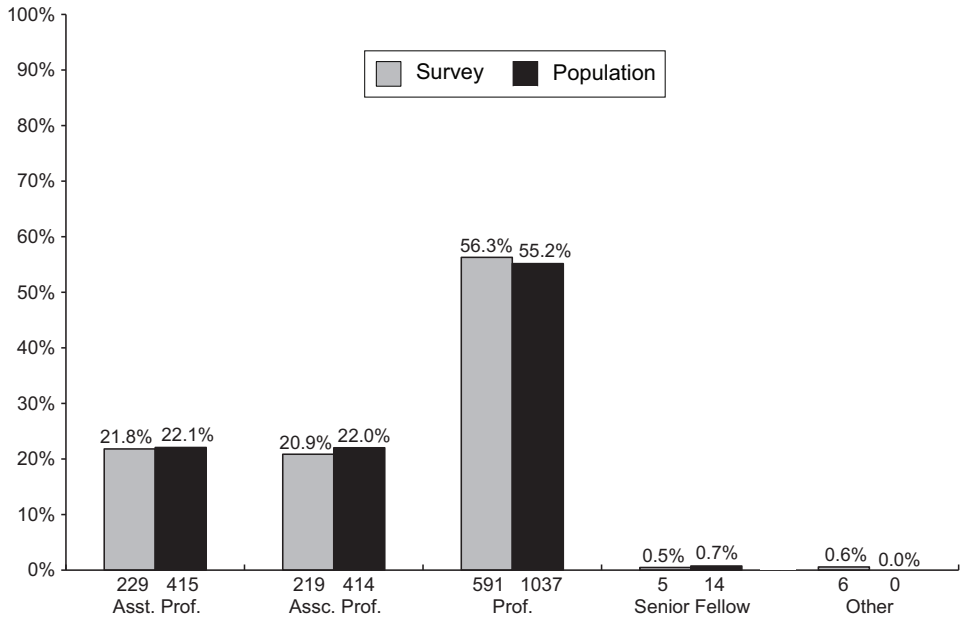
Figure 2
Distribution of Survey Sample and University Population by Ethnicity



Faculty Rank

Response rates were similar across faculty ranks and the survey sample is representative of the distribution of faculty by rank. Full Professors had the highest response rate (57.0%), followed by Assistant Professors (55.2%) with Associate Professors having the lowest response rate (52.9%). The differences in response rates were not statistically significant (p-value for chi-squared test of independence df(2) was 0.357).

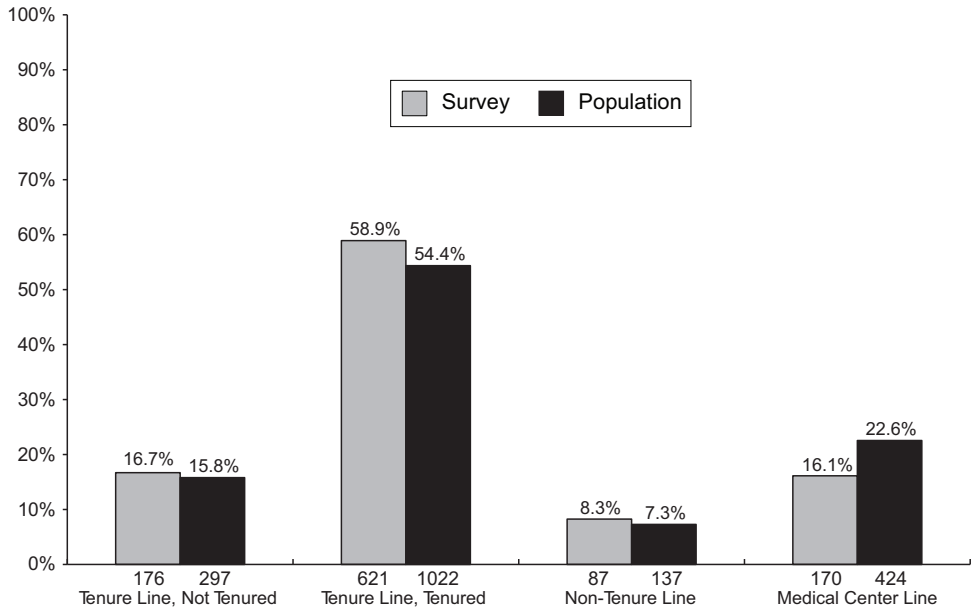
Figure 3
Distribution of Survey Sample and University Population by Faculty Rank



Faculty Line

Tenure-line and Non-Tenure-Line faculty are overrepresented in the survey sample compared to the overall faculty population; faculty on a Medical Center Line are underrepresented. Non-Tenure-Line faculty had the highest response rate (63.5%), followed closely by Tenured Tenure-Line faculty (60.8%), and by Not Tenured Tenure-Line faculty (59.3%). The response rate for Medical Center Line (40.1%) was much lower than for the other groups. The differences in response rates were statistically significant (p-value for chi-squared test of independence df(3) <0.000).

Figure 4
Distribution of Survey Sample and University Population by Faculty Line



School/Division

Faculty in most schools and divisions are well represented in the survey sample. The underrepresented schools/divisions are Medical-Clinical, SLAC, and faculty in Independent Labs, Centers and Institutes. All schools/divisions had a response rate above 50% except for Medical-Clinical, SLAC, and faculty in Independent Labs, Centers and Institutes. After excluding faculty from SLAC and Independent Labs, Centers and Institutes, there is still statistically significant variation in the response rates of the schools (p-value for chi-squared test of independence df(9) <0.000).

Figure 5
Response Rate within School/Division

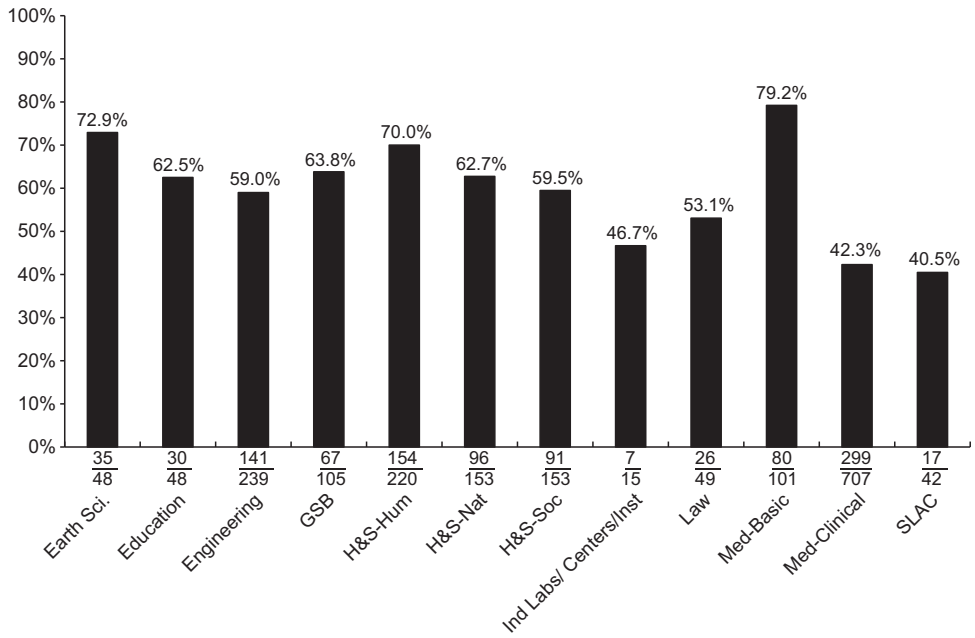
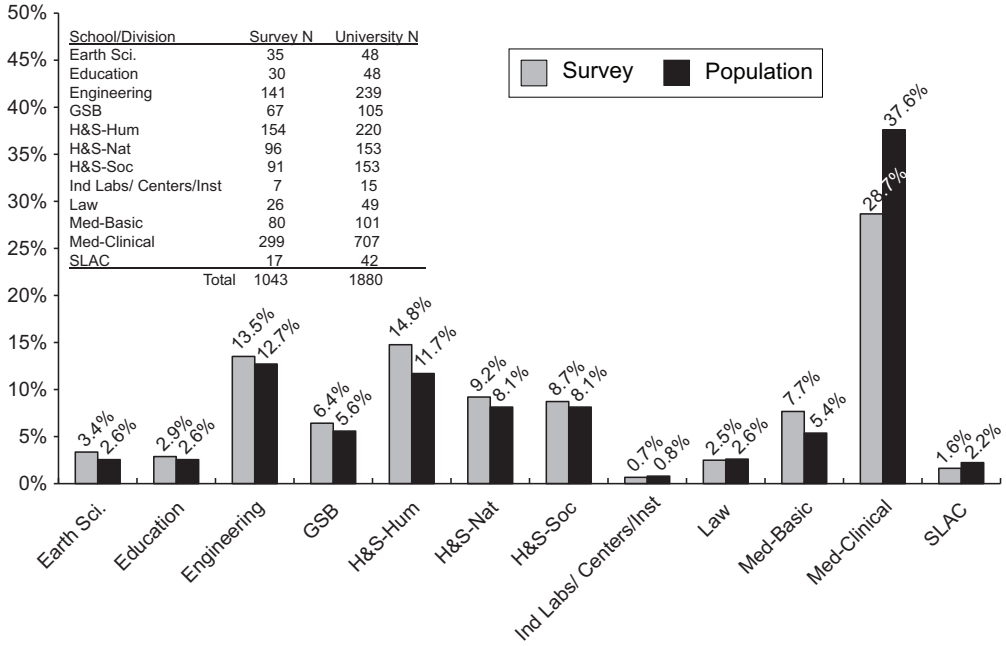


Figure 6
Distribution of Survey Sample and University Population by School/Division



School/Division	Survey N	University N
Earth Sci.	35	48
Education	30	48
Engineering	141	239
GSB	67	105
H&S-Hum	154	220
H&S-Nat	96	153
H&S-Soc	91	153
Ind Labs/ Centers/Inst	7	15
Law	26	49
Med-Basic	80	101
Med-Clinical	299	707
SLAC	17	42
Total	1043	1880

Appendix III.

Indices: Included Items and Reliability Statistics

2008 Stanford Faculty Quality of Life Survey

Table 1: Reliability Statistics of Indices				
Index	N	Mean	Standard Deviation	Cronbach's alpha
Supportive Unit	1115	3.93	.90	.938
Supportive Colleagues	1115	4.00	.79	.872
Social Inclusion	1100	3.78	1.05	.634
Opportunities for Women	1074	3.87	.95	.800
Opportunities for Minorities	1065	3.88	.92	.836

Included Items (Questions)

Except where specified, items are on a 5-point Likert-type scale with response options "Strongly Disagree" (1), "Somewhat Disagree" (2), "Neither Agree nor Disagree" (3), "Somewhat Agree" (4), and "Strongly Agree" (5).

1. Supportive Unit Index

14e[1]: I am satisfied with opportunities to collaborate with faculty in my primary department/unit.[2]

14h: The head of my academic unit creates a collegial and supportive environment.

14i: The head of my academic unit helps me obtain the resources that I need.

14j: I have a voice in the decision-making that affects the direction of my department/unit.

14l: My department/unit is a good fit for me.

14m: My department/unit is a place where individual faculty may comfortably raise personal and/or family responsibilities when scheduling department/unit conflicts.

15b: I feel I have had adequate access to resources in my unit.

15f: Within my unit, I feel respected by: The head of my unit.

15n: I feel opportunities and support for my personal advancement have been at least as good at Stanford as they would be at other comparable institutions.

16b: In what ways does your academic unit support or constrain your ability to be fully productive in your teaching/clinical/research activities? Provides collegial and supportive environment (in ways other than resources).

[1] Item numbers refer to the question numbers on the survey instrument; see Appendix I.

[2] The survey instructions defined primary academic unit to be "the faculty member's local academic unit: division (in the large clinical departments), department, or school (for those schools not divided into departments)."

16c: In what ways does your academic unit support or constrain your ability to be fully productive in your teaching/clinical/research activities? Encourages and respects my work.

18b: Please rate your sense of inclusion as a member of: Your department? [Answer options "Very uncomfortable, isolated, or marginalized" (1), "Somewhat uncomfortable, isolated, or marginalized" (2), "Neither isolated or included" (3), "Somewhat comfortable, included, and valued" (4), and "Very comfortable, included, and valued"(5).]

2. Supportive Colleagues Index

14a: My colleagues value my research/scholarship.

14b: My colleagues value my teaching contribution.

14d: My colleagues vale my service/administrative contributions.

15g: Within my unit, I feel respected by: The faculty.

15j: My colleagues solicit my opinions about their research ideas and problems.

18a: Please rate your sense of inclusion as a member of: Your division (Medical School Clinical Departments)? [Answer options "Very uncomfortable, isolated, or marginalized" (1), "Somewhat uncomfortable, isolated, or marginalized" (2), "Neither isolated or included" (3), "Somewhat comfortable, included, and valued" (4), and "Very comfortable, included, and valued"(5).]

18c: Please rate your sense of inclusion as a member of: Your school? [Answer options "Very uncomfortable, isolated, or marginalized" (1), "Somewhat uncomfortable, isolated, or marginalized" (2), "Neither isolated or included" (3), "Somewhat comfortable, included, and valued" (4), and "Very comfortable, included, and valued"(5).]

3. Social Inclusion Index

14n (reverse coded): I feel excluded from an informal network in my department/unit.

15l (reverse coded): Others seem to find it easier than I do to learn about and fit in with the culture or unwritten rules of my unit.

4. Opportunities for Women Index

15o: I feel that the climate and opportunities for women faculty at Stanford are at least as good as those for men.

17a: The academic leadership within my academic unit at Stanford is supportive of improving the climate and opportunities for women faculty.

17c: The academic leadership of Stanford University is supportive of improving the climate and opportunities for women faculty.

5. Opportunities for Minorities Index

15p: I feel that the climate and opportunities for minority faculty at Stanford are at least as good as those for non-minority faculty.

17b: The academic leadership within my academic unit at Stanford is supportive of improving the climate and opportunities for minority faculty.

17d: The academic leadership of Stanford University is supportive of improving the climate and opportunities for minority faculty.

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