

*Report on the 2006–2007 FAS Faculty Survey*

COMMISSIONED BY

Yale University Provost's Office

SURVEY ANALYSIS

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OIR 08R0001 • 24 JANUARY 2008

## *Report on the 2006–2007 FAS Faculty Survey*

DURING THE 2006–2007 ACADEMIC YEAR, the Provost's Office commissioned the first work-life/satisfaction survey of the Yale Faculty of Arts and Sciences. The survey was approved by the FAS Human Subjects Committee and administered by the Office of Institutional Research (OIR).

The survey was comprehensive, including questions about overall satisfaction with working at Yale, with resources at Yale, with departmental climate, with the tenure process, with elements of work-life balance, and with departmental mentoring practices. The survey results will be a valuable tool in informing future directions for improving faculty life at Yale.

The Faculty Survey was administered to all 567 ladder faculty in FAS who were appointed prior to July 1, 2006. The survey was available online (and, by request, on paper) from late October 2006 to January 8, 2007. Faculty response rate was excellent. Seventy-six percent of eligible faculty responded to at least part of the survey; 70% responded to the last page. Response rates did not differ significantly by gender or rank.

Responses have been analyzed for differences by rank (the small number of tenured associate professors are included with junior faculty), gender within rank, and race/ethnicity within rank. Because of small sample sizes, providing results by individual ethnicities is not feasible. Thus, we present comparisons between under-represented minorities (URMs) and others. Under-represented minorities are defined as those racial/ethnic groups that are under-represented in the faculty ranks in the United States relative to their share of the overall population. Under-represented minorities include Blacks/African Americans, Hispanics, Native Americans, Native Alaskans, and Native Pacific Islanders.

Throughout this report, when two groups of faculty are reported to have a “significant difference” in their responses to a question, this means that the difference in the responses given by two groups is large enough to have statistical significance at the 95% confidence level ( $p < .05$ ).

### *Overall Satisfaction*

FACULTY WERE FIRST ASKED about general or “overall” satisfaction with being a faculty member at Yale. Most faculty are somewhat or very satisfied being on the faculty at Yale, with only 15% of respondents expressing dissatisfaction or ambivalence/neutrality.

There is a significant difference by rank, such that 60% of full professors say they are “very satisfied” at Yale, compared to 29% of junior faculty. Within rank there are no significant differences in overall satisfaction by gender or race.

**Overall, how satisfied are you with being a faculty member at Yale?**

	TOTAL	JR. FACULTY	SR. FACULTY
5 - Very satisfied (%)	49	29	60
4 - Somewhat satisfied (%)	36	47	29
3 - Neutral (%)	8	12	6
2 - Somewhat dissatisfied (%)	7	11	5
1 - Very dissatisfied (%)	0	1	0
Mean value	4.26	3.93	4.46
Number of respondents	428	163	265

Several peer institutions have publicly released information about responses to a similar question from their faculty surveys. Web sites for all Ivy Plus peers (Ivy League plus MIT and Stanford) were checked for faculty survey data. Results, shown in the following table, were found for only three Ivy-Plus peers.

**Overall Satisfaction Measured by Peer University Faculty Surveys**

	YALE (2006)	STANFORD (2002)	MIT (2004)	CORNELL (2005)
5 - Very satisfied (%)	49	68	47	44
4 - Somewhat satisfied (%)	36		32	32
3 - Neutral (%)	8	12	6	~6
2 - Somewhat dissatisfied (%)	7	20	8	~11
1 - Very dissatisfied (%)	0		7	7

In addition, Harvard has reported that, for its 2006 university-wide faculty survey, the mean satisfaction level reported is 4.16 (this is all faculty, including non-ladder, in all schools) on the five-point satisfaction scale. Mean satisfaction for Harvard tenured faculty (in all schools combined) is 4.31 compared to 3.94 for tenure-track faculty in all schools. The overall Yale FAS mean satisfaction is 4.26; for FAS full professors, mean satisfaction is 4.46, compared to 3.93 for assistant and associate professors in FAS.

A related question at the end of the survey asks faculty if they would choose to come to Yale if they could make that decision again. Consistent with the overall satisfaction results, the majority of faculty report that they would come to Yale. However, almost 30% of faculty say they would have second thoughts or definitely choose not to come to Yale. Assistant and associate professors are significantly more likely than full professors to report ambivalence.

**If you could decide again whether to join the faculty at Yale, what would you decide?**

	TOTAL	JR. FACULTY	SR. FACULTY
I would choose to come to Yale (%)	71	58	79
I would have some second thoughts (%)	24	35	18
I would choose <i>not</i> to come to Yale (%)	4	7	3
Number of respondents	381	149	232

Among junior faculty there is a significant difference in response to this question by race, but only in the balance of “second thoughts” and “would not come.” About 60% of both URM and non-URM junior faculty say they would choose to come to Yale again. However, 22% of URM faculty say that they “would choose not to come to Yale,” compared to only 5% of non-URM faculty. There are no significant differences by race among the senior faculty, and there are no significant differences by gender within either rank.

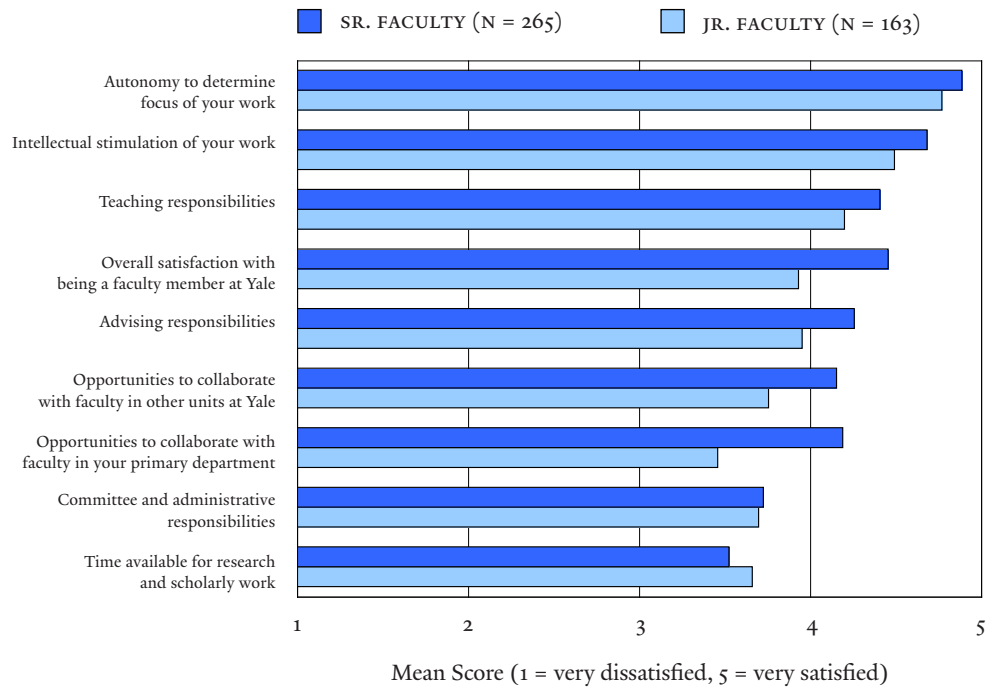
*Dimensions of Satisfaction—  
Intrinsic Elements of Work*

FACULTY WERE ASKED about their satisfaction with many aspects of their work. As shown in the chart on the following page, faculty are generally very satisfied with the intrinsic elements of the work they do at Yale. Three essential components of academic life — autonomy to determine the focus of one’s work, intellectual stimulation, and teaching responsibilities — have extremely high levels of satisfaction. These three items also rank higher (comparing mean values) than overall satisfaction. Ranking in the middle of these eight items are satisfaction with advising responsibilities and with opportunities for collaboration, both within and outside of one’s department. Senior faculty are significantly more satisfied with each of these six items, especially opportunities for collaboration, than are junior faculty.

At the bottom of the satisfaction list are committee and administrative responsibilities and time available to do research. Almost 30% of respondents are dissatisfied with the time available to perform one of their primary tasks — research. Among the senior

faculty, there are differences by gender. Women who are full professors are significantly less satisfied than men who are full professors with committee and administrative responsibilities, and with time available to do research.

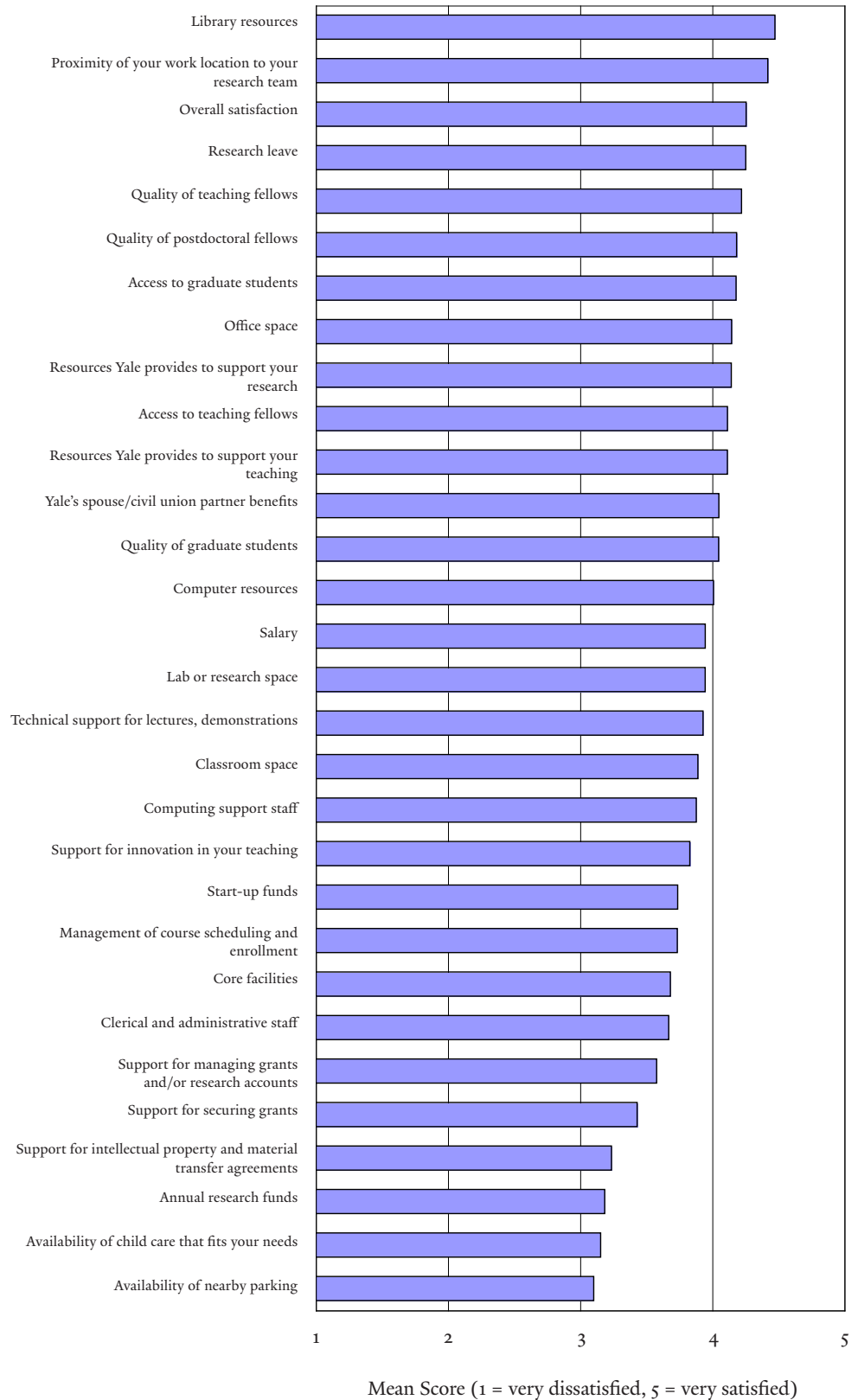
### Mean Satisfaction with Intrinsic Elements of Work



*Dimensions of Satisfaction—Resources* FACULTY WERE ASKED to rate their satisfaction with various resources provided by Yale. The chart on the following page shows the mean response (1 = very dissatisfied, 5 = very satisfied) for each of 29 resources. For comparison, the mean overall satisfaction score is also shown (third highest). A “not applicable” response was available; those responses are excluded.

After library resources (88% of faculty are satisfied) and opportunities for research leave (82% are satisfied), the quality of and access to graduate students and postdoctoral fellows dominate the top end of the rankings.

## Mean Satisfaction with Resources



Satisfaction is lowest regarding annual research funds, availability of child care that fits one’s needs, and availability of nearby parking. Regarding child care, the level of reported satisfaction is related to the faculty member’s family situation. The age of the youngest child in a faculty member’s family tends to predict satisfaction with child care availability; dissatisfaction is highest among parents of children under age 5 (39% are somewhat or very dissatisfied).

Senior faculty express greater satisfaction on a number of items than do junior faculty – quality of postdoctoral fellows and graduate students, access to graduate students, support for securing grants, and parking. Another important difference by rank is that junior faculty are less satisfied with opportunities for research leaves than are senior faculty. However, it should be borne in mind that the survey precedes the changes in the leave structure adopted with the new FAS Tenure and Appointments procedures.

*Dimensions of Satisfaction –  
Department Climate*

A SERIES OF QUESTIONS DEALT with the work environment, or department climate. The following table shows the mean responses on a five-point scale for junior and senior faculty. Responses for almost all items differ significantly by rank. The exceptions are the first two questions in the table; junior and senior faculty both give similar assessments of the support they receive from their chairs.

**Department Climate, Mean Response by Rank  
(1 = strongly negative, 5 = strongly positive)**

STATEMENT	JR. FACULTY MEAN	SR. FACULTY MEAN
My chair creates a collegial and supportive environment.	4.10	4.31
My chair helps me obtain the resources I need.	3.99	3.98
My department is a good fit for me.	3.88	4.36
My colleagues value my research/scholarship.	3.82	4.16
Generally I feel comfortable with the atmosphere in my department.	3.67	4.35

STATEMENT	JR. FACULTY MEAN	SR. FACULTY MEAN
Most faculty in my department are supportive of colleagues with family obligations.	3.50	3.83
Faculty may comfortably raise personal or family responsibilities when scheduling departmental obligations.	3.49	3.96
I can navigate unwritten rules concerning how one is to conduct oneself as a faculty member.	3.46	4.31
Interdisciplinary research is recognized and rewarded by my department.	3.45	3.89
Teaching, advising, and committee assignments are distributed fairly in my department.	3.37	3.73
I feel comfortable sharing my views in faculty meetings.	3.35	4.45
I don't feel excluded from informal networks in my department.	3.26	4.15
Committee work is recognized and rewarded by my department.	3.18	3.62
I have a voice in the decision making that affects the direction of my department.	3.18	4.51
Good teaching is recognized and rewarded by my department.	3.15	3.83
I am satisfied with the interest senior faculty take in my professional development.	3.15	n/a
I am satisfied with the amount of professional interaction I have with senior faculty in my department.	3.13	4.22
I don't have to work harder than some of my colleagues to be perceived as a legitimate scholar.	3.05	3.58
My colleagues solicit my opinions about their research ideas and problems.	3.02	3.73
I don't feel compelled to attend events or agree to duties that take away from my research for fear it will affect my reputation or advancement.	2.67	3.38

Within both ranks, women and under-represented minority faculty tend to have less positive responses to climate questions than do men and non-URM faculty.

Among the junior faculty, for example, men are 50% more likely than women to say that teaching and administrative assignments are distributed fairly, and that faculty may comfortably raise family obligations when scheduling departmental obligations. Under-represented minority junior faculty are less likely than non-URMs to say they can navigate the “unwritten rules” about being a faculty member (33% vs. 61%). Women and under-represented minority junior faculty are about twice as likely to feel excluded from informal networks and to feel that they have to work harder than some colleagues to be perceived as legitimate scholars. They are also less likely to report that their colleagues solicit their opinions about research.

Although senior faculty in general are more satisfied with the departmental climate, there are significant differences by gender and race on some climate items. The difference is strongest for the statement “I have to work harder than some of my colleagues to be perceived as a legitimate scholar.” Three times as many senior women and under-represented minorities agree with this statement than do men and non-URMs. Minority senior faculty are also three times as likely as non-URMs to say that they are excluded from informal networks. Both women and URM are less likely to find their departments “family-friendly.” Senior women are also significantly less likely to say they are a “good fit” with their departments, that their colleagues value their research, and that committee and teaching assignments are distributed fairly.

A composite variable, calculated using 15 of these climate items, is a powerful predictor of overall satisfaction with being a faculty member at Yale. The relationship is stronger among junior faculty than among senior faculty but is robust for both groups, remaining strongly influential when other variables, e.g., perceived chances for tenure (for junior faculty only) and satisfaction with salary and intellectual stimulation of one’s work, gender, and division, are added to multiple regression models.

*Dimensions of Satisfaction—  
Workload and Work-Life  
Stressors*

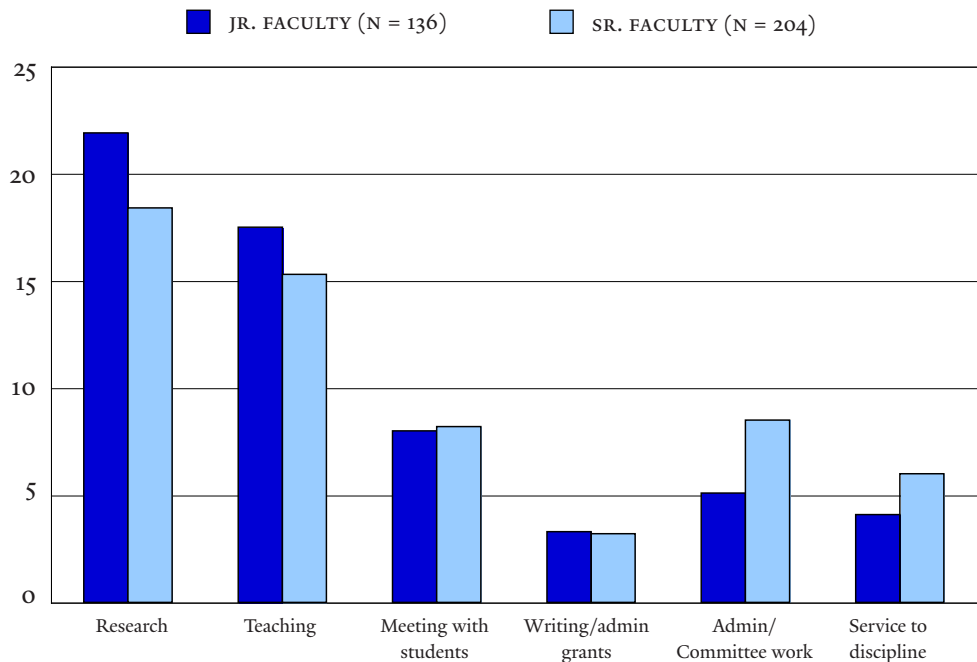
TWO QUESTIONS ASKED FACULTY to evaluate their workload, both absolutely and relative to their peers at comparable universities. Although almost half of respondents find their workload “too heavy” or “much too heavy,” 52% say their workload is “about right,” with no significant differences by rank, gender, or race.

More than one-half of faculty find their workload “comparable to that of similarly situated colleagues (same rank and field) at comparable universities.” One-third rate their workload “somewhat heavier” and fewer than 10% say their workload is “much heavier” than that of their peers. There is no significant difference by rank or race. Women tend to rate their workload as heavier relative to their peers, even within rank.

The median number of hours worked per week is 60, with half the respondents reporting a typical work week of between 51 and 75 hours. There is no statistical difference in the average number of hours worked per week by rank, gender, or race.

There are significant differences by rank in the distribution of hours worked across various domains of work (teaching, research, etc.) as shown in the following chart. Full professors report significantly more hours spent on administrative and committee work, and in service to their discipline, compared to assistant and associate professors, whereas junior faculty spend significantly more time on research and activities associated with teaching.

Average Hours Worked per Week in Various Domains, by Rank



Another major difference in workload is between those faculty who report spending time on “writing and administering grants” compared to those who do not. Junior faculty with grant responsibilities tend to work seven hours more per week than junior faculty without grant responsibilities, although there is no difference in length of workweek among senior faculty.

#### *Overall Rating of Job Stress*

Faculty were asked how they would rate the stress level of their job over the last year. A seven-point scale was labeled at the endpoints (1 = not very stressful, 7 = very stressful, most of the time) and at the midpoint (4 = moderate level of stress). Almost two-thirds

of respondents rated their work-related stress level above the midpoint of a seven-point scale, with 15% selecting the highest stress level.

Junior faculty report a significantly higher level of stress than do full professors, and women in all ranks are much more likely than men to say their jobs are “very stressful, most of the time.” No senior women selected a stress level below the midpoint. There were no differences by race.

#### *Work-Life Stressors*

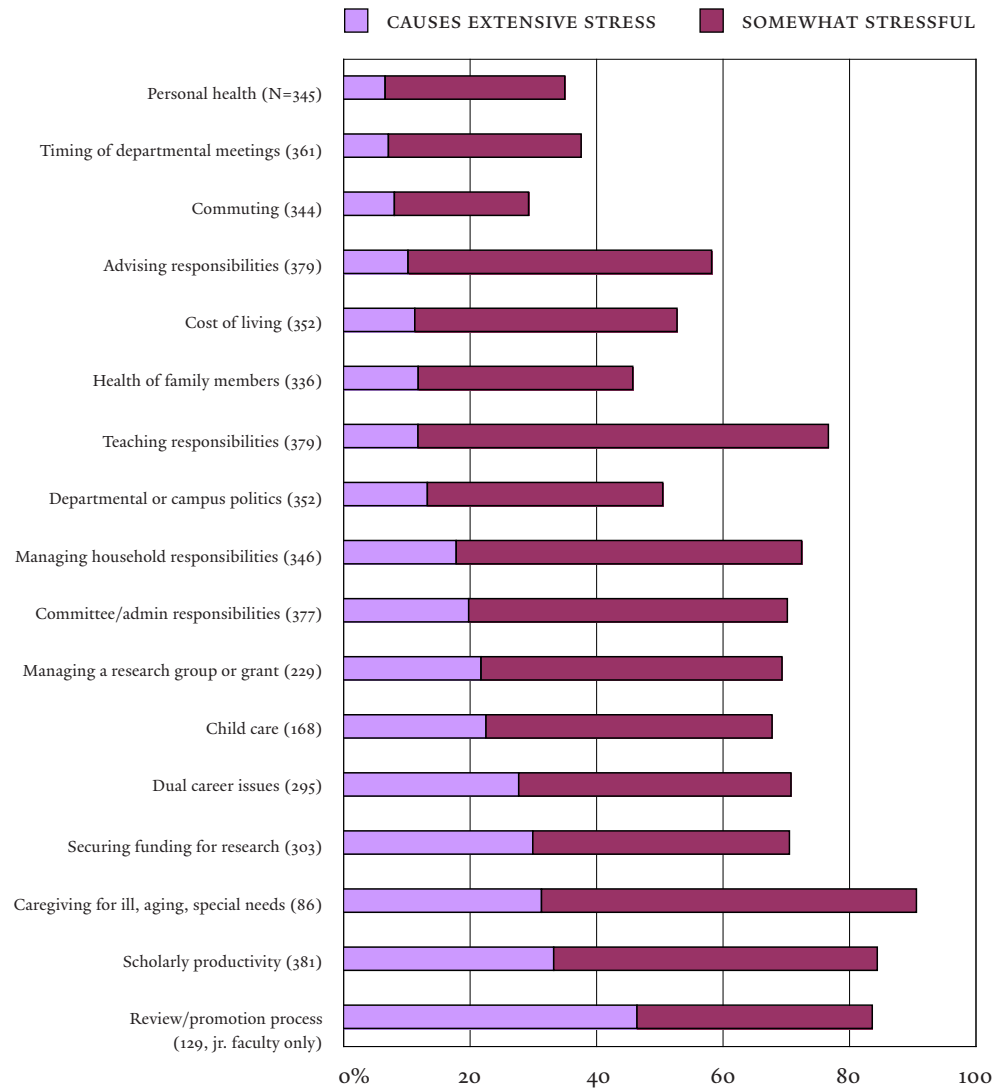
Faculty were asked to rate 17 items on how stressful (not at all, somewhat, extensive, not applicable) each had been over the past 12 months. The chart on the following page shows the responses, ordered by the percentage of faculty reporting extensive stress. Responses of “not applicable” are excluded, and for some items, responses were further filtered. For example, stress due to the review/promotion process is shown only for junior faculty; stress related to child care is shown only for faculty with children under 18.

The two most stressful items are the review and promotion process (for junior faculty) and scholarly productivity (associated with extensive stress for 51% of junior faculty).

Child care causes extensive stress for one-third of faculty with children under 5, and for 22% of faculty for whom their youngest child is between 5 and 12. Similarly, the cost of living is significantly more stressful for faculty with children under age 18 than for others. A common complaint in the comment section of the survey concerned the cost of child care for young children and private school for older children.

Nearly one-quarter of the respondents answering this section report caring for or managing the care for an aging and/or ill parent, spouse, or other relative over the previous year. For those faculty – the majority of whom are senior women – the level of stress associated with that responsibility is quite high.

## Work-Life Stressors—Extent of Stress During Past 12 Months



Eighty percent (80%) of women with children<sup>1</sup> say that caregiving responsibilities for their children have slowed their career progression, compared to 57% of male respondents with children (see the table on the following page). Similarly, women in all ranks are more likely than their male counterparts to say that caregiving responsibilities for their parents or in-laws have slowed their career progression.

<sup>1</sup>Most junior faculty (56%) had no children at the time of the survey, compared to only 17% of senior faculty. Women are less likely than men, at all ranks, to have children. Among junior faculty only one-third of women have children, compared to one-half of men.

### Caregiving Responsibilities Slowed Career Progression

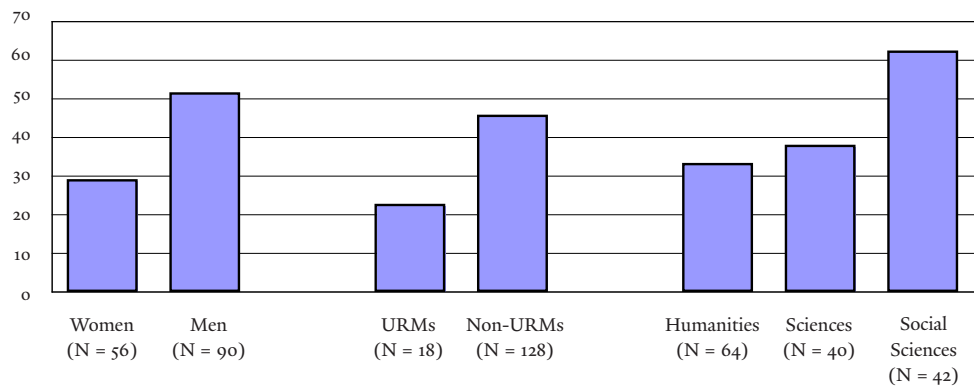
	FOR CHILDREN		FOR PARENTS/IN-LAWS	
	WOMEN	MEN	WOMEN	MEN
Strongly agree (%)	43	19	10	3
Somewhat agree (%)	37	38	39	19
Neutral (%)	11	17	17	20
Somewhat disagree (%)	4	12	2	12
Strongly disagree (%)	4	14	32	47
Number of respondents	46	169	41	139

*Career Development and Advancement—Mentoring*

VIRTUALLY ALL JUNIOR FACULTY in FAS (92%) reported having received some mentoring while at Yale, and most (86%) reported specific mentoring activities that had taken place within the prior two years. Informal mentors provided most of the reported mentoring, which has generally been perceived as helpful.

In spite of these high marks, a majority of junior faculty (58%) do not feel they have received adequate mentoring while at Yale, and there are significant disparities by gender, race, and academic division, as shown in the following chart. Specifically, women and under-represented minorities are more likely than their counterparts to say they have been inadequately mentored, and junior faculty in the humanities and sciences feel less well-mentored than those in the social sciences.

Percent of Junior Faculty Saying They Have Been Adequately Mentored

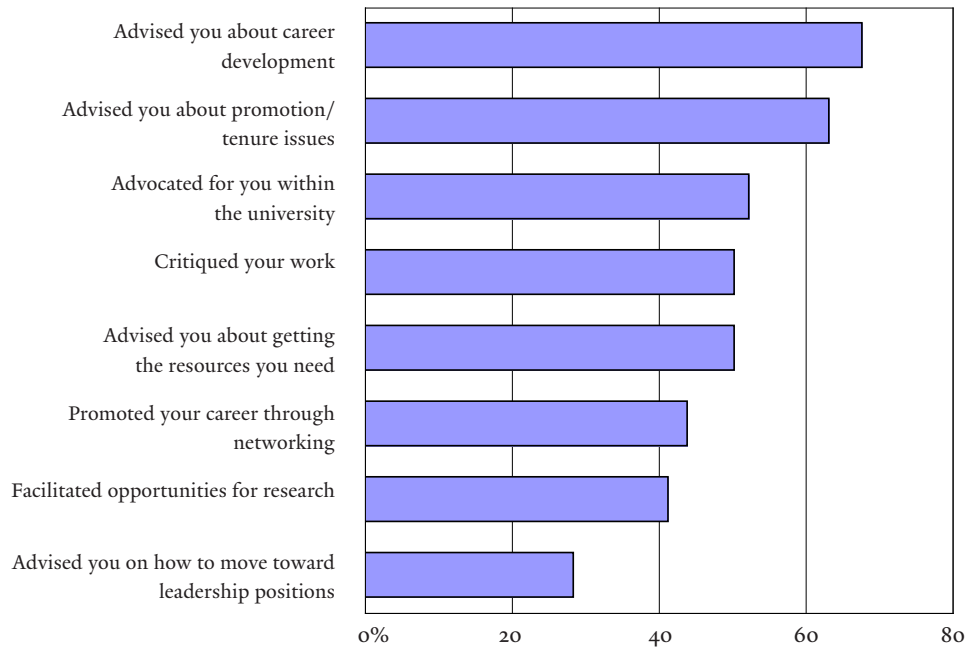


Faculty were asked if a mentor (either formal or informal) had performed each of eight specific activities for them in the past two years. The percentage of respondents reporting each activity is shown in the following chart. Specific activities performed by a formal mentor were reported most often in the sciences and least often in the humanities. Specific activities by informal mentors were reported most often in the social sciences and least often in the sciences.

The most often reported activities are advising about career development and about promotion and tenure. Only 50% of junior faculty reported a mentor critiquing their work in the two years prior to the survey.

### Specific Mentoring Activities

Percent of Junior Faculty (N = 155) Reporting Each Activity, Either Formally or Informally, in the Past Two Years



Interestingly, the three least often reported activities – advising on how to move toward leadership positions, facilitating research opportunities, and promoting one’s career through networking – are also the most highly correlated in a multivariate model predicting feeling adequately mentored.

Just over half of senior faculty reported mentoring or advising junior faculty in the year prior to the survey, and women were much more likely to report being a mentor (70% vs. 49%) than were men.

*Career Development and Advancement—Perceived Barriers*

A SET OF QUESTIONS ASKED whether “men and women faculty in your department have equal opportunities for career advancement” and whether “minority and majority faculty in your department have equal opportunities for career advancement.” The results are shown in the following tables, for all respondents, and by gender and race.

**Do you think men and women faculty in your department have equal opportunities for career advancement?**

	OVERALL	WOMEN	MEN	URMS	NON-URMS
Women have lesser opportunity (%)	20	46	11	54	17
Equal opportunity (%)	63	51	67	39	65
Women have greater opportunity (%)	17	3	22	7	18
Number of respondents	378	102	276	28	350

**Do you think majority and minority faculty in your department have equal opportunities for career advancement?**

	OVERALL	WOMEN	MEN	URMS	NON-URMS
Minorities have lesser opportunity (%)	15	38	7	50	12
Equal opportunity (%)	62	49	67	46	64
Minorities have greater opportunity (%)	23	13	27	4	25
Number of respondents	327	86	241	28	299

Women and under-represented minority faculty are significantly more likely to perceive that the opportunities for career advancement are lower for women and minorities.

Another series of questions concerned perceived barriers to advancement, both formal and informal, within Yale. More than twice as many junior women as men (60% vs. 26%) and under-represented minorities (78% vs. 35% of non-URMs) said that they have experienced “barriers within Yale to your career advancement or promotion.”

Informal barriers were cited more frequently than formal barriers. Three in five under-represented minority faculty and three in 10 women cited “exclusion from informal networks,” compared to just one in 10 men and non-minority faculty. One-third of women and one-half of minority faculty identified “lack of interest in your research areas” as an informal barrier to advancement at Yale. Lack of professional respect was also cited disproportionately by women and minority faculty. Lack of mentors was cited more often by women than men.

**Percent of Junior Faculty Citing Specific Informal Barriers to Advancement at Yale by Gender and Race**

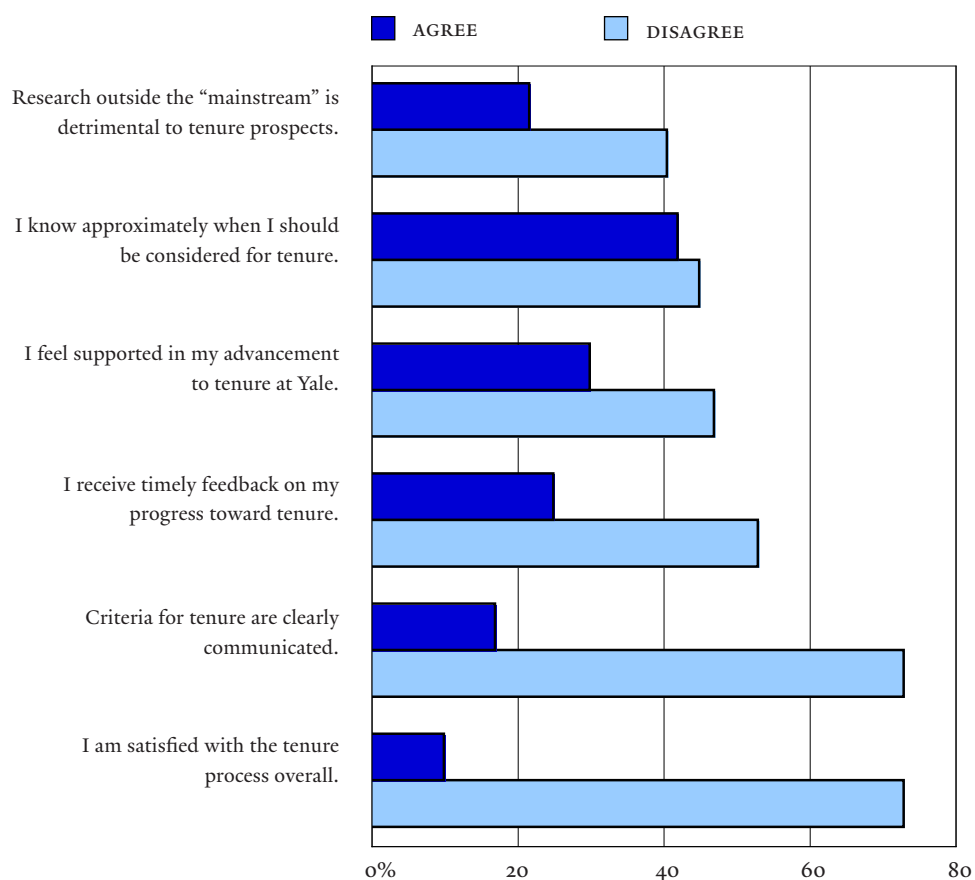
INFORMAL BARRIER CITED	WOMEN	MEN	URMS	NON-URMS
Exclusion from informal networks (%)	29	9	61	11
Lack of interest in your research areas (%)	32	11	50	15
Lack of professional respect (%)	18	7	28	9
Lack of mentors (%)	27	10	28	15
Number of respondents	92	62	18	136

*Career Development and Advancement–The Tenure System*

THE ADMINISTRATION OF THE SURVEY concluded before the new tenure and appointments procedures were adopted in the spring of 2007. Thus, responses regarding the questions about the tenure system at Yale refer to the system in place prior to the 2007-2008 academic year.

The following chart shows the percentage of untenured faculty (excluding tenured associate professors) who agreed and disagreed with each of six statements about tenure at Yale. The chart combines “strongly” and “somewhat” for agreement and disagreement, and omits the neutral midpoint.

## Opinions about Tenure among FAS Untenured Faculty (N = 149)



Disagreement is substantial for all six statements, but is strongest (and is overwhelmingly “strongly” negative) for overall satisfaction with the tenure process and feeling that criteria for tenure are clearly communicated. Women are significantly more likely than men to choose negative responses for both of these issues. Under-represented minorities are more likely to strongly disagree about knowing when they should be considered for tenure.

The survey allowed respondents to provide written comments. By far the most common concern expressed in written comments was with the tenure system. Uncertainty created by the system and a perceived lack of transparency in the system were cited as influencing general satisfaction, department atmosphere, mentoring, stress, and retention.

As the responses to these questions refer to the prior tenure and promotions procedures, they will provide a valuable benchmark for future surveys and allow measurement of the extent to which the new procedures improve transparency and faculty morale.