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The Work Environment for Tenure-Track/Tenured Faculty at the University of Maryland

ADVANCE Research and Evaluation Report for

A. James Clark School of Engineering

by

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Introduction

The UMD Work Environment Survey assessed specific aspects of faculty work environment, such as faculty perceptions of their own professional growth, institutional and unit supports for professional growth, climate for work-life balance, fair treatment and diversity, and satisfaction, all of which have been linked to retention and advancement. There were 488 tenure track respondents, approximately 32% of full-time UMD tenure track faculty in fall 2010. Here major findings are reported for tenure track/tenured respondents in the A. James Clark School of Engineering (ENGR). For additional information about the survey development and results for the University of Maryland over all, please see *The Work Environment for Tenure-Track/Tenured Faculty at the University of Maryland: ADVANCE Research and Evaluation Report 1*, which can be accessed at the UMD ADVANCE research and evaluation website: <http://www.advance.umd.edu/research-evaluation>.

Respondents

The analytical sample for this report is the tenure track faculty respondents of the UMD Faculty Work Environment Survey from ENGR (n=54), 28% of the 2010 tenure-track/tenured ENGR faculty. Of the ENGR tenure track respondents, 24% were female and 76% were male. Regarding race, 30% were faculty of color, 64% were White faculty, and 4% were international faculty. Lastly, ENGR respondents were 24% Assistant Professors, 22% Associate Professors, and 54% Full Professors.

Data Analysis

We first ran descriptive statistics (e.g. frequencies and means) on each survey item for all respondents. Then, we conducted statistical testing (chi-squared analyses, t-tests, or ANOVA) for differences by race. Testing for gender and rank differences could not be conducted due to

low sample size. Means, standard deviations and statistically significant differences by race at $p < .05$, $p < .01$, or $p < .001$ are noted within the tables in Table 15. Any differences described within the text of this report refer to statistically significant differences unless otherwise noted. When conducting statistical testing on a number of items (such as the case in this report), caution should be used when interpreting differences in any one single survey item. Throughout the results section we also include some open ended comments related to specific themes.

Results

Organizational Commitment and Intent to Leave

TOP FINDINGS

- 27% of ENGR participants stated they were likely to leave the university in the next two years (v. 31% for all of UMD respondents).
- 84% of ENGR participants stated that there was at least one faculty member in their unit who left in the past three years (v. 87% for all of UMD respondents).
- 38% of ENGR respondents had had an outside offer while at UM (compared to 41% of all UMD respondents).
- For ENGR participants who wanted to leave, the most frequent reasons listed for wanting to leave UMD were for a higher salary (57%), for a more prestigious institution or department (57%), or to be closer to family (21%).

Table 1. *Participants' reasons for intending to leave UMD*

If you are likely to leave the University or the academic profession in the next two years, what would be the main reasons? [Select up to three]	ENGR N=14 % Selected	UMD % Selected
An offer with a higher salary	57	57
An offer from a more prestigious department or institution	57	41
Lack of collegiality in my unit	14	24
Potential for better work-life balance in a different type of position	0	22
An offer from an institution in a more desirable geographic location	7	16
Retirement	7	15
To be closer to family	21	14
Poor likelihood of tenure/promotion or contract renewal	0	10
Career opportunities at another institution for my spouse/partner	7	9
An offer for a position outside academe	0	8
Better campus climate for women at another institution	0	5
Not well suited to the faculty career	0	4
Better policies related to child-care, parental leave	7	3
Better campus climate for faculty of color at another institution	7	3
Better campus climate for GLBTQ faculty at another institution	0	2

Satisfaction with Department and UMD

TOP FINDINGS

- 72% of ENGR participants were satisfied with their overall experience working in their unit and 68% were satisfied with their overall experience at UMD (compared to 61% and 60% respectively for all UMD respondents).
- There were five specific aspects of the faculty experience that were rated differently by ENGR respondents than UMD respondents. ENGR respondents were more satisfied with their overall experience in their unit*, the amount of time spent on research versus teaching and service*, expectations for committee service*, and assistance with research

administration in unit*. ENGR respondents were less satisfied than UMD respondents overall with professional assistance for improving teaching*.

- The most ENGR participants were satisfied with the autonomy in their role (80%), their overall experience in their unit (72%), and assistance with research administration (72%).
- The least participants were satisfied with professional assistance for improving teaching (16%), the amount of access to TAs and RAs (27%), and the assistance they received in finding grants (26%).

Table 2. *Percentage of participants who were satisfied with resources and conditions at UMD*

Survey Item*	ENGR % Satisfied/ Very Satisfied	UMD % Satisfied/ Very Satisfied
The amount of autonomy I have in my role as a faculty member here	80	74
The diversity on campus	63	68
My overall experience working in my unit *	72	61
My unit's national reputation	58	61
My overall experience working at UM	68	60
The University's national reputation	66	59
The quality of the graduate students	58	58
The support of colleagues here	54	58
The University's location	61	54
The sense of fit between my values and those of my unit	50	49
The quality of the undergraduate students	56	45
Clerical/administrative support	39	38
The amount of time I spend on research versus teaching and service *	58	38
Assistance with research administration in your unit *	72	37
The transparency of decision-making within my unit	38	37
Amount of access to TAs, RAs	27	33
Professional assistance for improving teaching *	16	33
Expectations for committee service *	38	32
My salary and benefits	37	30
Assistance with finding grants	26	22

* = statistical difference in means between ENGR and UMD respondents at $p < .05$

Fair Treatment and Diversity

TOP FINDINGS

- The majority of ENGR respondents perceive that diversity is important (76% for ENGR v. 80% for UMD), units work hard to create diverse representation (86% for ENGR and 79% for UMD), and female faculty* and faculty of color receive fair treatment (74% and 67%, respectively, for ENGR v. 60% and 57% for UMD).
- 17% of ENGR faculty agree that they have experienced discrimination (v. 23% for UMD).

Table 3. *Faculty perceptions of diversity, diversity climate, and fairness at UMD.*

Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
A diversified faculty is important for UM's academic excellence.	76	80
My unit makes a conscious effort to generate a diverse applicant pool for full-time faculty positions.	86	79
The opportunities for female faculty at UM are at least as good as those for male faculty. *	74	60
The opportunities for faculty of color at UM are at least as good as for those for White faculty.	67	57
I have to work harder than some of my colleagues to be perceived as a legitimate scholar.	35	33
I have experienced discrimination (either overt or subtle) in my unit based on my individual identities (e.g. gender, race/ethnicity, religion, age, sexual orientation).	17	23

* = statistical difference in means between ENGR and UMD respondents at $p < .05$

Work-Life Climate

TOP FINDINGS:

- 48% of ENGR respondents were satisfied with their unit's culture for work-life balance (v. 42 for UMD).
- 33% of ENGR respondents agreed that the university does what it can to make family life and the tenure track compatible (v. 25% for UMD).
- 37% of ENGR respondents agreed that there are role-models for work-life balance (v. 30% for UMD).
- Similar to UMD respondents, ENGR respondents rated many of UMD's policies and programs for work-life balance as valuable, but few respondents took advantage of these programs and many had not heard of the programs.

Table 4. *Perceptions of work-life climate at UMD.*

Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
I have taken strategic steps toward creating a satisfactory work-life balance.	71	67
In my unit, faculty can be honest with colleagues about family/life roles and responsibilities.	57	57
In my unit it is generally expected that people need to make work their top priority.	53	55
My unit supports faculty scheduling work commitments around family schedules.	58	54
The amount of work my unit expects me to perform makes work-life balance difficult.	48	52
In general, I feel I have control over creating a satisfying work-life balance. *	59	48
There is NO bias against family care-giving in my unit.	50	44
I am satisfied with my unit's culture around work-life balance.	48	42
There are role-models in my unit of how to create a satisfying work-life balance.	37	30
The institution does what it can to make family life and the tenure track compatible.	33	25

* = statistical difference in means between ENGR and UMD respondents at $p < .05$

Table 5. *Work-life policies and programs at UMD.*

Policy/Program [% of ENGR respondents]	% Very Valuable	% Used it	% Anticipate using it	% Have not heard of it
Campus childcare	76	6	18	13
Tenure delay/Stop the tenure clock	65	11	8	7
Family leave without pay/FMLA	49	2	0	17
Mentoring program (i.e. assigned mentor)	53	49	29	9
Childcare referral service	42	3	18	35
Dual career support services	43	0	12	44
New faculty orientation	52	63	0	6
Relocation assistance services	35	28	3	26
Part-time tenure track policy	40	0	7	46

Notes: The part-time tenure track policy was established December 17, 2009. The Family Care Resource and Referral Service began in fall of 2010. The tenure delay policy was established March 6, 2007.

Tenure and Promotion Process

TOP FINDINGS

- More than half of ENGR participants perceived clear requirements and fair processes for tenure (59% and 68%, respectively for ENGR vs. 68% for both for UMD).
- 56% of ENGR respondents believe the process for advancing to Full Professor is fair (vs. 59% for UMD) and 55% of ENGR respondents perceived clear requirements for promotion to Full Professor (v. 52% for UMD).
- Yet, 43% of ENGR respondents had concerns about their own advancement (v. 41% of UMD).

Table 6. *Respondent perceptions of own career advancement and institutional support of advancement.*

	Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Career Advancement	I have intentionally made choices to focus my career in ways that are personally meaningful to me.	86	85
	I seize opportunities when they are presented to me to advance in my career.	69	75
	I have been strategic in achieving my career goals.	69	66
	Do you have any concerns about your own opportunities to advance in your career at UM? [% that select “yes”]	43	41
	I feel stuck in my ability to advance in my career.	18	23
	In general, I feel that I have little control over whether I advance in my career.	16	20
Institutional Support of Career Advancement	Faculty in my unit have the freedom to succeed here if they work hard.	77	68
	In my unit, the tenure requirements are clear.	59	68
	In my unit, the tenure process is fair.	68	68
	In my unit, the promotion process for advancing to Full Professor is fair.	56	59
	In my unit, the promotion requirements for advancing to Full Professor are clear.	55	52
	I have received helpful feedback from my department chair/unit head in support of my career advancement.	41	43

Note: No statistical differences in means between ENGR and UMD respondents.

Evaluation of Teaching, Research, and Creative Work

TOP FINDINGS

- Less than half of ENGR respondents agreed that their unit supports effective teaching (32% ENGR v. 45% UMD), interdisciplinary scholarship (47% ENGR v. 44% UMD), engaged scholarship (40% ENGR v. 40% UMD), or cutting edge research (35% ENGR v. 37% UMD).

Table 7. Respondent perceptions of the Evaluation of Teaching, Research, and Creative Work.

Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Collaborative research and grant work where there are co-authors and/or co-principal investigators is encouraged in our unit's reward system.	42	49
There is support in my department for effective teaching.	32	45
Interdisciplinary scholarship is rewarded in my unit.	47	44
Engaged scholarship is rewarded in my unit.	40	40
In our unit faculty are rewarded for taking risks and trying to be cutting edge in their research.	35	37

Note: No statistical differences in means between ENGR and UMD respondents.

Management of Teaching, Research and Service Responsibilities

TOP FINDINGS

- 96% of ENGR faculty felt in charge of their research (v. 90% UMD).
- More than half of ENGR respondents felt in control of their participation in service activities (60%)* or able to say no to additional service without consequences for their career (62%).

Table 8. Respondent perception of evaluation and support of research and scholarship.

Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
I am in charge of the direction of my research agenda.	96	90
Managing my teaching responsibilities is largely under my control.	58	69
I feel in control of my participation in service activities. *	60	52
It is possible for me to say no to additional on-campus service activities without negative consequences for my career.	62	49

* = statistical difference in means between ENGR and UMD respondents at $p < .05$

Recognition

TOP FINDINGS

- More than half of ENGR respondents believed that their research (68% v. 66% UMD), service (58 v. 54% UMD), and teaching contributions (54% v. 57% UMD) were valued by colleagues in their unit.
- 54% of ENGR respondents said they had been nominated by someone at UMD for an award (v. 40% UMD).

Table 9. *Respondent perceptions of recognition and valuing one's commitments.*

Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Faculty in my unit value my research/scholarship.	68	66
Faculty in my unit are aware of the service that I do for our program.	54	58
Faculty in my unit value my teaching contributions.	54	57
Faculty in my unit value my service contributions.	58	54
Faculty in my unit care about my personal well-being.	51	53
Over the last three years, have you ever been nominated by someone at UM for an award? [% Yes]	54	40

Note: No statistical differences in means between ENGR and UMD respondents.

Leadership Opportunities

TOP FINDINGS

- About a third of ENGR respondents said they would like to hold a leadership position at the institution (30%) and unit (29%) levels (v. 37% for UMD).
- 50% of ENGR respondents had leadership self-efficacy (v. 60% for UMD).

Table 10. *Leadership opportunities for ENGR.*

Leadership Position	% that have not applied or been asked	% that applied, but were not selected	% that were asked but did not serve	% that serve now or served previously
Assistant/Associate Chair or Director	80	0	2	18
Department Chair or Director	69	6	10	14
Director of a Center, Institute or Program	73	0	4	23
Assistant/Associate Dean	88	2	2	8
Dean	98	0	2	NA*
All Leadership Positions	52	0	6	42

* NA due to low n for confidentiality

Table 11. *Respondent perceptions regarding leadership.*

Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
I have the knowledge and skills needed to be an effective leader at this University.	50	60
I would like to serve in a leadership role in the broader UM community (college or University level).	30	37
I would like to serve in a leadership role within my unit.	29	37
During the past twelve months, how many times have you been encouraged, by anyone at UM, to pursue any leadership positions? [% at least once]	27	36

Note: No statistical differences in means between ENGR and UMD respondents.

Information, Communication, and Decision-Making

TOP FINDINGS

- A majority of ENGR participants felt open to share their opinions (66% v. 63% for UMD), and that their voice does make a difference in their department (53% v. 60% for UMD).

- Yet only about a third or less of ENGR participants agreed that their unit was transparent in terms of information sharing (28% v. 35% for UMD), resource allocation (22% v. 32% for UMD) or salary increases (25% v. 31% for UMD).

Table 12. *Respondent perceptions of decision-making and communication.*

Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
I feel that I can voice my opinions openly in my unit, even if my colleagues disagree with me.	66	63
I have a voice in decision-making that affects the direction of my department.	53	60
Major decisions in my unit are made with adequate input from faculty.	44	54
Information is available to understand my relative standing among my peers.	28	35
Resource allocation in my unit (e.g. space, funded research assistants) is transparent.	22	32
Decisions regarding salary increases in my unit are transparent.	25	31

Note: No statistical differences in means between ENGR and UMD respondents.

Faculty Learning

TOP FINDINGS

- 76% of ENGR respondents reported learning a great deal regarding their research in the past year (v. 72% for UMD).
- 46% of ENGR respondents reported that their unit provides an environment that stimulates their academic learning (v. 50 for UMD) and 49% of ENGR respondents reported that the university provides such an environment (v. 43% for UMD).
- ENGR participants were more likely than UMD respondents to report that the pressure to seek grants is a barrier to scholarly learning (63% for ENGR v. 39% for UMD*) and less likely to report their unit financially supported their scholarly learning (15% for ENGR v. 44% for UMD*).

Table 13. *Respondent assessment of faculty learning and institutional support for learning.*

	Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Faculty learning	In the past 12 months, I learned a great deal regarding my research.	76	72
	In the past 12 months, I set aside time to advance my scholarly learning.	62	68
	In the past 12 months, I gained knowledge or skills that made me a better teacher.	62	65
Institutional Support of Faculty Learning	My unit provides an environment that stimulates my academic learning.	46	50
	My unit supports my learning external to campus (e.g. conferences)	30	46
	My unit has financially supported my learning in my field or discipline. *	15	44
	My unit has helped me to make room to immerse myself in my learning (e.g., sabbaticals, course release).	33	43
	The University provides an environment that stimulates my academic learning.	49	43
	The pressure to seek grants is a barrier to my scholarly learning. *	63	39
	The pressure to publish is a barrier to my scholarly learning.	22	28

* = statistical difference in means between ENGR and UMD respondents at $p < .05$

Professional Networks and Collegiality

TOP FINDINGS

- Most ENGR faculty respondents perceived their professional network was helpful in a number of areas, including influence, visibility, feedback, advice, and awareness of professional opportunities.
- 57% of ENGR respondents said that their core discussion network was mainly off campus (v. 63% for UMD).

Table 14. *Respondent assessment of professional networks and institutional support for professional networks.*

	Survey Item*	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Professional Networks	I try to support junior colleagues.	92	90
	My core discussion network includes one or more members who are influential in my field.	80	83
	My core discussion network stimulates my thinking and creativity.	82	82
	My core discussion network includes at least one senior colleague.	80	81
	My core discussion network enhances my visibility in my field.	88	76
	My core discussion network provides helpful feedback on my research.	71	73
	My core discussion network is an important source of professional advice when I have a work related problem.	74	72
	My core discussion network is primarily in my direct field.	70	68
	My core discussion network lets me know of professional opportunities.	74	64
	I have found it difficult to establish connections with others in my field.	8	12
	I don't have regular contact with others about my work.	7	7
	Institutional Support of Professional Networks	I have relationships with students on campus that advance my scholarly learning. *	79
My core discussion network is primarily off campus.		57	63
I have relationships with faculty at UM that support me personally.		53	61
I have relationships with other faculty on campus that have supported my career advancement (e.g. tenure, promotion, contract renewal).		60	54
I am satisfied with the collegiality in my unit.		49	52
Most of the personal support I receive is from colleagues off-campus.		37	49
I am satisfied with the opportunity I have to collaborate with other UM faculty.		55	45
I receive useful feedback from colleagues at UM that improves my work.		49	44
I am satisfied with the amount of professional interaction I have with senior colleagues at the University.		35	41

I have been effectively mentored by someone in my unit.	40	33
My core discussion network is primarily on campus.	18	28
Individuals at this institution have made an effort to connect me with important people in my field.	28	27
I feel isolated in my department.	17	24

* = statistical difference in means between ENGR and UMD respondents at $p < .05$

Perceptions of Productivity

TOP FINDINGS

- 57% of ENGR respondents ranked themselves as more productive than researchers in their field and rank nation-wide (v. 51% for UMD).
- 22% of ENGR respondents ranked themselves as less productive than researchers in their field and rank nation-wide (v. 27% for UMD).
- 38% of ENGR respondents believed their unit views them as more productive than researchers in their field and rank nation-wide (v. 38% for UMD).
- 29% of ENGR respondents believed their unit views them as less productive than researchers in their field and rank nation-wide (v. 33 for UMD).

ENGR Differences by Race

TOP FINDINGS

- In most areas of the survey, responses did not differ significantly by race ($p < .05$).
- Faculty of color in ENGR:
 - Rated two areas of satisfaction lower than White faculty: salary and unit's national reputation.
 - Were more likely to intend to leave UM in the next two years (also a trend for UM overall)
 - Were more favorable about the work-life climate at UM than White faculty.

Table 15. *Survey items that showed statistically significant differences in ENGR responses by race.*

Survey Item*	Faculty of Color		White		p-value
	M	SD	M	SD	
Satisfaction with my unit's national reputation	2.88	1.11	3.77	0.90	<.01
Satisfaction with my salary and benefits	2.25	1.07	3.40	1.19	<.01
There is NO bias against family care-giving in my unit.	4.00	0.88	3.27	0.83	<.05
The institution does what it can to make family life and the tenure track compatible.	3.47	0.99	2.57	1.17	<.05
In my unit it is generally expected that people need to make work their top priority.	2.71	1.05	3.84	0.82	<.001
The amount of work my unit expects me to perform makes work-life balance difficult.	2.59	1.00	3.73	1.05	<.001
To what extent are you likely to leave the university in the next four years (Definitely will =1; Definitely will not = 4)	2.53	0.72	2.97	0.61	<.05

Notes:

Coding (unless otherwise noted): Strongly Agree/Very Satisfied = 5; Strongly Disagree/Very Dissatisfied = 1

Because of small N (< 20 in a group), caution should be used when interpreting these results.