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The UMD Work Environment Survey for Tenure-Track/Tenured Faculty

2015 Results for the A. James Clark School of Engineering (ENGR)

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Introduction

The UMD Work Environment Survey was first implemented in 2011 to assess 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.

Respondents

The 2015 survey implementation included an overall response rate of approximately 53% of tenured/tenure-track faculty at the University of Maryland, College Park. Breakdown of the total respondent population as compared with the respondents from ENGR is provided below in Table 1. For additional information about the survey development and the 2011, 2013, and 2015 University of Maryland results overall, please see the full 2015 report, which can be accessed at the UMD ADVANCE research and evaluation website:

<http://www.advance.umd.edu/research/research-evaluation>.

The analytical sample for this report is the tenure-track/tenured faculty respondents of the UMD Faculty Work Environment Survey from ENGR (n=66), approximately 30% of the 2015 tenure-track/tenured ENGR faculty as of March 26, 2015. Of the ENGR respondents, 25.8% were on the tenure track and 74.2% tenured. Of the ENGR tenure-track/tenured respondents, 25.8% were female and 74.2% were male. Regarding race, 24.2% were Faculty of Color and 75.8% were White faculty. Lastly, ENGR respondents were 25.8% Assistant Professors, 21.2% Associate Professors, and 53.0% Full Professors.

Table 1. 2015 UMD Work Environment Survey of Tenured/Tenure-Track Faculty

Survey Response rate: UMD 53.3% (n=854); ENGR 30.4% (n=66)		
Respondents	UMD	ENGR
Women faculty	41.3%	25.8%
Men faculty	58.7%	74.2%
Faculty of Color	19.9%	24.2%
White faculty	80.1%	75.8%
Assistant Professors	23.5%	25.8%
Associate Professors	32.4%	21.2%
Full Professors	44.0%	53.0%

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, gender and rank. Means, standard deviations and statistically significant differences at $p < .05$, $p < .01$, or $p < .001$ are noted in Tables 14, 15, and 16. Any differences described within the text of this report refer to statistically significant differences unless otherwise noted. Throughout the survey results we provide comparisons between ENGR results and university-wide results for a sense of the areas where ENGR tenure-line faculty are having similar, better, or worse work environment experiences. At the end of the report, we also compare 2011, 2013, and 2015 survey results on select items. 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 from ENGR respondents related to specific themes.

ENGR Survey Results

Faculty Learning and Institutional Support for Learning

KEY FINDINGS

- About two thirds of ENGR respondents agree that in the last twelve months, their learning has contributed to their research and/or scholarly agenda and has made them a better teacher.
- About half of ENGR respondents agree that their unit has helped them to make room among their responsibilities for immersing themselves in their academic learning (48.5%), and that their unit and the University provide an environment that stimulates their academic learning (54.5% and 57.6%, respectively).
- ENGR respondents were less likely than UMD respondents overall to agree that in the last twelve months they set aside time to advance their scholarly learning (65.2% of ENGR vs. 73.0% of UMD respondents).
- ENGR respondents were less likely than UMD respondents overall to indicate that their unit has financially supported their learning in their field or discipline (34.8% of ENGR vs. 48.4% of UMD).
- ENGR women faculty were less likely than ENGR men faculty to agree that the University provides an environment that stimulates their academic learning.
- There were no differences by race in ENGR respondents' perceptions of faculty learning and institutional support for learning.
- Assistant Professors were more likely than Associate or Full Professors to agree that in the last twelve months, their learning has contributed to their research and/or scholarly agenda and has made them a better teacher.
- Assistant Professors were more likely than Associate Professors to agree that in the last twelve months, they set aside time to advance their scholarly learning.

- Assistant Professors were more likely than Full Professors to agree that their unit supports their learning external to campus.
- Assistant Professors were more likely than Full Professors to agree that their unit has helped them to make room among their responsibilities for immersing themselves in their academic learning.
- Assistant Professors were more likely than Associate or Full Professors to agree that their unit has financially supported their learning in their field or discipline.

Table 2. Respondent Assessment of Faculty Learning and Institutional Support for Learning

	Survey Item	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Faculty Learning	In the last twelve months, I have learned a great deal that contributes to my research and/or scholarly agenda.	68.2	74.9
	In the last twelve months, I set aside time to advance my scholarly learning. *	65.2	73.0
	In the last twelve months, I have gained knowledge or skills that have made me a better teacher.	68.2	66.4
Institutional Support of Faculty Learning	My unit supports my learning external to campus.	63.6	59.5
	My unit has helped me to make room among my responsibilities for immersing myself in my academic learning.	48.5	52.7
	My unit provides an environment that stimulates my academic learning.	54.5	58.1
	The University provides an environment that stimulates my academic learning.	57.6	51.7
	My unit has financially supported my learning in my field or discipline. **	34.8	48.4

Statistical differences between ENGR and UMD respondents at *** $p < .001$, ** $p < .01$, * $p < .05$.

Professional Networks and Institutional Support of Professional Networks

KEY FINDINGS

- About two thirds of ENGR respondents indicated that they had relationships with other faculty on campus that had supported their career advancement (72.7%), that they received useful feedback from colleagues at UMD that improved their work (65.2%), and that they feel they have a voice in decision-making in their unit (69.7%).
- About half of ENGR respondents indicated that individuals at this institution have made an effort to connect them with important people in their field (54.5%).
- ENGR respondents were less likely than UMD respondents overall to agree that their core discussion network provides helpful feedback on their research (62.5% of ENGR vs. 80.9% of UMD) and includes one or more members who are influential in their field (75.0% of ENGR vs. 84.1% of UMD).
- However, ENGR respondents were more likely than UMD respondents overall to have been effectively mentored by someone in their unit (56.1% of ENGR vs. 40.5% of UMD), and to be satisfied with the opportunity they have to collaborate with other UMD faculty (69.7% of ENGR vs. 55.8% of UMD), and with the collegiality in their unit (74.2% of ENGR vs. 63.3% of UMD).
- ENGR respondents were also less likely than UMD respondents overall to feel isolated in their department (10.6% of ENGR vs. 21.6% of UMD).
- ENGR respondents were less likely than UMD respondents overall to have their core discussion network off campus (43.1% of ENGR vs. 59.0% of UMD), and more likely to have their core discussion network on campus (53.8% of ENGR vs. 33.3% of UMD) ($p < .01$).

- Similar to other faculty at UMD, most ENGR faculty respondents perceived that their professional network was helpful in a number of areas, including influence, visibility, and feedback.
- ENGR women faculty were less likely than ENGR men faculty to feel that they have a voice in decision-making in their unit.
- ENGR Faculty of Color were less likely than ENGR White faculty to have a voice in decision-making in their unit.
- There were no differences by rank in ENGR respondents' perceptions of professional networks and institutional support for professional networks.

Table 3. Respondent Assessment of Professional Networks and Institutional Support for Professional Networks

Survey Item		ENGR % Agree/ Strongly Agree	UMD % Agree/ Strongly Agree
Professional Networks	My core discussion network enhances my visibility in my field.	78.1	79.3
	My core discussion network lets me know of professional opportunities.	68.8	71.4
	My core discussion network includes one or more members who are influential in my field.*	75.0	84.1
	My core discussion network provides helpful feedback on my research. **	62.5	80.9
Support of Professional Networks	I have relationships with other faculty on campus that have supported my career advancement.	72.7	65.3
	I receive useful feedback from colleagues at UMD that improves my work.	65.2	58.3
	Individuals at this institution have made an effort to connect me with important people in my field.	54.5	35.6
	I have been effectively mentored by someone in my unit.*	56.1	40.5
	I am satisfied with the opportunity I have to collaborate with other UMD faculty. *	69.7	55.8
	I am satisfied with the collegiality in my unit. **	74.2	63.3
	I feel isolated in my department. **	10.6	21.6
	I have a voice in decision-making in my unit.	69.7	64.0

Statistical differences between ENGR and UMD respondents at *** $p < .001$, ** $p < .01$, * $p < .05$.

Recognition

KEY FINDINGS

- About two thirds of ENGR respondents feel recognition for their teaching (61.5%) and research contributions (73.8%).
- About half of ENGR respondents feel recognition for their service contributions (56.9%), and perceive that other faculty care about their personal well-being (55.4%).
- There were no statistical differences between ENGR and UMD respondents overall in their perception of recognition in their unit and at UMD.
- ENGR Faculty of Color were less likely than ENGR White faculty to perceive that faculty in their unit care about their personal well-being.
- There were no differences by gender or rank in ENGR respondents' perceptions of recognition.

Table 4. Respondent Perceptions of Recognition

Survey Item	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Faculty in my unit value my teaching contributions.	61.5	64.2
Faculty in my unit value my research/scholarship.	73.8	71.1
Faculty in my unit value my service contributions.	56.9	63.5
Faculty in my unit care about my personal well-being.	55.4	61.4
Over the last three years, have you ever been nominated by someone at UMD for an award? [% Yes]	41.3	33.7

There were no statistical differences between ENGR and UMD respondents at *p<05.

Diversity and Inclusion

KEY FINDINGS

- The majority of ENGR faculty perceive that their unit makes genuine efforts to recruit female faculty (83.1%) and Faculty of Color (75.0%).
- Less than a third of ENGR respondents agree that they have to work harder than some of their colleagues to be perceived as a legitimate scholar (27.7%), and that they have experienced discrimination in their unit based on their individual or multiple identities (16.9%).
- ENGR respondents were more likely than UMD respondents overall to agree that the opportunities for female faculty at UMD are at least as good as those for male faculty (63.1% of ENGR vs. 50.5% of UMD), and that the opportunities for Faculty of Color at UMD are at least as good as those for White faculty (60.0% for ENGR vs. 46.5% for UMD).
- ENGR women faculty were less likely than ENGR men faculty to be satisfied with diversity and inclusion. ENGR women faculty were less likely than ENGR men faculty to agree that the opportunities for female faculty and Faculty of Color at UMD are at least as good as those for male and ENGR White faculty, and more likely to agree that they have to work harder than some of their colleagues to be perceived as a legitimate scholar. ENGR women faculty were also more likely than ENGR men faculty to have experienced discrimination in their unit based on their individual or multiple identities.
- ENGR Faculty of Color were less likely than ENGR White faculty to agree that the opportunities for Faculty of Color at UMD are at least as good as those for White faculty. ENGR Faculty of Color were also more likely than ENGR White faculty to indicate that they have to work harder than some of their colleagues to be perceived as a legitimate

scholar, and that they have experienced discrimination in their unit based on their individual or multiple identities.

- There were no differences by rank in ENGR respondents' perceptions of diversity and inclusion at UMD.

Table 5. Faculty Perceptions of Diversity and Inclusion at UMD

Survey Item	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
The opportunities for female faculty at UMD are at least as good as those for male faculty. *	63.1	50.5
The opportunities for Faculty of Color at UMD are at least as good as for those for White faculty. **	60.0	46.5
I have to work harder than some of my colleagues to be perceived as a legitimate scholar.	27.7	33.8
I have experienced discrimination in my unit based on my individual or multiple identities.	16.9	22.6
My unit makes genuine efforts to recruit female faculty.	83.1	74.6
My unit makes genuine efforts to recruit Faculty of Color.	75.0	67.9

Statistical differences between ENGR and UMD respondents at *** $p < .001$, ** $p < .01$, * $p < .05$.

Examples of open-ended comments include:

“I notice subtle differences in how younger (male) colleagues respond to me and to male faculty of similar rank and age; they show more deference and honor to the men.”

“Being at a UMD dinner and having a male full professor shaking the hand of 3 junior male faculty, but not mine. It is very hard to be included in a conversation, when often male faculty assume that we are simply standing there because it looks good to hire a woman occasionally.”

“Watching the female faculty in my department take notes in more than 80% of our faculty meetings, despite the fact that the majority of the department is composed by male faculty.”

Work-Life Integration

KEY FINDINGS:

- About a third of the respondents agree that there are role-models in their unit for how to create a satisfying work-life balance, and that the institution does what it can to make family life and the tenure track compatible.
- Over half of ENGR respondents are satisfied with their unit's culture around work-life balance, and agree that there is no bias against family care-giving in their unit and their unit supports faculty scheduling work commitments around family schedules.
- About two thirds of ENGR respondents agreed that they have taken strategic steps toward creating a satisfactory work-life balance, they have control over creating a satisfying work-life balance, and that in their unit faculty can be honest with colleagues about family/life roles and responsibilities.
- There were no significant differences between ENGR and UMD respondents overall in their perception of work-life integration.
- There were a few work-life integration differences by gender: ENGR women faculty were less likely than ENGR men faculty to agree that they have taken strategic steps toward creating a satisfactory work-life balance, less likely to be satisfied with their unit's culture around work-life balance, and more likely to perceive bias against family care-giving in their unit. However, ENGR women faculty were more likely than ENGR men faculty to agree their unit supports faculty scheduling work commitments around family schedules.
- There were no differences by race or rank in ENGR respondents' perceptions of work-life integration at UMD.

Table 6. Perceptions of Work-life Integration at UMD

Survey Item	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
I have taken strategic steps toward creating a satisfactory work-life balance.	69.7	65.5
In general, I feel I have control over creating a satisfying work-life balance.	62.1	55.6
I am satisfied with my unit's culture around work-life balance.	56.1	51.7
There are role-models in my unit of how to create a satisfying work-life balance.	32.3	35.6
The institution does what it can to make family life and the tenure track compatible.	34.8	34.7
My unit supports faculty scheduling work commitments around family schedules.	51.5	55.9
In my unit, faculty can be honest with colleagues about family/life roles and responsibilities.	66.2	60.2
There is NO bias against family care-giving in my unit.	53.0	49.7

There were no statistical differences between ENGR and UMD respondents at * $p < 0.05$.

Examples of open-ended comments include:

“Encourage and support parental leave for male faculty also.”

“I think things are much better than when I started but it still feels like a 60 hour week is slacking and that makes work-life balance difficult.”

“By and large, I feel that work-life balance is a big deal, and sometimes a big problem, but also that it is primarily up to myself to find it (and that's not a bad thing).”

“Transparent and comprehensive (teach research service) workload accountability. It's easier to say no to preserve work life balance if it's clear that we are already exceeding expectations. People who are not meeting expectations could be identified and engaged instead of those of us who already do too much.”

Career Advancement and Institutional Support of Career Advancement

KEY FINDINGS

ENGR respondents were generally more satisfied than UMD faculty overall with their experiences with career advancement and institutional support of career advancement.

- 25.8% of ENGR respondents had concerns about their own advancement.
- The majority of ENGR respondents indicated that they seize opportunities when they are presented to them to advance in their career (81.8%), and that they have intentionally made choices to focus their career in ways that are personally meaningful to them (86.4%).
- ENGR respondents were less likely than UMD faculty overall to feel stuck in their ability to advance in their career (13.6% of ENGR vs. 20.4% of UMD).
- ENGR respondents were more likely than UMD faculty overall to agree that faculty in their unit have the freedom to succeed here if they work hard (80.0% of ENGR vs. 69.5% of UMD).
- ENGR respondents were more likely than UMD respondents overall to perceive clear requirements and fair processes for tenure and for advancing to Full Professor.
- ENGR women faculty were less likely than ENGR men faculty to have been strategic in achieving their career goals, and less likely to perceive the promotion requirements for advancing to Full Professor in their unit as clear.
- ENGR Faculty of Color were more likely than ENGR White faculty to feel stuck in their ability to advance in their career, and less likely to feel control over their career advancement.
- Associate Professors were more likely than Assistant or Full Professors to feel stuck in their ability to advance in their career.

- Assistant Professors were more likely than Full Professors to have received helpful feedback from their department chair/unit head in support of their career advancement.
- Associate Professors were less likely than Full Professors to perceive the promotion requirements for advancing to Full Professor in their unit as clear.
- Associate Professors were more likely than Assistant Professors to have concerns about their opportunities for career advancement at UMD.

Table 7. Career Advancement and Institutional Support of Career Advancement

Survey Item		ENGR % Agree/ Strongly Agree	UMD % Agree/ Strongly Agree
Career Advancement	I have been strategic in achieving my career goals.	68.2	70.0
	I seize opportunities when they are presented to me to advance in my career.	81.8	80.1
	I feel stuck in my ability to advance in my career. *	13.6	20.4
	I have intentionally made choices to focus my career in ways that are personally meaningful to me.	86.4	85.6
	In general, I feel that I have little control over whether I advance in my career.	12.1	15.2
Support of Career Advancement	Faculty in my unit have the freedom to succeed here if they work hard. *	80.0	69.5
	I have received helpful feedback from my department chair/unit head in support of my career advancement.	63.6	51.3
	In my unit, the tenure requirements are clear. **	80.3	67.2
	In my unit, the promotion requirements for advancing to Full Professor are clear.	53.8	52.0
	In my unit, the tenure process is fair. **	78.5	69.7
	In my unit, the promotion process for advancing to Full Professor is fair. *	62.5	56.2

Statistical differences between ENGR and UMD respondents at *** $p < .001$, ** $p < .01$, * $p < .05$.

Examples of open-ended comments include:

“I am concerned about getting funding to support my work, due to the competitive nature of funding.”

“I believe that my chances to advance to Full Professor are limited, given choices that I have made to devote time and energy to teaching, extracurricular student project teams, and involvement/leadership in [an association].”

“The administrative and teaching burden on faculty has steadily increased due to state budget constraints. This has significantly diminished the time that faculty have to allocate to scholarly pursuits.”

Evaluation of Research and Creative Work**KEY FINDINGS**

- About half of ENGR respondents agree that interdisciplinary and engaged scholarship, collaborative research and grant work are rewarded in their unit.
- There were no significant differences between ENGR and UMD respondents overall in their perception of the evaluation of research and creative work.
- There were no differences by gender, rank or race in ENGR respondents’ perception of the evaluation of research and creative work.

Table 8. Respondent Perceptions of the Evaluation of Research and Creative Work

Survey Item	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Interdisciplinary scholarship is rewarded in my unit.	54.0	55.3
Engaged scholarship is rewarded in my unit.	54.7	51.5
Collaborative research and grant work is encouraged in our unit's reward system.	50.8	55.5
In our unit faculty are rewarded for taking risks and trying to be cutting edge in their research.	49.2	44.4

There were no statistical differences between ENGR and UMD respondents at *p<05.

Fair and Manageable Workload

KEY FINDINGS

- About two thirds of ENGR respondents (60.6%) agree that managing their teaching responsibilities is largely under their control, and that it is possible for them to say no to additional on-campus service activities without negative consequences.
- The majority of ENGR respondents agree that their research agenda is largely under their control (89.4%).
- ENGR respondents were more likely than UMD respondents overall to feel in control of their participation in service activities (65.2% of ENGR vs. 52.9% of UMD), and ENGR respondents were more likely to perceive the distribution of campus service work in their department as fair (80.0% of ENGR vs. 63.9% of UMD).
- Associate Professors were less likely than Assistant Professors to perceive support in their department for effective teaching.
- There were no differences by gender or race in ENGR respondents' perceptions of fair and manageable workload.

Table 9. Respondent Perception of Fair and Manageable Workload

Survey Item	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
Managing my teaching responsibilities is largely under my control.	60.6	68.6
There is support in my department for effective teaching.	40.9	52.2
I feel in control of my participation in service activities. **	65.2	52.9
It is possible for me to say no to additional on-campus service activities without negative consequences.	60.6	52.1
My research agenda is largely under my control.	89.4	88.7

Statistical differences between ENGR and UMD respondents at ***p<.001, **p<.01, *p<.05.

Examples of open-ended comments include:

“More dependable members get tasked more frequently.”

“Certain high-visibility researchers are not asked to do as much service -- or a better at saying No.”

“In principle, we have rotations and some transparency, but in actuality, certain people who have demonstrated their ability to do certain tasks are generally re-assigned those tasks...”

“We do not have such practices and for good reason: it is not realistic to expect everyone to be good at everything. Rather, tasks are distributed based on who is good at what and who agrees to do it. Service is NOT forced on anyone but some of us do more of it because we know it has to be done and that we are the best people to do it.”

Leadership Opportunities**KEY FINDINGS**

- 34.8% of ENGR respondents agreed that they have been encouraged at least once during the past twelve months to pursue a leadership position.
- ENGR respondents were more likely than UMD respondents overall to agree that there are opportunities in their college for faculty to become involved as leaders (70.3% of ENGR vs. 59.3% of UMD).
- ENGR Faculty of Color were less likely than ENGR White faculty to believe that there are opportunities in their college for faculty to become involved as leaders.
- There were no differences by gender or rank in ENGR respondents' perceptions of leadership opportunities.

Table 10. Respondent Perceptions Regarding Leadership

Survey Item	ENGR % Agree / Strongly Agree	UMD % Agree / Strongly Agree
There are opportunities in my college for faculty to become involved as leaders. *	70.3	59.3
During the past twelve months, how many times have you been encouraged to pursue any leadership positions? [% at least once]	34.8	40.3

Statistical differences between ENGR and UMD respondents at *** $p < .001$, ** $p < .01$, * $p < .05$.

Satisfaction with Resources and Conditions at UMD

KEY FINDINGS

- Most ENGR respondents were satisfied with their amount of autonomy (83.1%), their overall experience with their unit (76.9%), and the University's location (70.8%).
- The fewest number of ENGR respondents were satisfied with professional assistance for improving teaching (36.9%), the amount of access to TAs and RAs (40.0%), and assistance with finding grants (41.5%).
- ENGR respondents were more likely than UMD respondents overall to be satisfied with the assistance with research administration in their unit (67.2% of ENGR vs. 42.7% of UMD), priorities and vision of their college (47.7% of ENGR vs. 40.6% of UMD), and their overall experience working in their unit (76.9% of ENGR vs. 68.1% of UMD).
- ENGR respondents were less likely than UMD respondents overall to be satisfied with professional assistance for improving teaching (36.9% of ENGR vs. 45.7% of UMD).
- ENGR women faculty were less likely than ENGR men faculty to be satisfied with the amount of time they spend on research versus teaching and service.
- ENGR Faculty of Color were less likely than ENGR White faculty to be satisfied with the support of colleagues.

- Assistant Professors were more likely than Full Professors to be satisfied with assistance with finding grants and clerical/administrative support.

Table 11. Percentage of Respondents 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	83.1	76.3
My overall experience working in my unit **	76.9	68.1
The diversity on campus	69.2	66.9
The support of colleagues here	67.7	64.2
My overall experience working at UMD	69.2	63.0
The University's location	70.8	62.8
The quality of graduate students in my program	57.1	59.4
My unit's national reputation	56.9	58.7
The sense of fit between my values and those of my unit	64.6	57.8
The University's national reputation	50.8	55.6
The quality of undergraduate students	63.1	53.4
The quality of campus facilities	46.2	50.5
The transparency of decision-making within my unit	56.9	49.4
Clerical/administrative support	56.9	47.8
Professional assistance for improving teaching *	36.9	45.7
Expectations for committee service	46.2	44.7
The amount of time I spend on research vs. teaching & service	47.7	43.1
Assistance with research administration in my unit ***	67.2	42.7
My salary and benefits	46.2	42.4
Priorities and vision of my college/school *	47.7	40.6
Amount of access to TAs, RAs	40.0	39.1
Assistance with finding grants	41.5	35.0

Statistical differences between ENGR and UMD respondents at ***p<.001, **p<.01, *p<.05.

Organizational Commitment and Intent to Leave

KEY FINDINGS:

- ENGR respondents were less likely than UMD respondents overall to indicate the intent to leave the university; 16.1% of ENGR respondents vs. 27.6% of UMD respondents overall said they were likely to leave the university in the next two years ($p < .01$).
- The most frequent reasons ENGR respondents listed for intending to leave UMD were for a higher salary (18.2%), retirement (12.1%), and for an offer from a more prestigious department or institution (10.1%).
- 4.7% of ENGR respondents (vs. 8.8% of UMD respondents) said they were likely to leave the academic profession in the next two years.
- 45.3% of ENGR respondents (vs. 46.4% of UMD respondents) had an outside offer while at UMD; of those who had an outside offer while at UMD, 55.2% had an outside offer in the last 5 years.
- Among those individuals who had an outside offer while at UMD, 32.1% said that the offer resulted in a salary increase; and among those individuals who had an outside offer in the last 5 years, 40.0% said that the offer resulted in a salary increase.
- ENGR respondents were less likely than UMD respondents overall to have at least one faculty member who left their unit in the past three years (69.4% of ENGR vs. 82.6% of UMD) ($p < .01$).
- If one or more colleagues left their unit in the last 3 years, the most frequent reasons included a higher salary (21.1%), an offer from a more prestigious department or institution (10.6%), and retirement (10.6%).
- ENGR women faculty were less likely than ENGR men faculty to indicate their intent to leave the academic profession in the next two years. If they intended to leave, they would be more likely than ENGR men to do so to be closer to family.

- Full Professors were more likely than Assistant Professors to have had an outside offer while at UMD, and to have been encouraged during the past twelve months by anyone at UMD to pursue a leadership position.
- There were no differences by race in organizational commitment and intent to leave UMD.

Table 12. Respondents' Reasons for Intending to Leave UMD or the Academic Profession

If you are likely to leave the University or the academic profession in the next two years, what would be the primary reasons? [Please check one primary reason]	ENGR % Selected	UMD % Selected
An offer with a higher salary	18.2	20.6
An offer from a more prestigious department or institution	10.6	14.3
Retirement	12.1	11.0
Other	12.1	7.1
Lack of collegiality in my unit	1.5	4.3
To be closer to family	3.0	4.3
An offer from an institution in a more desirable geographic location	4.5	4.2
Potential for better work-life balance in a different type of position	1.5	3.5
Career opportunities at another institution for my spouse/partner	3.0	2.3
An offer for a position outside academe	1.5	1.9
Poor likelihood of tenure/promotion or contract renewal	1.5	1.4
Better work-life policies	3.0	1.1
I'm not well suited to the faculty career	0	<1.0
Better campus climate for Faculty of Color at another institution	0	<1.0
Better campus climate for women at another institution	0	<1.0
Better campus climate for GLTBQ faculty at another institution	0	0

There were no statistical differences between ENGR and UMD respondents at *p<05.

Table 13. Colleague's Reasons for Leaving UMD

Considering the most recent case of departure, what was the primary reason that he or she left UMD? [please check one]	ENGR % Selected	UMD % Selected
An offer with a higher salary	21.2	18.1
An offer from a more prestigious department or institution	10.6	12.3
Retirement	10.6	12.1
Poor likelihood of tenure/promotion or contract renewal	3.0	8.2
Other	7.6	7.3
To be closer to family	0	4.7
Lack of collegiality in my unit	0	3.9
An offer from an institution in a more desirable geographic location	6.1	3.2
Faculty member not well suited to the faculty career	0	2.6
Career opportunities at another institution for my spouse/partner	1.5	1.9
Potential for better work-life balance in a different type of position	0	1.8
An offer for a position outside academe	0	1.3
Better work-life policies	1.5	<1.0
Better campus climate for GLTBQ faculty at another institution	1.5	<1.0
Better campus climate for women at another institution	0	<1.0
Better campus climate for Faculty of Color at another institution	0	<1.0

There were no statistical differences between ENGR and UMD respondents at *p<05.

Perceptions of Productivity

KEY FINDINGS

- 53.1% of ENGR respondents ranked themselves as more productive than researchers of their rank nationwide.
- 12.5% of ENGR respondents ranked themselves as less productive than researchers of their rank nationwide.
- 46.0% of ENGR respondents believed their unit views them as more productive than researchers of their rank nationwide.

- 17.5% of ENGR respondents believed their unit views them as less productive than researchers of their rank nationwide.
- ENGR women faculty were less likely than ENGR men faculty to rate their research/scholarly productivity as high, and to perceive their unit's positive views of their overall level of research/scholarly productivity.
- There were no differences by race or rank in ENGR respondents' perceptions of productivity.

Examples of open-ended comments include:

“Provide more financial support for teaching and administrative duties.”

“Recruit excellent PhD students. Ultimately, the quality and quantity of my research depends on them.”

“More TA support.”

ENGR Differences by Gender: Summary

KEY FINDINGS

In many areas of the survey, ENGR tenure-track/tenured faculty responses differed significantly by gender ($p < .05$). ENGR women faculty were generally less satisfied than ENGR men faculty on faculty learning and institutional support for learning, institutional support for professional networks, career advancement and institutional support of career advancement, work-life integration, diversity and inclusion, resources and conditions at UMD, productivity, and intent to leave.

- ENGR women faculty were less likely than ENGR men faculty to agree that the University provides an environment that stimulates their academic learning.

- ENGR women faculty were less likely than ENGR men faculty to feel that they have a voice in decision-making in their unit.
- ENGR women faculty were less likely than ENGR men faculty to have been strategic in achieving their career goals, and less likely to perceive the promotion requirements for advancing to Full Professor in their unit as clear.
- ENGR women faculty were less likely than ENGR men faculty to agree that they have taken strategic steps toward creating a satisfactory work-life balance, less likely to be satisfied with their unit's culture around work-life balance, and more likely to perceive bias against family care-giving in their unit. However, ENGR women faculty were more likely than ENGR men faculty to agree their unit supports faculty scheduling work commitments around family schedules.
- ENGR women faculty were less likely than ENGR men faculty to be satisfied with the amount of time they spend on research versus teaching and service.
- ENGR women faculty were less likely than ENGR men faculty to be satisfied with diversity and inclusion aspects in their work. ENGR women faculty were less likely than ENGR men faculty to agree that the opportunities for female faculty and Faculty of Color at UMD are at least as good as those for male and White faculty, and more likely to agree that they have to work harder than some of their colleagues to be perceived as a legitimate scholar, or that they have experienced discrimination in their unit based on their individual or multiple identities.
- ENGR women faculty were less likely than ENGR men faculty to indicate their intent to leave the academic profession in the next two years. If ENGR women faculty intended to leave the academic profession, they would be more likely than ENGR men to do so to be closer to family.

- ENGR women faculty were less likely than ENGR men faculty to rate their research/scholarly productivity as high, and to perceive their unit's positive views of their overall level of research/scholarly productivity.

Table 14. Survey Items that Showed Statistically Significant Differences in ENGR Responses by Gender

Survey Item	Women		Men		p-value
	M	SD	M	SD	
The University provides an environment that stimulates my academic learning. *	2.88	0.93	3.53	1.19	.046
I have a voice in decision-making in my unit. *	3.24	1.20	3.94	0.94	.016
I have been strategic in achieving my career goals. *	3.29	0.85	3.94	0.88	.011
In my unit, the promotion requirements for advancing to Full Professor are clear. *	3.13	0.96	3.73	1.02	.039
I have taken strategic steps toward creating a satisfactory work-life balance. *	3.35	1.06	3.92	0.84	.029
I am satisfied with my unit's culture around work-life balance. *	3.12	1.17	3.63	0.78	.045
My unit supports faculty scheduling work commitments around family schedules. *	3.94	0.90	3.47	0.79	.045
There is NO bias against family care-giving in my unit.*	3.18	1.01	3.69	0.80	.036
I am satisfied with the amount of time I spend on research versus teaching and service. **	2.59	1.06	3.44	1.05	.006
The opportunities for female faculty at UMD are at least as good as those for male faculty. *	3.24	1.25	3.90	0.95	.027
The opportunities for Faculty of Color at UMD are at least as good as for those for White faculty. **	3.18	0.73	3.92	1.05	.009
I have to work harder than some of my colleagues to be perceived as a legitimate scholar. ***	3.82	0.95	2.48	1.09	<.001
I have experienced discrimination (either overt or subtle) in my unit based on my individual or multiple identities.***	3.12	1.11	1.88	1.18	<.001

To what extent are you likely to leave the academic profession in the next two years? *	3.71	0.47	3.38	0.61	.032
How would you rate your overall research/scholarly productivity compared to scholars of your rank nationwide? ***	2.71	0.77	3.89	1.05	<.001
How do you think your unit views your overall level of research/scholarly productivity, compared to researchers/scholars of your rank nationwide? **	2.76	0.75	3.70	1.17	.001
To be closer to family: If you are likely to leave the University or the academic profession in the next two years, what would be the primary reason? *	11.8%		0%		.015

Notes: Coding: Strongly Agree = 5; Strongly Disagree = 1; Definitely will (leave) = 1; Likely = 2; Not Likely = 3; Definitely will not = 4; 1 = Much less productive, 2 = Slightly less productive, 3 = About the same, 4 = Slightly more productive, 5 = Much more productive; ***p<.001, **p<.01, *p<.05.

ENGR Differences by Race: Summary

KEY FINDINGS

In most areas of the survey, ENGR tenure-track/tenured faculty responses did not differ significantly by race ($p<.05$). However, there were several important differences. Faculty of Color were less satisfied than ENGR White faculty on institutional support for professional networks, career advancement, diversity and inclusion, resources and conditions at UMD, recognition, and leadership opportunities.

- ENGR Faculty of Color were less likely than ENGR White faculty to feel that they have a voice in decision-making in their unit.
- ENGR Faculty of Color were more likely than ENGR White faculty to feel stuck in their ability to advance in their career, and less likely to feel control over their career advancement.
- ENGR Faculty of Color were less likely than ENGR White faculty to be satisfied with the support of colleagues.
- ENGR Faculty of Color were less likely than ENGR White faculty to agree that the opportunities for Faculty of Color at UMD are at least as good as for those for White

faculty. ENGR Faculty of Color were also more likely than ENGR White faculty to indicate that they have to work harder than some of their colleagues to be perceived as a legitimate scholar, and that they have experienced discrimination in their unit based on their individual or multiple identities.

- ENGR Faculty of Color were less likely than ENGR White faculty to perceive that faculty in their unit care about their personal well-being.
- ENGR Faculty of Color were less likely than ENGR White faculty to believe that there are opportunities in their college for faculty to become involved as leaders.

Table 15. Survey Items that Showed Statistically Significant Differences in ENGR Responses by Race

Survey Item	White		Faculty of Color		p-value
	M	SD	M	SD	
I have a voice in decision-making in my unit. *	3.94	0.89	3.19	1.33	.047
I feel stuck in my ability to advance in my career.*	2.02	1.10	2.75	1.00	.021
In general, I feel that I have little control over whether I advance in my career. **	1.82	0.92	2.69	1.08	.002
I am satisfied with the support of colleagues here.*	4.00	0.90	3.40	0.74	.022
The opportunities for Faculty of Color at UMD are at least as good as for those for White faculty.*	3.86	0.97	3.27	1.10	.048
I have to work harder than some of my colleagues to be perceived as a legitimate scholar. **	2.56	1.07	3.73	1.22	.001
I have experienced discrimination (either overt or subtle) in my unit based on my individual or multiple identities. *	2.02	1.24	2.80	1.26	.037
Faculty in my unit care about my personal well-being. *	3.74	0.92	3.20	0.77	.044
There are opportunities in my college for faculty to become involved as leaders. *	3.94	0.92	3.40	0.63	.039

Notes: Coding: Strongly Agree = 5; Strongly Disagree = 1; Definitely will (leave) = 1; Likely = 2; Not Likely = 3; Definitely will not = 4; 1 = Much less productive, 2 = Slightly less productive, 3 = About the same, 4 = Slightly more productive, 5 = Much more productive; ***p<.001, **p<.01, *p<.05.

ENGR Differences by Rank: Summary

KEY FINDINGS

In most areas of the survey, ENGR tenure-track/tenured faculty responses did not differ significantly by rank ($p < .05$). However, there were several important differences.

- Assistant Professors were more likely than Associate or Full Professors to agree that in the last twelve months, their learning has contributed to their research and/or scholarly agenda and has made them a better teacher.
- Assistant Professors were more likely than Associate Professors to agree that in the last twelve months, they set aside time to advance their scholarly learning.
- Assistant Professors were more likely than Full Professors to agree that their unit supports their learning external to campus.
- Assistant Professors were more likely than Full Professors to agree that their unit has helped them to make room among their responsibilities for immersing themselves in their academic learning.
- Assistant Professors were more likely than Associate or Full Professors to agree that their unit has financially supported their learning in their field or discipline.
- Associate Professors were more likely than Assistant or Full Professors to feel stuck in their ability to advance in their career.
- Assistant Professors were more likely than Full Professors to have received helpful feedback from their department chair/unit head in support of their career advancement.
- Associate Professors were less likely than Full Professors to perceive the promotion requirements for advancing to Full Professor in their unit as clear.
- Associate Professors were less likely than Assistant Professors to perceive support in their department for effective teaching.

- Assistant Professors were more likely than Full Professors to be satisfied with assistance with finding grants and clerical/administrative support.
- Associate Professors were more likely than Assistant Professors to have concerns about their opportunities for career advancement at UMD.
- Full Professors were more likely than Assistant Professors to have had an outside offer while at UMD, and to have been encouraged during the past twelve months by anyone at UMD to pursue a leadership position.

Table 16. Survey Items that Showed Statistically Significant Differences in ENGR Responses by Rank

Survey Item	Assistant		Associate		Full		p-value
	M	SD	M	SD	M	SD	
In the last twelve months, I have learned a great deal that contributes to my research and/or scholarly agenda.	4.41**	0.87	3.21**	1.05	3.71*	0.99	.004
In the last twelve months, I set aside time to advance my scholarly learning.	4.12*	0.70	3.07*	1.14	3.43	1.24	.019
In the last twelve months, I have gained knowledge or skills that have made me a better teacher.	4.29*	0.59	3.43*	1.02	3.49*	1.09	.009
My unit supports my learning external to campus.	4.29*	0.77	3.79	0.89	3.40*	1.06	.010
My unit has helped me to make room among my responsibilities for immersing myself in my academic learning.	3.88*	1.05	3.50	1.02	3.00*	1.14	.025
My unit has financially supported my learning in my field or discipline.	3.88*	1.27	2.64*	3.34	1.97***	1.17	<.001
I feel stuck in my ability to advance in my career.	1.76**	0.66	3.00**	1.30	2.09*	1.07	.007
I have received helpful feedback from my department chair/unit head in support of my career advancement.	4.35**	0.70	3.57	0.86	3.26**	1.38	.001
In my unit, the promotion requirements for advancing to Full Professor are clear.	3.44	0.89	3.07*	0.92	3.86*	1.06	.041
There is support in my department for effective teaching.	3.82*	0.88	2.86*	0.86	3.06	1.28	.033
I am satisfied with assistance with finding grants.	3.88**	0.78	3.21	0.97	2.79**	1.04	.002
I am satisfied with clerical/administrative support.	4.00*	0.93	3.64	0.74	3.12*	1.17	.017
Do you have any concerns about your own opportunities to advance in your career at UMD?	11.8%*		50.0%*		22.9%		.045
Have you ever had an outside offer while at UMD?	12.5%**		35.7%		64.7%**		.002
During the past twelve months, how many times have you been encouraged, by anyone at UMD, to pursue leadership positions? (% at least once)	11.8%*		28.6%		48.6%*		.028

Notes: Coding: Strongly Agree = 5; Strongly Disagree = 1; Definitely will (leave) = 1; Likely = 2; Not Likely = 3; Definitely will not = 4;

1 = Much less productive, 2 = Slightly less productive, 3 = About the same, 4 = Slightly more productive, 5 = Much more productive; ***p<.001, **p<.01, *p<.05.

Comparison of ENGR Faculty Work Environment Data by Year on Select Items

Survey Findings from the A. James Clark School of Engineering	2011	2013	2015
	% Agree/Strongly Agree		
Faculty Learning and Institutional Support for Learning			
The University provides an environment that stimulates my academic learning.	49%	59.3%	57.6%
Professional Networks and Institutional Support of Professional Networks			
I feel isolated in my department.	17%	16.3%	10.6%
I am satisfied with the collegiality in my unit.	49%	69.8%	74.2%
I am satisfied with the opportunity to collaborate with other UMD faculty.	55%	74.7%	69.7%
Diversity and Inclusion			
The opportunities for female faculty at UMD are at least as good as those for male faculty.	74%	75.6%	63.1%
The opportunities for Faculty of Color at UMD are at least as good as those for White faculty.	67%	77.1%	60.0%
I have experienced discrimination in my unit based on my individual or multiple identities.	17%	16.9%	16.9%
Work-Life Integration			
I am satisfied with my unit's culture around work-life balance.	48%	59.5%	56.1%
The institution does what it can to make family life and the tenure track compatible.	33%	45.2%	34.8%
Career Advancement and Institutional Support of Career Advancement			
In my unit, the tenure requirements are clear.	59%	77.9%	80.3%
In my unit, the promotion requirements for advancing to Full Professor are clear.	55%	64.0%	53.8%
In my unit, the tenure process is fair.	68%	81.2%	78.5%
In my unit, the promotion process for advancing to Full Professor is fair.	56%	74.1%	62.5%
I have concerns about my own career advancement at UMD.	43%	25.0%	25.8%
Fair and Manageable Workload			
I feel in control of my participation in service activities.	60%	65.1%	65.2%
There is support in my department for effective teaching.	32%	48.8%	40.9%
It is possible for me to say no to additional on-campus service activities without negative consequences.	62%	48.8%	60.6%
I am satisfied with the amount of time spent on research versus teaching and service.	58%	58.3%	47.7%
Satisfaction with Resources and Conditions at UMD			
I am satisfied with my overall experience working at UM.	68%	70.2%	69.2%
I am satisfied with my overall experience working in my unit.	72%	81.0%	76.9%
I am likely to leave the university in the next two years.	27%	19.3%	16.1%

Note: in 2011, 28% of ENGR tenure track faculty responded to the FWES, in 2013 40.5%, and in 2015, 30%.