

## Introduction

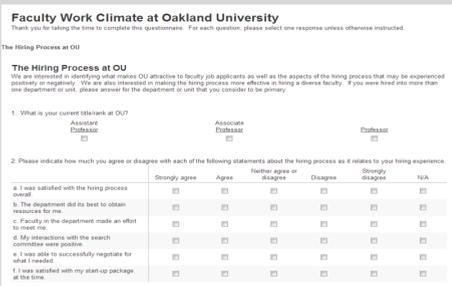
The Women in Science and Engineering Program at Oakland University (WISE@OU) is focused on an accelerated “institutional transformation” fact-finding endeavor. The leadership team is collecting data as a prelude to the development of optimal recruitment, retention and dissemination initiatives in the subsequent years of the grant.

### Climate Survey

- WISE@OU crafted a comprehensive faculty climate survey to gather initial input about the department and work environment on campus.
- The survey was modeled after previous ADVANCE-funded surveys from other institutions<sup>1</sup>.
- The survey was distributed via e-mail to all faculty in the College of Arts and Sciences and the School of Engineering and Computer Science. There was a 54% response rate, with 180 surveys completed.

### Qualtrics

- Qualtrics was the online survey and analysis research suite used to create and distribute the climate survey<sup>2</sup>.
- Faculty were provided with a secure link to the survey and all responses were kept anonymous.



## Initial Survey Analysis

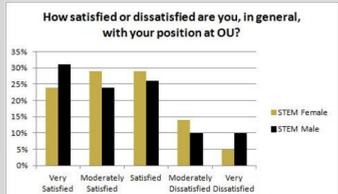
The WISE@OU team used the Report and Cross Tabulation tools in Qualtrics to view and analyze the results.

### Qualtrics Cross Tab

The first four rows in the table below represent male faculty responses, while the last four rows represent female faculty responses.

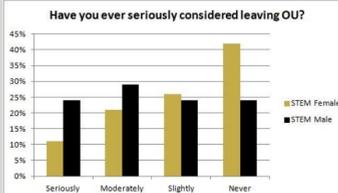
|   | 2. Please indicate how much you agree or disagree with each of the following statements about the hiring process overall. |           |                           |          |                   |          | Total      |
|---|---|-----------|---------------------------|----------|-------------------|----------|------------|
|   | Strongly agree  | Agree     | Neither agree or disagree | Disagree | Strongly disagree | N/A      |            |
| School of Engineering and Computer Science  | 5   | 7         | 3                         | 0        | 0                 | 0        | 15         |
| CAS Group 1 (Biological Sciences, Chemistry, Mathematics and Statistics, Physics) | 7   | 17        | 2                         | 0        | 1                 | 0        | 27         |
| CAS Group 2 (Social Sciences)   | 6   | 10        | 1                         | 0        | 1                 | 0        | 18         |
| CAS Group 3 (Humanities)  | 11  | 19        | 2                         | 1        | 0                 | 0        | 33         |
| School of Engineering and Computer Science  | 3   | 3         | 0                         | 2        | 1                 | 0        | 9          |
| CAS Group 1 (Biological Sciences, Chemistry, Mathematics and Statistics, Physics) | 7   | 4         | 0                         | 1        | 0                 | 0        | 12         |
| CAS Group 2 (Social Sciences)   | 3   | 6         | 5                         | 2        | 0                 | 0        | 16         |
| CAS Group 3 (Humanities)  | 7   | 20        | 5                         | 3        | 0                 | 1        | 36         |
| <b>Total</b>  | <b>49</b>   | <b>86</b> | <b>18</b>                 | <b>9</b> | <b>3</b>          | <b>1</b> | <b>166</b> |

## Results of Survey Analysis



From the climate survey responses, STEM faculty were generally positive about their position at OU. Both male and female STEM faculty expressed similar rates of satisfaction.

However, faculty did respond that they had considered leaving OU. While the survey did not reveal identifiable issues in regards to career satisfaction, the focus groups explored this in depth and participants did express dissatisfaction with certain aspects of their position.



## Focus Groups

### WISE@OU Focus Groups

The leadership team used interpretive focus groups that allowed the participants to respond as “experts” addressing the issues at OU, instead of asking for personal experiences and stories that could make their comments identifiable. Special care was taken to protect the identities of untenured faculty in these groups including having facilitators from outside the STEM areas.

### Institutional Review Board (IRB)

Conditions of the IRB expedited review included preserving anonymity in the data and having the facilitators refrain from serving in any university-wide tenure and promotion committees for the duration of the grant. The focus group transcripts were only made available to the two facilitators and program assistant.

There were 7 focus groups, with 24 participants:

- STEM Female Assistant Professors (2 sessions)
- STEM Female Associate Professors (2 sessions)
- STEM Female Full Professors (1 session)
- Chairs of STEM Departments (all male, 1 session)
- Under-Represented Minority STEM Faculty (all male, 1 session)

### Facilitating a Focus Group Session

The facilitator began each session with a brief overview of WISE@OU. The focus groups were run using semi-structured interview questions which allowed participants to discuss issues they saw as the most important. The facilitator then addressed particular issues raised in the survey results. It was made clear to participants they did not have to share personal experiences but could comment in general on the climate at OU. Sessions were recorded on a digital voice recorder and the program assistant took notes identifying the speakers to aid the transcriptionist. This allowed for a clearer sense of who was speaking and when a speaker addressed topics in detail. The session recordings were typically 1 hour in length and the transcripts were 20 to 30 pages with speakers identified only by a code number.

## Analysis of Focus Group Sessions

### Dedoose

- Dedoose was the online qualitative research analysis software used to analyze the transcripts of the focus group sessions<sup>3</sup>.
- Transcripts were coded for frequency of topics and the importance given to the topic in the focus group. General themes based on the survey results were used to initially code the transcripts, with specific codes developing upon further analysis.
- Codes were marked as issues or solutions. Issues were then given a “strength ranking” that was dependent on two measures; the frequency that the topic was mentioned and importance of the topic to the participants. These two numbers were multiplied to give the issue a ranking.

### Issues Identified in Focus Groups

#### Primary Issues:

- Difficulties in combining motherhood and a career
- Burden of service work in promotion process
- Need more clarity and fairness in tenure process
- Workload and division of labor in the department
- Difficulty in getting grants and lab equipment
- Recruitment and the hiring process

#### Secondary Issues:

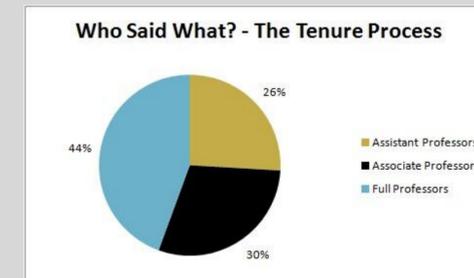
- Timing and pregnancy
- Department climate in general
- Facilities and labs
- Understanding the tenure clock

### Solutions Identified in Focus Groups

*Implemented suggestions are highlighted in color.*

- Tenure appeal process and tenure clock
- Climate/environment change
- **Maternity policy and child care**
- Mentoring
- Summer fellowship support
- Spousal/ partner support
- **Facilities**
- **Workshops**
- Provide more assistance within grants office
- **Training for recruitment**
- **Limited social activities**

## Focus Group Data



There's a complete lack of senior females in our area... It looks like a barrier if you're coming in from the outside...

- Female Assistant Professor

I think one thing they could do just for males and females in general is to mandate some sort of training, so that young faculty coming in don't get bogged down with the baggage of some of the senior people, and say, 'This is now the law. You can't ask this of a candidate.'

- Female Assistant Professor

## The Way Forward

The results of the climate survey and focus groups reveal what is important to STEM faculty, in particular the tenure and promotion processes and balancing family and work life. The WISE@OU team is working to determine how to address these issues with two areas being mentoring and policy changes that would help STEM faculty and their careers. The team has had success in one-on-one sessions that provide valuable information to new faculty.

## References

1. Sample surveys were taken from the ADVANCE portal – [www.portal.advance.vt.edu/index.php/tags/Climate-Study](http://www.portal.advance.vt.edu/index.php/tags/Climate-Study)
2. Qualtrics – [www.qualtrics.com](http://www.qualtrics.com)
3. Dedoose – [www.dedoose.com](http://www.dedoose.com)

## Contact Information

Visit our website at [www.oakland.edu/advance](http://www.oakland.edu/advance).  
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