# ADVANCEing STEM Careers for Women at MTSU 

Women in Higher Education in Tennessee<br>October 23, 2015

## Agenda

- Introduction to ADVANCE
- Goals of ADVANCE
- MTSU and ADVANCE
- Demographics
- Climate Survey and Focus Groups
- Questions


## What is ADVANCE?

- National Science Foundation program
- Established in 2001
- Awarded over \$130M
- Address institutional structure and culture
- Broaden participation of women STEM faculty


## Goals of the ADVANCE Program

- To develop systemic approaches to increase the representation and advancement of women in academic STEM careers
- To develop innovative and sustainable ways to promote gender equity in the STEM academic workforce
- To contribute to the development of a more diverse STEM workforce


## STEM Disciplines @ MTSU

- Aerospace
- Agribusiness \& Agriscience
- Biology
- Chemistry
- Computer Science
- Concrete Industry Management
- Economics \& Finance
- Engineering Technology
- Geosciences
- Mathematical Sciences
- Physics \& Astronomy
- Political Science
- Psychology
- Sociology \& Anthropology


## ADVANCE Programs

- Institutional Transformation: Catalyst
- Self-assessment
- Institutional Transformation
- Comprehensive change
- Research on gender equity
- PLAN (Partnerships for Learning and Adaptation Networks)
- Adaptation and implementation
- A Catalyst to ADVANCE the Participation and Advancement of Women in Academic STEM Careers at Middle Tennessee State University.


## Project Leadership Team

- Brad Bartel - PI
- Wandi Ding - Co-PI
- Jackie Eller - Co-PI
- Judith Iriarte-Gross - Co-PI
- Karen Petersen - Co-PI
- Michael Hein - Evaluator
- Gretchen Webber - Research Associate
- Denielle Meyerink - Graduate Assistant


## Advisory Boards

- Internal Advisory Board
- STEM faculty, chairs, administrators
- Female, male
- Junior, senior
- External Advisory Board
- State and national experts on advancement of women STEM faculty


## Institutional Transformation: Catalyst

- Third submission by MTSU
- Conduct self-assessment study and make recommendations for change
- Two-year grant
- Provides time to collect data and make recommendation for change


## MTSU ADVANCE Goal

- "Our overarching goal is to identify the barriers and then implement best practices for the recruitment, retention and promotion of women STEM faculty that will promote gender equity at MTSU."


## Self-assessment study at MTSU

- Identify barriers that affect recruitment, retention, participation and promotion of women STEM faculty
- Provide insight on the campus climate for women STEM faculty and administrators


## Answers to Specific Questions

- What is the distribution of STEM faculty by gender, rank and department?
- What are the outcomes of the tenure and promotion process for all STEM faculty?
- What is the allocation of resources (e.g. salary, space and start-up packages) for STEM faculty by gender?
- What are the processes that lead to divergent outcomes and resource allocation by gender in STEM disciplines at MTSU?
- Which policy changes could be implemented to improve the recruitment, retention, and promotion of STEM women at MTSU?
- What is the gender distribution of STEM faculty in leadership positions?


## MTSU Demographics

- Tenure Track/Tenured STEM Faculty by Department, Rank, Gender
- STEM faculty salary
- STEM faculty hiring
- STEM Promotion \& Tenure
- STEM start-up data
- STEM termination/resignation


## Tenure Track/Tenured Faculty at MTSU By Rank \& Gender, Fall 2013, 2014

|  | Full |  | Associate |  | Assistant |  | All Ranks |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men | Women | Men | Women | Men | Women |
| Total | 234 | 130 | 133 | 118 | 88 | 116 | 455 | $\mathbf{3 6 4}$ |
| $\%$ in | 64 | 36 | 53 | 47 | 43 | 57 | $\mathbf{5 6}$ | $\mathbf{4 4}$ |


|  | Full |  | Associate |  | Assistant |  | All Ranks |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men | Women | Men | Women | Men | Women |
| Total | 239 | 132 | 121 | 125 | 77 | 92 | 437 | $\mathbf{3 4 9}$ |
| $\%$ in | 64 | 36 | 49 | 51 | 46 | 54 | $\mathbf{5 6}$ | 44 |

## Tenure Track/Tenured STEM Faculty By Gender \& Rank, Fall 2013



## Tenure Track/Tenured STEM Faculty By Gender \& Rank, Fall 2014



## Climate Survey

- Overview of the Survey Process
- Areas Addressed
- Hiring
- General Job Satisfaction
- Resource Allocation
- Promotion \& Tenure Process
- General Climate
- Climate for Women
- Work-Life Balance


## Three Key Findings

- Resource Allocation
- Promotion and Tenure Policies
- Leadership Issues


## Resource Allocation

- Women in STEM departments are more likely to disagree that lab space is allocated fairly at college level.
- There was no significant difference at the department level.


## Resource Allocation

- Women in STEM departments are more likely to disagree that summer teaching assignments are allocated fairly. This decision is made at the department level.


## Resource Allocation

- Women in STEM departments are more likely to disagree that resource allocation at the university is gender neutral.


## Promotion and Tenure Policies

- Women in STEM departments are less likely to agree that tenure and promotion policy is applied consistently at the department level.


## Promotion and Tenure Policies

- Women at the Associate Professor rank in STEM departments are less likely to agree that the policy for promotion to full professor is applied consistently.


## Leadership Issues

- Men in STEM departments are more likely to agree that leadership at the university is gender diverse and women are more likely to disagree.


## Leadership Issues

- Women in STEM departments are more likely to agree with the statement that men are given more opportunities to lead.


## For more info

- ADVANCE Portal
- http://www.portal.advance.vt.edu/
- MTSU ADVANCE website
- http://www.mtsu.edu/wistem/ADVANCE/index.php
- NSF ADVANCE
- http://www.nsf.gov/funding/pgm summ.jsp?pims i $\mathrm{d}=5383$


## Thank you!

## Any questions?

