# ADVANCEing STEM Careers for Women at MTSU

Women in Higher Education in Tennessee
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 Pl
- Wandi Ding Co-PI
- Jackie Eller Co-Pl
- Judith Iriarte-Gross Co-PI
- Karen Petersen Co-Pl
- 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



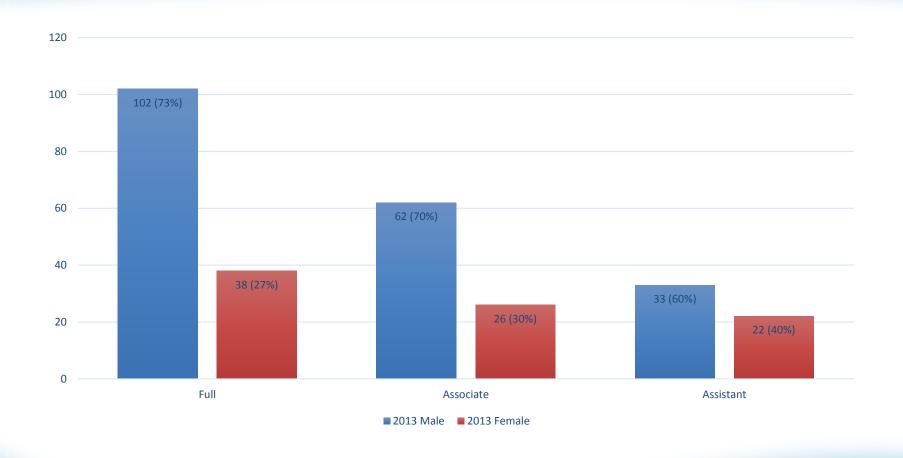
# Tenure Track/Tenured Faculty at MTSU By Rank & Gender, Fall 2013, 2014

|       | Full |       | Associate |       | Assistant |       | All Ranks |       |
|-------|------|-------|-----------|-------|-----------|-------|-----------|-------|
|       | Men  | Women | Men       | Women | Men       | Women | Men       | Women |
| Total | 234  | 130   | 133       | 118   | 88        | 116   | 455       | 364   |
| % in  | 64   | 36    | 53        | 47    | 43        | 57    | 56        | 44    |

|       | Full |       | Associate |       | Assistant |       | All Ranks |       |
|-------|------|-------|-----------|-------|-----------|-------|-----------|-------|
|       | Men  | Women | Men       | Women | Men       | Women | Men       | Women |
| Total | 239  | 132   | 121       | 125   | 77        | 92    | 437       | 349   |
| % in  | 64   | 36    | 49        | 51    | 46        | 54    | 56        | 44    |

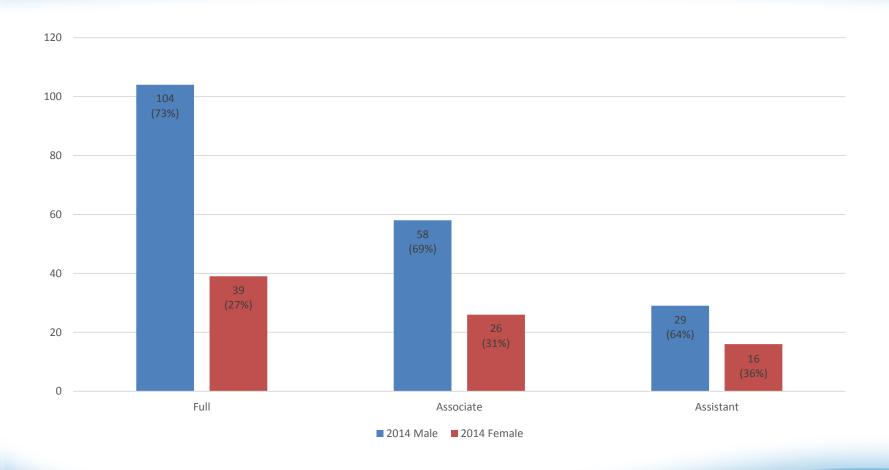


# Tenure Track/Tenured STEM Faculty By Gender & Rank, Fall 2013





# 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\_id=5383



# Thank you!

Any questions?

