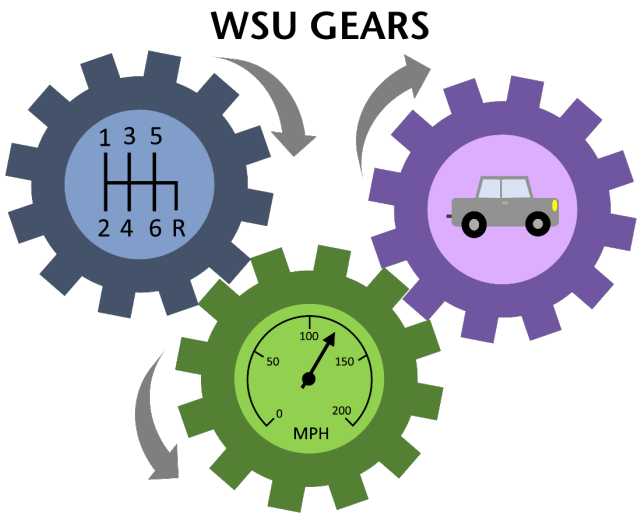

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An NSF ADVANCE Adaptation Award 2020-2023

Gender Equity Advances Retention in STEM

@ Wayne State University

https://s.wayne.edu/nsf-advance/

gears@wayne.edu

@WayneGEARS

@waynestategears

WSU GEARS

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WSU-GEARS Leadership

- **Boris Baltes**, PhD, senior associate provost for faculty affairs; professor of industrial/organizational psychology
- **Krista Brumley**, PhD, associate professor, sociology
- **Stine Eckert**, PhD, associate professor, communication/journalism
- **Tamara Hendrickson**, PhD, associate professor, chemistry
- **Lars Johnson**, PhD, assistant professor, psychology
- **Sara Kacin**, PhD, assistant provost, faculty development and faculty success; director, Office for Teaching & Learning (OTL)
- **Shirley Papuga**, PhD, associate professor, environmental science and geology
- **Ece Yaprak**, PhD, professor and chair, engineering technology division
- **Nicole Gerring**, PhD, project coordinator

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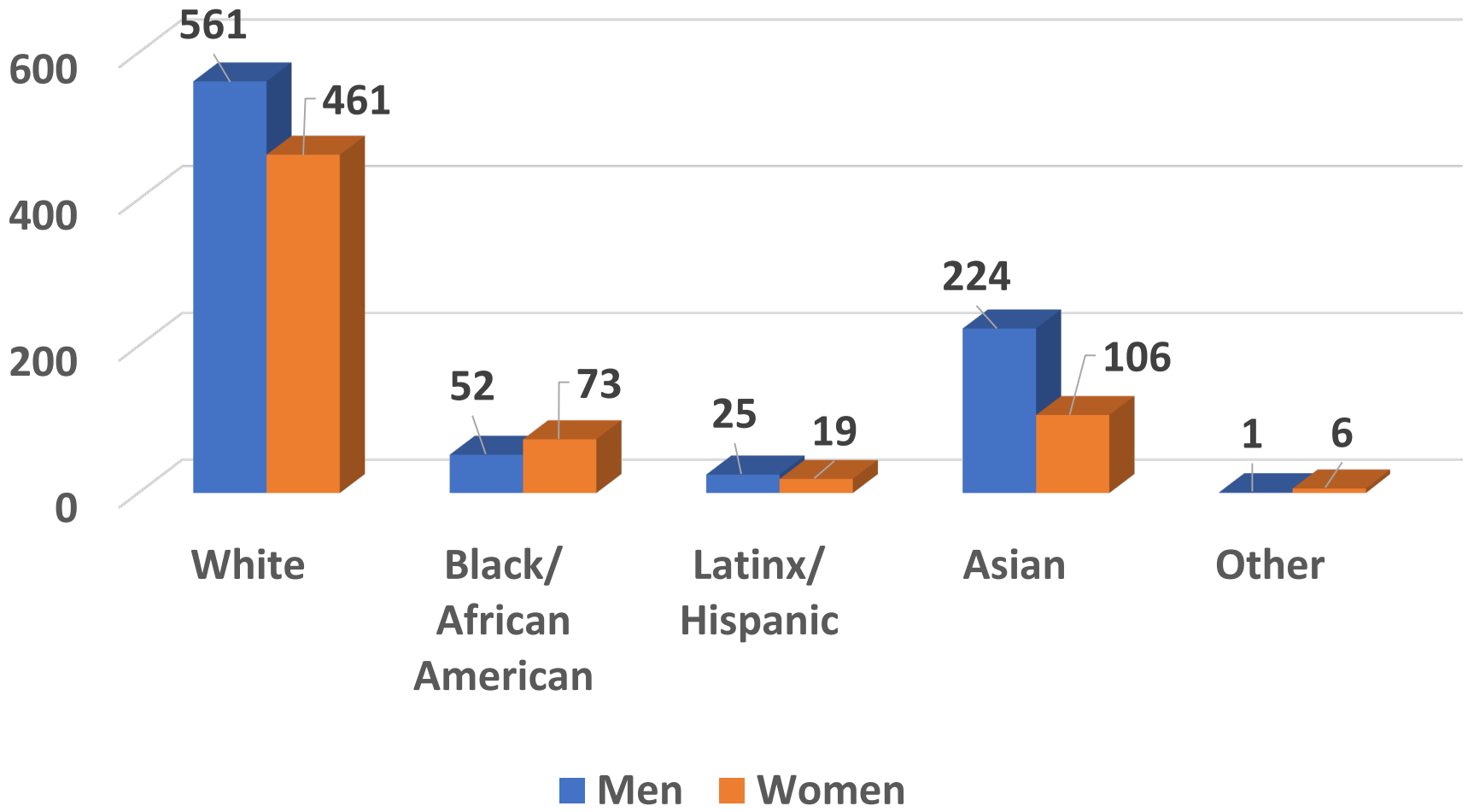
What is ADVANCE?

- **NSF ADVANCE**
- Goal: to broaden the implementation of evidence-based systemic change strategies that promote equity for STEM faculty in academic workplaces and the academic profession.

- **WSU has been awarded an Adaptation grant ($992,495).**
- Support initiatives that modify, implement & evaluate strategies WSU adapts from other ADVANCE campuses to improve gender equity among STEM faculty (2020-2023) (award #2017586).

Background Data (2020)

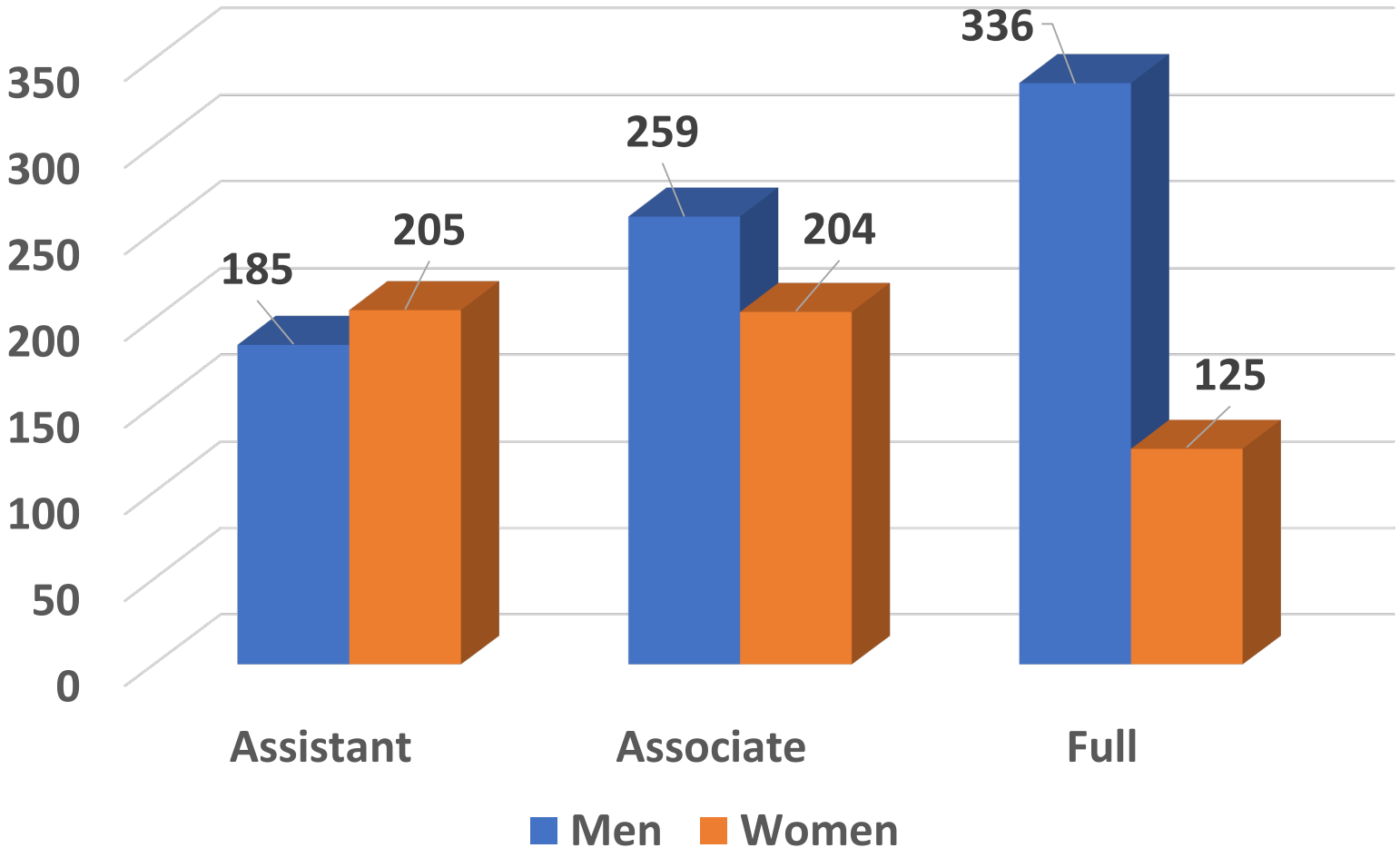
Full-Time Faculty by Gender & Race/Ethnicity



Source: Institutional Research, Wayne State University.

Background Data (2020)

Full-Time Faculty by Gender & Rank



Source: Institutional Research, Wayne State University.

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WSU Context

Identified 3 Barriers for women in STEM:

- **Work/Family/Life Strains**
- **Toxic Work Environment**
- **Workloads**

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NSF WSU-GEARS GOAL

The NSF WSU GEARS initiatives are intended to develop evidence-based strategies and resources to eliminate work/family/life, toxic work environment, and workload barriers in:

- Hiring
- Retaining
- Advancing

Women and underrepresented minority faculty in the ***natural, physical and social sciences; technology; engineering; and mathematics disciplines****.*

Wayne DRIVES, SHIFTS, AND ACCELERATES

Wayne DRIVES

Baseline Survey

- **Purpose**: Gather climate and perception data on employee experiences at WSU.

- **Adaptation**: Combines measures/approaches from multiple ADVANCE initiatives and previous WSU surveys.

- **Participation**:
  - All full-time faculty were invited to participate (n=1406)
  - 23% full-time faculty participated
  - 56.6% of those were women
  - 70.3% identified as white
  - 29% were from NSF STEM-defined disciplines

Baseline Survey Results

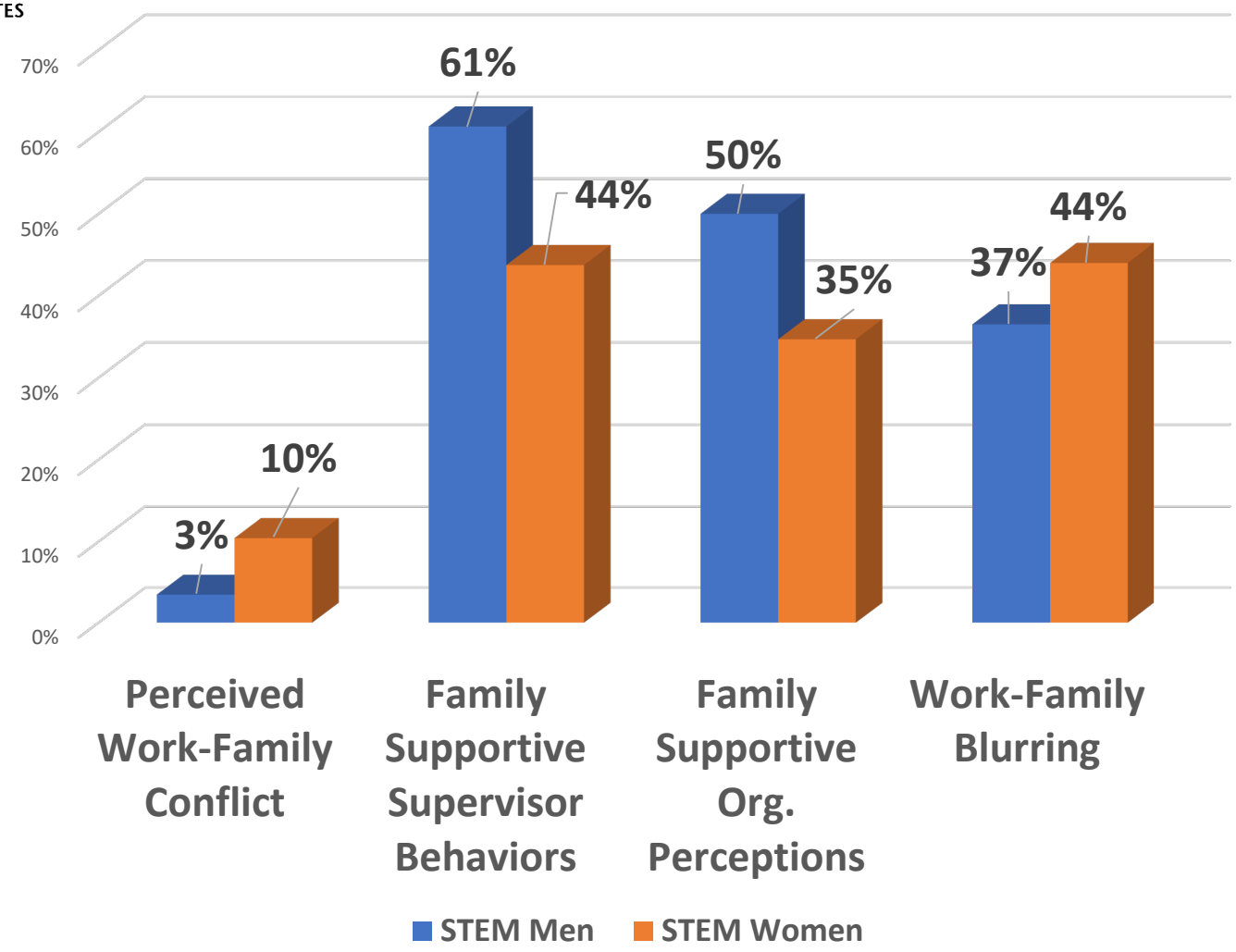
OVERVIEW

- **High endorsement percentage**: percent of employees with average responses of four (4) or higher on a given measure. As most measures were on a five-point scale (1 = Strongly Disagree; 5 = Strongly Agree), high endorsement reflects an average response of agree to strongly agree.

- **Breakdown**: results are reported by barrier but also include "core" measures that link barrier measures to antecedents and outcomes of interest.

Baseline Survey Results

Work/Family/Life Strain

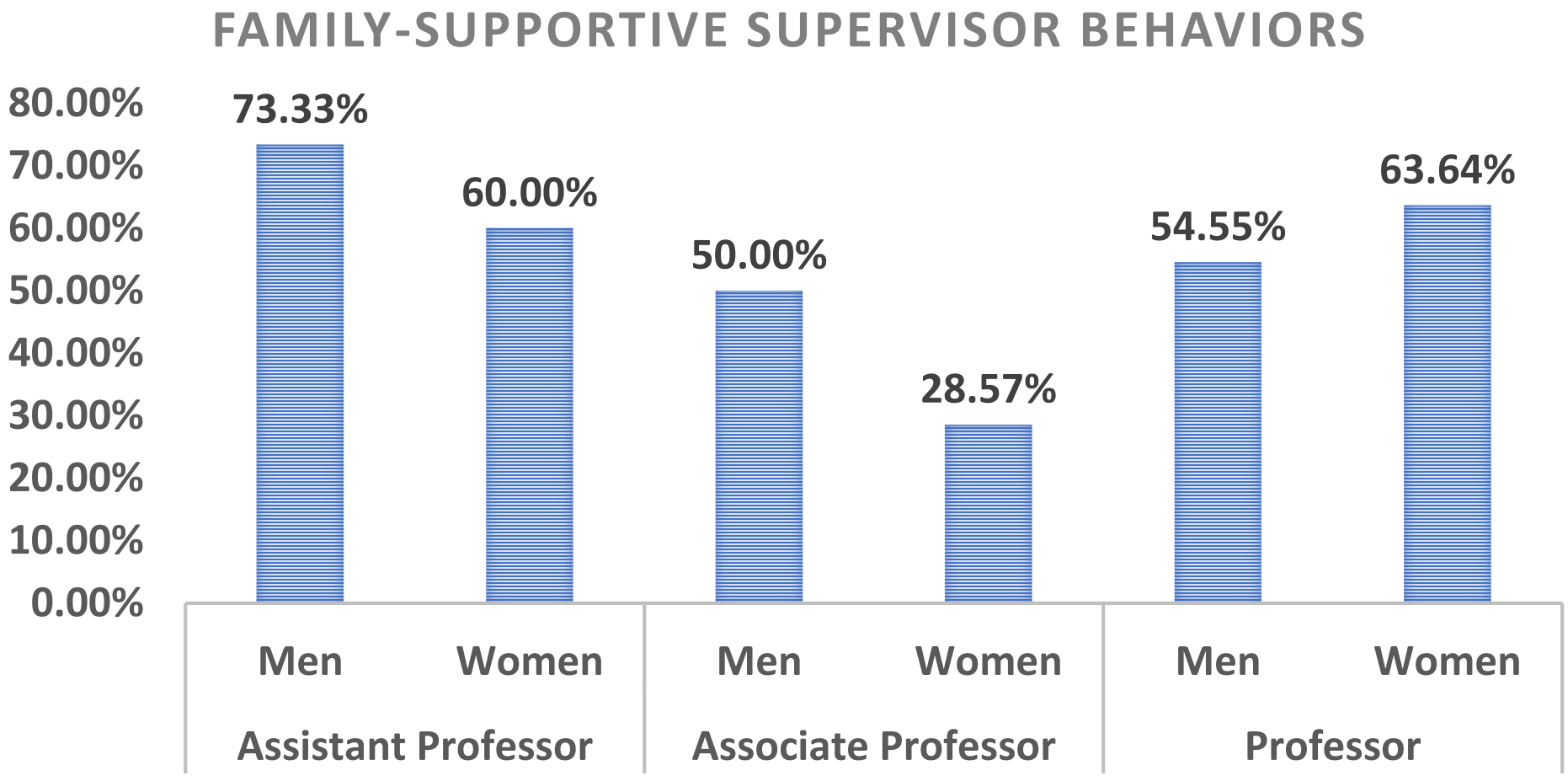


The results suggests more women are reporting high levels of work-related interference with their non-work lives. This includes blurring between work and non-work as well as disruption of non-work activities due to work-related factors.

Women also report lower perceptions of support from the department and its leaders for non-work and family-related obligations.

Baseline Survey Results

Work/Family/Life Strain



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Wayne Accelerates

FAMILY ADVOCACY NETWORK (FANS)

- **Purpose:** Provide peer support to new and current faculty members to navigate the complexities of work/family/life strains at WSU.
- **Adaptation**: Montana State University Family Advocates (ADVANCE Project TRACS).

<u>We are recruiting Family Advisors</u>. These tenure-track or tenured faculty will be trained in WSU policies/resources to assist faculty with questions on:

- maternity/paternity leave
- FMLA
- tenure clock stoppage
- sick leave

- Meet with faculty members over Zoom, phone, or in an office on the WSU campus to discuss support options for individual situations.

Official Launch next semester, Winter 2022.

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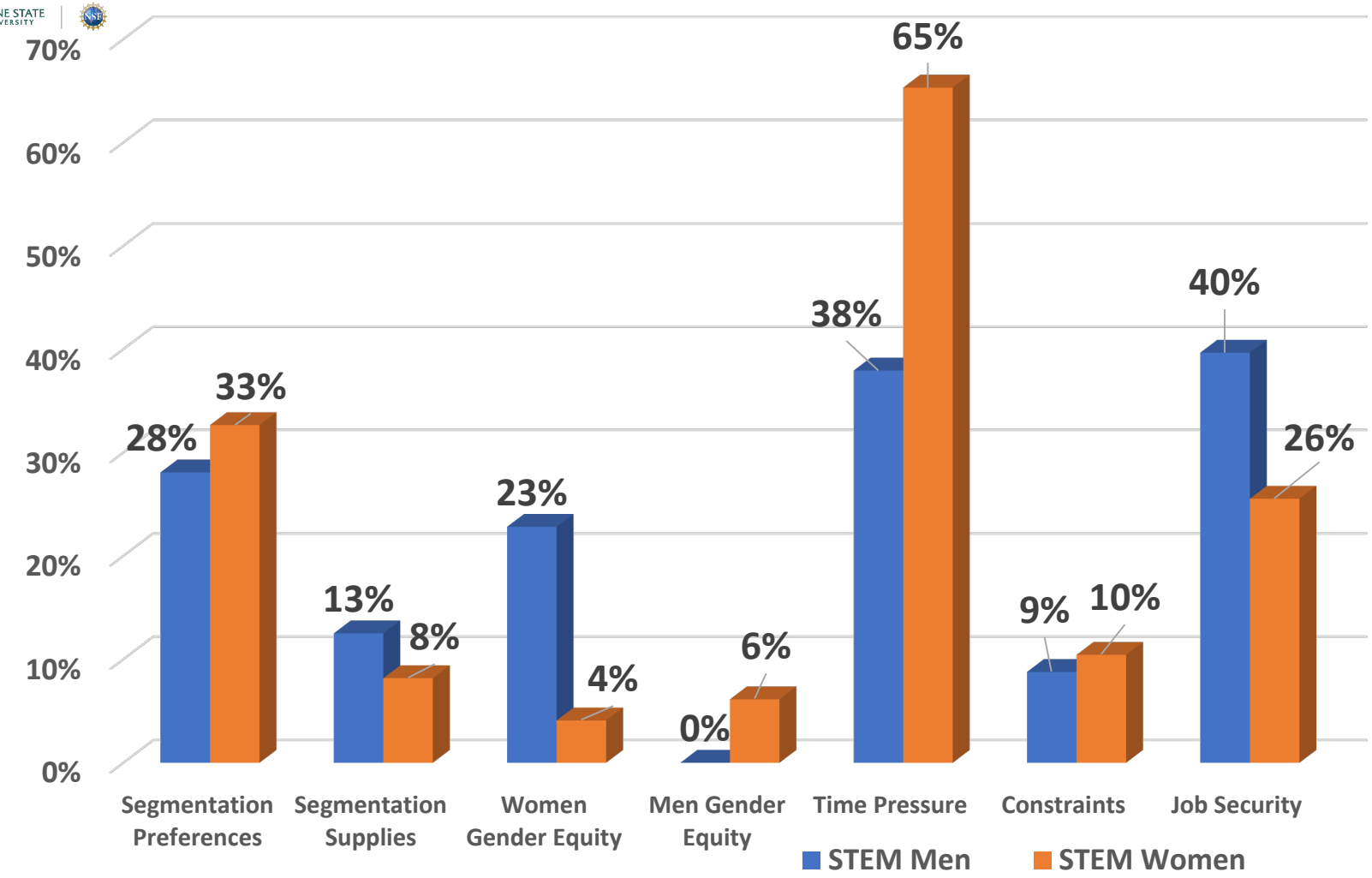
Baseline Survey Results

Hidden Workload Burden



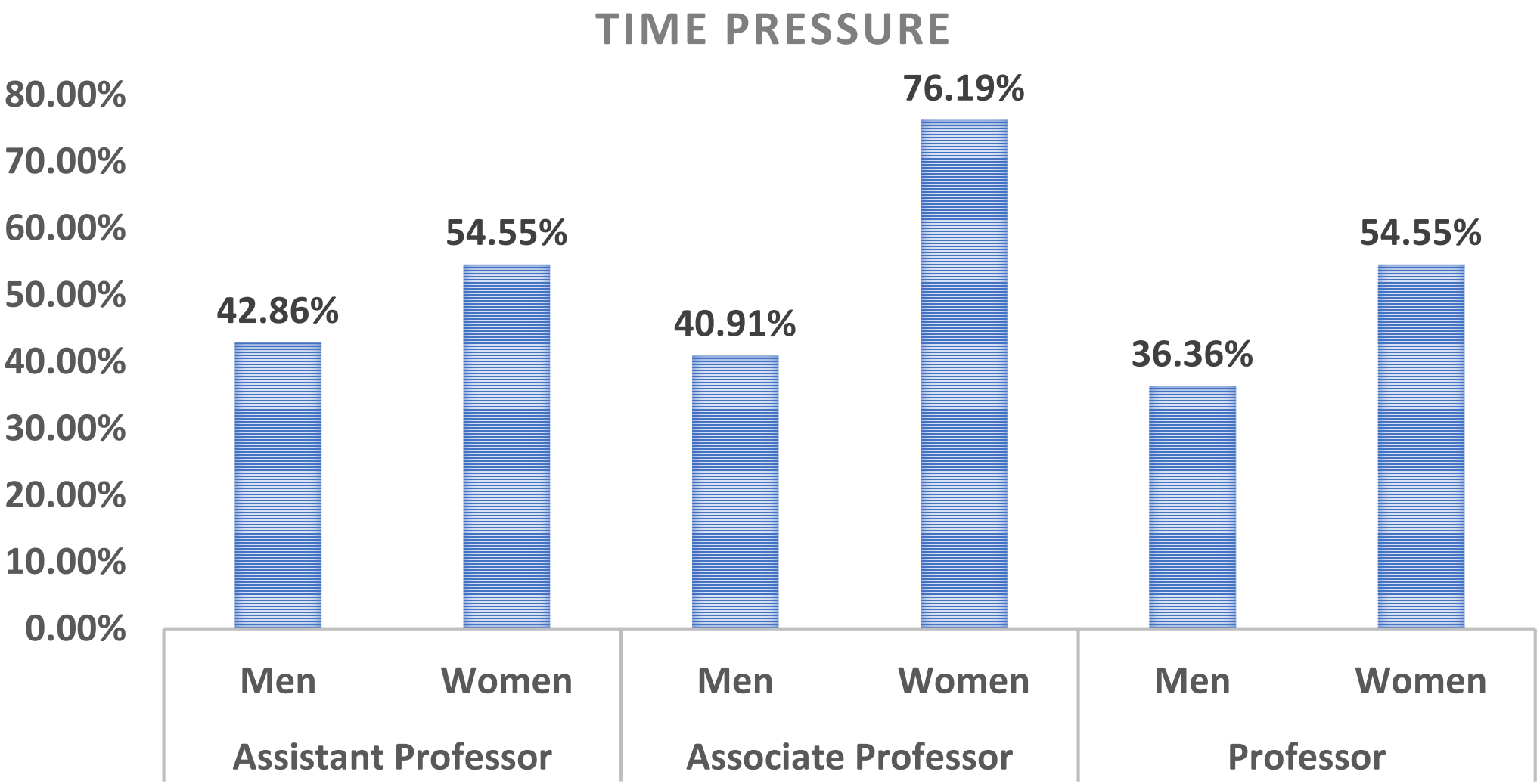
Compared to men, more STEM women report high levels of time pressure, imbalances in gender equity, and more constraints (lack of job-supportive resources).

Fewer women report high levels of job security.

More women reported high preferences for separating work and non-work but fewer women reported perceptions of support for doing so.

Baseline Survey Results

Hidden Workload Burden



Wayne SHIFTS

Wayne SERVES: Workload Equity Tool

- **Purpose**: Use evidence-based action research to promote transparency, clarity, credit, norms, context, and accountability for workload equity.

- **Adaptation**: University of Maryland ADVANCE grant (Faculty Workload and Rewards Project).

- **Participation in Pilot**: 11 departments; 3 colleges; 80 faculty.

- **Mini-briefs**: present to participating departments.

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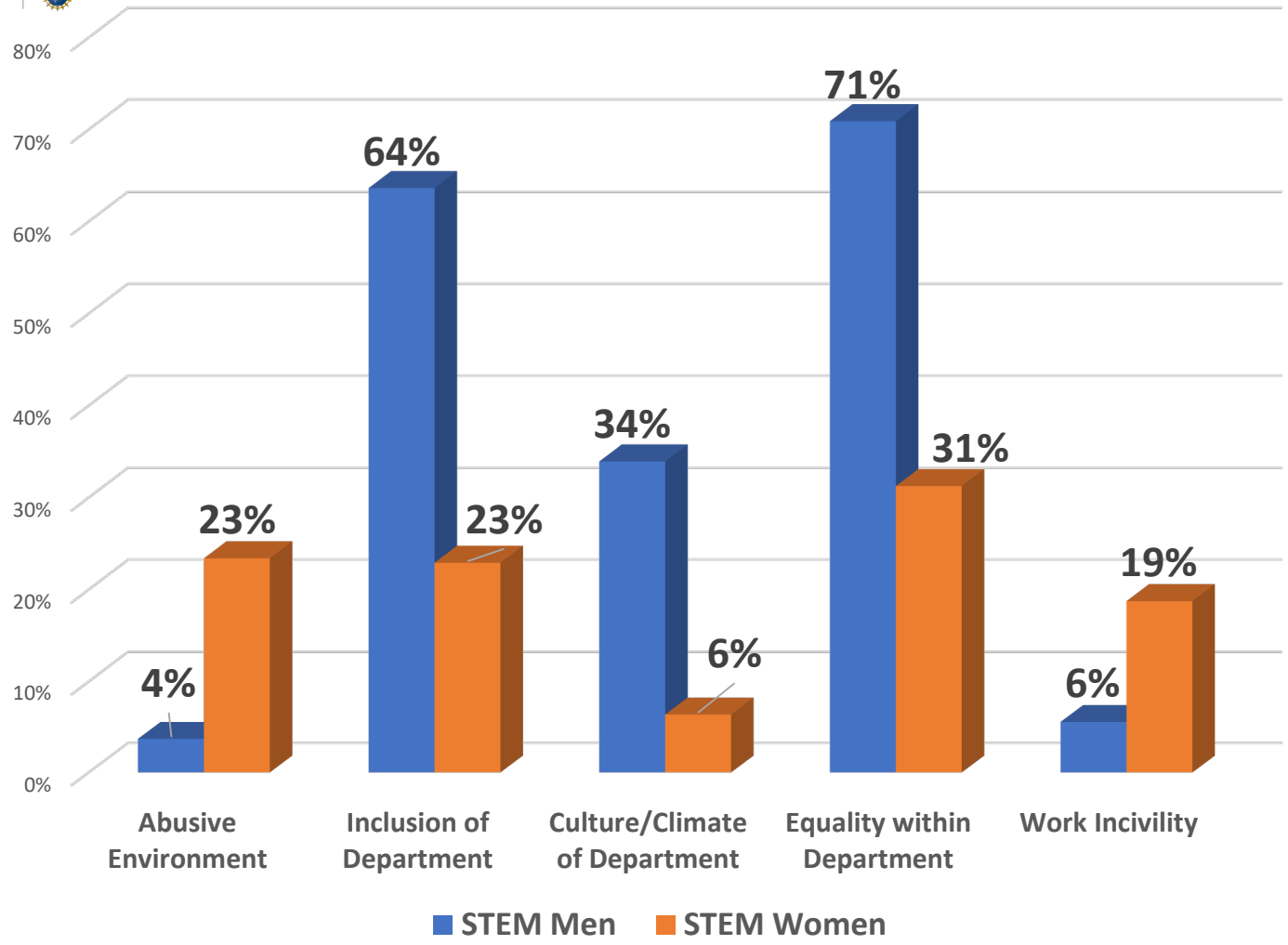
Baseline Survey Results

Toxic Work Environment



In addition to more women reporting high levels of witnessing abuse, more women also report high levels of experienced interpersonal incivility.

Fewer STEM women report high levels of inclusion, collegiality, and equality within the department.

This pattern of results suggests the workplace experiences of STEM women may be markedly less favorable than those of men.

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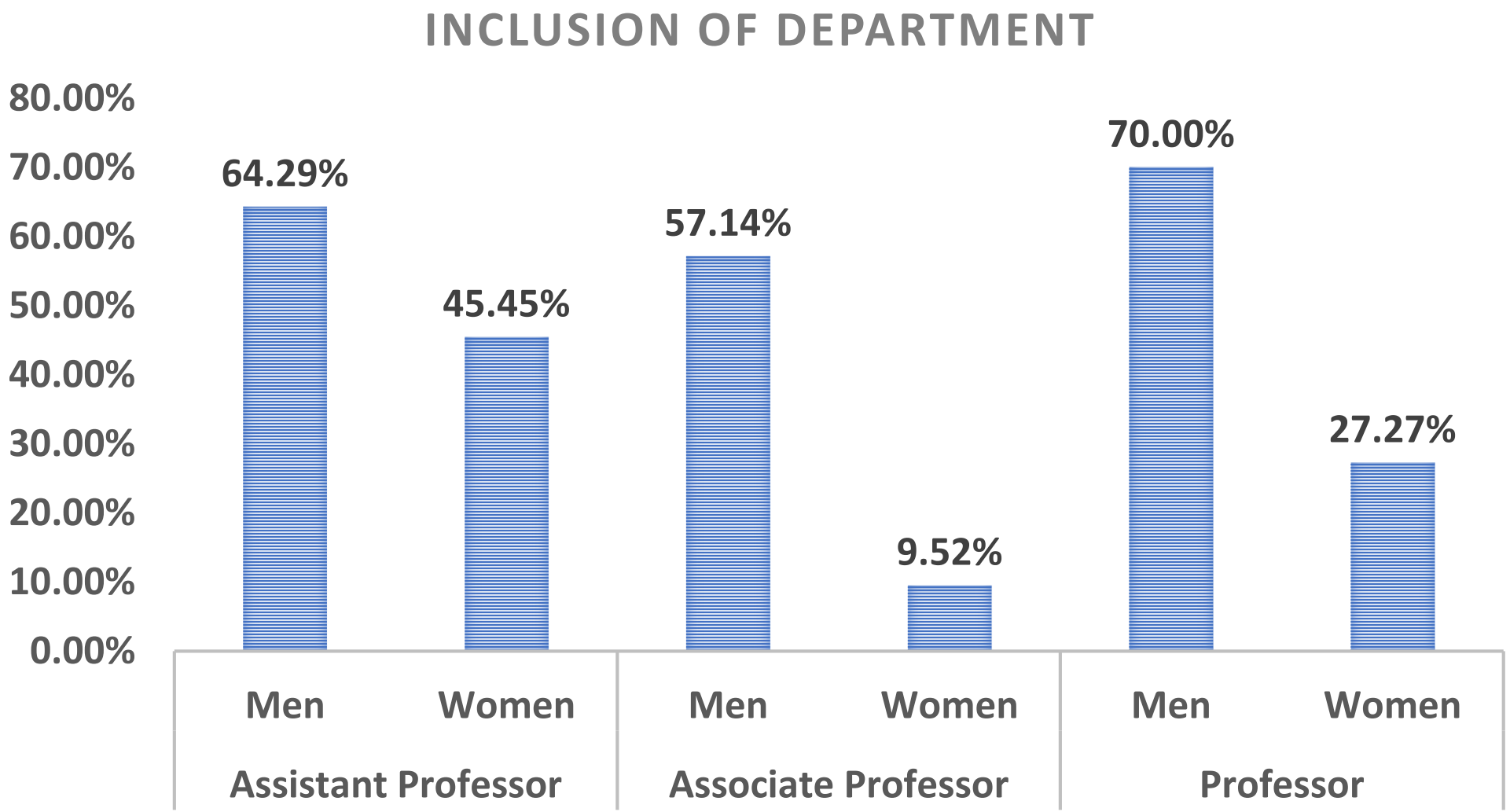
Baseline Survey Results

Toxic Work Environment



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Wayne SHIFTS

Bystander Intervention Training & Train the Trainer

- **Purpose**: Empower faculty to recognize different kinds of bullying and to intervene to minimize negative impacts.
- **Adaptation**: Florida International University ADVANCE grant (Advance Women, Equity, & Diversity – AWED theater).

- **Scaffolding Program**:
  - 1 hour raise awareness workshop
  - 90-minute interactive workshop (scenarios)
  - One-day workshop (role playing)
  - Train the trainer one-day workshop (faculty training)

Wayne Accelerates

NETWORKING

- **Purpose:** Create informal & formal networking opportunities for STEM women faculty.
  - ***Goals***: reduce isolation, foster inclusive community, support retention & advancement.
- **Adaptation:** Leadership Education for Advancement and Promotion (LEAP) from the University of Colorado Boulder; University of Houston career workshops.

Programs:

- GEARS Web site and social media
- 41 Wayne Women in STEM profiles on our web site
- Wayne Women Walks (Thursdays at 11:30)
- Networking with other internal networks (COSW, Office of Faculty Development & Faculty Success, Wayne Women Lead, and WISTEM)

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Wayne SHIFTS

Wayne Trains: Chair Workshop Series

- **Purpose**: Offer training on how chairs can be effective leaders to change department climates.
- **Adaptation**: University of Wisconsin Women in Science & Engineering Leadership Institute (WISELI).

- **2021-2022 Program**:
  - A DEI Lens on Faculty Evaluations (June 2021)
  - Work/Family/Life Strains (October 15, 2021)
  - Managing the Conversation (December 10, 2021)
  - Developing Good P&T Factors (Winter 2022)

- **The DEI Lens workshop is also offered to faculty**

(September 24 & October 1, 2021)

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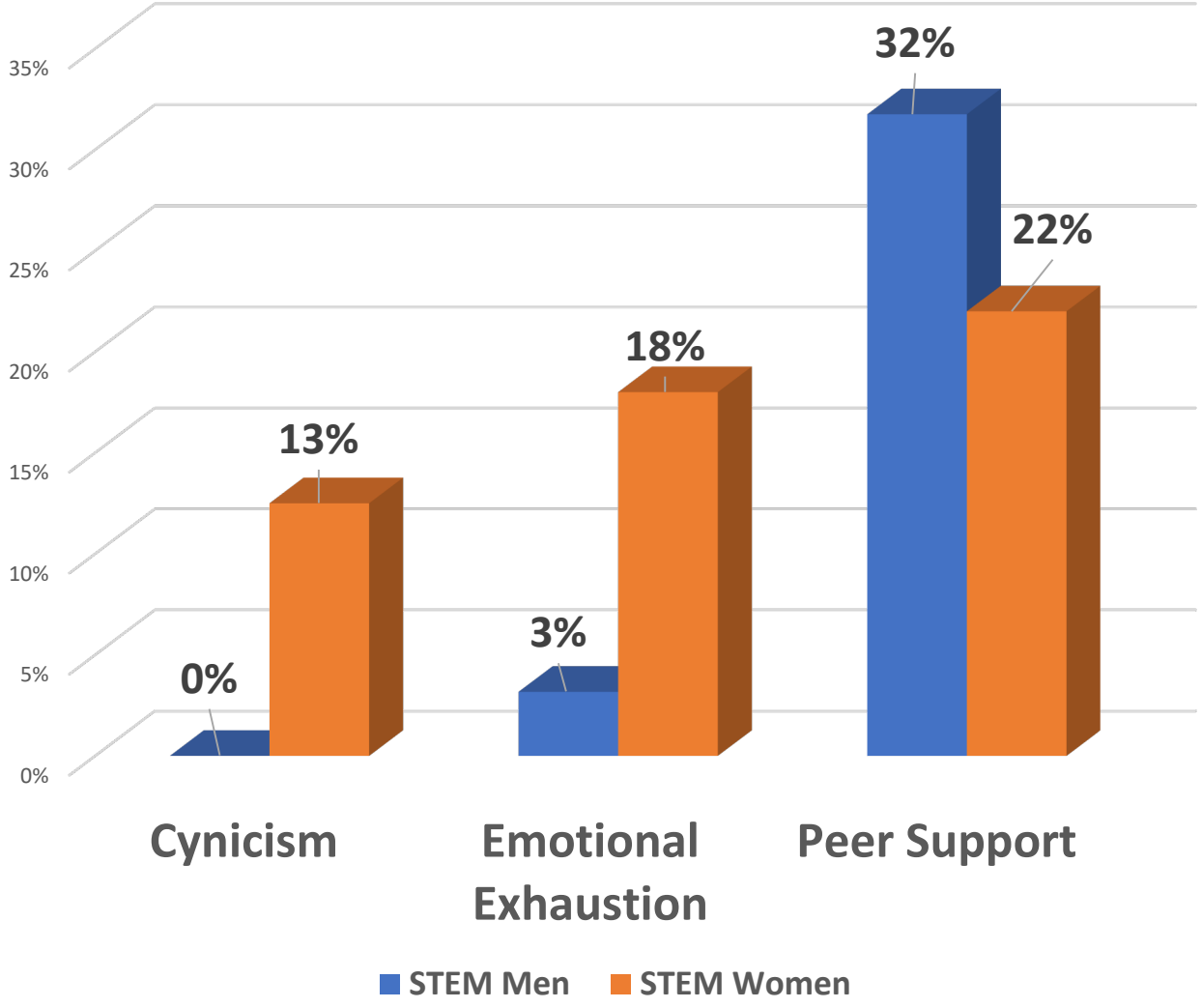
Baseline Survey Results

Core Survey Measures



In addition to fewer women reporting high levels of peer support, more women reported high levels of cynicism and emotional exhaustion.

Compared to men, these results suggest women have fewer peer-related resources and are experiencing higher degrees of burnout symptoms.

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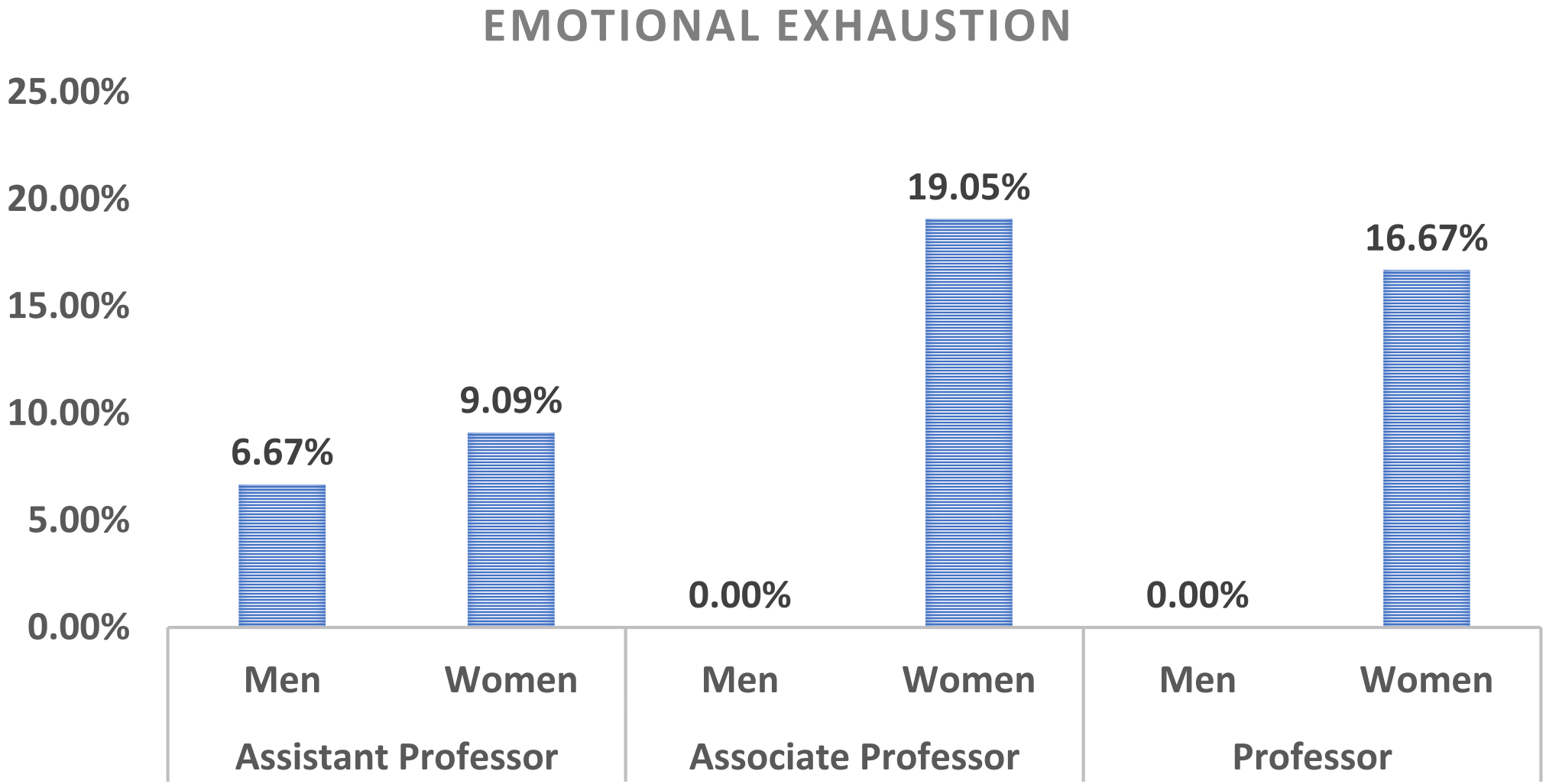
Baseline Survey Results

Core Survey Measures



Wayne Drives

Next Steps

- **A deeper dive into the baseline survey data**: the WSU-GEARS Team will produce a series of detailed mini briefs for each of the grant barriers.

- **Translation**:
  - Reporting (e.g., townhalls, meetings, webpage, and email):
    - Provost (August 30); President (September 1); Chairs (October 20)
    - Townhall (November 10)
  - WSU-GEARS Team will continue to use the data to inform grant-related activities and recommendations for units throughout the institution.

- **Future data collection**:
  - Baseline data will be connected to data collected during Years 2 and 3 of the grant (March 2022, 2023).
  - Focus groups with STEM faculty on grant barriers (January/February 2022).

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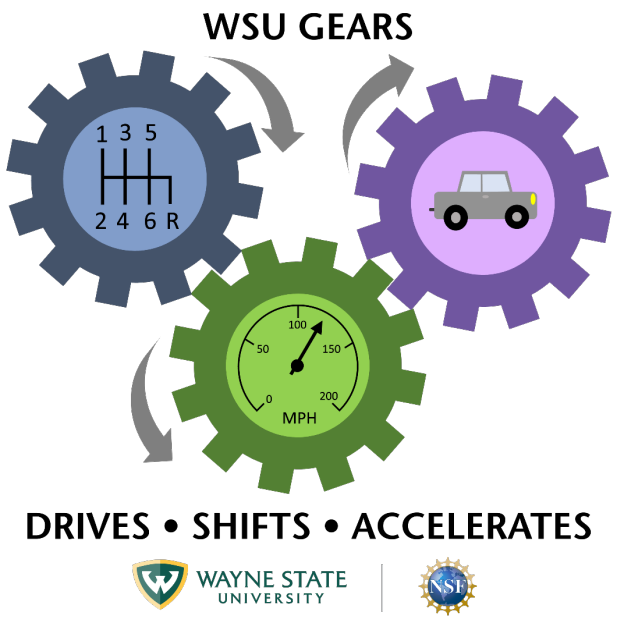
THANK YOU FOR JOINING TODAY!

- **What about these findings resonates with you?**
- **Why?**



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