



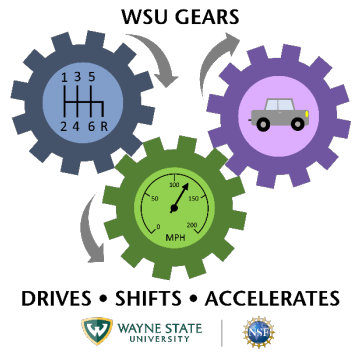
NSF WSU-GEARS

An NSF ADVANCE Adaptation Award 2020-2023
Gender Equity Advances Retention in STEM

Virtual Data Town Hall

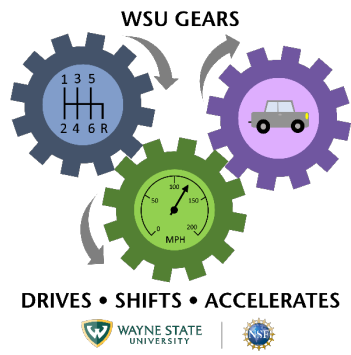
Monday, November 14 (3:00 p.m.-4:00 p.m.)





Welcome to the GEARS Town Hall

- **To help facilitate a smooth use of technology:**
 - **Chat function is enabled to go to GEARS hosts only.**
 - **Post questions during the presentation; we will address them at the end.**
 - **Please keep audio muted.**
 - **Please turn video off.**

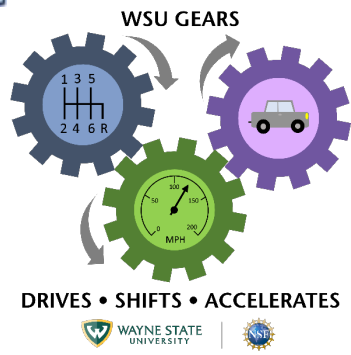


WSU-GEARS Leadership

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

Former co-PIs:

- **Lars Johnson**, external consultant
- **Shirley Papuga**, associate professor, environmental science and geology



What is ADVANCE?

- [NSF ADVANCE](#)

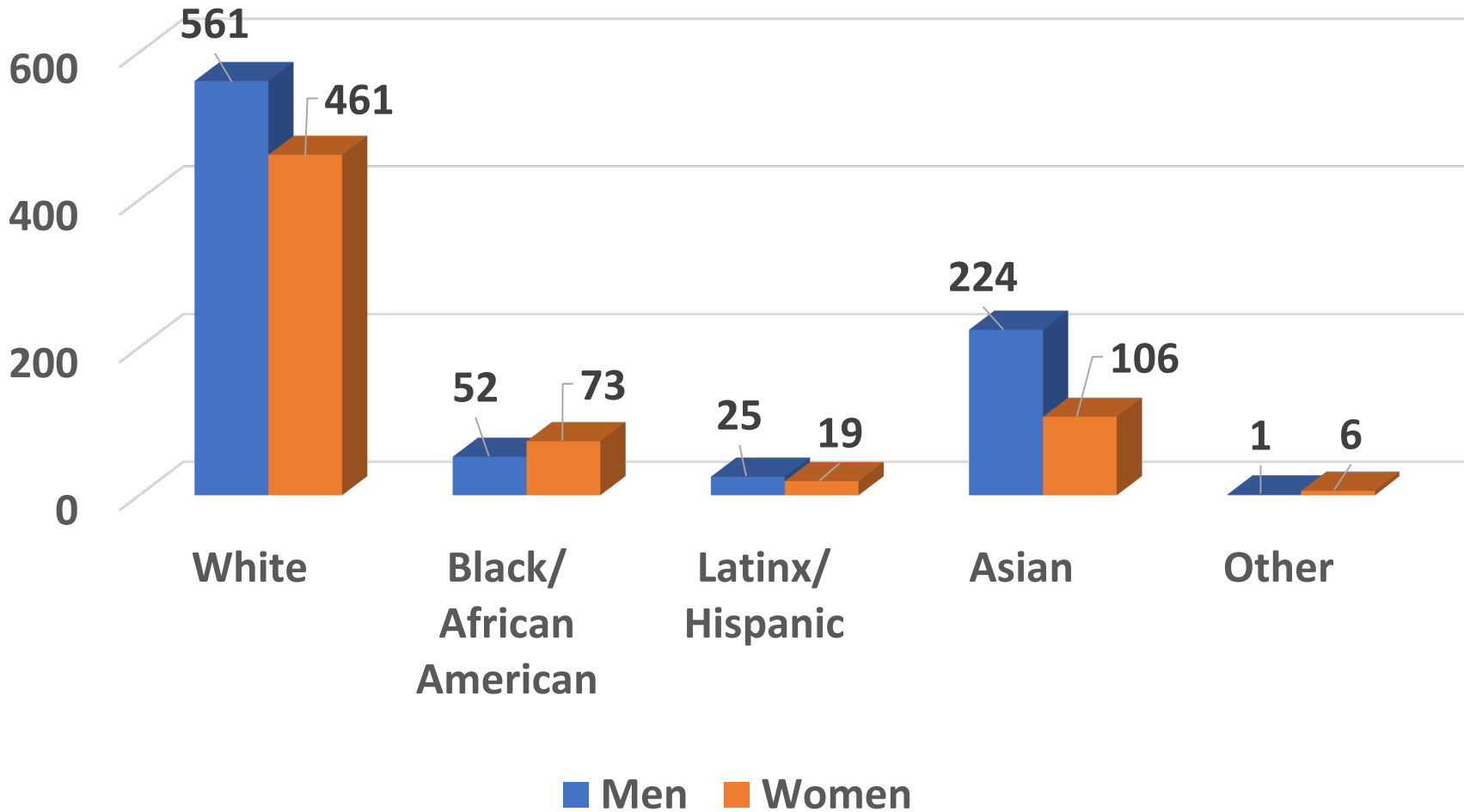
- Goal: to broaden the implementation of evidence-based systemic change strategies that promote equity for STEM faculty in academic workplaces and the academic profession.

- [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)

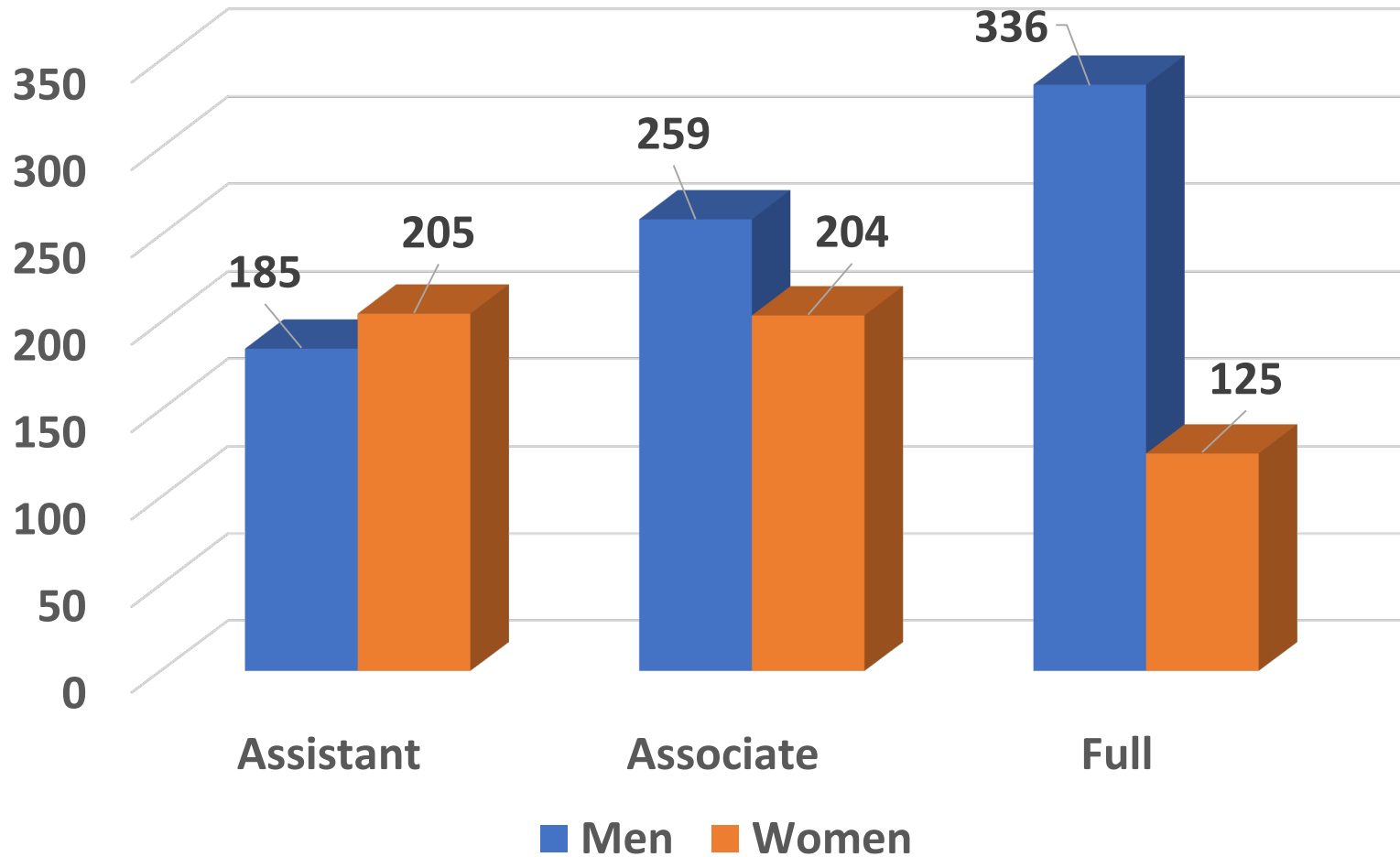
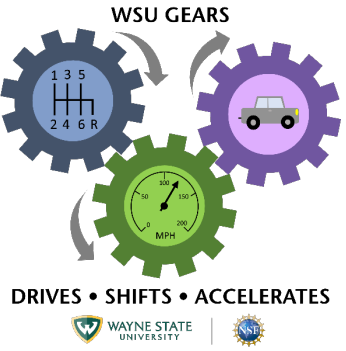
FULL-TIME FACULTY BY GENDER & RACE/ETHNICITY



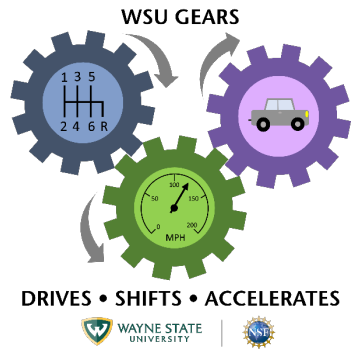
Source: Institutional Research, Wayne State University.

Background Data (2020)

FULL-TIME FACULTY BY GENDER & RANK



Source: Institutional Research, Wayne State University.

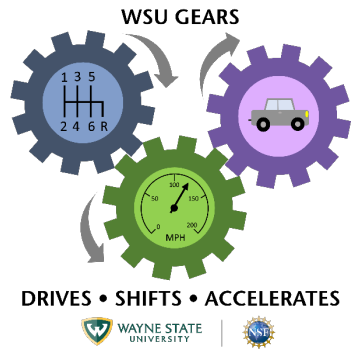


WSU Context

Identified 3 Barriers for women in STEM:

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





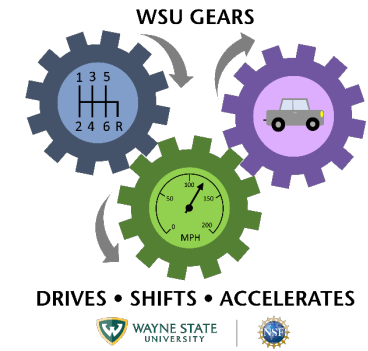
NSF WSU-GEARS GOAL

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



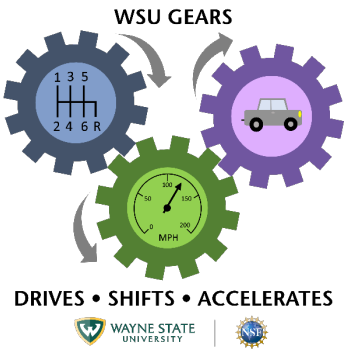
Wayne DRIVES

YEAR 2 SURVEY

- **Purpose:** Gather climate and perception data on employee experiences at WSU to get an understanding of the current context but also make comparisons between baseline and Year 2 survey data.
- **Survey Features:** Combines previously collected measures with new measures stemming from findings from the baseline survey.
- **Participation:**
 - All full-time faculty were invited to participate (n=1419)
 - 28.5% full-time faculty participated
 - 55.0% of those were women
 - 68.0% identified as white
 - 31.8% were from NSF STEM-defined disciplines

Background Data Focus Groups 2022

TENURE-TRACK WOMEN FACULTY



- **February – May 2022**
- **8 focus groups**, stratified by rank
 - 3 with assistant professors
 - 3 with associate professors
 - 2 with full professors
- **Focus Group Team:**
 - Stine Eckert, Ph.D. (Communication)
 - Salam Aboulhassan, Ph.D. Candidate (Sociology)
 - Nicole Gerring, Ph.D. (Political Science)
 - Keena S. Neal, Ph.D. Candidate (Communication)
 - Fatima Albrehi, Ph.D. Candidate (Communication)
 - Krista Brumley, Ph.D. (Sociology)

Background Data Focus Groups 2022

TENURE-TRACK WOMEN FACULTY

FOCUS GROUP PARTICIPATION N=29

N=29	ASSISTANT	ASSOCIATE	FULL	Total
Total	11	10	8	29





Focus Group Results

OVERVIEW

- **Themes along barriers**
 - Work/family/life strains
 - Hidden and unequal workload
 - Toxic work environment

- **Themes across all three barriers**
 - Chair variability
 - Rank



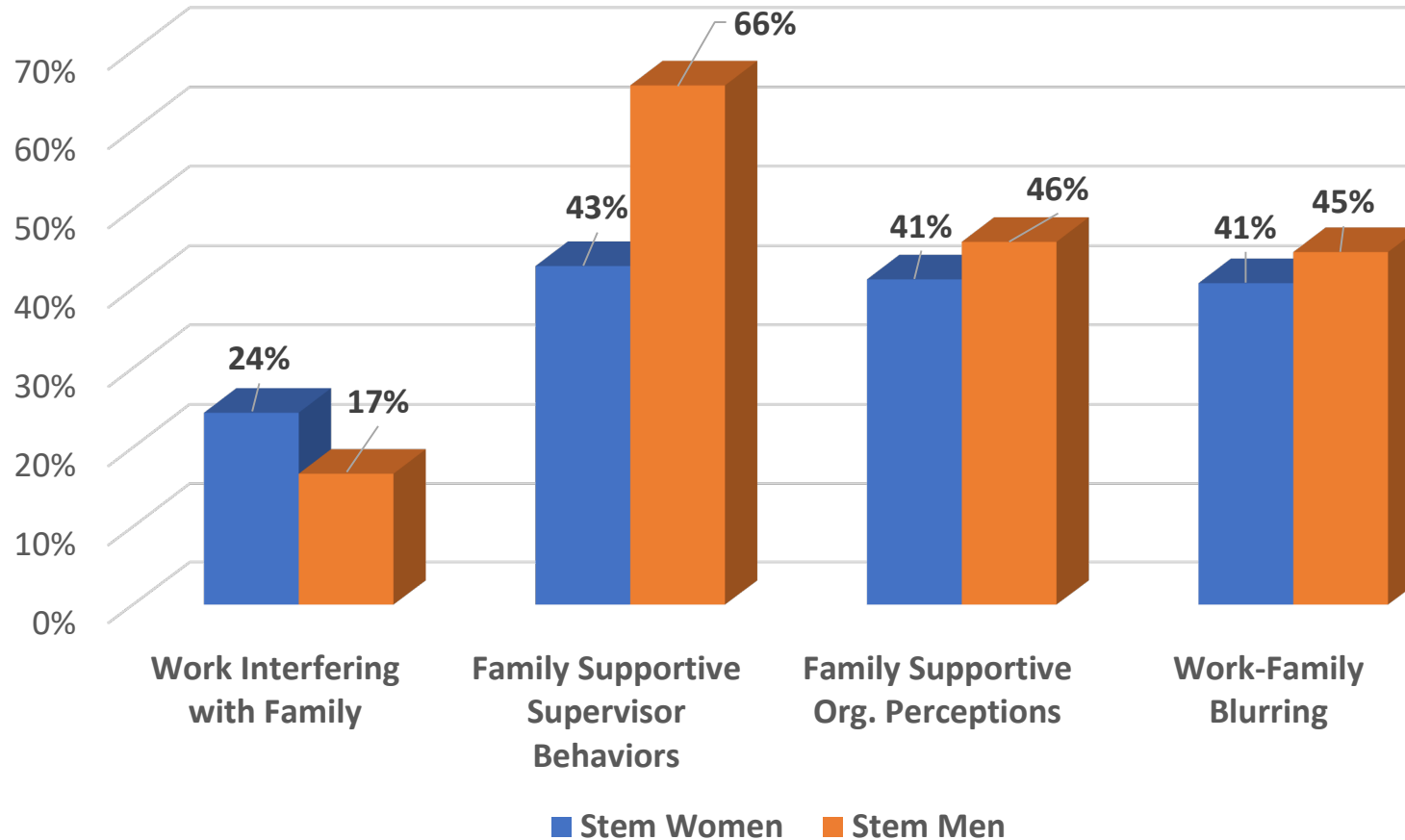
Baseline Survey Results

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 – STEM

WORK/FAMILY/LIFE STRAIN



The results suggest women in STEM are reporting high levels of work-related interference with their non-work lives.

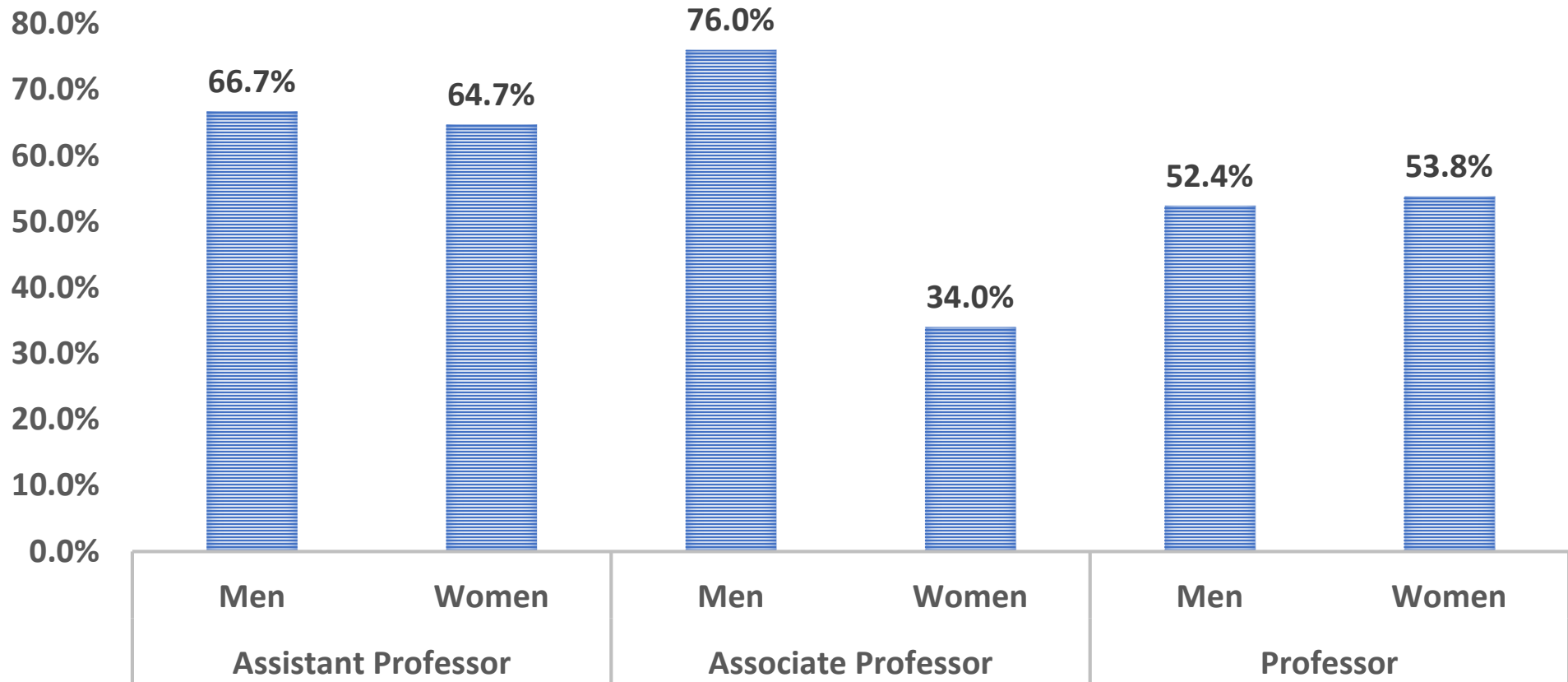
Women in STEM also report lower perceptions of support from their departments and supervisors for non-work and family-related obligations.

Baseline Survey Results – STEM

WORK/FAMILY/LIFE STRAIN

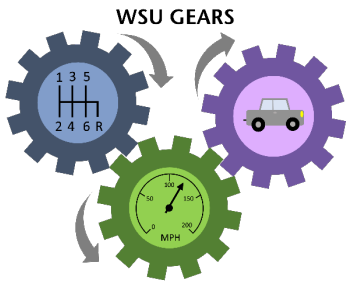


FAMILY SUPPORTIVE SUPERVISOR BEHAVIORS

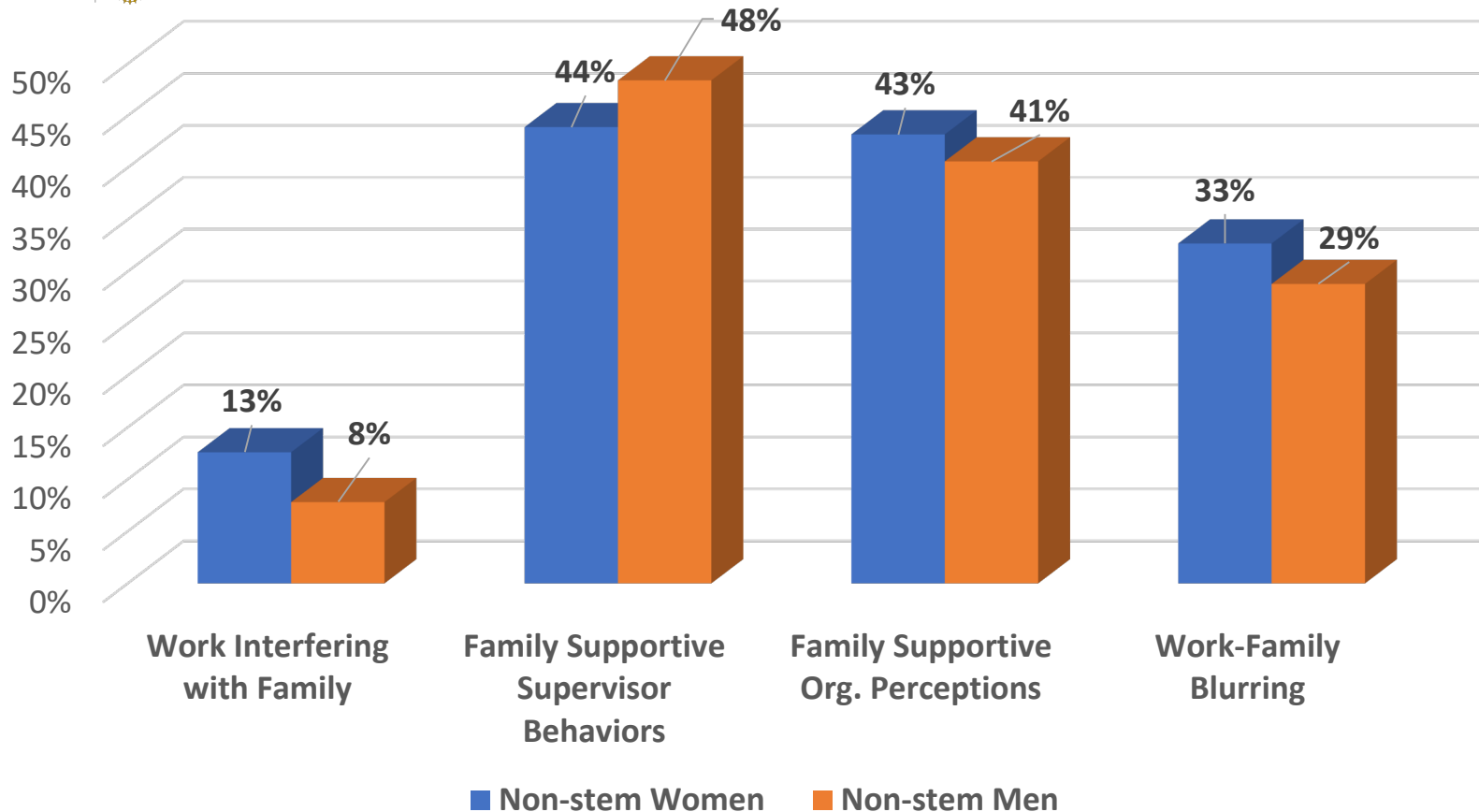


Baseline Survey Results – Non-STEM

WORK/FAMILY/LIFE STRAIN



DRIVES • SHIFTS • ACCELERATES



Results suggest women in non-STEM disciplines are reporting high levels of crossover between the work and non-work domains.

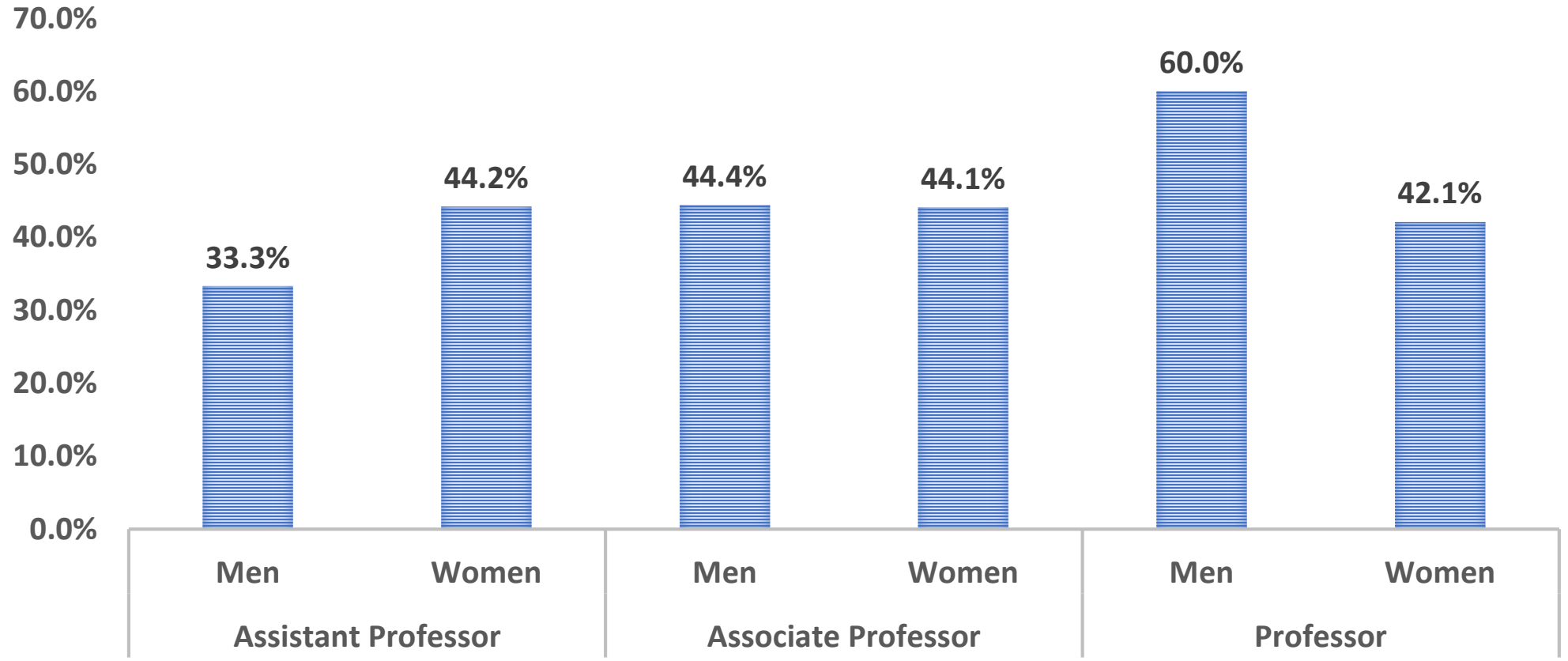
Women in non-STEM disciplines also report lower perceptions of support from their departments and supervisors for non-work and family-related obligations.

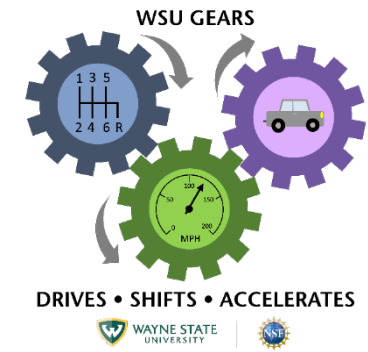


Baseline Survey Results – Non-STEM

WORK/FAMILY/LIFE STRAIN

FAMILY-SUPPORTIVE SUPERVISOR BEHAVIOR





Focus Group Results

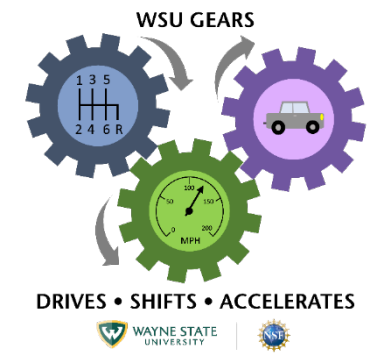
WORK/FAMILY/LIFE STRAIN

Theme 1: Administration and WSU policies

- Faculty noted a lack of, or limited, institutional support of resources to encourage work, family and life balance for everyone.

"I'm having a hard time...how to articulate this, or my response or my position or the context. I'm partnered but single and childless. However, I have a life. I think I do. I would say that from my perspective there's been no practices or resources or mechanisms in place to support my life/work balance."

-- **Assistant Professor**



Focus Group Results

WORK/FAMILY/LIFE STRAIN

Theme 2: Childcare and paid leave

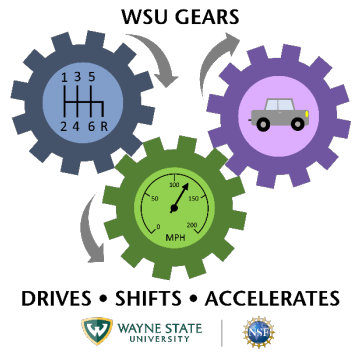
- Faculty expressed confusion, frustration, and anger about the university's leave policies and processes. Faculty also noted they felt the impact of caregiving more than their men colleagues.

"I will tell you a turn off that almost didn't bring me here was that we did not have paid maternity leave in the first two years..."

-- **Assistant Professor**

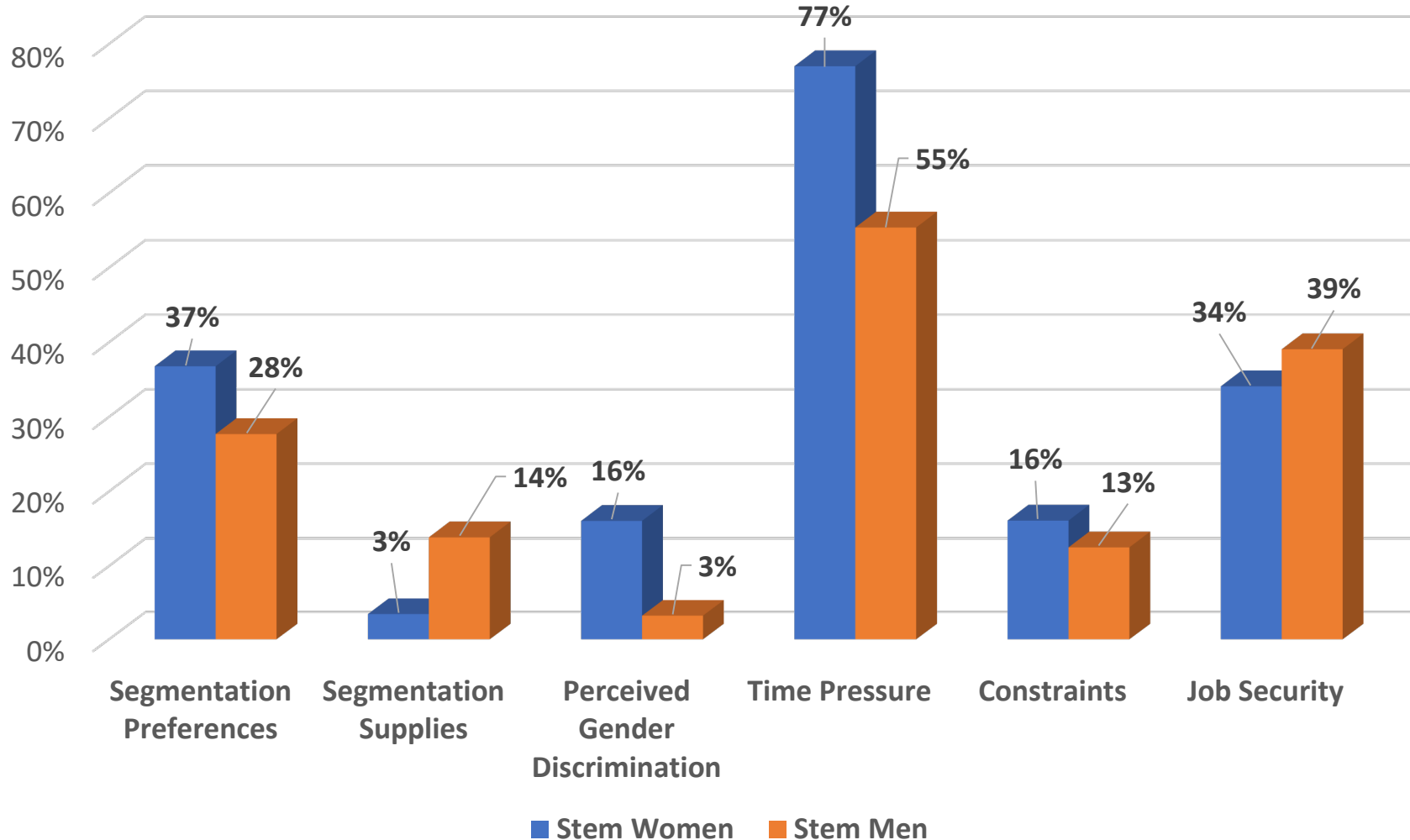
"I don't think that as an institution Wayne State understands that caregiving still primarily falls on the mother."

-- **Full Professor**



Baseline Survey Results – STEM

HIDDEN WORKLOAD BURDEN



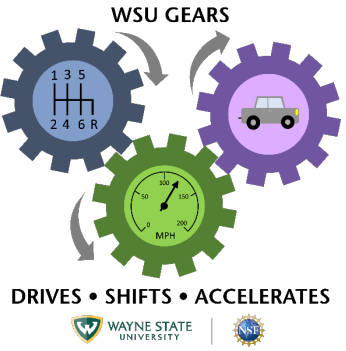
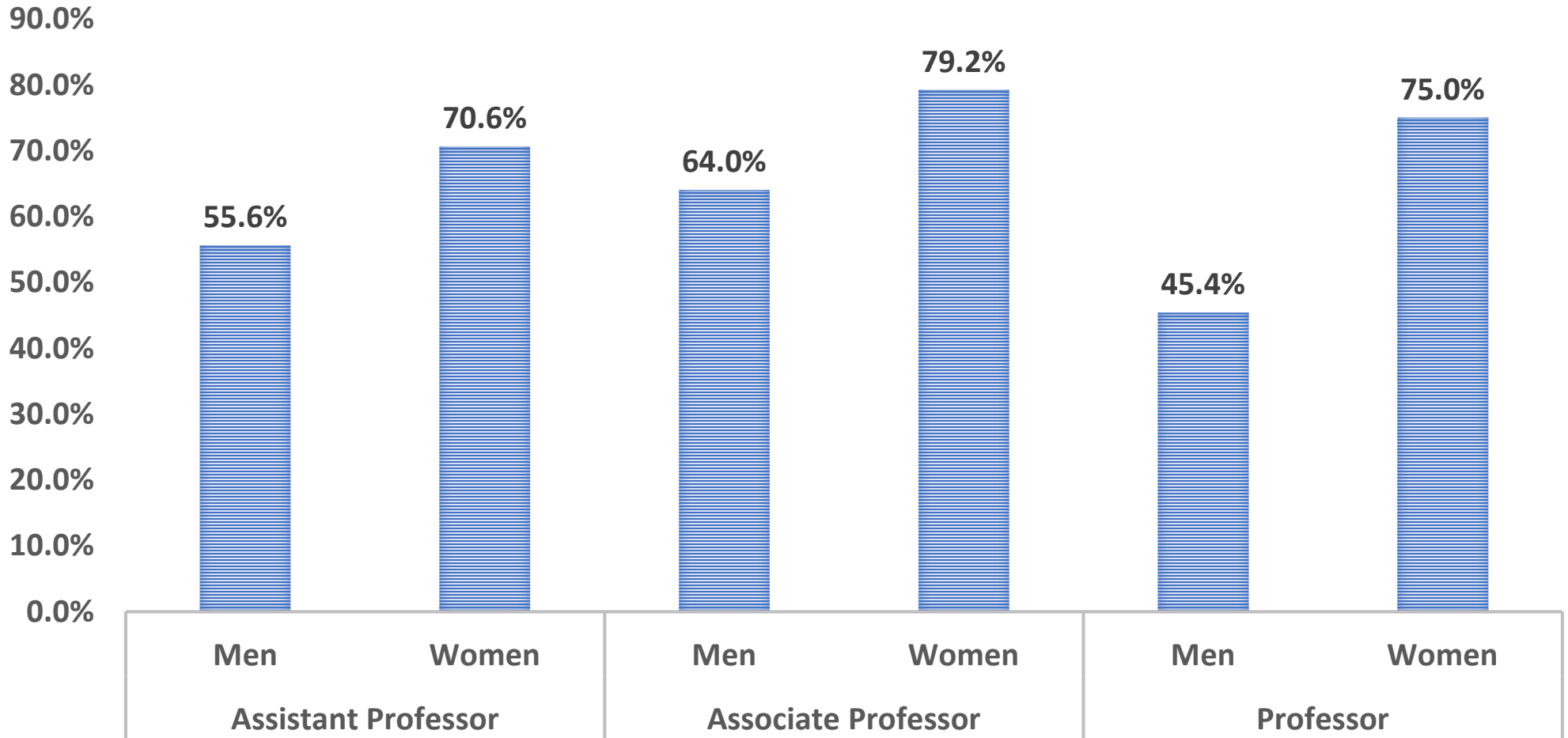
Compared to men, more STEM women report high levels of time pressure, gender discrimination, and more constraints (lack of job-supportive resources).

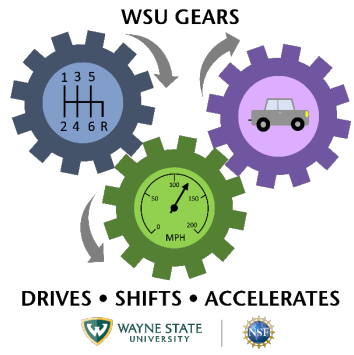
More women reported high preferences for separating work and non-work but fewer women reported perceptions of support for doing so.

Baseline Survey Results – STEM

HIDDEN WORKLOAD BURDEN

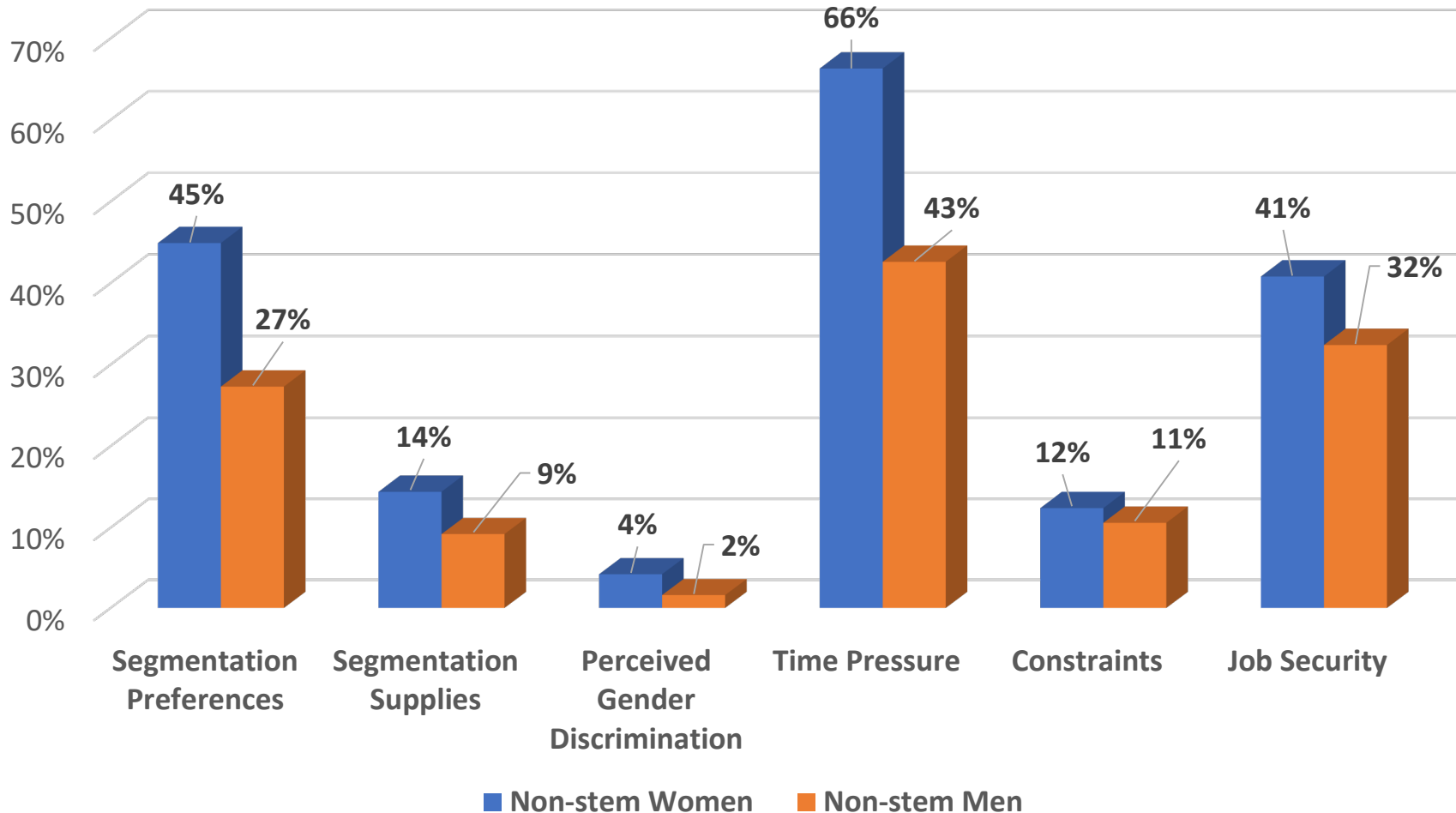
TIME PRESSURE





Baseline Survey Results – Non-STEM

HIDDEN WORKLOAD BURDEN



Compared to men, more non-STEM women report high levels of time pressure.

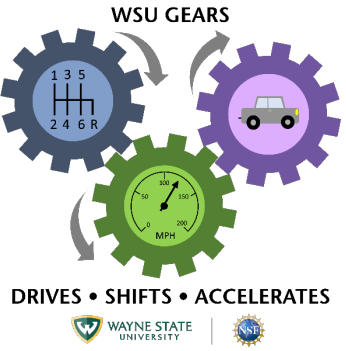
While women in non-STEM disciplines report higher levels of perceived gender discrimination than non-STEM men, the difference is smaller than for women in STEM.

Non-STEM women report higher levels of job security than men.

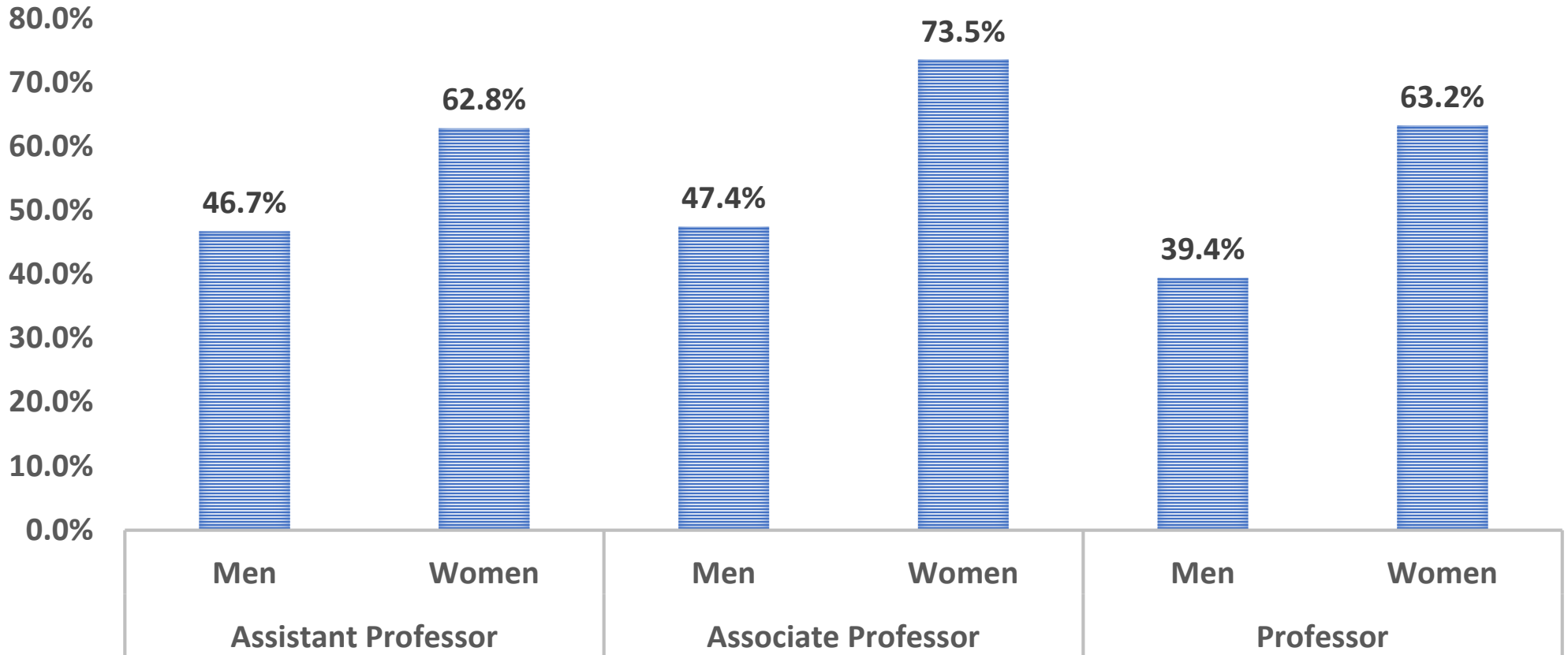
More women reported high preferences for separating work and reported more support for doing so.

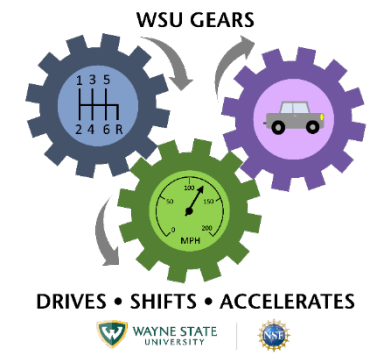
Baseline Survey Results – Non-STEM

HIDDEN WORKLOAD BURDEN



TIME PRESSURE





Focus Group Results

HIDDEN AND UNEQUAL WORKLOAD

Theme 1: Unrecognized work – in teaching and advising

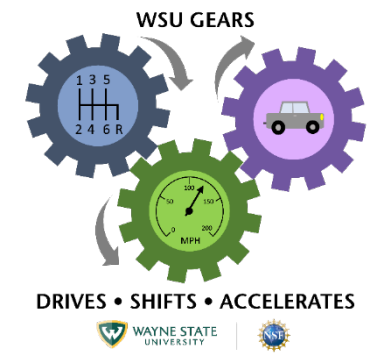
- Faculty struggled to allocate/manage time to meet department/university standards given the uneven distribution of teaching and service assignments and the hidden and unrecognized work attached to these assignments.

"Students who did graduate – I wouldn't consider myself their formal mentor anymore, but they still need letters of recommendation, they're still asking me questions, because I'm a research methodologist. They're asking me questions because they're not getting properly mentored in their dissertations, who were my master's students. There's still these ongoing mini sort of commitments that I have, that take a lot of time."

-- **Assistant Professor**

"I find myself functioning as CAPS. I'm not CAPS."

-- **Associate Professor**



Focus Group Results

HIDDEN AND UNEQUAL WORKLOAD

Theme 2: Lack of formal methods/transparency

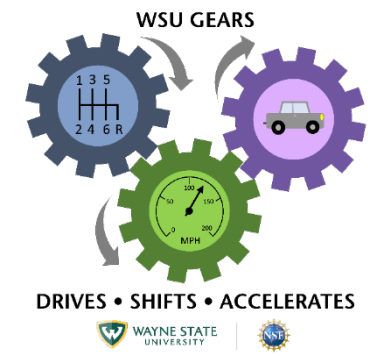
- Attempts at workload transparency vary by department and are met with resistance or fall apart.
- There is a strong reliance on informal methods to distribute work tasks: relying on mentors, serving on certain committee, and gaining insight in every day hallway encounters.

"But if I were to want to know how am I doing compared to someone in the department I think that would require me to do my own hunting around, looking at CVs, looking up other people's teaching ratings."

-- **Assistant Professor**

"...On some more senior faculty there is more of an attitude of, 'I've put the work in, and I've earned the ability now to be pickier about what I chose to do or to say no, I won't cover that intro or lower-level course because I did that years ago.'"

-- **Assistant Professor**



Focus Group Results

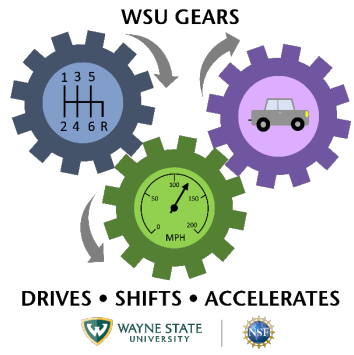
HIDDEN AND UNEQUAL WORKLOAD

Theme 3: Service

- Particularly important when thinking about workload distribution and what other faculty are doing to get promoted; some service has low promotability value.
- Service can be important for information gathering, especially the Salary & Merit and Promotion & Tenure Committees.

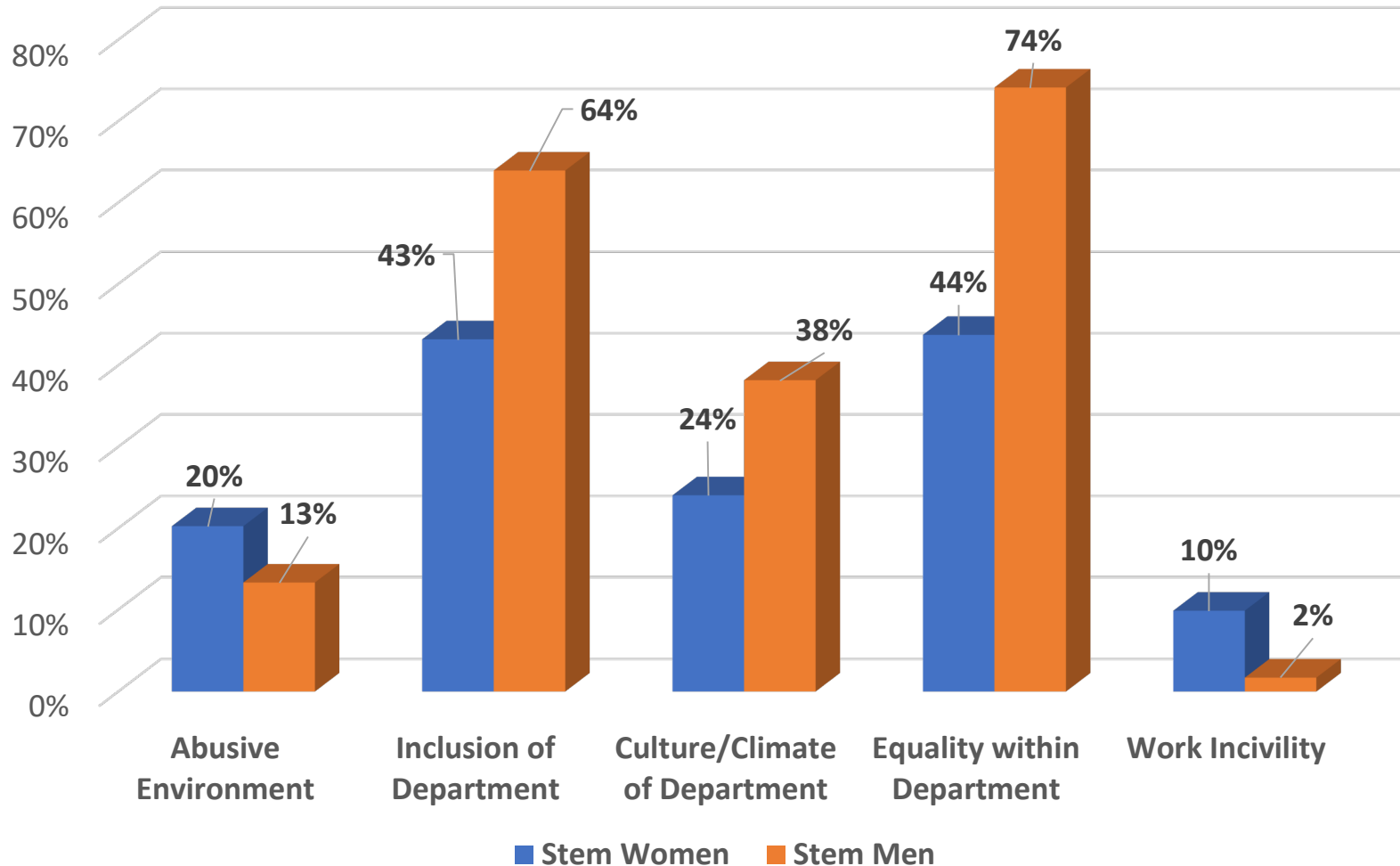
"I would also just say for me as well it wasn't just doing the departmental salary committee, but you really need to serve on the college salary committee as well. Because oftentimes, we sit here and I'm sure most departments are like this. We're very critical because we're critical by nature. As you know, peer reviewers and such. We tend to get critical with our performance. And sometimes we set our bar of performance so high that it exceeds drastically the performance of other departments in our college."

-- Full Professor



Baseline Survey Results – STEM

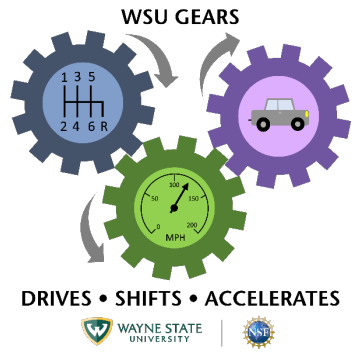
TOXIC WORK ENVIRONMENT



Women in STEM report high levels of witnessing abuse and experienced incivility.

Women in STEM report lower levels of inclusion, collegiality, and equality within the department.

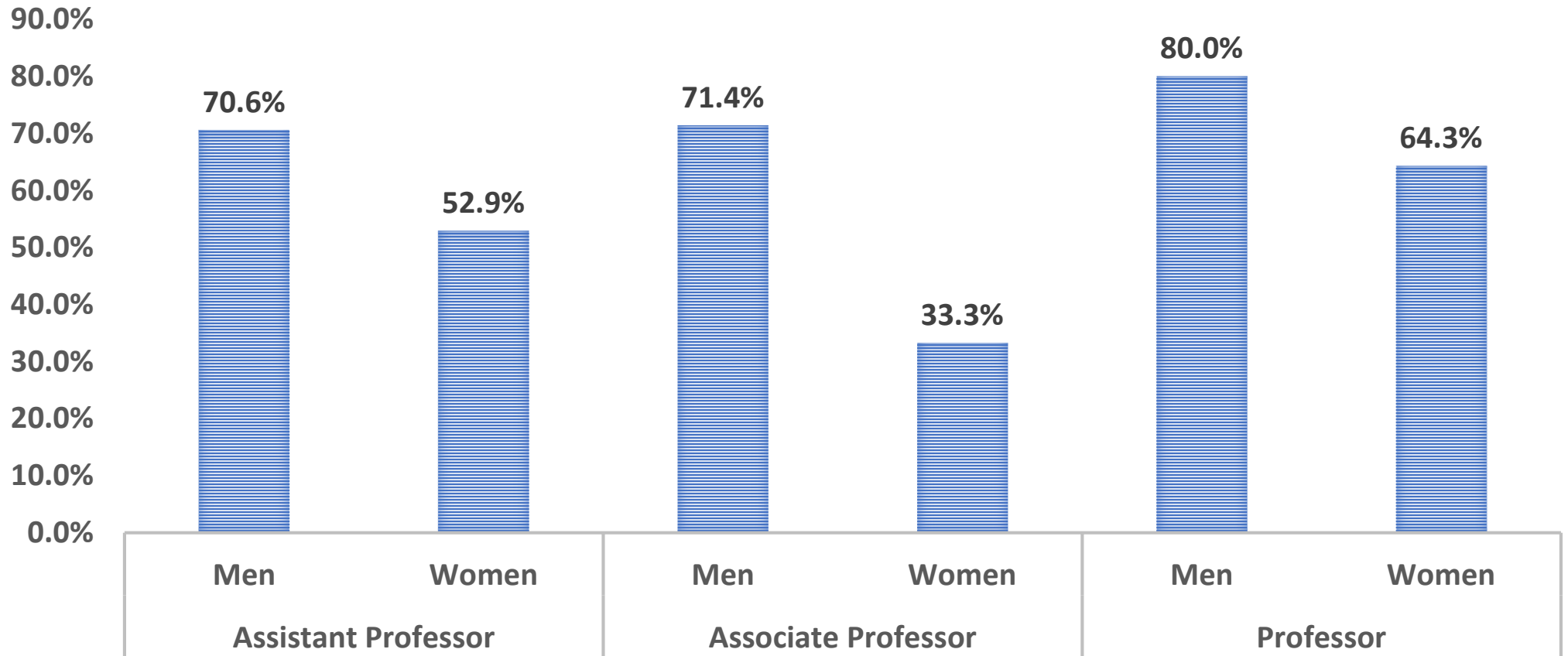
This pattern of results suggests the workplace experiences of STEM women may be markedly less favorable than those of men.

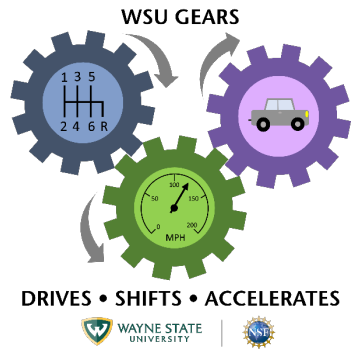


Baseline Survey Results – STEM

TOXIC WORK ENVIRONMENT

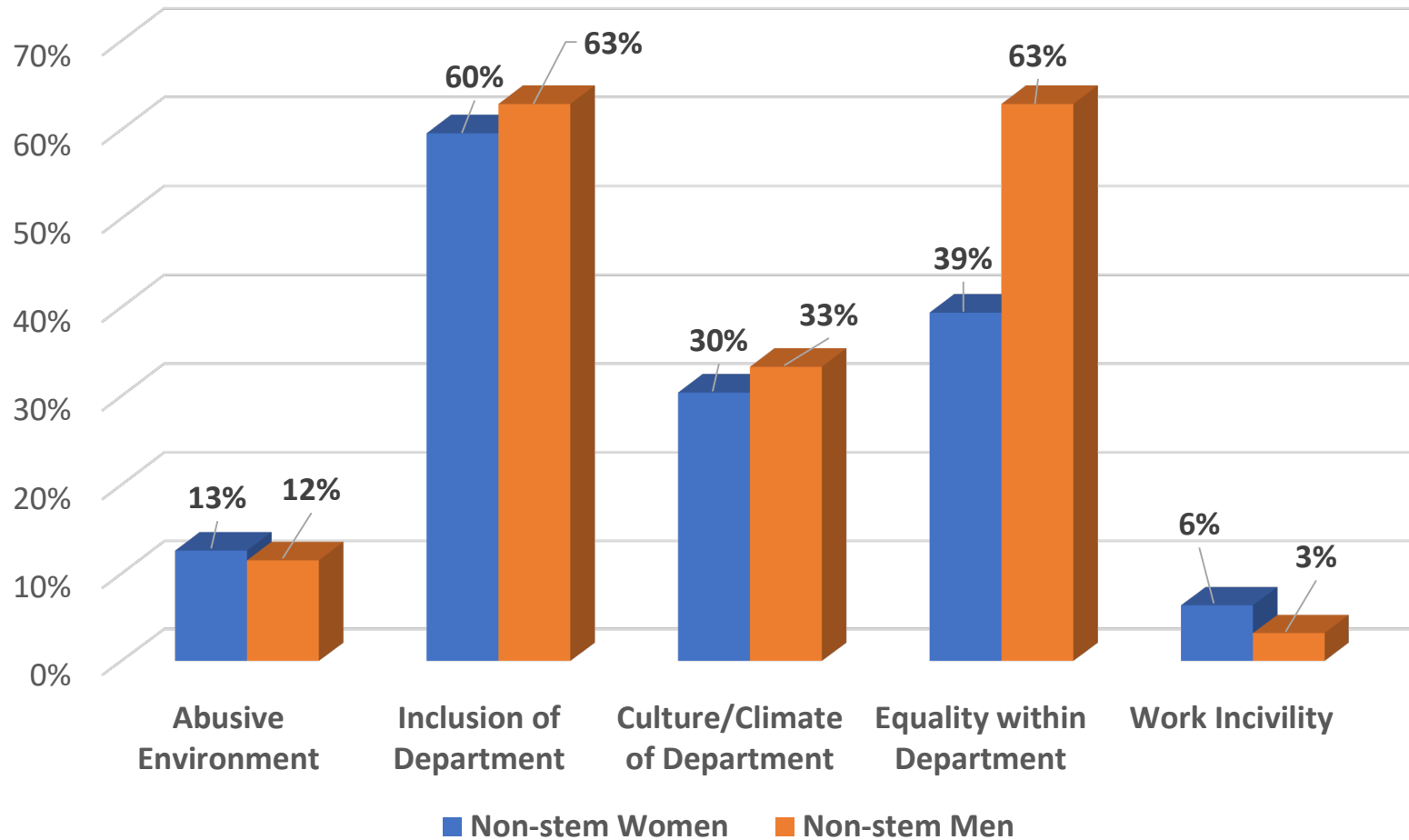
EQUALITY WITHIN DEPARTMENT





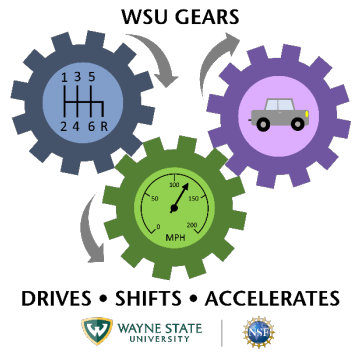
Baseline Survey Results – Non-STEM

TOXIC WORK ENVIRONMENT



Women in non-STEM disciplines report low levels of equality within the department.

While patterns for the remaining variables are similar to women in STEM, the differences between women and men in non-STEM disciplines are smaller compared to the STEM group.

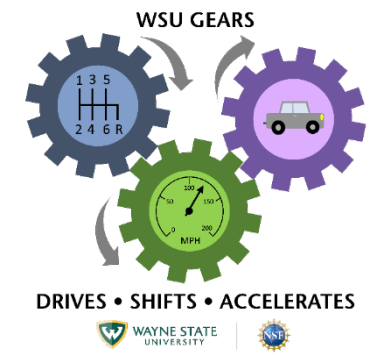


Baseline Survey Results – Non-STEM

TOXIC WORK ENVIRONMENT

EQUALITY WITHIN DEPARTMENT





Focus Group Results

TOXIC WORK ENVIRONMENT

Theme 1: Subtle and direct sexism/racism affecting work

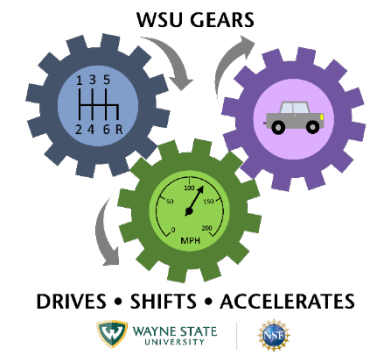
- Subtle sexism and racism involves commonplace indignities and derogatory slights toward underrepresented individuals.
- Collectively operate to sustain institutional inequities in promotional opportunities.

"...The vast majority of people are warm and supportive; we do have a couple of bullies. And it can make your life miserable. Like you dread going to meetings or you feel like you'll be targeted or humiliated... if you're a popular teacher, it's like people don't think there's enough love to go around. There's kind of this desire to cut you down or undermine you. If somebody says something nice about you, the first thing out of their mouth will be, well that's not really a big deal"

– **Full Professor**

"I got a grant. It was a prestigious grant and I happened to mention it to a colleague that I really, really respected and has intellectually really helped me out with bouncing ideas. The response was, oh, I guess what it takes to get a grant these days is to be a woman. I was so shocked because it was somebody, I felt like I had a pretty good relationship with."

– **Associate Professor**



Focus Group Results

TOXIC WORK ENVIRONMENT

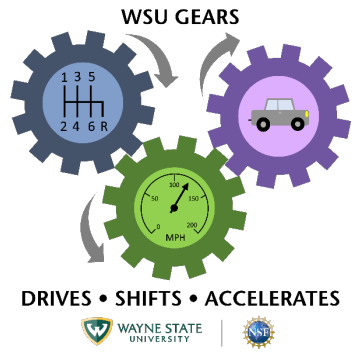
Theme 2: Institutionalization of toxic behaviors

- It happens in mentorship, within department and university leadership, and is ingrained within academic culture.
- Support groups can help reduce anxiety or stress about incidents but do not offer much recourse for systematic change.

“Wayne State has done a terrible job at supporting [victims of] sexual harassment and bullying.” -- **Full Professor**

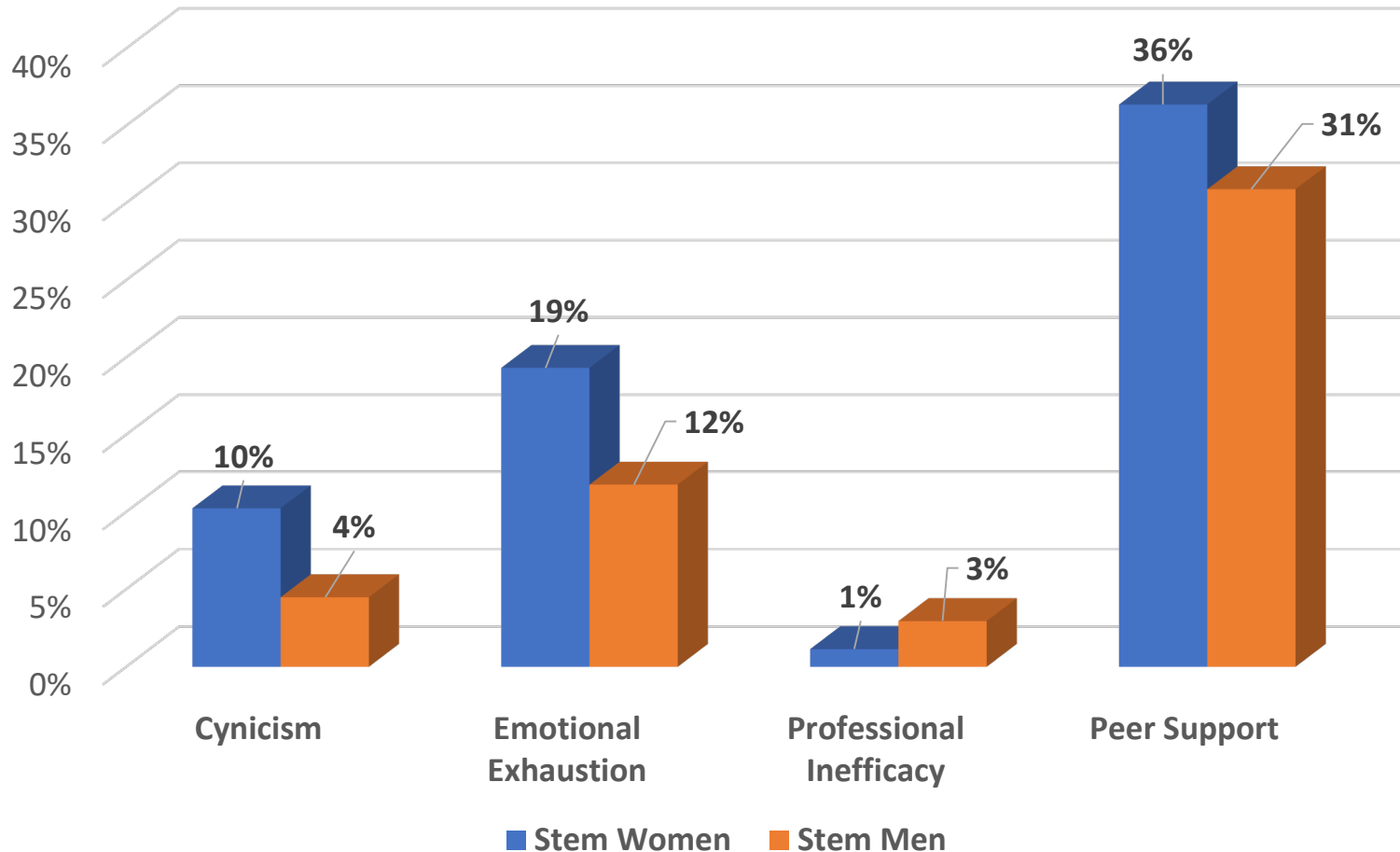
"I also know of cases of sexual harassment being reported and then not actually dealt with and kind of informal mechanisms of, like, we just won't assign students to this person, but that doesn't actually prevent the behavior." -- **Associate Professor**

"If there are no consequences to anyone's job, why can't we bring in arbiters to help departments deal with bullying issues across the board. All I heard was, 'We can't do that.' I don't believe that's completely true and that it would necessarily conflict with the contract. But I think there's a big lack of support generally for those kinds of issues." -- **Full Professor**



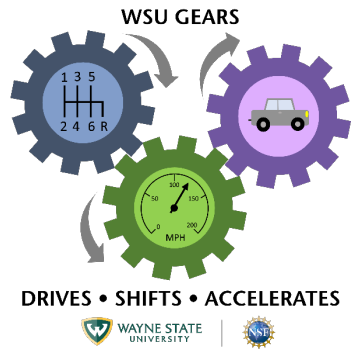
Baseline Survey Results – STEM

CORE SURVEY MEASURES



Women in STEM report higher levels of peer support compared to men.

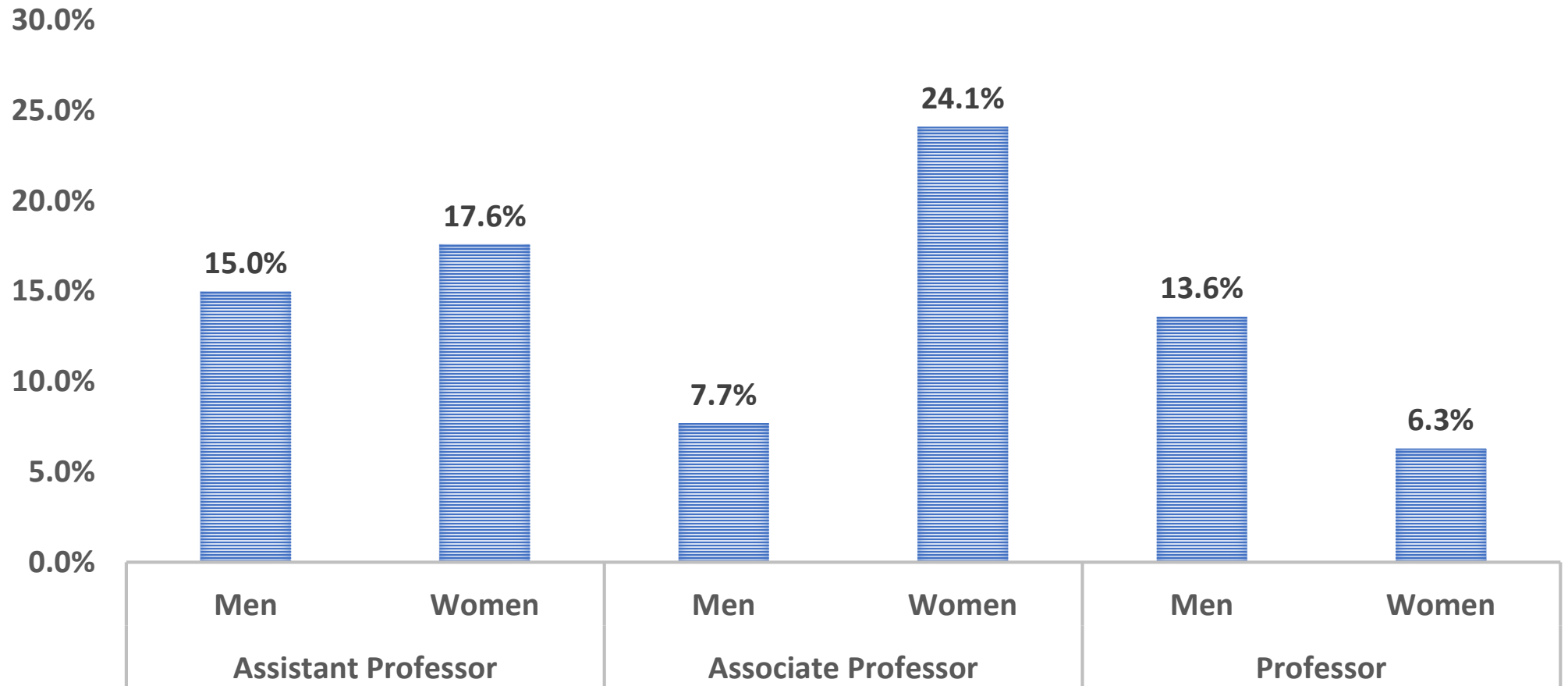
However, women in STEM report higher levels of cynicism and emotional exhaustion compared to men, thus suggesting they are experiencing higher degrees of burnout.

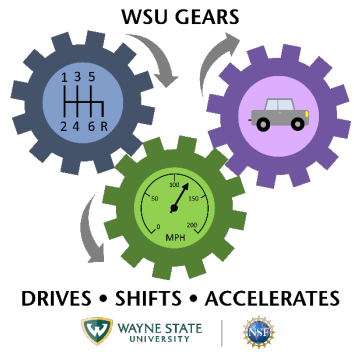


Baseline Survey Results – STEM

CORE SURVEY MEASURES

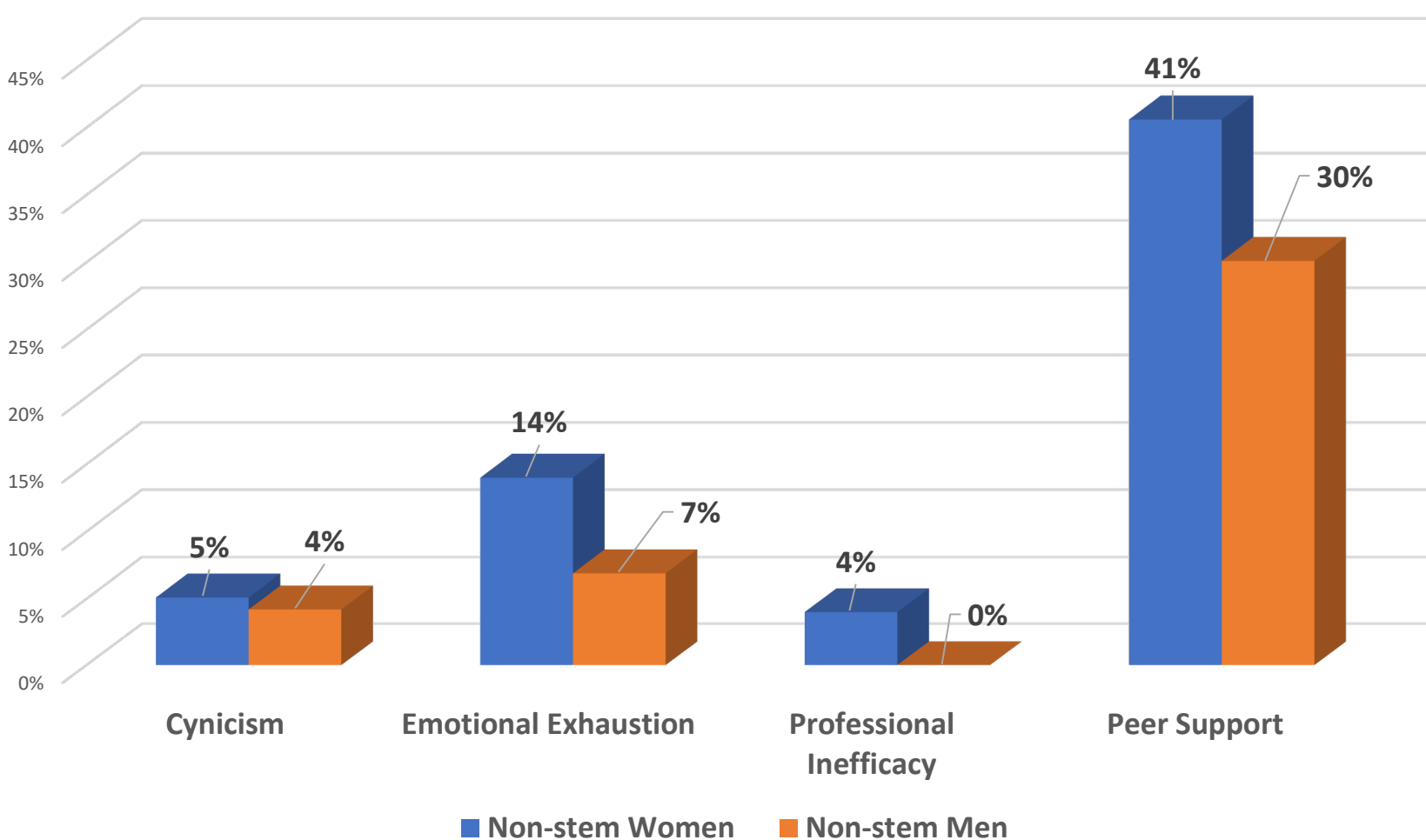
EMOTIONAL EXHAUSTION





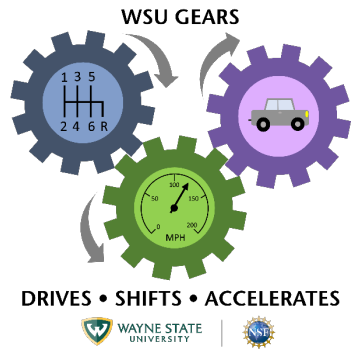
Baseline Survey Results – Non-STEM

CORE SURVEY MEASURES



Women in non-STEM disciplines report higher levels of peer support compared to men.

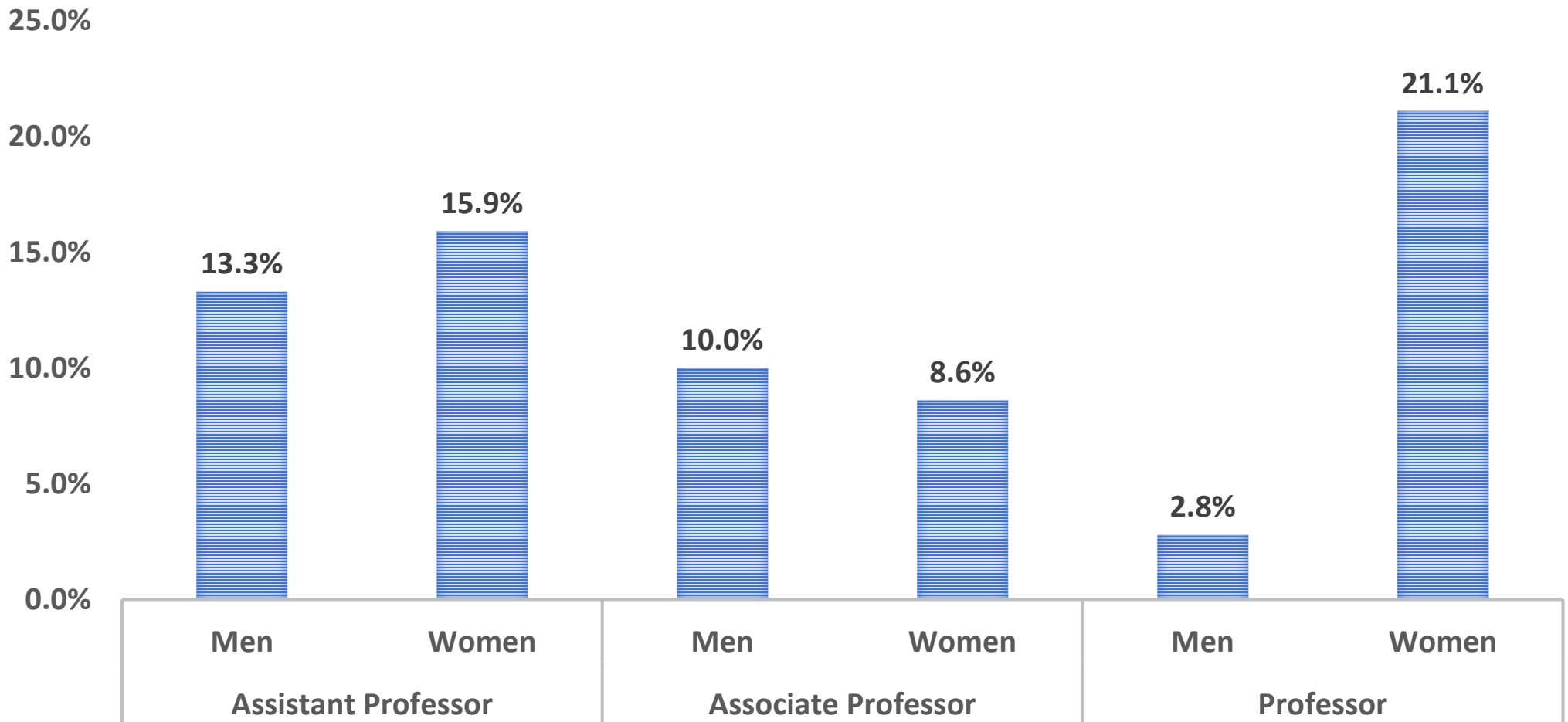
However, non-STEM women report more emotional exhaustion and professional inefficacy compared to men, thus suggesting they are experiencing higher degrees of burnout.

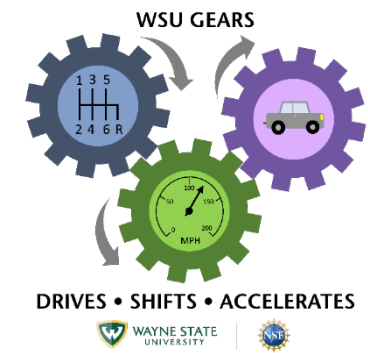


Baseline Survey Results – Non-STEM

CORE SURVEY MEASURES

EMOTIONAL EXHAUSTION





Focus Group Results

THEMES ACROSS BARRIERS

Theme 1: Chair Variability

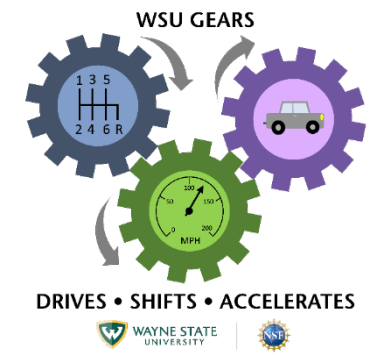
- Without written minimum agreements, a lot of decision power rests with chairs for individual situations.

“...She was having a baby and was asking for reduced teaching load and she had to fight with the chair. [She] paid someone out of her pocket to teach for her...It shouldn't depend on whether I'm chair or someone else is chair.”

-- Full Professor

"The problem is that a previous chair had policies in place and then the next chair decides to do it a little differently. And then there are people that never really got compensated or recognized for something that happened under a previous administration."

-- Associate Professor



Focus Group Results

THEMES ACROSS BARRIERS

Theme 2: Rank

- The proportion of women in academic posts diminishes at each step of the career ladder.
- Limited opportunities are mostly taken by men with little mentorship for women on how to move into new positions.

"Two out of the three people wouldn't even share their record with me as I'm going up for tenure [laughs] – for whatever reason. So not very collegial. I don't know if it's bullying exactly, but despite the fact that there are some friendly people who answer my questions in my department, there are also some unfriendly people who have made me feel pretty shitty." -- **Assistant Professor**

"I would say that there are conversations in the hallway about how you should consider getting on department and university-wide committees to increase your visibility on campus. I certainly did not have conversations with anyone to change that when I went from assistant to associate professor."

-- **Associate Professor**



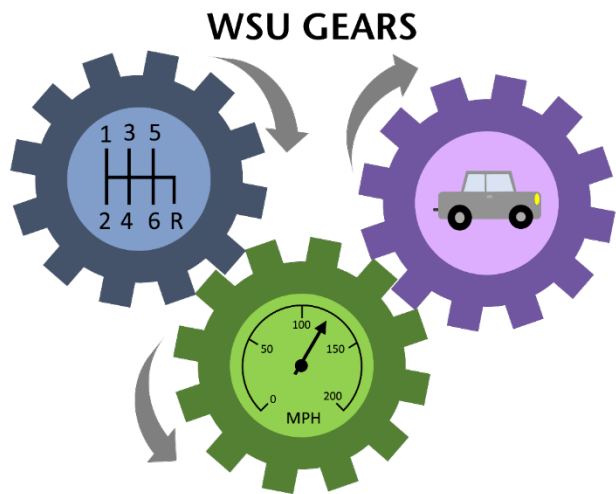
WSU GEARS

Gender Equity Advances Retention in STEM



Home About ADVANCE The GEARS Project The Team Resources Networking In the News Events

An NSF ADVANCE Adaptation Award 2020-2023
Gender Equity Advances Retention in STEM
@ Wayne State University



WSU GEARS

DRIVES • SHIFTS • ACCELERATES



<https://s.wayne.edu/nsf-advance/networking/internal-networks/wayne-women-in-stem/>



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gears@wayne.edu

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