Michigan Tech News

NSF Funds Program to Recruit and Keep Diverse Faculty

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By Jennifer Donovan | Published 8:00 a.m., September 20, 2018
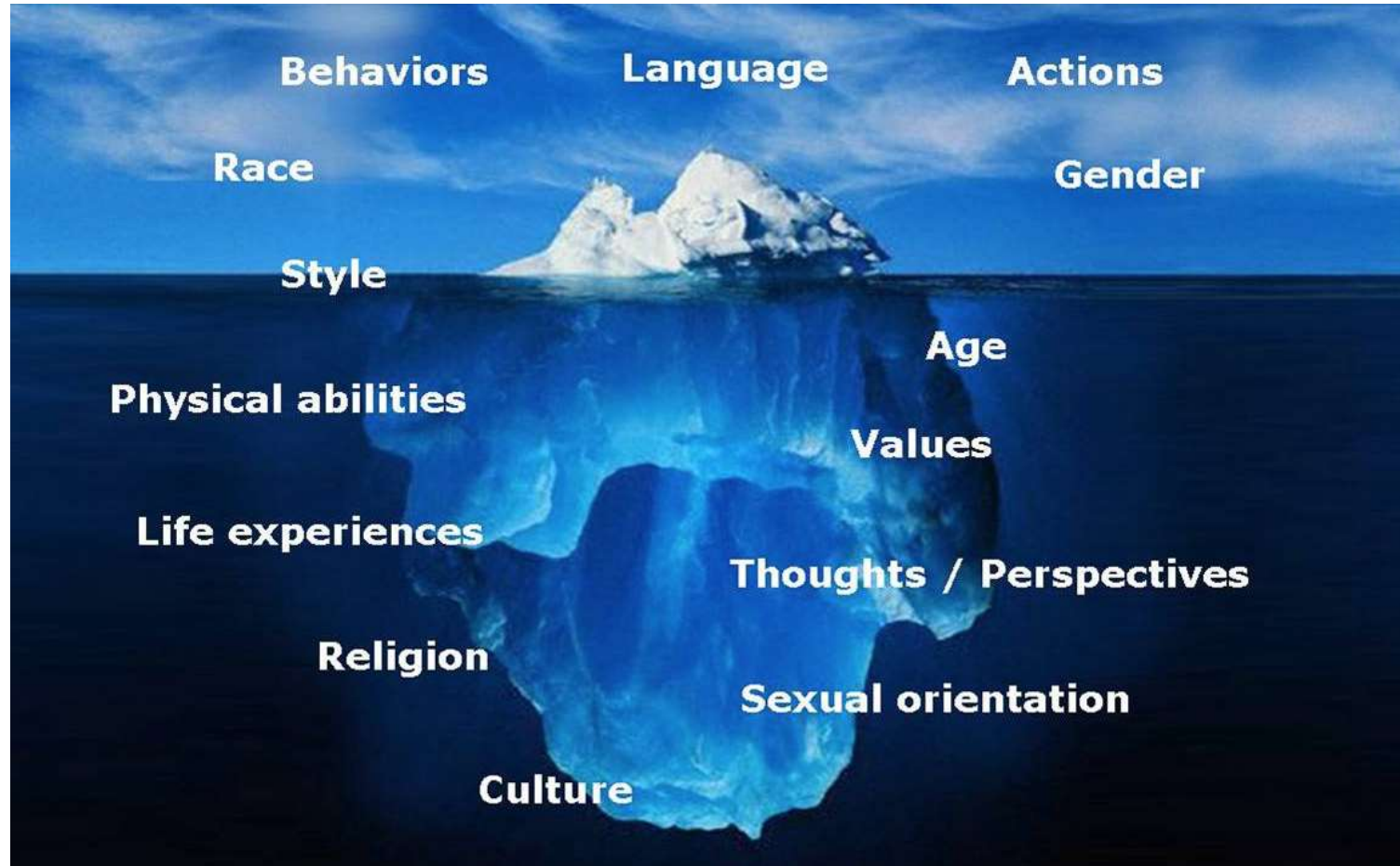
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ADVANCE Adaptation: AMP-UP Continuous Improvement Process to Transform Institutional Practices and Culture

Adrienne Minerick, Sonia Goltz, Patricia Sotirin, Andrew Storer, Audrey Mayer
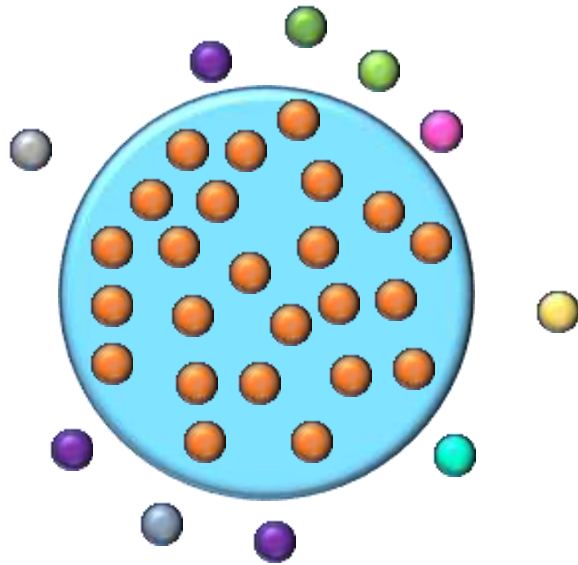
AMP-UP = Advanced Matrix Process for University Programs

Individual differences are not always visible…

Behaviors   Language   Actions

Race   Gender

Style

Age

Physical abilities

Values

Life experiences

Thoughts / Perspectives

Religion   Sexual orientation

Culture

….and differences enhance quality/richness of outcomes[1-3]

[1]Forbes, June 2018; [2]Saxena Procedia Economics 2014; [3]Harvard Business Review 2017

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Diversity does not = Inclusion

No Diversity
(within organization)
No Inclusion

Diversity,
Poor Inclusion

Diversity
AND
Inclusion

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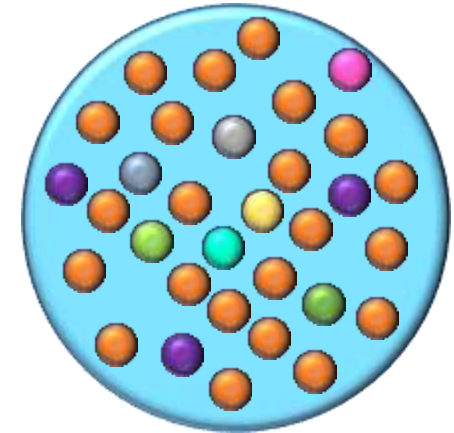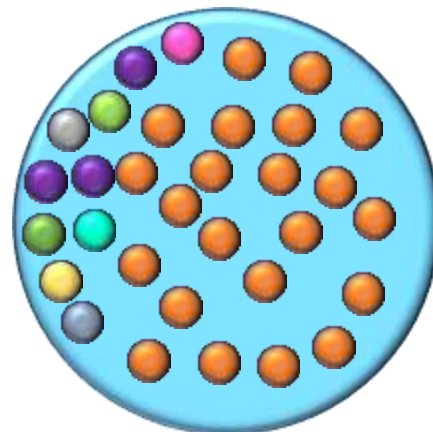
Diversity and Inclusion- Defined

- ## Diversity – Individual differences
  - Race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs… etc.

- ## Inclusion – behaviors and mindset
  - Promoting respect, belonging, leveraging the value and harnessing the power of diversity to the benefit of the organization

N.B. →You can increase diversity, but without inclusion, it is not sustainable.

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Top Reasons Faculty Respondents *Seriously Considered Leaving* Michigan Tech

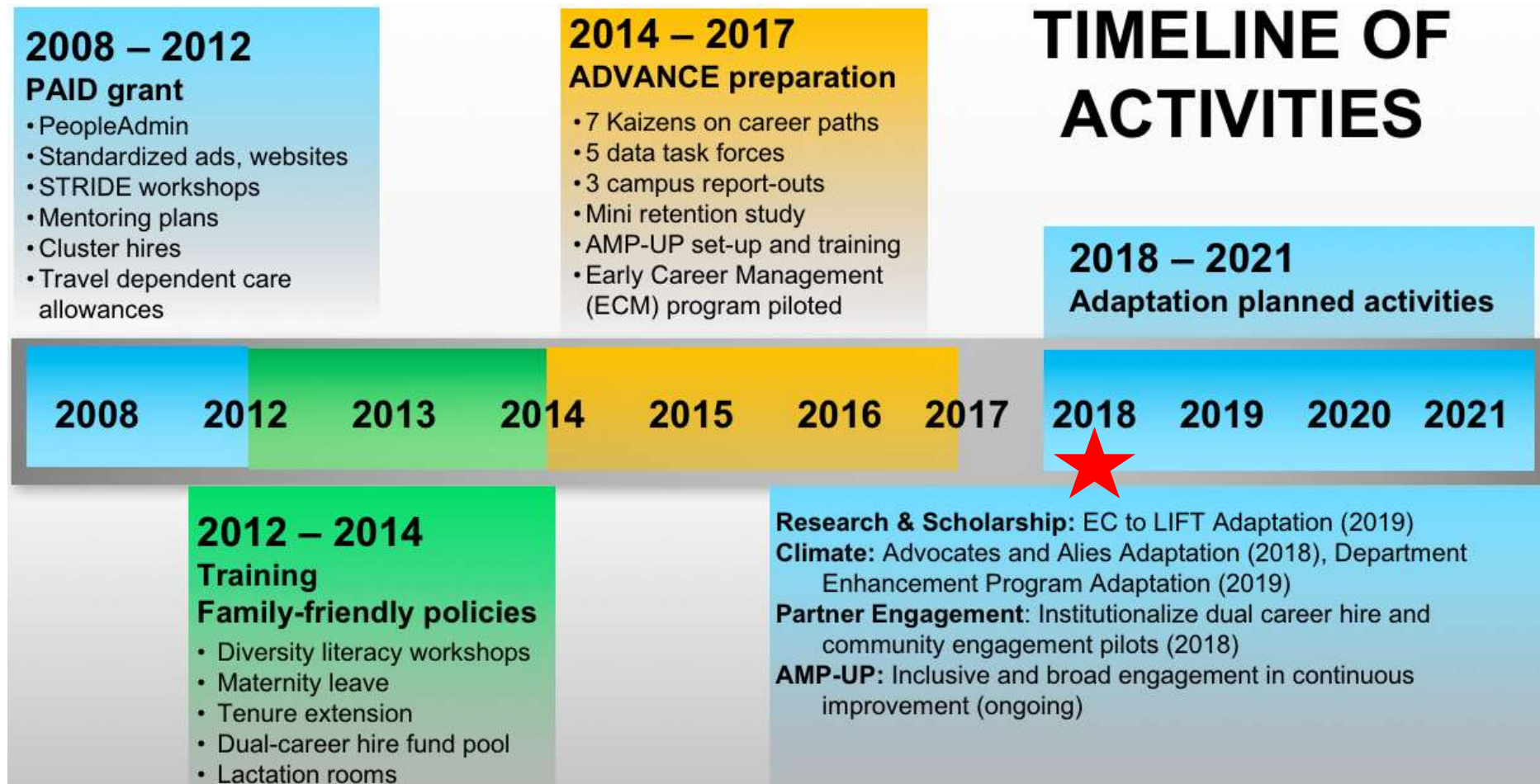| Reason	*n*	%
Low salary/pay rate	56	41.2
Interested in a position at another institution/ organization	49	36.0
Institutional support	49	36.0
Limited opportunities for advancement	43	31.6
Lack of a sense of belonging	42	30.9

Request (Step #1)

- Ask that the University Senate revisit inclusion of existing policies
    - Diversity Council has been charged by the President to advise on these issues. Ask them to review policies with this lens.
- Ask that the University Senate form an Inclusion Committee to review new and revised policies with the inclusion lens.

- Example (if needed). When maternity/paternity leave is requested, tenure extension is automatic. People then have to opt out to reduce the stigma of exercising it.

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Back up Slides

Initiatives at Michigan Tech Over Time

TIMELINE OF ACTIVITIES

2008 – 2012
PAID grant
- PeopleAdmin
- Standardized ads, websites
- STRIDE workshops
- Mentoring plans
- Cluster hires
- Travel dependent care allowances

2014 – 2017
ADVANCE preparation
- 7 Kaizens on career paths
- 5 data task forces
- 3 campus report-outs
- Mini retention study
- AMP-UP set-up and training
- Early Career Management (ECM) program piloted

2018 – 2021
Adaptation planned activities

2008	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021

2012 – 2014
Training
Family-friendly policies
- Diversity literacy workshops
- Maternity leave
- Tenure extension
- Dual-career hire fund pool
- Lactation rooms

Research & Scholarship: EC to LIFT Adaptation (2019)
Climate: Advocates and Alies Adaptation (2018), Department Enhancement Program Adaptation (2019)
Partner Engagement: Institutionalize dual career hire and community engagement pilots (2018)
AMP-UP: Inclusive and broad engagement in continuous improvement (ongoing)

National Science Foundation awarded our team $1,000,000 over 3 years to increase retention of women & intersectional individuals
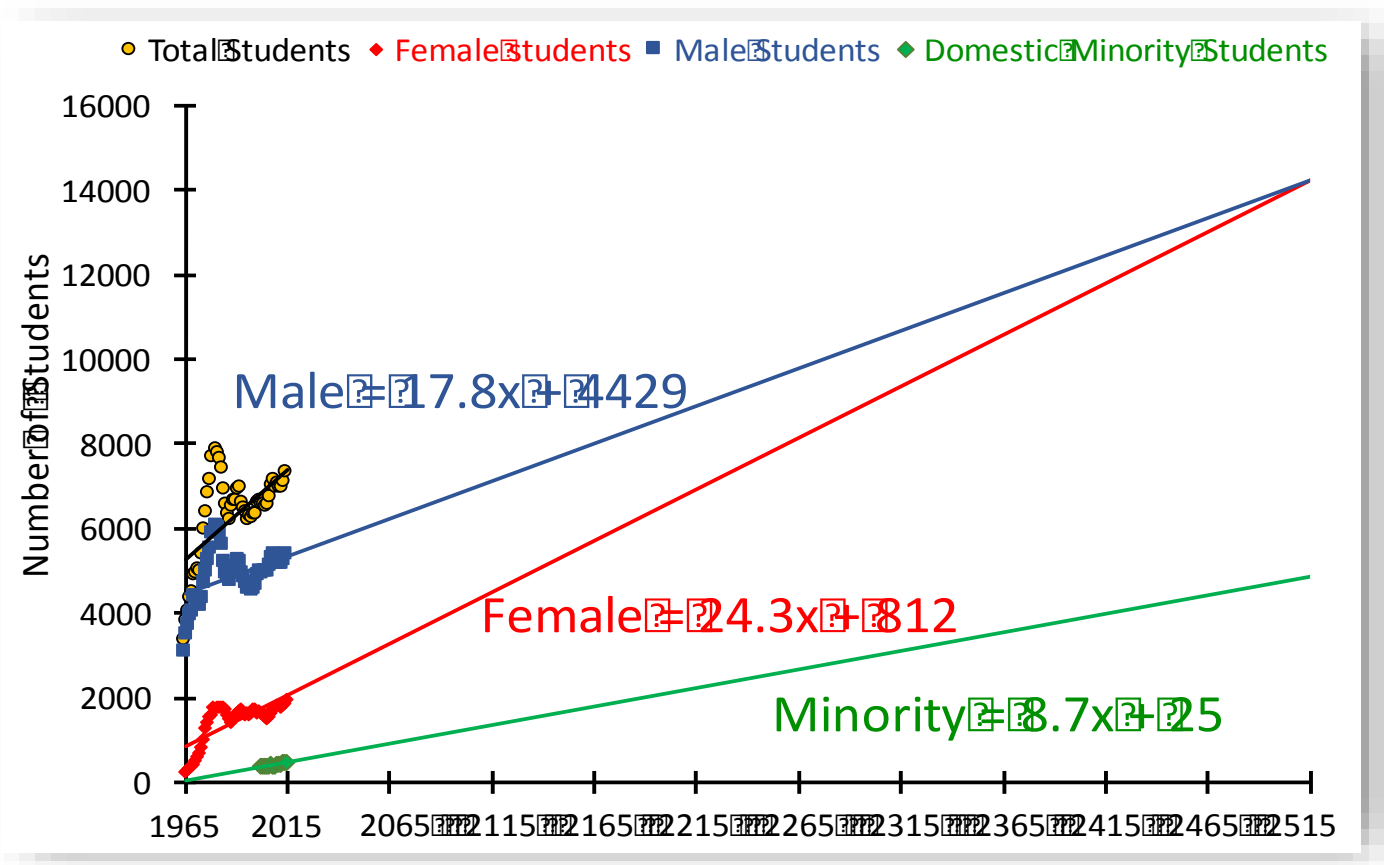
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Previous ADVANCE Efforts

⬜ # Female Assistant ⋯⋯ % Female Assistant
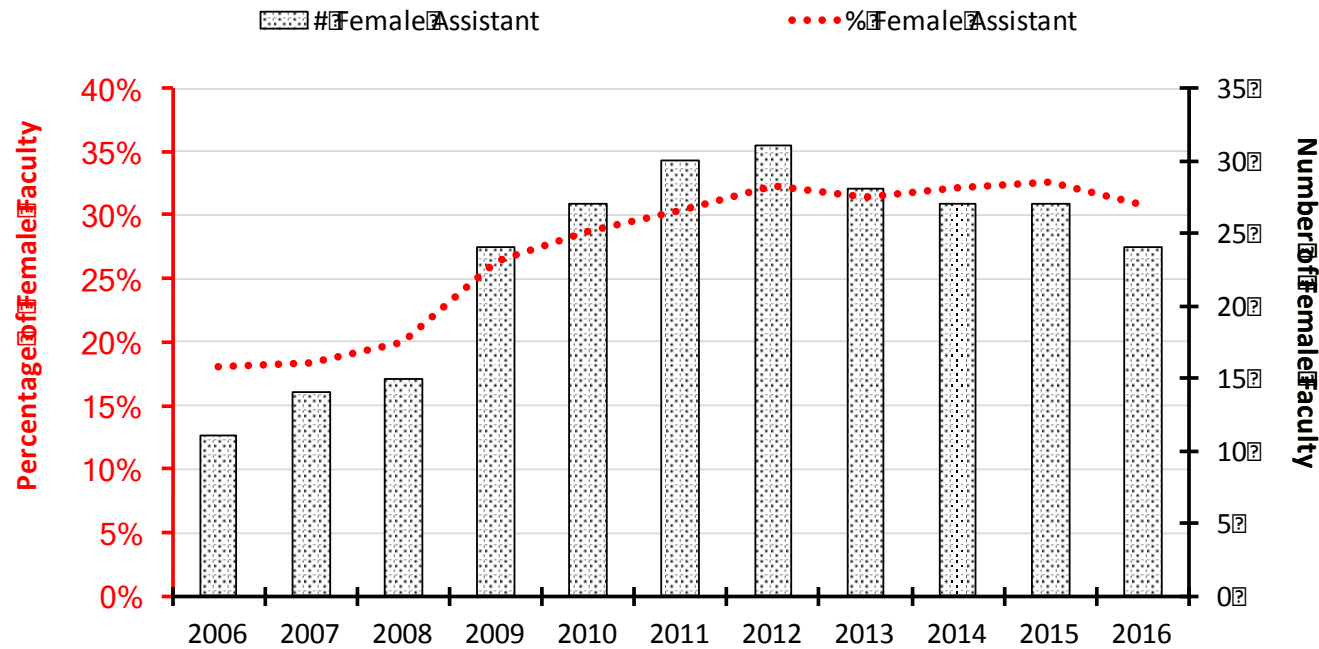
- Increase at Assistant Level
- Promotions not increasing Associate & Full representation
- → Retention

STEM Proportion in 2017
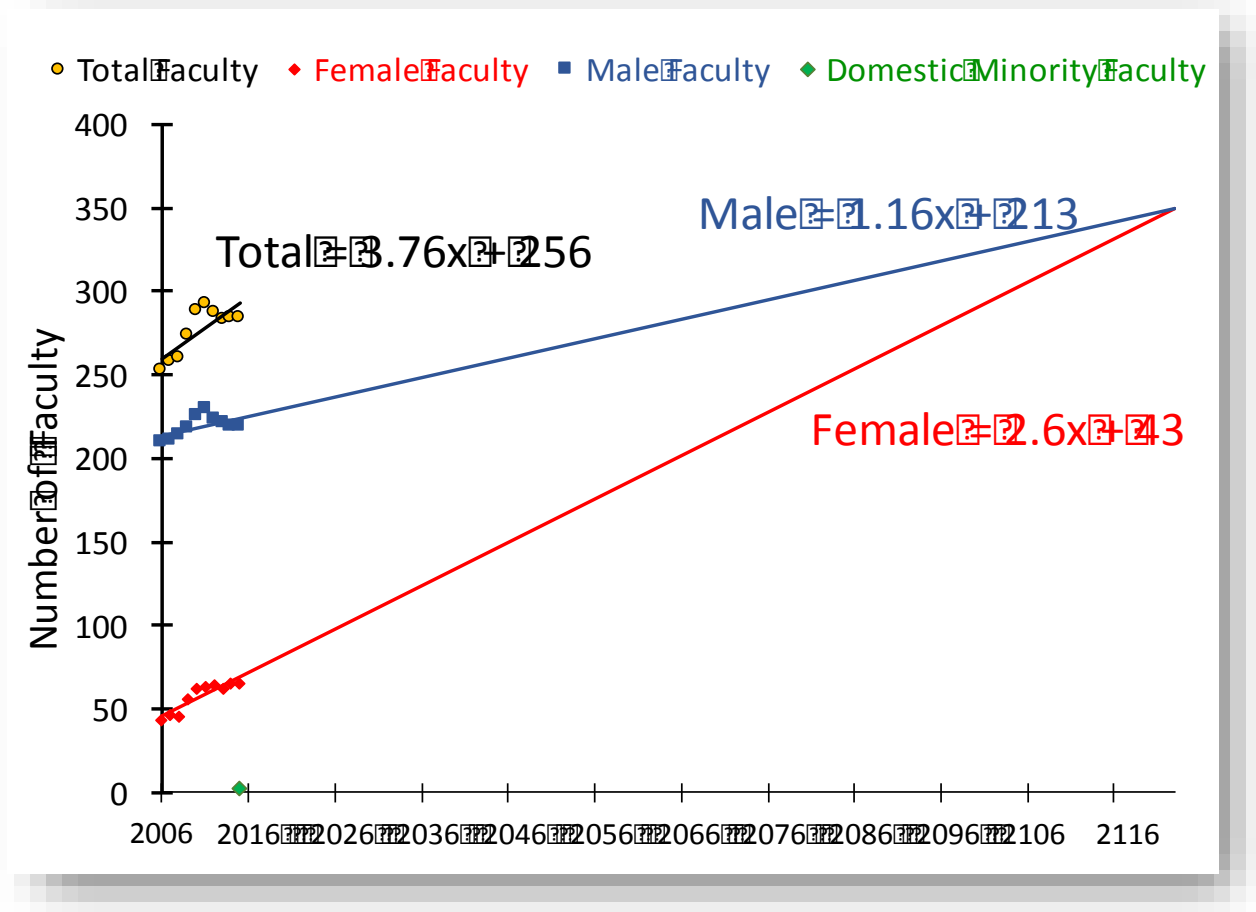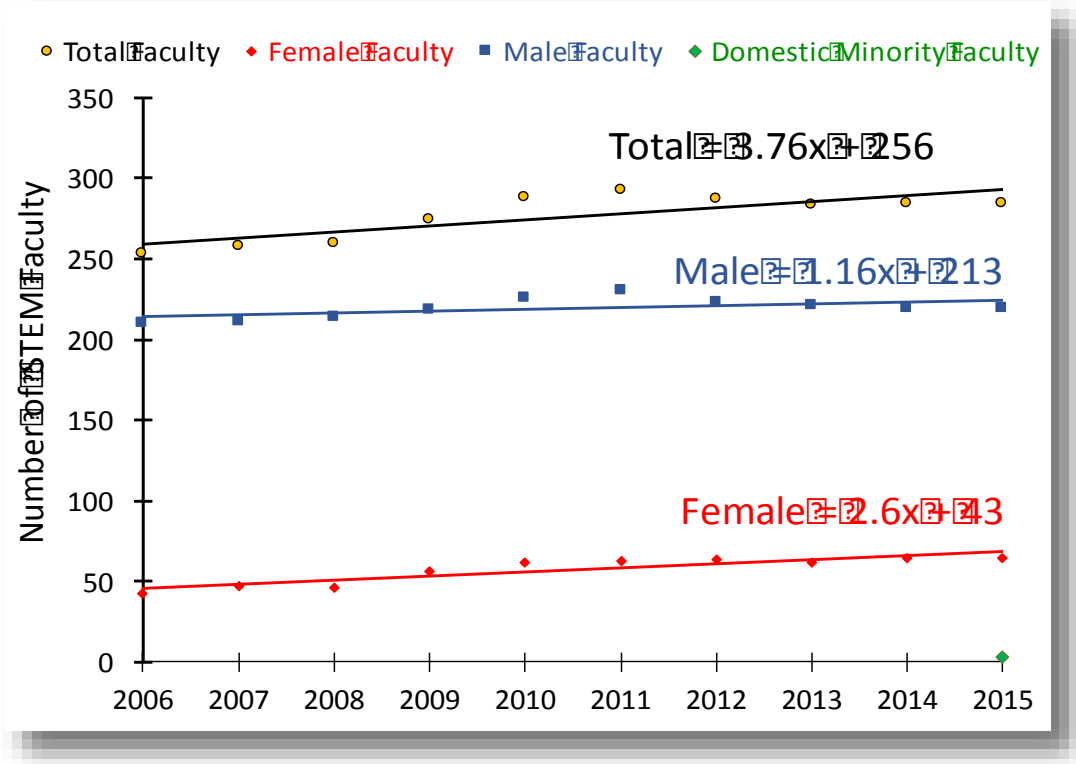

23%

219 Men   65 Women

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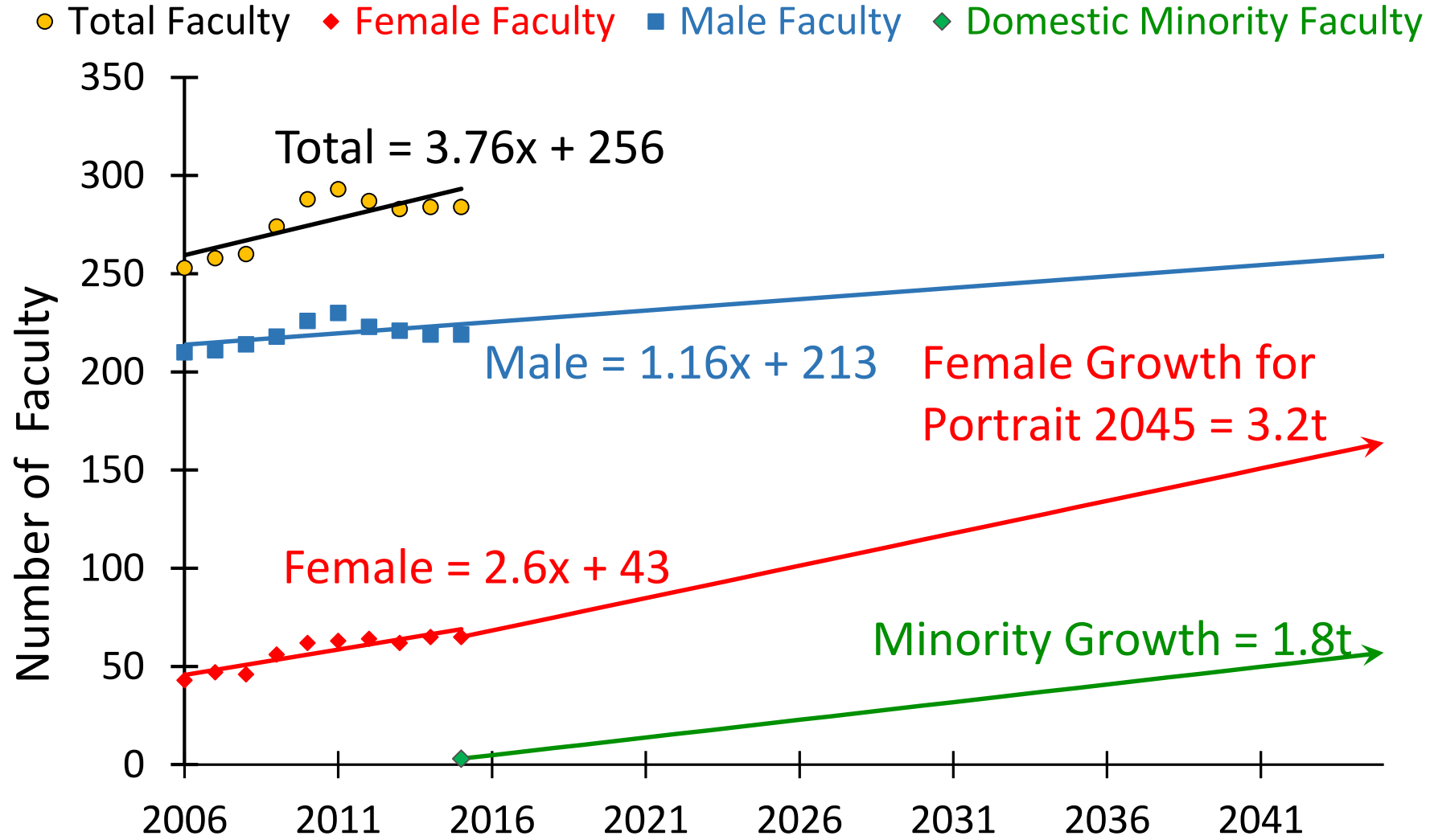# At present growth rates, our student population will be 50% women in 507 years and 14% Minority in 270 years.

Portrait 2045 sets a goal to attain 40% women by 2045 (students)

Total = 42.1x + 5241

Male = 17.8x + 4429

Female Growth for Portrait 2045 = 66.5t

Female = 24.3x + 812

Minority Growth = 24.8t

Minority = 8.7x + 25
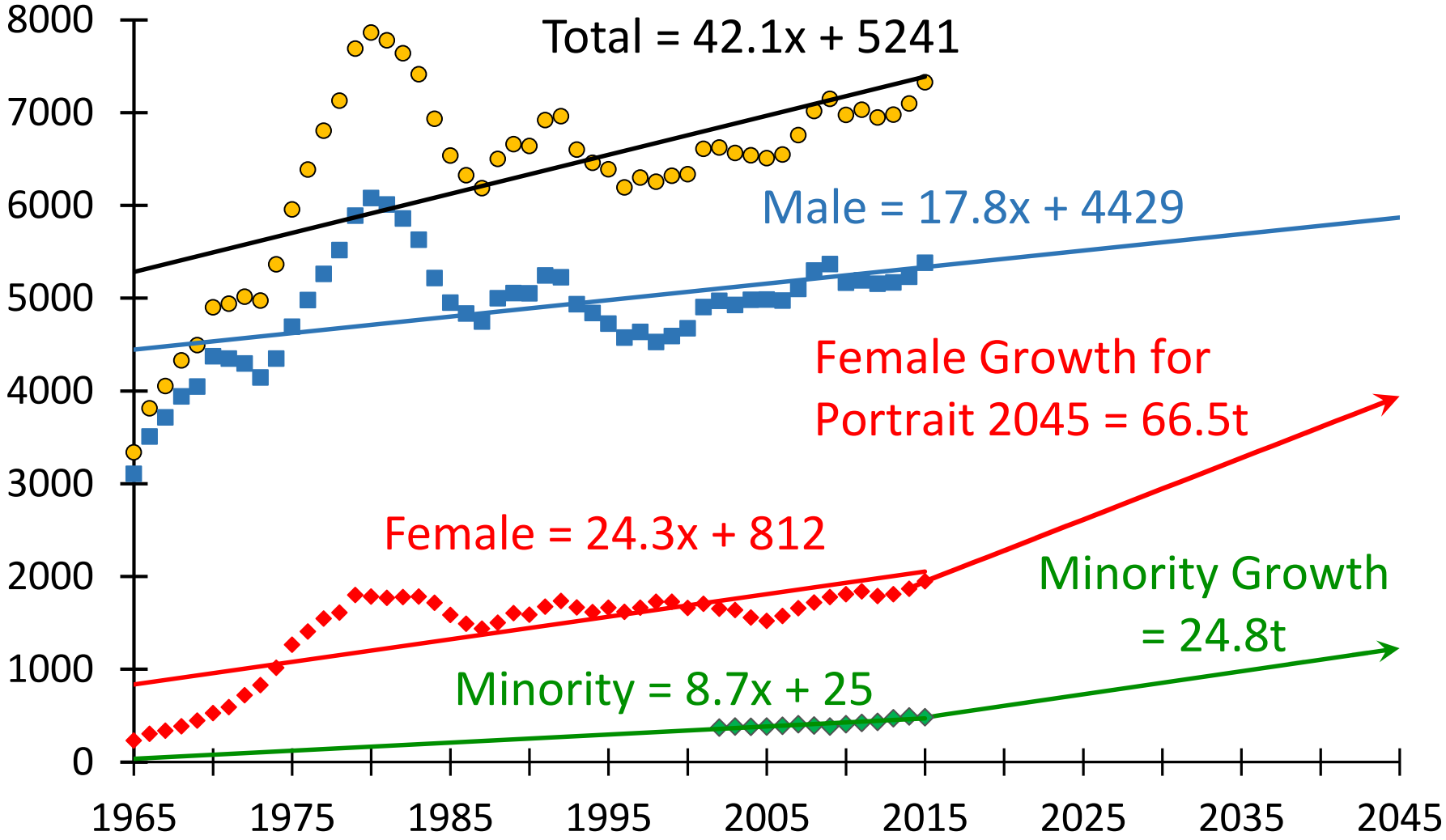
At present growth rates, our faculty population will be 50% women in 108 years

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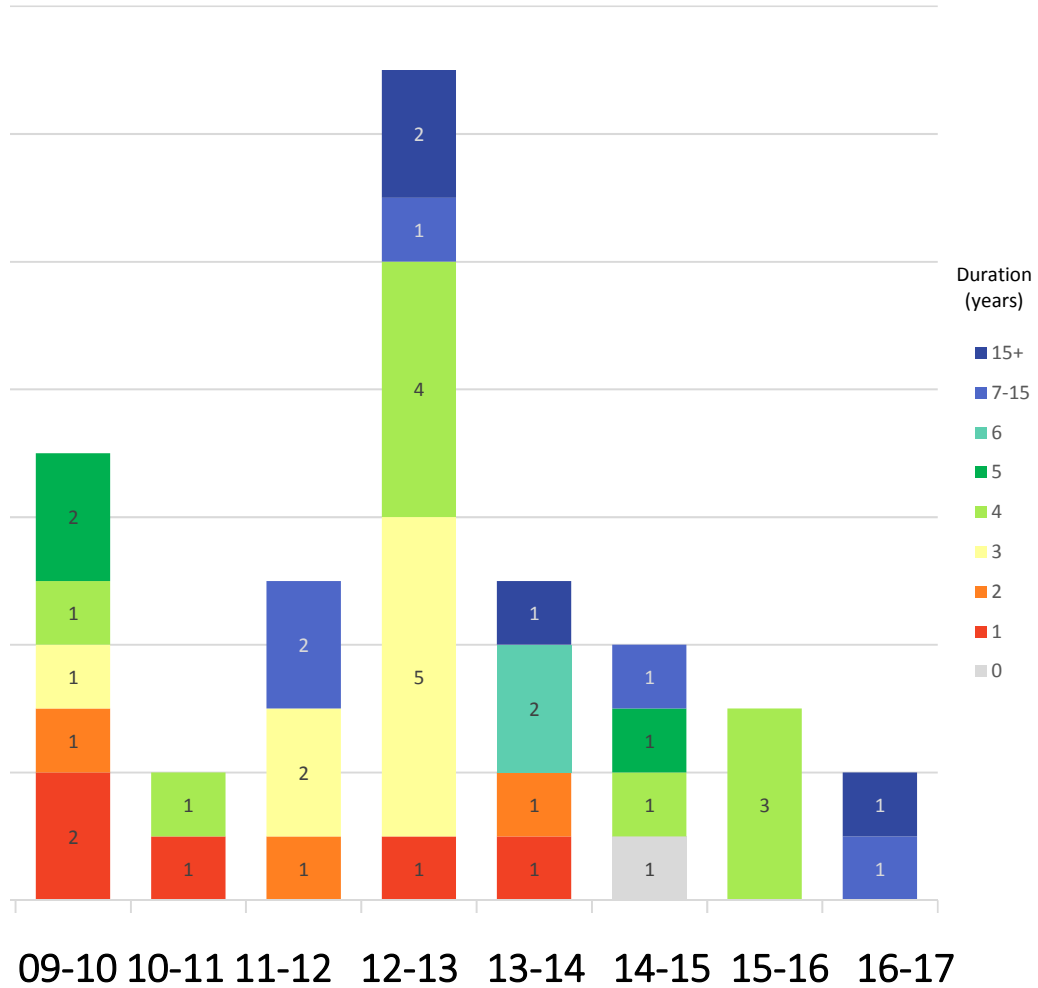# Portrait 2045 with 40% women and >14% minority faculty is do-able!

Legend: Total Faculty ● Female Faculty ◆ Male Faculty ■ Domestic Minority Faculty ◆

Total = 3.76x + 256

Male = 1.16x + 213

Female = 2.6x + 43

Female Growth for Portrait 2045 = 3.2t

Minority Growth = 1.8t

Number of Faculty (y-axis: 0, 50, 100, 150, 200, 250, 300, 350)

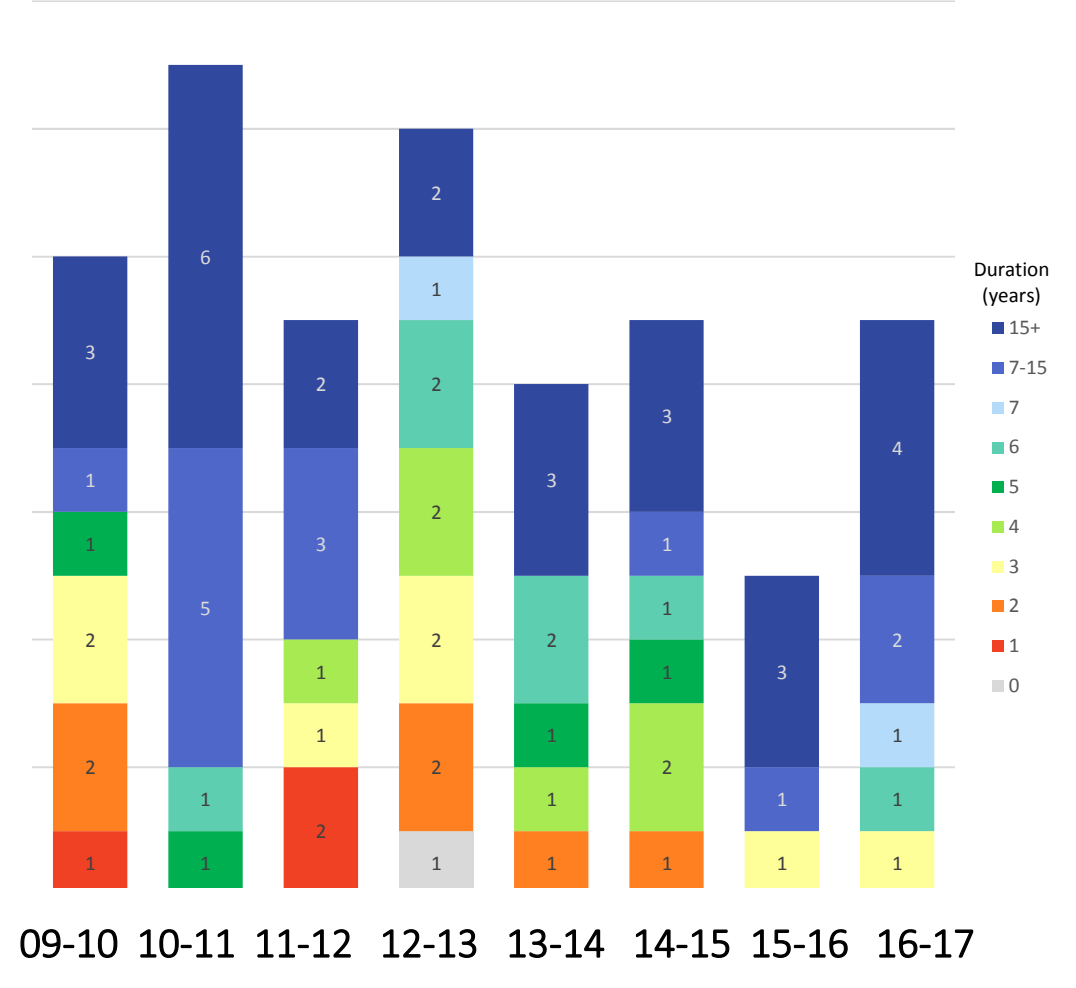x-axis: 2006, 2011, 2016, 2021, 2026, 2031, 2036, 2041
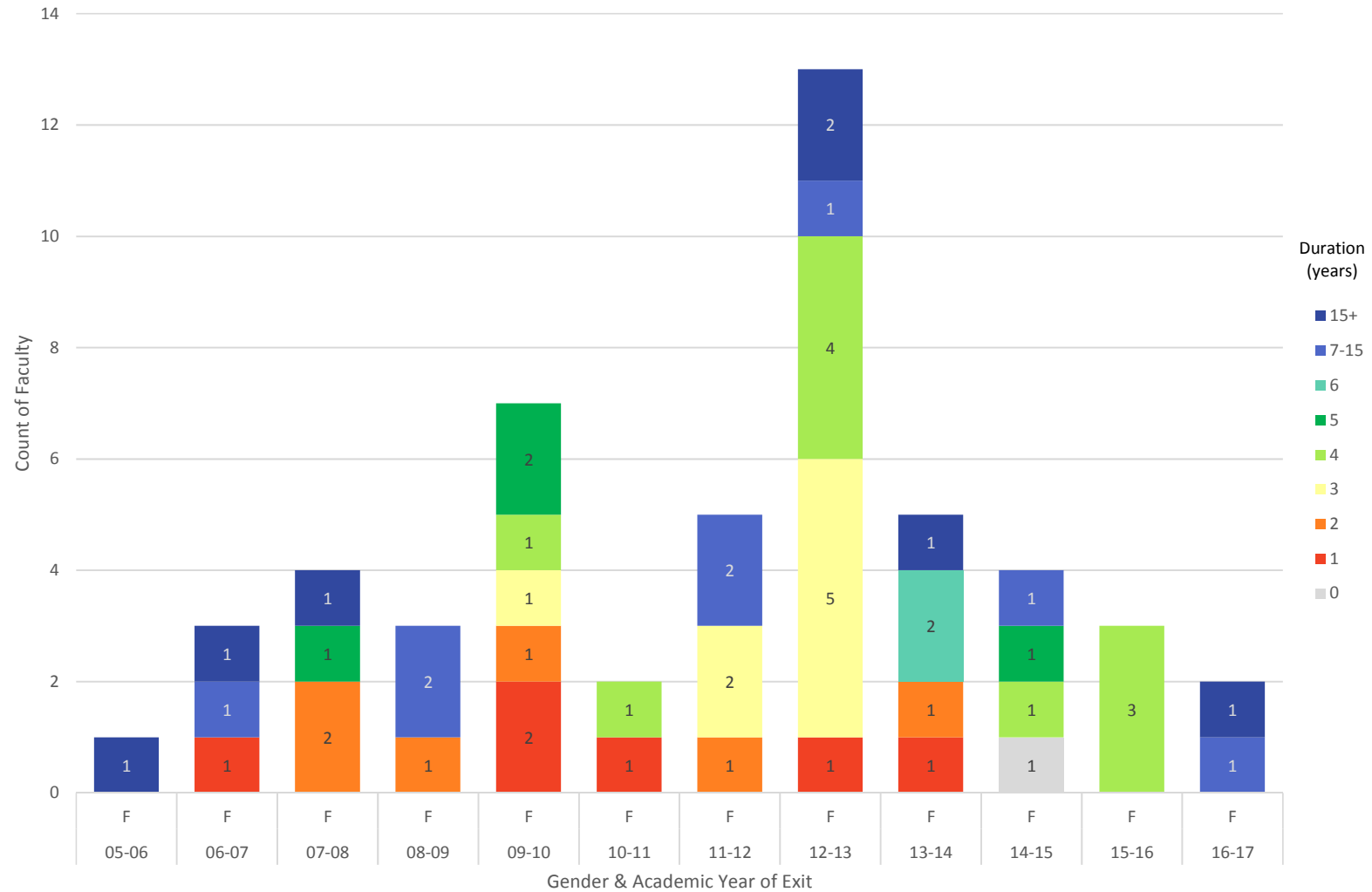
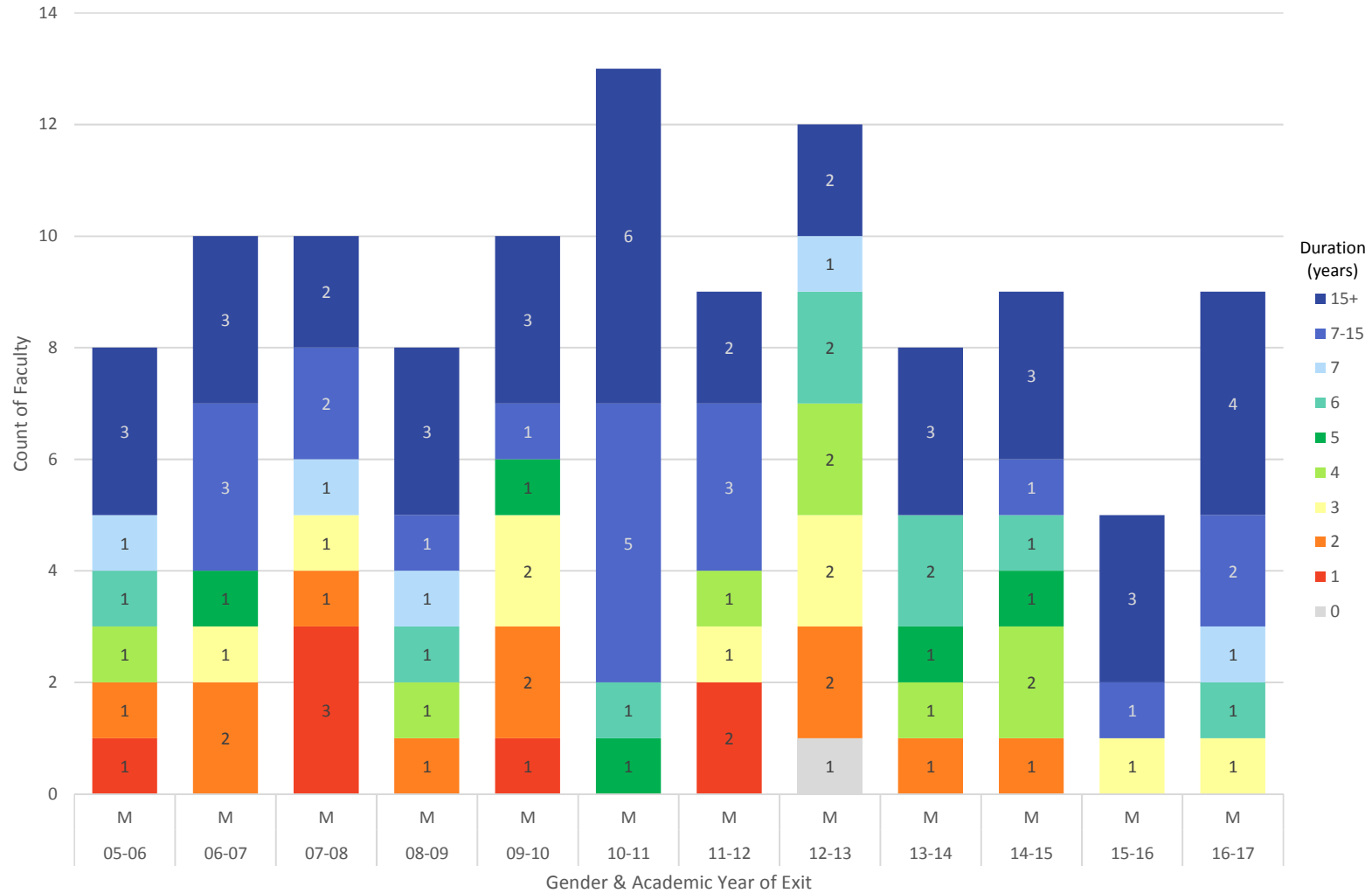11/8/2018

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Retention

Retention - Women

Female Faculty Attrition by Duration and Academic Year of Exit
(labels show totals per category)

Retention - Men

Male Faculty Attrition by Duration and Academic Year of Exit
(labels show totals per category)

Mini-Retention Study* (Qualitative)

Primary Reasons for Leaving

- Experiences of sexism in the workplace
- Dual career challenges
- Lack of research support
- Not feeling a sense of belonging
- Assistant Professor tenure-track pressures
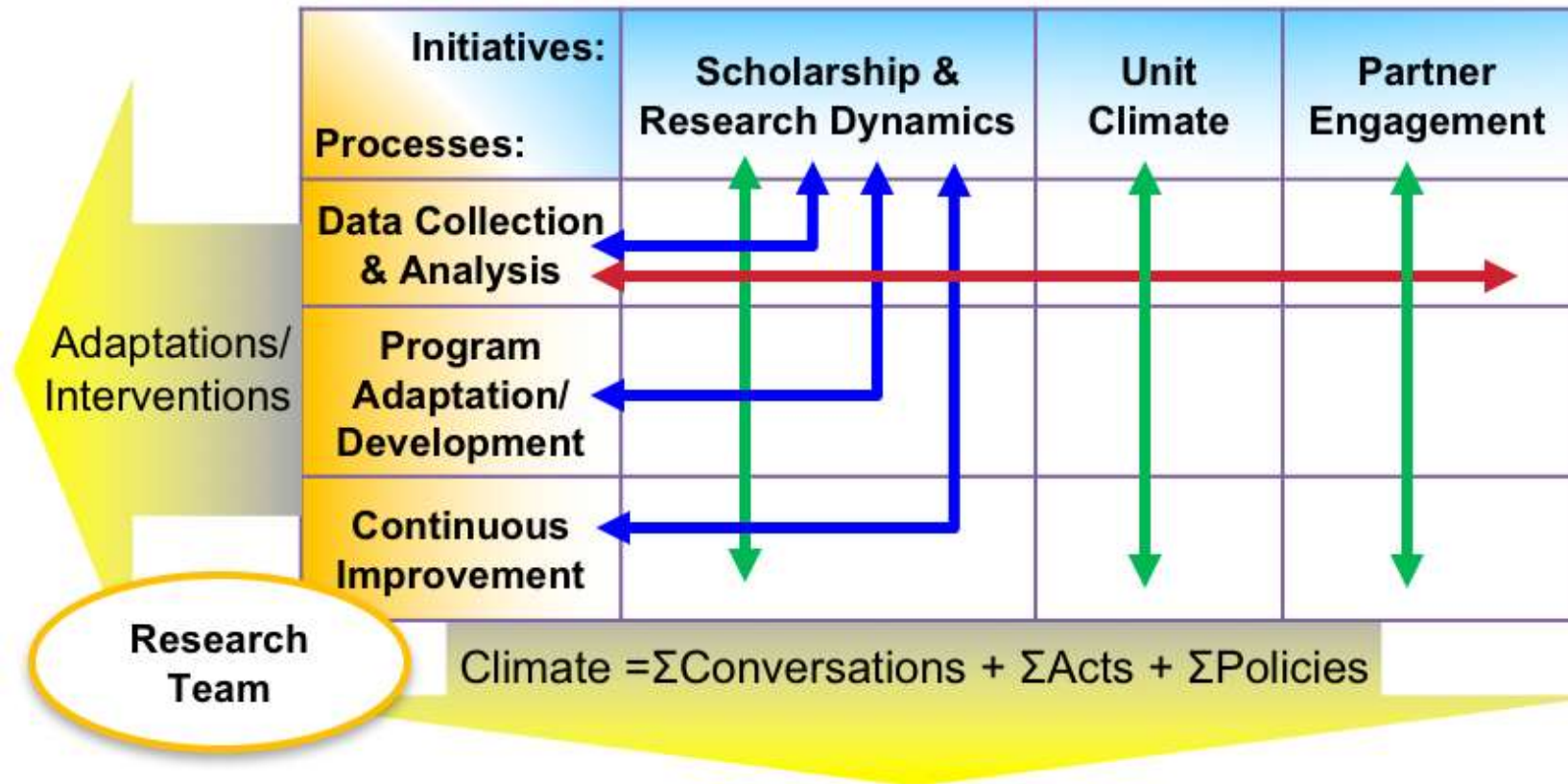- Lack of internal mobility

Secondary Reasons for Leaving

- Lack of clarity in the interview process
- Dissatisfaction with Houghton

*Conducted by Center for Workforce Development,
University of Washington

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ADVANCE Adaptations (2018-21)

1) Advanced Matrix Process for University Programs (AMP-UP)

ADVANCE Adaptations (2018-21)

2. STRIDE faculty development programs (University of Michigan)
   - LAUNCH, LIFT, ongoing workshops/skits for education, publication of guides/materials.
   - Our Early Career Management Committees

3. Allies and Advocates program (North Dakota State University)
   - Restorative justice and broad engagement to change university culture

4. Department Enhancement Program (Iowa State University)
   - Qualitative and quantitative professional development for chairs to respond to intersectional inequities and cultivate positive climates.

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Example AMP-UP Success: Partner Engagement

Community engagement during interview pilot 2016-2017

- 5 searches participated

- 13 individuals (2 internals) were invited to bring a guest with them on the interview → 7 brought guests (64%)

- 11 (85%) met with community engagement team

- 5 individuals hired, 4 had partner/spouses (80%)
  - Our first choices accepted quickly!

- *Pilot indicated there is a need and the community engagement pilot serviced that need.*
  - Optional pilot continues--> some departments resist expense, logistics

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Early Career Management (ECM) Success

9 month span	New Faculty/Teams	Advocates
2015-2016*	9	18
2016	1	2
2016-2017	20	40
2017	3	6
2017-2018	15	31
Total	**48**	**97**

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ECM Preliminary Results

- Indicators of new faculty success include
  - Proposal submissions
  - Funding
  - Publications
  - Student progress

0-2 years

1-3 years

2015-2016 (Fall 2015 start-Jan 2017)	Time to submit first proposal (months)
ECM New Faculty	2.6
New Faculty	3.99

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Present situation: Representation, Salary

Representation (see Figure 1A):

- At 23%, Michigan Tech's representation of female STEM faculty in 2016 is just above the national research institution average (3.6% of these were domestic underrepresented minorities; 1.1% were international)
- Promising hiring initiatives: women were 13% of applicants but 29% of hires in 2016
- Across all colleges and schools, female Assistant Professor numbers increased 2.2 times over 10 years (from 11 to 24)
- All female T/TT STEM faculty increased from 17.0% to 22.7% over 10 years

Salaries & Resources (see Figure 1B and 1C)

- Salaries of female assistant professors in comparison with their male peers have risen by 5% since 2008 (from 89% to 94%)
- Start-up packages are comparable within colleges or schools.

3. Areas requiring improvements:

Representation:

- The slight growth in female Associate Professors (from 21 to 25 over 10 years) has not mirrored the growth in the Assistant Professor rank
- The number of female Full Professors has varied substantially (from 11 to 14, with a high of 17 in 2014)

Salaries

- Female Associate and Full Professors salaries have remained around 96% and 90% (respectively) of their male peers' salaries

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Present: Promotion, Retention, Leadership

Promotion

- Women have higher promotion to Associate rates than men (95.1% vs. 91.7%)

Retention

- Female and male STEM faculty turnover rates are similar (~37% depart after ~4.7 years of service)

Leadership

- 4 of 7 deans are women, 2 of the 4 STEM deans are women

3. Areas requiring improvements:

Promotion

- Women earn early tenure at a lower rate than men (18.2% vs. 21.7%)
- Women have lower promotion to Full rates than men (85.7% vs. 88.1%)
- Women take ~2 years longer to attain Full Professor rank (8.6 vs. 6.7 yrs)
- Standard deviations for women in promotion to Full are greater than for men (5.0 vs. 3.8) indicating much greater variation in experiences

Retention

- More tenure track women than men leave in year two, especially in the Sciences
- Fully 60% (14 of 26) of the female faculty in Engineering and Technology who received early tenure subsequently left compared to only 18% of the male faculty

Leadership (Women are underrepresented in mid-level leadership)

- Women comprise 2 out of 16 STEM chairs (1 in Cognitive and Learning Science, 1 in Civil and Environmental Engineering)

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Top Reasons Staff Respondents *Seriously Considered Leaving* Michigan Tech

Reason	*n*	%
Low salary/pay rate	177	52.8
Limited opportunities for advancement	152	45.4
Tension with supervisor/manager	99	29.6
Lack of a sense of belonging	89	26.6
Increased workload	88	26.3

Top Reasons Why Graduate Student Respondents *Seriously Considered Leaving* Michigan Tech

Reason	*n*	%
Lack of a sense of belonging	25	29.1
Campus climate was not welcoming	22	25.6
Lack of social life at Michigan Tech	22	25.6
Personal reasons	17	19.8
Financial reasons	15	17.4

Top Reasons Undergraduate Student Respondents *Seriously Considered Leaving* Michigan Tech

Reason	n	%
Lack of a sense of belonging	134	39.1
Financial reasons	123	35.9
Personal reasons	110	32.1
Coursework was too difficult	109	31.8
Lack of social life at Michigan Tech	106	30.9

http://www.mtu.edu/advance/

AMP UP
ADVANCE Matrix Process for University Programs

ADVANCE
at Michigan Tech

Diversity Literacy Workshops

ECM
Early Career Management

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