



Proposing the Next ADVANCE for Women Faculty

Tailoring Data-driven Programs
for Career Achievement and Success

iClicker Registration & Test

- What is the goal of the National Science Foundation ADVANCE initiative?
 - a) to develop systemic approaches to increase the representation and advancement of women in academic STEM careers
 - b) to develop innovative and sustainable ways to promote gender equity in the STEM academic workforce
 - c) to contribute to the development of a more diverse science and engineering workforce
 - d) All of the above

Previous MTU ADVANCE Grant (2009-2012)

- A PAID grant: A catalyst to campus change
- Goals:
 - Increase diversity in our applicant pool
 - Create richer and more effective searches
 - Improve the recruitment and retention of a more diverse faculty who are superior researchers and teachers

6 Initiatives

1. Implement Diversity Literacy and Legal Aspects workshops for all faculty
2. Increase transparency, accountability, and consistency in hiring process through reporting procedures and integration of HR
3. Conduct interdisciplinary cluster-hiring process
4. Institute campus-wide faculty mentoring program
5. Develop online screening tool to manage faculty applicant pools
6. Develop promotional and marketing materials based on best practices for recruiting faculty, esp. women

Feedback on Grant Initiatives 1

- What percentage of your faculty have completed the Diversity Literacy Certification?
 - a) Less than 33%
 - b) About 50%
 - c) More than 75%
 - d) Not sure

Feedback on Grant Initiatives 2

- Have you seen examples of faculty applying the lessons from the Diversity Literacy Certification program?
 - a) Yes
 - b) Not explicitly, but I have seen actions or heard statements that correspond to these lessons
 - c) No
 - d) Not sure

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Feedback on Grant Initiatives 3

Have current procedures for faculty search and hiring such as using People Admin, documenting decisions about selection, and submitting search materials to HR made a difference in departmental search and hiring processes?

- a) Our departmental processes have become more rigorous
- b) Our departmental processes have not changed
- c) Our departmental processes have become more cumbersome
- d) Not sure

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Feedback on Grant Initiatives 4

- Do you have and use a departmental mentoring plan for untenured faculty?
 - a) Yes, we have a mentoring plan, but it doesn't get used like it should
 - b) Yes, we have a mentoring plan and use it extensively
 - c) No, we do not have a mentoring plan
 - d) Not sure

Feedback on Grant Initiatives 5

- Do you have and use a mentoring plan at the Associate Professor and Professor levels?
 - a) Yes, we have a mentoring plan, but it doesn't get used like it should
 - b) Yes, we have a mentoring plan and use it extensively
 - c) No, we do not have a mentoring plan
 - d) Not sure

Feedback on Grant Initiatives 6

- If you answered yes to either or both of the previous two questions, do you think the mentoring plan has played a role in the success of faculty in your department?
 - a) Yes
 - b) No
 - c) Not sure

Progress during first ADVANCE grant: Headcount of Male and Female Faculty 2009-2012

Year	Coll of Eng		Coll of S&A		Sch of Biz		SFRES		Sch of Tech		MTU Total	
	F	M	F	M	F	M	F	M	F	M	F	M
2012-13	21	113	59	91	8	16	4	17	2	15	94	254
2011-12	21	115	58	94	8	16	5	18	1	16	93	259
2010-11	21	115	55	93	7	13	5	18	1	12	88	251
2009-10	16	106	55	91	8	13	4	18	2	14	85	242

Institutional Analysis MTU Fact Book

- Went from 26% women to 27% women in 4 years
- Male to female ratio remains unbalanced
- Attrition and plateauing of women faculty

Current ADVANCE Effort

- Supporting faculty equity and excellence by examining and improving career processes
- We need:
 - a data-driven (evidence-based)
 - comprehensive, coordinated, and ongoing program of change
 - tailored to specific unit-level needs and issues

3 Initiatives

- LEAN Career Mapping and Metric Specification
 - Goal: Identify career path processes to be able to enrich career progress and faculty success
- Diversity Profiles based on metrics
 - Goal: Empower academic units to implement tailored interventions based on empirical evidence
- MTU Center for Gender and Diversity Programs and Interdisciplinary Research
 - Goal: Institutionalize and coordinate research and support activities advancing gender and diversity

Report-Out for Kaizen 1

Introduction to Basic Lean Concepts

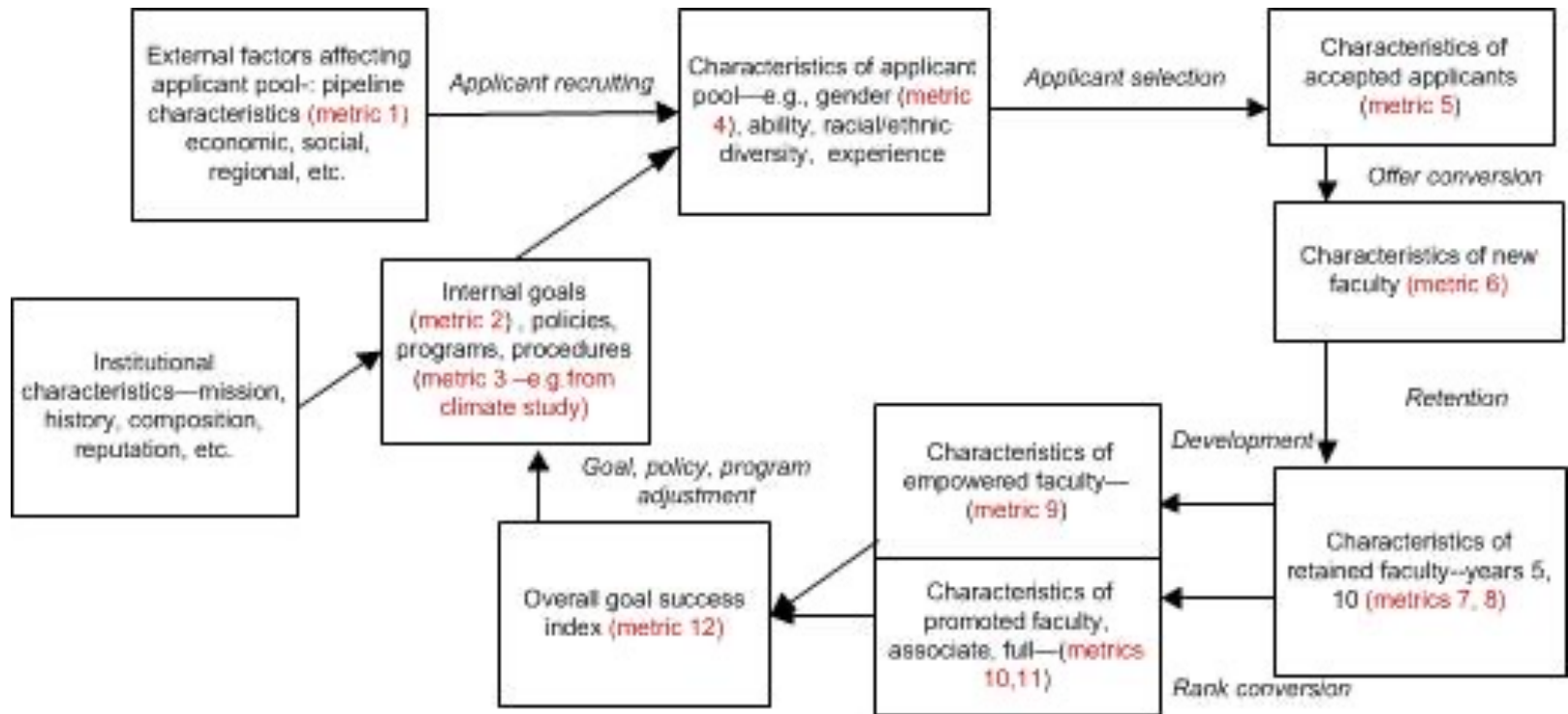
- **Lean**- Critical thinking resulting in continuous improvement
- **Kaizen**- a Japanese term that means “improvement” or “change for the better”.
- **Kaizen Event**- A structured, team-based, problem solving activity that engages a team in identifying waste and the root cause of a problem, followed by identifying and implementing countermeasures to stop the problem.

Continuous Improvement website: <http://www.mtu.edu/improvement/>

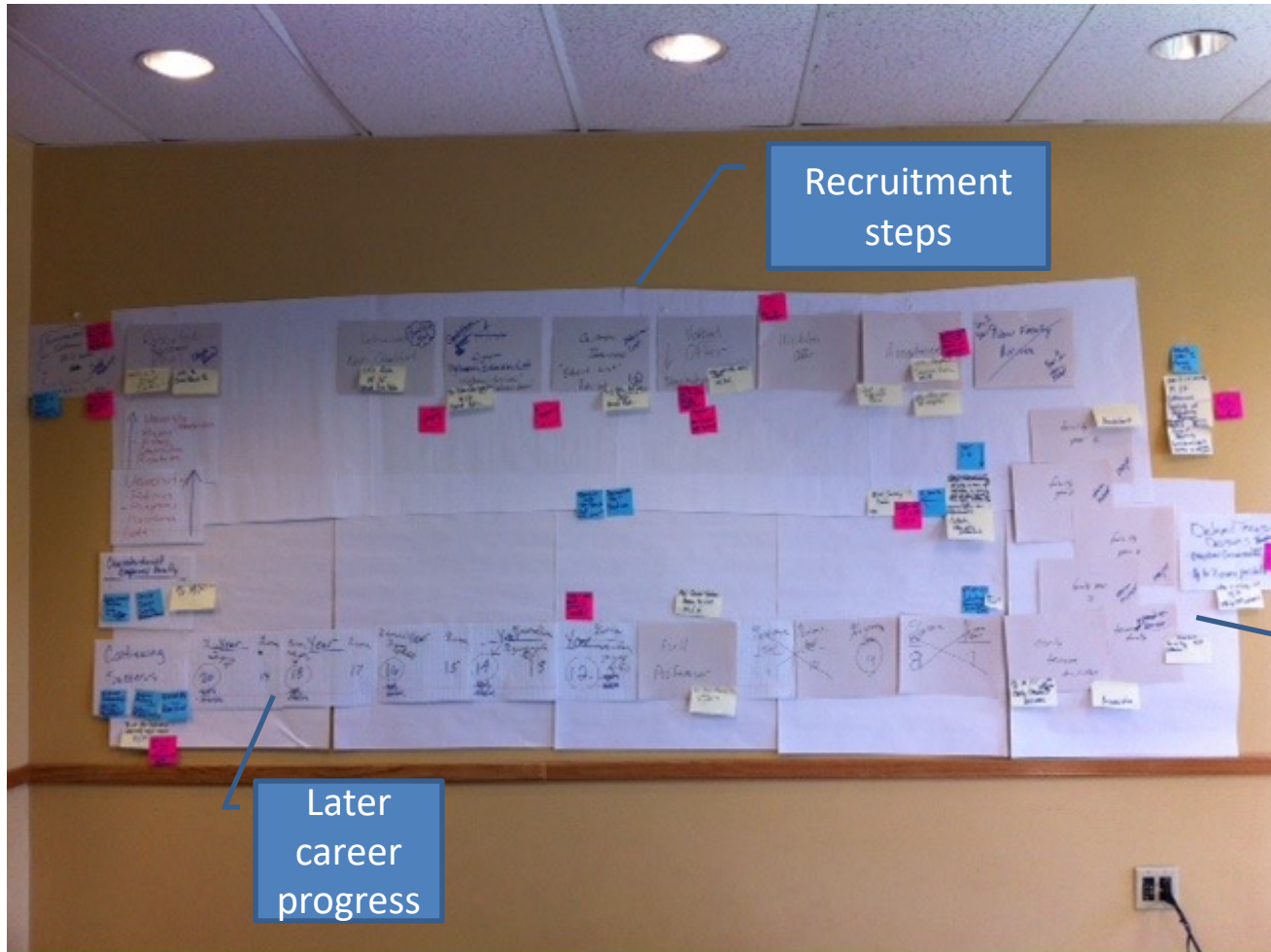
Kaizen Profile

- **Current Situation:**
 - Despite efforts such as changes in selection procedures and regular climate surveys, there has been little analysis or intervention in career stages beyond hiring. As a result, data on where attrition occurs is incomplete and career development efforts are fragmentary, localized, and often implemented as stopgap measures or one-time events.
- **Problem Statement:**
 - We need an explicitly delineated Career Map
- **Preliminary Objectives:**
 - 1) To create a map that can capture career path processes, obstacles, resources, and opportunities for intervention;
 - 2) to identify the metrics needed to assess career path progress for women faculty

What We Started With



What We Achieved

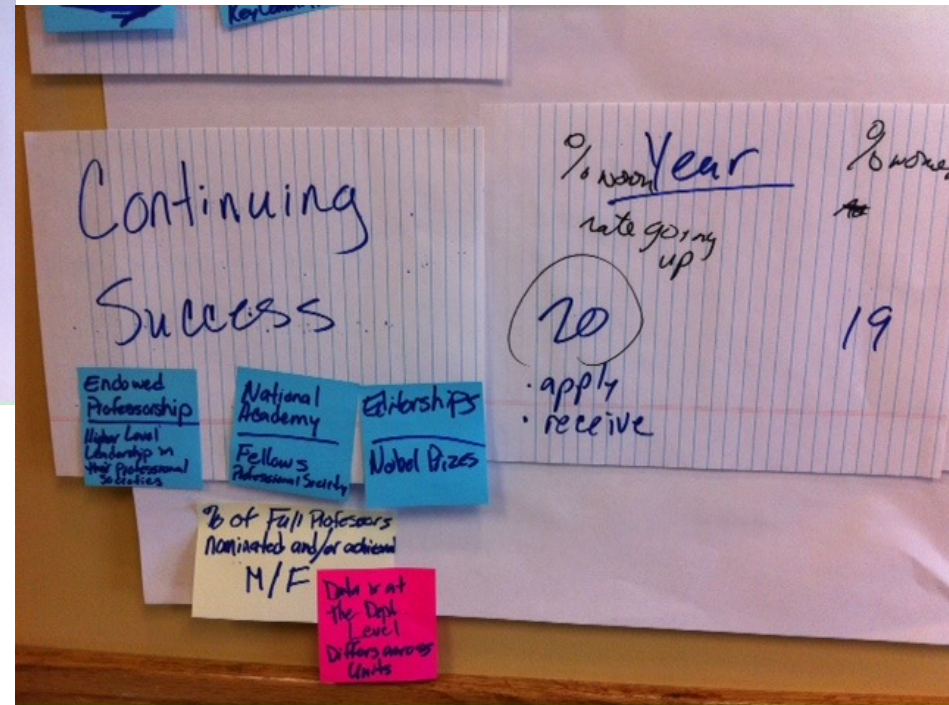


Recruitment steps

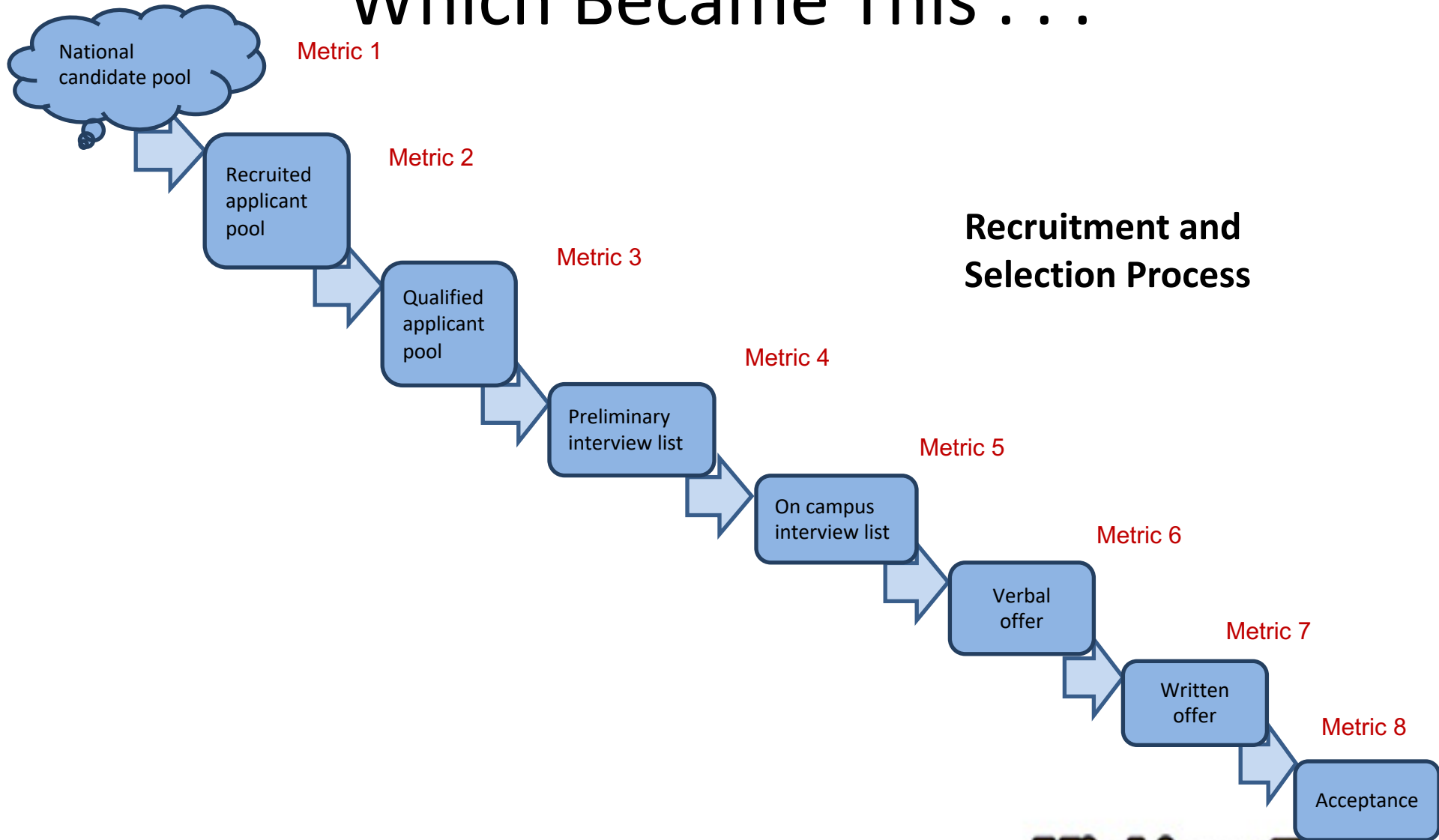
Early career progress

Later career progress

Some Close-Ups



Which Became This . . .

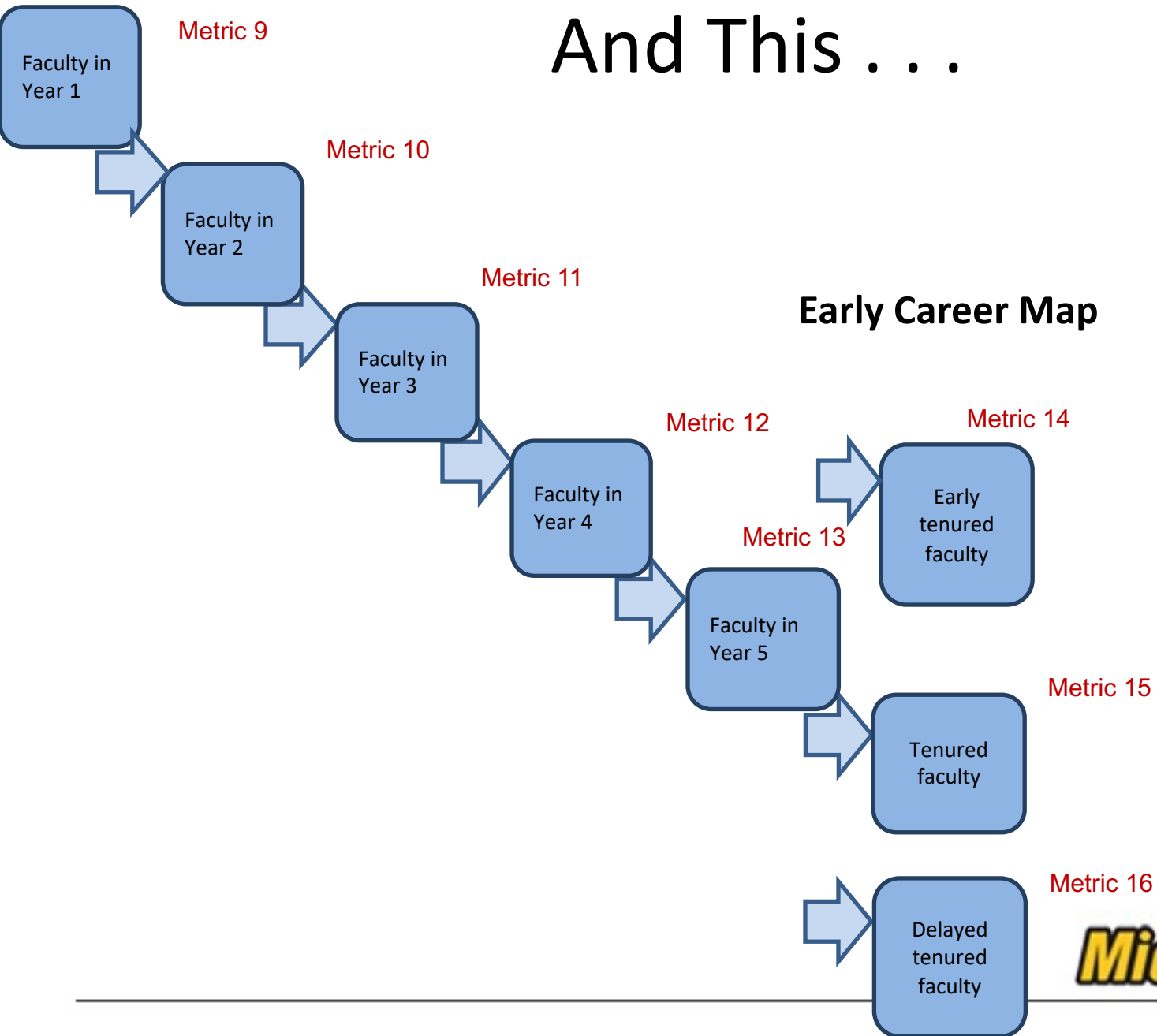


Recruitment and Selection Process

Proposed Metrics for Recruitment and Selection Map

Metric #	Metric Description	Raw Data Needed	Calculations	Source
1	New Phds and post-docs (where applicable) in field	# women, # men	% women	Institutional Equity
2	Applicants applying for the position	# women, # men	% women	People Admin
3	Applicants meeting listed qualifications	# women, # men	% women; overall applications/qualified ratio	People Admin
4	Applicants interviewed by phone or at a conference	# women, # men	% women; overall qualified/first interview ratio	People Admin
5	Applicants interviewed on campus	# women, # men	% women; overall first interview/second interview ratio	People Admin
6	Applicants provided a verbal job offer	# women, # men (Offer package)	% women (Differences in type of offer by gender)	People Admin
7	Applicants provided a written job offer	# women, # men (Offer package)	% women (Differences in type of offer by gender)	People Admin
8	Applicants who accepted the job offer	# women, # men	% women; overall verbal offer/acceptance ratio	People Admin

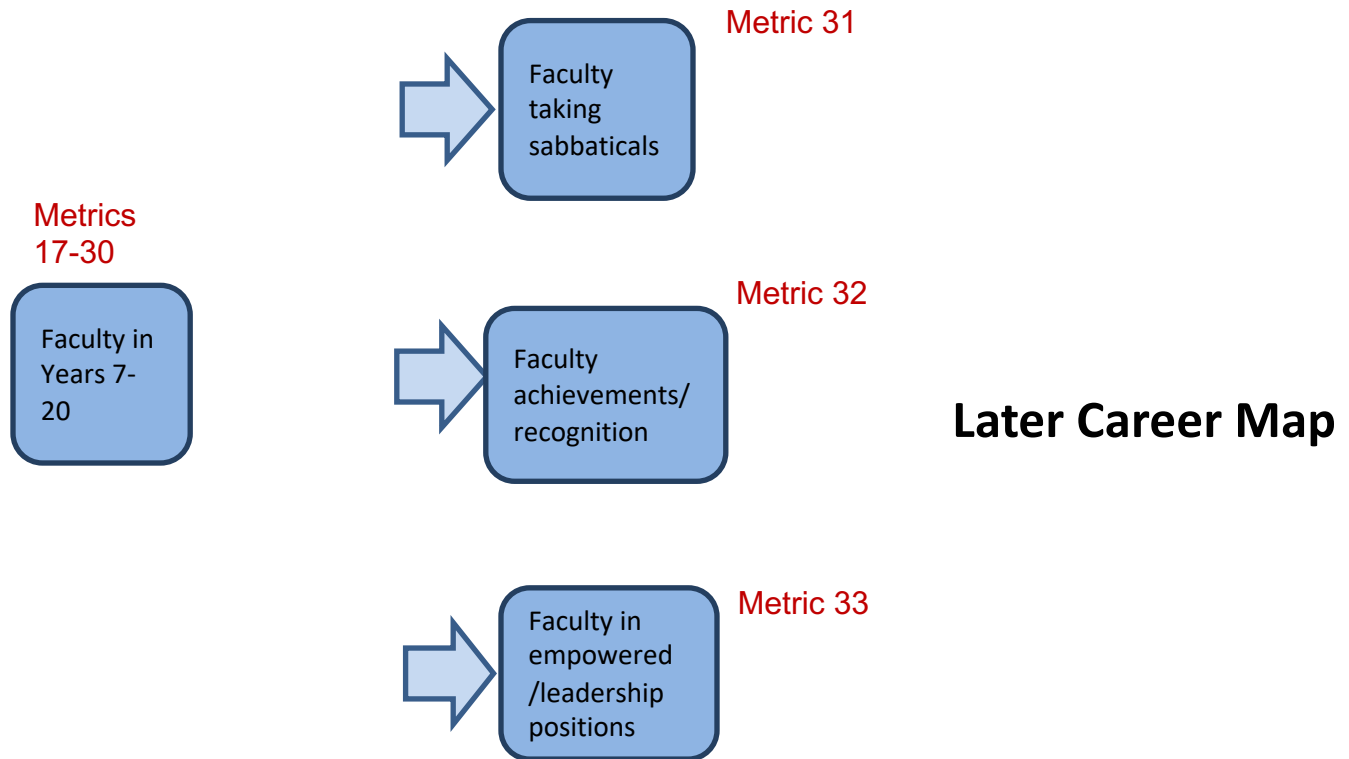
And This . . .



Proposed Metrics for Early Career Map

Metric #	Metric Description	Raw Data Needed	Calculations	Source
9	Faculty in Year 1 (first minor review)	# women, # men (productivity data, merit raises, exit surveys)	% women (male/female avg. % merit pay; correlate productivity with merit pay)	People Admin, OIE
10	Faculty in Year 2 (first major review)	# women, # men (productivity data, merit raises, exit surveys)	% women (male/female avg. % merit pay; correlate productivity with merit pay)	People Admin, OIE
11	Faculty in Year 3 (second minor review)	# women, # men (productivity data, merit raises, exit surveys)	% women (male/female avg. % merit pay; correlate productivity with merit pay)	People Admin, OIE
12	Faculty in Year 4 (second major review)	# women, # men (productivity data, merit raises, exit surveys)	% women (male/female avg. % merit pay; correlate productivity with merit pay)	People Admin, OIE
13	Faculty in Year 5 (third minor review)	# women, # men (productivity data, merit raises, exit surveys)	% women (male/female avg. % merit pay; correlate productivity with merit pay)	People Admin, OIE
14	Faculty receiving early tenure	# women, # men (productivity data, merit raises)	% women using option, relationship to tenure outcome	People Admin, OIE
15	Faculty seeking and receiving tenure year 6 (Faculty not seeking tenure)	# women, # men (exit surveys, productivity data, merit pay)	% women up for tenure, % receiving tenure (not seeking ten.: male/female avg. % merit pay; correlate productivity with merit pay)	People Admin, OIE
16	Faculty receiving delayed tenure (years 7-8)	# women, # men	% women using option, relationship to tenure outcome	People Admin, OIE

And This . . .



Proposed Metrics for Later Career Map

Metric #	Metric Description	Raw Data Needed	Calculations	Source
17-30	Post-tenure faculty in Years 7-20	# women, # men; # women, men applying for full; receiving full Productivity data, merit raises	% women each year; % women that apply for full; % women that receive full; % merit pay; correlate productivity with merit pay; correlate productivity with going up and receiving full	People Admin
31	Faculty taking sabbaticals	# women, # men applying; length of sabbatical	% women applying for sabbatical; relative length compared with men	People Admin
32	Faculty achievements or nominations for external recognition: editorships, endowed professorships; society fellows; National Academy, etc.	# women, # men	% women	?
33	Faculty in empowered/leadership positions (chair, dean, provost, senate, key committees)	# women, # men	% women	?

Thanks to the Kaizen Team Members!

- Theresa Coleman-Kaiser, Auxiliary Services, Facilitator
- Ruth Archer, Auxiliary Services, Observer
- Sonia Goltz, School of Business and Economics, Team Leader
- Patty Sotirin, Department of Humanities, Team Leader
- Renee Ozanich, Human Resources, Team Member
- Max Seel, Provost's Office, Champion
- Louisa Kramer, Geological Engineering, Customer/Outside Eyes
- Bill Predebon, Mechanical Engineering, Customer/Outside Eyes

You May Be Next: Kaizen 2 Planning

- Date: October 29
- Focus: Career progress, Pre-tenure obstacles and possible programs
- Team Members:
 - Adrienne Minerick, Sonia Goltz, Team Leaders
 - Jill Hodges, Team Member
 - David Reed, Champion
 - Laura Brown, Lucia Gauchia, Customer/Outside Eyes
 - Jason Carter, Terry Sharik, Customer/Outside Eyes
 - Theresa Coleman-Kaiser, Facilitator
 - Chris Anderson, Observer

Upcoming Kaizens

Date	Topic
Completed	Career Path Mapping
October 29	Career progress, Pre-tenure obstacles and possible programs
November	Later career progress
February	Stages of recruitment
March	Obtaining & crunching the data
Fall 2015	Creating a shared responsibility system for managing interventions
<i>Jan 2016</i>	<i>Submit proposal</i>
	After grant funding: Kaizens on implementation

To participate, contact Sonia Goltz (smgoltz@mtu.edu) or Adrienne Minerick (minerick@mtu.edu)

Reflection Questions

- How could your department benefit from the more tailored approach we have proposed?
 - Discuss and share
 - Identify 2-3 from the table
 - Share on whiteboard

Reflection Questions

- Identify a department best practice that could be leveraged to benefit careers throughout Michigan Tech
 - Discuss and share
 - Identify the best 2-3 from the table
 - Share on whiteboard



WE WELCOME YOUR COMMENTS

Post comments on the ADVANCE webpage blog

Available later this week

<http://www.mtu.edu/ADVANCE>