



Big 10 Women's Workshop
Mentoring and Networking
Workshop for Junior Women Faculty
in the Big 10
April 4-5, 2013
Milwaukee, WI

Report of the 2013 Mentoring and Networking Workshop for Junior Women Faculty in the Big 10

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Purpose: On April 4–5, 2013 in Milwaukee, we held a second workshop for junior women engineering faculty from the Big 10 schools with the following purposes:

- To provide a professional networking opportunity – the workshop included a research poster session and other opportunities to engage in research conversations.
- To cultivate peer collaboration and mentoring relationships – activities designed to share best practices for success were included
- To foster interactions with senior engineering role models – discussions highlighted multiple pathways to success

Why The Big 10: The Big 10 schools are all conveniently located in states within the Midwest and on the east coast (Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Nebraska, New Jersey, Ohio, Pennsylvania, Wisconsin). They are large schools and cumulatively comprise a significant fraction of the US's educational and research enterprise. Thus, the Big 10 engineering schools are *big*, and affecting change at these universities can have a large impact on the careers of the women faculty who participate as well as on the thousands of engineering students with whom they interact annually, including those who graduate and enter the nation's engineering work force each year.

Program Highlights: University of Michigan Provost **Martha Pollack** gave the Keynote lecture to open the workshop. Her talk on academic leadership was rated as the most effective part of the workshop with a rating of 4.85 ± 0.36 (5.00 point scale). A new session for the 2013 workshop, the **Faculty Toolbox**, was a series of three skill-building activities in which the junior women learned negotiation strategies, management approaches, and how to perfect their elevator pitches. In the session entitled **Selling Yourself** the participants were taught the art of the elevator pitch in an interactive workshop. All participants wrote a pitch with senior women mentoring them. Approximately half of the participants tried their pitches out on the group and received immediate feedback on it. Participants ranked this session as highly effective (4.60 ± 0.62). The **Critical Friends** session was extremely popular in the 2010 workshop and proved again to be highly effective in 2013 (4.68 ± 0.52). In **Critical Friends**, participants were put into groups of 7 junior women and each group was facilitated by two or three senior faculty members. The groups were formed with minimal overlap between schools and/or departments to have as “anonymous” a cohort as possible. Each participant presented an issue to the group on which she requested feedback. This session was designed for the

participants to develop problem-solving skills through peer mentoring in a confidential, non-judgmental, positive environment.

Post-Workshop Survey Highlights: In addition to ranking several portions of the workshop as highly effective, participants shared that they learned professional development skills, methods to effectively communicate their research mission, personal strategies for navigating the university, and the importance of having mentors. The participants reported on their plans to strengthen their networks, increase the visibility of their research, and prioritize their professional development activities as a result of attending this workshop. The majority of participants (> 75%) responded “Yes” or “Maybe” to having identified potential collaborators, mentors, and seminar invitees at this workshop.

Senior Faculty Perspective: The senior women we spoke with about this workshop, whether they were available to attend or not, were unanimously in strong support. They recognize that problems persist within their own academic units and are eager to share what they have learned with their junior colleagues. It is clear from discussions among the senior women in attendance at this workshop that junior women often are not getting useful mentoring, they lack opportunities to learn how to promote themselves and advance their careers, and they are frequently placed in unacceptable positions by their senior colleagues and administrators at the department levels. Although the **Critical Friends** sessions were confidential, some of the issues raised alarmed the senior facilitators and junior participants alike. This workshop is one effort to combat challenges that remain for women in engineering faculty positions. The need to continue to conduct this workshop – and in fact, to do more within our own institutions – is clear. All senior women respondents agreed that this workshop was sufficiently worthwhile to offer again.

Recommendation: Offer this workshop every three years.

Attendance: Sixty-nine women assistant professors in engineering at Big 10 universities were invited to the workshop, and 38 of them attended. In addition, 22 senior women faculty, 5 deans, and 7 industry representatives participated. Funding was received from the University of Michigan’s Elizabeth Caroline Crosby Grant Program, the Big 10 Engineering Deans, Rockwell Automation, Boeing, Dow and Johnson Controls. Although the 2010 workshop was also funded by the National Science Foundation, due to internal reorganization at NSF, funding was not available for 2013.

Appendices

- A. Post-Workshop Survey Results
- B. Budget
- C. Detailed Program Schedule

Big 10 Women's Mentoring and Networking Workshop Evaluation
Prepared by the ADVANCE Program
July 2013

Post Survey for Junior and Senior Women

43 Total Survey Respondents

Effectiveness of Keynote Address (Martha Pollack)

	N	%
1 – very ineffective	0	0.0
2 –	0	0.0
3 –	0	0.0
4 –	6	14.6
5 – very effective	35	85.4
Total	41	100%

Mean = 4.85 (on a 5-point scale); Standard Deviation = 0.36

Effectiveness of the Faculty Toolbox

Effectiveness of the "Management Methods" Faculty Toolbox Session

	N	%
1 – very ineffective	1	3.3
2 –	1	3.3
3 –	11	36.7
4 –	5	16.7
5 – very effective	12	40.0
Total	30	100%

Mean = 3.87 (on a 5-point scale); Standard Deviation = 1.11

Effectiveness of the "Negotiation Strategies" Faculty Toolbox Session

	N	%
1 – very ineffective	0	0.0
2 –	1	3.2
3 –	9	29.0
4 –	10	32.3
5 – very effective	11	35.5
Total	31	100%

Mean = 4.00 (on a 5-point scale); Standard Deviation = 0.89

Effectiveness of the "Selling Yourself" Faculty Toolbox Session

	N	%
1 – very ineffective	0	0.0
2 –	0	0.0
3 –	2	6.7
4 –	8	26.7
5 – very effective	20	66.7
Total	30	100%

Mean = 4.60 (on a 5-point scale); Standard Deviation = 0.62

Effectiveness of the Big Life, Big Stage, Big 10 Panel Discussion

	N	%
1 – very ineffective	0	0.0
2 –	0	0.0
3 –	3	8.3
4 –	10	27.8
5 – very effective	23	63.9
Total	36	100%

Mean = 4.56 (on a 5-point scale); Standard Deviation = 0.65

Effectiveness of the Deans' Panel

	N	%
1 – very ineffective	0	0.0
2 –	1	2.6
3 –	0	0.0
3.5 –	1	2.6
4 –	8	21.1
5 – very effective	28	73.7
Total	38	100%

Mean = 4.67 (on a 5-point scale); Standard Deviation = 0.64

Effectiveness of the Industry Panel

	N	%
1 – very ineffective	2	5.0
2 –	3	7.5
3 –	14	35.0
4 –	9	22.5
5 – very effective	12	30.5
Total	40	100%

Mean = 3.65 (on a 5-point scale); Standard Deviation = 1.14

Effectiveness of the Critical Friends Exercise

	N	%
1 – very ineffective	0	0.0
2 –	0	0.0
3 –	1	2.4
4 –	11	26.8
5 – very effective	29	70.7
Total	41	100%

Mean = 4.68 (on a 5-point scale); Standard Deviation = 0.52

Effectiveness of the ADVANCE Lunch

	N	%
1 – very ineffective	1	2.8
2 –	2	5.6
3 –	11	30.6
4 –	8	22.2
5 – very effective	14	38.9
Total	36	100%

Mean = 3.89 (on a 5-point scale); Standard Deviation = 1.09

Effectiveness of the Research Networking and Poster Session

	N	%
1 – very ineffective	0	0.0
2 –	2	4.8
3 –	8	19.0
4 –	14	33.3
5 – very effective	18	42.9
Total	42	100%

Mean = 4.14 (on a 5-point scale); Standard Deviation = .90

Overall Effectiveness of the Breakout Sessions

	N	%
1 – very ineffective	1	4.8
2 –	0	0.0
3 –	4	17.4
4 –	12	52.2
5 – very effective	6	26.1
Total	23	100%

Mean = 3.96 (on a 5-point scale); Standard Deviation = 0.93

Effectiveness of the “Entrepreneurship” Breakout Session

	N	%
1 – very ineffective	1	20.0
2 –	0	0.0
3 –	2	40.0
4 –	0	0.0
5 – very effective	2	40.0
Total	5	100%

Mean = 3.40 (on a 5-point scale); Standard Deviation = 1.67

Effectiveness of the “Finding Mentors” Breakout Session

	N	%
1 – very ineffective	0	0.0
2 –	0	0.0
3 –	1	9.1
4 –	7	63.6
5 – very effective	3	27.3
Total	11	100%

Mean = 4.18 (on a 5-point scale); Standard Deviation = 0.60

Effectiveness of the “Dual Careers and Work Life Balance” Breakout Session

	N	%
1 – very ineffective	0	0.0
2 –	0	0.0
3 –	1	14.3
4 –	5	71.4
5 – very effective	1	14.3
Total	7	100%

Mean = 4.00 (on a 5-point scale); Standard Deviation = 0.57

Please share one or two things you learned at the workshop.

	N
<ul style="list-style-type: none"> • Learned about professional development <ul style="list-style-type: none"> ○ Learned about need for new skills (e.g., facilitation, network to promote research, learn analytics, write more, talk to chair more) (5) ○ Strategies to negotiate: teaching load (1) / “the meeting before the meeting” (1) ○ “Career trajectory & tenure” (1) / Concern about junior women’s preparation for tenure letters (1) ○ Many paths to leadership (1) / What it takes to be a chair (1) ○ Got Dean’s perspective on tenure & promotion (1) 	13
<ul style="list-style-type: none"> • Learned about communicating research effectively <ul style="list-style-type: none"> ○ Elevator pitch (7) ○ Mission statements for lab website (1) ○ “‘And’ instead of ‘but’” (1) 	8
<ul style="list-style-type: none"> • Learned from other workshop attendees <ul style="list-style-type: none"> ○ Learned that everyone has similar problems (3) ○ Hearing about others’ career paths was helpful (2) / Feel more confident after interacting with other women engineers (2) ○ Met junior faculty women of color in engineering (1) 	8
<ul style="list-style-type: none"> • Learned personal strategies to navigate the university <ul style="list-style-type: none"> ○ Prioritize (2) / Do not try to meet all obligations (1) / Pass up some opportunities – there will be more (1) ○ How to recognize one’s value to the university (1) ○ Ask for resources because people expect success (1) ○ Identify your community (1) ○ Learned “things not to do as an assistant professor” (1) ○ “Don’t make it personal” (1) ○ Slow down and take more time for family (1) 	7
<ul style="list-style-type: none"> • Learned about the importance of mentoring <ul style="list-style-type: none"> ○ Need to be more proactive at finding them (3) ○ Importance of a network of mentors (2) ○ Respect for senior women’s endurance as minorities in engineering (1) 	7
<ul style="list-style-type: none"> • Learned about best ways to try to get funding <ul style="list-style-type: none"> ○ Techniques to effectively contact a program manager at a funding organization (5) ○ NSF review volunteers can send CV and resume (1) ○ Apply for “woman-oriented” grants (1) 	5
<ul style="list-style-type: none"> • Learned about other programs and institutions <ul style="list-style-type: none"> ○ Other programs are good models (2) / Other programs are doing better at hiring women (1) 	3
<ul style="list-style-type: none"> • Learned from the Dean’s panel how Deans make decisions 	1
<ul style="list-style-type: none"> • Learned about requirement to inform other lab members if a student is considered a risk by the university 	1
<ul style="list-style-type: none"> • Learned about setting up lab policies 	1

Please share one or two things you plan to do as a result of your participation in this workshop.

	N
• Networking & Mentoring	16
○ Strengthen general network, including informal socializing with colleagues (8)	
○ Strengthen mentoring network or “mentor web” (5)	
○ Collaborate with BTWW participants (3) / Invite BTWW participant for seminar (1)	
○ Attend more conferences (2) / Pair invited talks with conference travel (1) / Become more engaged in professional community (1)	
○ Meet with invited speakers (1)	
○ Network with Martha Pollack (1)	
○ Recruit more women to home department (1)	
• Increase Effort and Support for Research	12
○ Work on 'elevator pitch' (7)	
○ Contact agencies directly (6)	
○ Apply for grants (3)	
○ Develop plan for tenure (1)	
• Professional Development	5
○ Prioritize and delegate (1) / Work on time management (1)	
○ Protect time by turning down requests for service (1)	
○ Work on negotiation skills (1)	
○ Start company / Interact more with industry (1)	
• Bring workshop activities back to home institution	2
○ Critical Friends (2) / Selling Yourself (1) / Research Networking & Poster Session (1)	
• Set up better documentation for written lab policies and incorporate lab mission on website	1
• Make time for family	1

Have you identified someone with whom to potentially collaborate?

	N	%
Yes	14	41.2
Maybe	12	35.3
No	8	23.5
Total	34	100%

Have you identified someone to mentor / be a mentor?

	N	%
Yes	15	45.5
Maybe	10	30.3
No	8	24.2
Total	33	100%

Have you identified someone to invite to give a seminar?

	N	%
Yes	11	35.5
Maybe	16	51.6
No	4	12.9
Total	31	100%

Was there someone in attendance at this workshop whom you thought was particularly effective and would nominate for future similar workshops?

	N		N
Naomi Chesler	9	Kathy Faber	2
Mary Juhas	6	Martha Grover	2
Allison Hubel	5	Carol Schmidt	2
Alison Flatau	4	Ellen Arruda	1
Martha Pollack	4	Kathleen Howell	1
Helen Biettner	3	Bernice Mettler	1
Molly Carnes	3	Dawn Tilbury	1
Lisa Klein	3	Mary from USY	1
Everyone	3	Boeing CIO	1
All deans	2		

Is there someone not in attendance at this workshop whom you believe would be effective at future, similar workshops?

	N
• Jian Cao, Mechanical Engineering and Civil & Environmental Engineering, Northwestern University	2
• Wendy Crone, Engineering Physics, University of Wisconsin-Madison	2
• Leah Jamison, Electrical & Computer Engineering, Purdue University	2
• Cynthia Barnhart, Civil & Environmental Engineering and Engineering Systems, MIT	1
• Jennifer Bernhard, Electrical & Computer Engineering, University of Illinois-Urbana-Champaign	1
• Shannon Bartelt-Hunt, Civil Engineering, University of Nebraska-Lincoln	1
• Linda Broadbelt, Chemical and Biological Engineering, Northwestern University	1
• Tamara Reid Bush, Mechanical Engineering, Michigan State University	1
• Wei Chen, Mechanical Engineering, Northwestern University	1
• Patricia Davies, Mechanical Engineering, Purdue University	1
• Adam Galinsky, School of Business, Columbia University	1
• Deb Gruenfeld, School of Business, Stanford University	1
• Carol Handwerker, Materials Engineering, Purdue University	1
• George Hazelrigg, Civil, Mechanical, and Manufacturing Innovation, National Science Foundation	1
• Katherine Morrison, Mathematical Sciences, University of Northern Colorado	1
• Rema Padman, Management Science & Healthcare Informatics, Carnegie Mellon University	1
• Alyssa Pantisich, Biomedical Engineering, Purdue University	1
• Alice Pawley, Engineering Education, Purdue University	1
• Jenna Rickus, Agricultural and Biological Engineering, Purdue University	1
• Kerry Ann Rockquemore, Sociology, University of Illinois-Chicago	1
• Christine Schmidt, Biomedical Engineering, University of Florida	1
• Nancy Sottos, Materials Science & Engineering, University of Illinois-Urbana-Champaign	1
• Teresa Woodruff, Medical Social Sciences, Endocrinology, & Obstetrics-Gynecology, Northwestern University	1
• Department heads	1

Do you have any other comments or suggestions?

	N
<ul style="list-style-type: none"> • Appreciated the conference overall 12 <ul style="list-style-type: none"> ○ Workshop should be continued (2) ○ Eye-opening, valuable, left engaged & rejuvenated (1) ○ Wonderful networking opportunity (1) ○ Mapping out mentor network was very helpful (1) ○ Appreciated advice and perspective of older women (1) ○ Kudos for industry funding (1) ○ Great venue (1) • Suggested changes for next conference 4 <ul style="list-style-type: none"> ○ Longer faculty toolbox, or choose one of three (1) ○ Poster session should have more informal time and present in shifts (1) ○ Don't allow deans to respond with "ask another dean" on dual-career issues (1) ○ More discussion and less marketing the company in industry panel (1) • Suggested activities for next conference 3 <ul style="list-style-type: none"> ○ Time and people management workshop (1) ○ Start with TED or YouTube talk and have senior leaders facilitate discussion (1) ○ Sign up sheets for dinner by topic (1) • Half-day Friday would be easier; afternoon break would be useful 1 	

Post Survey for Senior Women Only

16 Total Survey Respondents

Overall, do you believe this workshop was sufficiently worthwhile to offer again?

	N	%
Yes	16	100.0
Maybe	0	0.0
No	0	0.0
Total	16	100%

Comments?

	N
<ul style="list-style-type: none">• Young women need this type of encouragement and opportunities for skill development and bonding.	1
<ul style="list-style-type: none">• Highlighted that junior women faculty in engineering get poor mentoring and are placed in unacceptable positions.	1

If this workshop were offered again, would you make a similar effort to attend?

	N	%
Yes	15	93.8
Maybe	0	0.0
No	1	6.7
Total	16	100%

Comments?

	N
<ul style="list-style-type: none">• Strongly believe in supporting young women faculty, who can be isolated in male-dominated departments.	1

If you were going to organize a networking and mentoring workshop in the future, what would you do differently and why?

	N
<ul style="list-style-type: none"> • Activities to help senior women in their careers <ul style="list-style-type: none"> ○ How not to get stuck at associate professor (1) ○ What's next after becoming full professor (1) ○ Peer mentoring for senior women (1) 	3
<ul style="list-style-type: none"> • Organize the poster session differently <ul style="list-style-type: none"> ○ Rotate groups of presenters (1) ○ Could be more social (1) ○ Not enough time & space for posters given the time & expense of preparing them; use only larger booklets instead (1) 	2
<ul style="list-style-type: none"> • Suggestions for meal organization <ul style="list-style-type: none"> ○ Plan dinner groups (1) / Organize one meal by school & one meal by discipline (1) 	2
<ul style="list-style-type: none"> • Suggestions for longer sessions <ul style="list-style-type: none"> ○ Longer negotiation session (1) / Longer faculty toolbox session (1) 	2
<ul style="list-style-type: none"> • Fewer ADVANCE presentations to allow time for questions 	2
<ul style="list-style-type: none"> • Secure relief from service obligations for conference organizers 	1
<ul style="list-style-type: none"> • Omit Big Ten, Big Life, Big Stage session 	1
<ul style="list-style-type: none"> • Increase ratio of junior women 	1
<ul style="list-style-type: none"> • Facilitate peer input for more interactions 	1
<ul style="list-style-type: none"> • Finish the conference earlier to allow for travel home 	1
<ul style="list-style-type: none"> • More information about conference programming at the beginning, to let junior women know why senior women think this is important 	1

Do you have any other comments or suggestions?

	N
<ul style="list-style-type: none"> • Poster session was ineffective <ul style="list-style-type: none"> ○ Might be good to have people introduce themselves briefly instead 	2
<ul style="list-style-type: none"> • Could be more interactive <ul style="list-style-type: none"> ○ Encourage people to talk to people from other institutions ○ More time in breakout sessions would be more interactive 	2
<ul style="list-style-type: none"> • Don't forget to emphasize that we must be outstanding researchers first 	1
<ul style="list-style-type: none"> • Could be held in early summer to accommodate junior women with conference obligations 	1
<ul style="list-style-type: none"> • Q&A with industry representatives was more effective than presentations 	1
<ul style="list-style-type: none"> • Let Allison Hubel organize for 2016 	1
<ul style="list-style-type: none"> • Note from participant to her future self: too much food at facilitators' dinner, not enough salad fixings for lunch, would be good to have water at breaks 	1

Workshop Budget

Rockwell Automation	\$10,000
Boeing	5000
Dow	5000
Johnson Controls	5000
UMich Crosby Fund	10,000
Illinois Dean	5000
Michigan Dean	5000
Michigan State Dean	5000
Minnesota Dean	5000
Nebraska Dean	5000
Northwestern Dean	5000
Ohio State Dean	5000
Purdue Dean	5000
Wisconsin Dean	5000
TOTAL INCOME	\$80,000

Hotel (rooms, internet, parking)	\$23,826.53
Meals (including banquet)	14,105.40
Transportation (airfare, mileage, taxis)	22,665.55
Poster & program printing	3577.50
A/V at hotel	5496.60
Other/misc	613.24
TOTAL EXPENSE	\$70,384.82



**Mentoring and Networking Workshop for
Junior Women Faculty in the Big 10
Pfister Hotel, Milwaukee, WI
April 3-5, 2013**

With the generous support of:

the Big 10 Deans of Engineering and Industry Sponsors

Michigan State University

[Rockwell](#)

Northwestern University

[Boeing](#)

Ohio State University

[Dow](#)

Purdue University

[Johnson Controls](#)

University of Illinois

University of Michigan

University of Minnesota

University of Nebraska

University of Wisconsin

[Link to the 2010 workshop web page](#)

The purposes of the workshop are to:

1. Provide a professional networking opportunity
2. Cultivate peer collaboration and mentoring relationships
3. Foster interactions between junior women faculty and senior women faculty role models

[Photos from the Workshop](#)

[Workshop Attendees](#)

Workshop Schedule

Wednesday, April 3		
6:00-8:00pm	Orientation for Senior Women (dinner included)	Henry
Thursday, April 4		
8:00-9:00	Breakfast	Grand East
9:00-10:00	Keynote Address: Martha Pollack, Vice-Provost, University of Michigan	Henry-Louis
10:00-10:30	Break	
10:30-11:15	Faculty Toolboxes	
	Group A: Management Methods	Taft
	Group B: Negotiation Strategies	McKinley
	Group C: Selling Yourself	Roosevelt
11:15-noon	Faculty Toolboxes	
	Group B: Management Methods	Taft
	Group C: Negotiation Strategies	McKinley
	Group A: Selling Yourself	Roosevelt
noon-1:30	Working lunch: ADVANCE best practices (sponsored by University of Michigan Crosby Award)	Grand East
1:30-3:00	Critical Friends	Taft, McKinley, Roosevelt, Kennedy, Henry, Louis, and Empire
3:00-3:30	Break	
3:30-4:30	Industry Panel	Grand Central
4:30-6:30	Research networking and poster session Poster template (PPT)	Imperial
Friday, April 5		
8:00-9:00	Breakfast	Rouge
9:00-10:00	Big Life, Big Stage, Big 10: Panel Discussion Senior women share their varied career paths	Henry-Louis
10:00-10:30	Break	
10:30-noon	Deans Panel David Williams , Ohio State University Michael Bragg , University of Illinois David Munson , University of Michigan Steven Crouch , University of Minnesota Tim Wei , University of Nebraska	Henry-Louis
noon-1:30	Lunch with the Deans	Rouge Taft, McKinley, Roosevelt, Kennedy, Henry, Louis, and Empire
1:30-3:00	Critical Friends	
3:00-3:30	Break	
3:30-4:15	Faculty Toolboxes	

	Group C: Management Methods	Kennedy
	Group A: Negotiation Strategies	McKinley
	Group B: Selling Yourself	Roosevelt
4:15-5:00	<u>Breakout sessions</u>	
	Entrepreneurship	Kennedy
	Finding Mentors	McKinley
	Dual Careers and Work-Life Balance	Roosevelt
5:00pm	Adjourn	

Note: The dress code for the workshop is business casual.

For more information on the workshop, please contact one of the organizers:

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