



How a Faculty Mentoring Program Has Enhanced Professional Advancement and Research Productivity

Kathleen Grove
Director,
Office for Women

Samantha Paredes
Scribner

Director, Center for Urban
Multicultural Education

Etta Ward
Assistant Vice Chancellor
For Research Development



Indiana University – Purdue University, Indianapolis

Challenge of a complex, decentralized urban research university

2 universities on
one campus
18 schools

255+ IU
programs; 95+
Purdue
programs

>30,000
students, 2,500
faculty

Top 20 best non-
HBC for
minorities

Health & Life Sciences Campus:
Dental, Medical, Nursing, Public
Health, Rehabilitation Science

How do we support, empower and retain women and minority research faculty?

Drop off in NIH funding applications for women in late postdoctoral and early faculty years.*

*Timothy J. Ley and Barton H. Hamilton, The Gender Gap in NIH Grant Applications, SCIENCE VOL 322 5 DECEMBER 2008, www.sciencemag.org

Full time women professors at IUPUI – 22% in 2011; women = 30% of tenured faculty

Promotion based on research, scholarship and service

Focus group with senior women faculty: #1 request was for mentoring.

Research indicates formal mentoring programs especially beneficial for women and minorities.*

*Ragins, B.R., & Cotton, J.L. 1999. Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. Journal of Applied Psychology, 4: 529-550

Faculty with mentors more likely to have a productive research career.

Carr, P.L., Bickel, J., and Inui, T.S. (2003). Taking root in a forest clearing: A resource guide for medical faculty. Boston: Boston University School of Medicine., p. 558

U.S. Department of Health and Human Services Office of Research Integrity recognizes mentoring as a key institutional strategy for fostering responsible conduct among future generations of scientists. *

*Steneck, H.J. (2004). Introduction to the responsible conduct of research, Washington, D.C.; U.S. Government Printing Office in Zellers, D.F., Howard, V.M., Barcic, M.A., Faculty Mentoring Programs: Reinvisioning Rather than Reinventing the Wheel, Review of Educational Research, Vol. 78, No. 3 (Sept. 2008)

EMPOWER

Enhanced Mentoring Program with Opportunities for Ways to Excel in Research

Desired Outcomes for Women and URM Faculty

- Become more productive researchers
- Be promoted and tenured
- Pursue and receive external funding for research & scholarship

Organizational Benefits

- Retention of women and URM faculty
- Support of cultural and gender diversity
- Development of researcher/scientists and researcher/scholars
- Increase in external funding for university

Program Structure

- Complements informal mentoring or departmental mentoring
- Time-limited
- Incentivized
- Intentional and Purposeful
- Structured
- Fosters Accountability
- Designated Outcomes

Sponsored by the Office of the Vice Chancellor for Research and the Office for Women, established September 2011

EMPOWER Program Implementation

Two Categories

- Assistant Professors and untenured Associate Professors in tenure-track faculty positions
- Associate Professors in tenured faculty positions

Application process and matching

- Brief overview of research, strengths/skills, specific research and professional development needs and preferred mentor arrangement

Duration & Funding

- 2011-16: Mentees, \$5000 (phased allocation); Mentors, \$1000
- 2016 +: Mentees \$10,000 (phased allocation), Mentors \$2000

EMPOWER Program Implementation

Post-Award

- Orientation, goals/ objectives/plan, meet 30 hours, mid-program gathering, end-of-program gathering, and final report
- Activity logs/postings in IU Box required for 2016-17 cohort

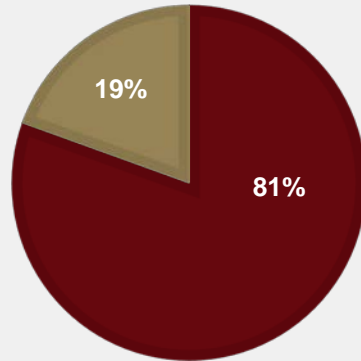
Support & Resources

- Consultations, professional development opportunities, funding opportunities, networking, and access to mentoring tools

2011-2017 Demographics

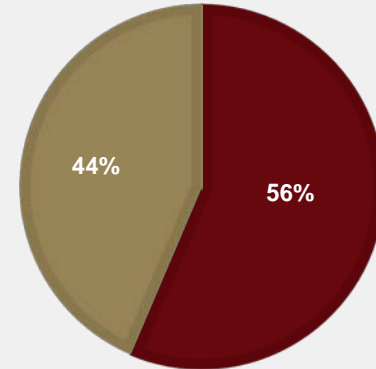
MENTEE GENDER

■ Mentee FEMALE ■ Mentee MALE



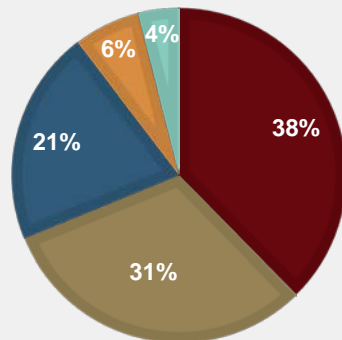
MENTOR GENDER

■ Mentor FEMALE ■ Mentor MALE



MENTEE ETHNICITY

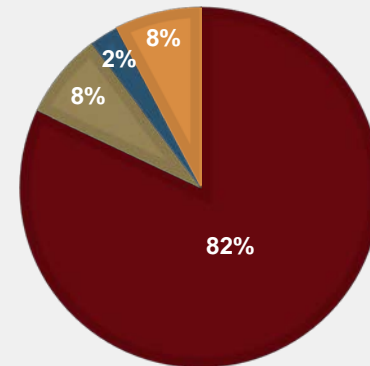
■ White ■ Asian
■ Black / African American ■ Hispanic / Latino
■ Two or More Races



N = 77

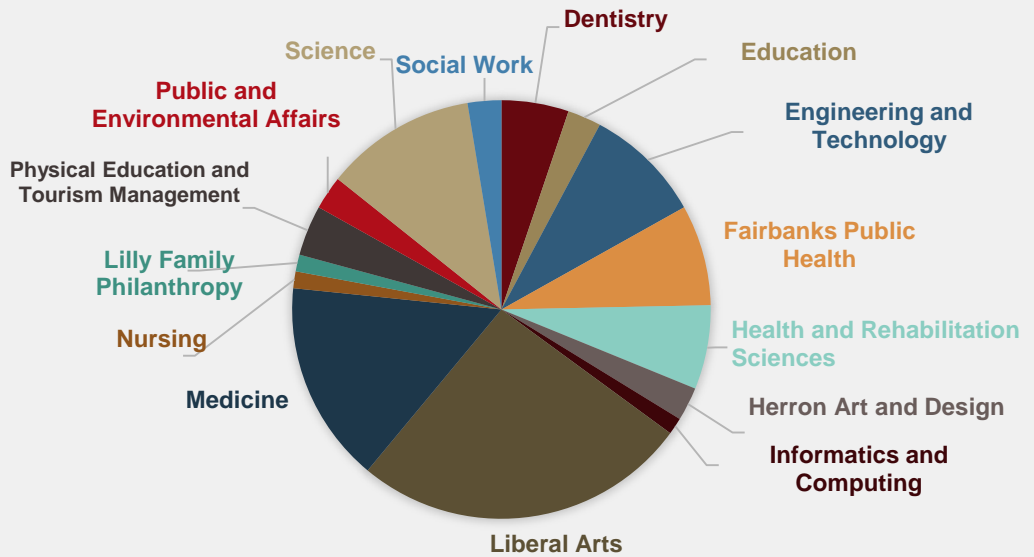
MENTOR ETHNICITY

■ White ■ Asian ■ Black / African American ■ Hispanic / Latino

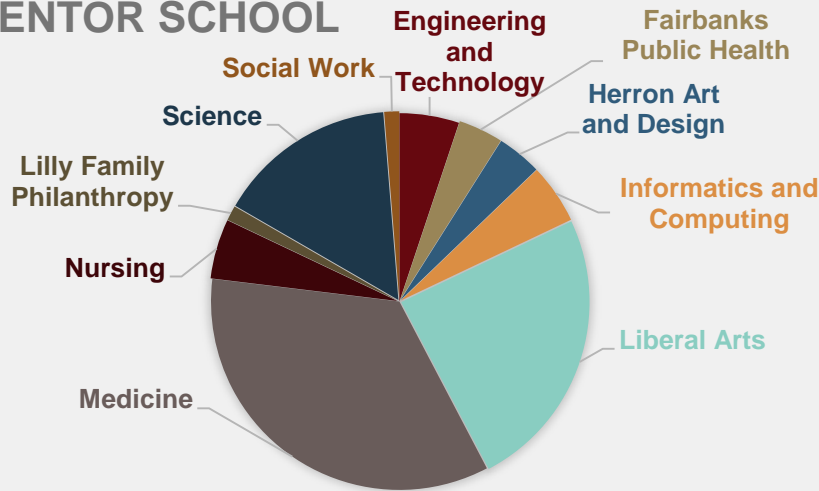


N = 78

MENTEE SCHOOL



MENTOR SCHOOL



EMPOWER

Stats and Outcomes – First 5 cohorts

Matches

- 62 Matches
- 17 Assistant and Associate Professor
- 33 Assistant and Professor
- 12 Associate and Professor

Who

- 52 Female and 10 Male as Mentees
- 28 from underrepresented population

External Funding

- Total to date \$2.8m
- Patient-Centered Outcomes Research Institute
- RWJF Harold Amos Medical Faculty Development Program
- Artprize 2014 - \$300,000

EMPOWER

Stats and Outcomes

Matches

- 77 Matches (60% mentee selected; 40% staff selected)
- 25 Assistant and Associate Professor
- 38 Assistant and Professor
- 14 Associate and Professor

Who

- 17 combinations of Female mentee/mentor matches (19 White Female mentee/White Female mentor matches)
- 10 combinations of Male mentee/mentor matches (3 Asian Male mentee/Asian Male mentor matches and 3 Black-African American Male mentee/White Male mentor matches)

External Funding

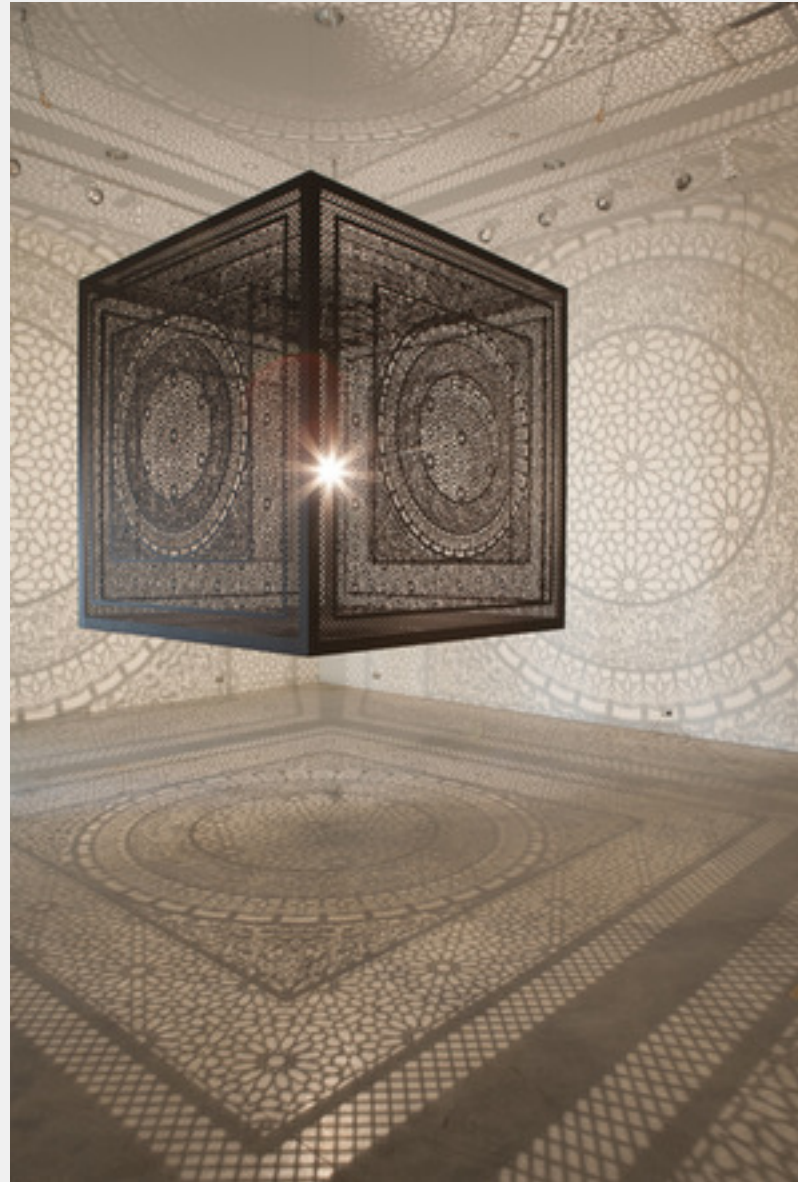
- Total to date \$4.0m
- Patient-Centered Outcomes Research Institute
- RWJF Harold Amos Medical Faculty Development Program
- Artprize 2014 - \$300,000

"Intersections"

Anila Quayyum Agha,
*Associate Professor of
Drawing and Foundation
Studies*

Herron School of Art and
Design, IUPUI

Artprize 2014 - Public
Vote Grand Prize and tied
for Juried Grand Prize



Evaluation Methodology

Mixed Methods

Measures

- Individual semi-structured interviews with mentees
- Semi-structured focus groups with mentors
- Survey – Likert-scale and open-ended items

Analysis

- Descriptive statistics, constant comparative method (Glaser & Strauss, 1967; Lincoln & Guba, 1985)

Participants

5 cohorts (2011-2012 through 2015-2016)

2011-2012: 11

2012-2013: 11

2013-2014: 8

2014-2015: 9

2015-2016: 8

44 respondents for survey

Gender:

Total: 15 (34.9%) male; 28 (65.1%) female

Mentors: 12 male (54.5%); 10 female (45.5%)

Mentees: 5 male (20.0%); 20 female (80.0%)

Race

Total: 30 white (66.7%); 5 African American/Black (11.1%); 6 Asian (13.3%); 3 (6.7%) Hispanic or Latino; 1 Other (2.2%)

Mentors: 18 (85.7%) white; 3 (14.3%) Hispanic or Latino

Mentees: 12 (50.0%) white; 5 (20.8%) African American/Black; 6 (25.0%) Asian; 1 (4.2%) Other

6 mentee interviews completed

2 mentor focus groups

About Participant Relationship

- 61.7% of participants self-selected their mentor/mentee while 38% were selected for the participant
- 83.0% of participants still have a current professional relationship with their mentor/mentee
- 56.5% of participants had a mentee/mentor from their school/department

Highest Rated Survey Items

(5 point Likert Scale)

Mentors

- “My mentee received my support, input, and feedback positively.” $M = 4.91$
- “I was able to provide my mentee with constructive feedback” $M = 4.82$
- “I was able to meet with my mentee on a consistent basis” $M = 4.77$

Mentees

- “I would recommend the EMPOWER Program to colleagues based on my experiences” $M = 4.67$
- “As a new faculty member, this program helped me feel welcomed and/or acclimated to the campus” $M = 4.50$

Lowest Rated Survey Items

Mentors

- “The program improved my sponsored research capacity” M = 2.76
- “The program helped me make connections to colleagues in other departments.” M = 3.18

Mentees

- “As a mentee, I believe I contributed to my mentor’s growth” M = 3.24
- “I would be interested in mentoring someone else based on my mentee experiences” M = 3.70

Top Five Identified Areas of Support

All Respondents

	N
Writing grant proposals	28
Conducting research	26
Identifying research topics	26
Developing a plan for career advancement	23
Identifying funding opportunities	22

Mentee

	N
Writing grant proposals	17
Conducting research	15
Identifying research topics	14
Identifying collaborators/partners	14
Identifying funding opportunities	13

Mentors

	N
Understanding promotion and tenure processes	14
Identifying research topics	12
Prioritizing professional demands	12
Balancing personal and professional demands	12
Writing grant proposals	11

Most Rewarding Aspects

Open Ended Items and Interviews

Feelings of connectedness

“Felt that my concerns as a member of an underrepresented group were highly valued and respected. Felt that my experience was not out of the ordinary.”

Relationships with mentor/mentee and networking opportunities

“Creating, maintaining, and expanding professional relationships and networks”

“Watching the development of a young colleague and her accomplishments”

“I feel like I learned as much, if not more, than my mentee during this experience”

“What I think EMPOWER did help me with was meeting people... the more people who you know and who know you the closer you get to finding people you might collaborate with eventually”

Challenges

Time

“Time to meet consistently”

“Competing commitments for time; overwhelming amount of info”

“Grantee funding can take time”

Funding

“The fund is small, barely could help much of the research”

“None I faced, except to encourage the administration to increase the grant amount to \$10,000”

Recommendations

- Increase funding (2016-2017 increased from \$5,000 to \$10,000)
- Extend Length of programming (18 months - 2 years)
- More opportunities for connections among mentees (bi-monthly meetings/social events)
- Encourage communication between mentor/mentee if mentor is selected for the mentee before the program begins

Contact Information

Kathy Grove

Director

IUPUI Office for Women

ksgrove@iupui.edu 317-278-3600

Samantha Paredes Scribner

Director,

Center for Urban Multicultural Education

smpscrib@iupui.edu 317-274-0688

Etta Ward

Assistant Vice Chancellor of Research Development

Office of the Vice Chancellor for Research

emward@iupui.edu 317-278-8427