# "The Impact of Academic Mentoring on the Work Environment"

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# Outline…

- Initial thoughts, experiences, adjustments
  - RWD students
- Context: Purdue Statistics
  - Faculty:
    - different stages of career
    - cultures and genders
  - Students
    - Graduate
      - MS and Ph.D.
    - Undergraduate
  - Staff
    - IT, secretaries, managers

- Not everyone is mentorable
- Not everyone should be a mentor
- Mentoring is dynamic
- Mentoring changes the work environment and experience

# Thoughts…

- What is working now (Purdue)
  - some are University and Dept. policies; some are faculty actions
- Facilitating/mentoring the tenure process starts early
  - long before the first academic position
- Today's education and career are very different from 20-30 years ago
  - more academic career options
  - more/different pressure?
- Thinking outside the box…
  - scenarios of early success, and what worked

## History…

- The Department of Statistics
  - 1963: formed as part of the Division of Mathematical Sciences
  - 1968: independent department

- Heads of Department
  - 1963-1995: Professor Shanti Gupta
  - 1995-2010: Professor Mary Ellen Bock
  - 2010- : Professor Rebecca Doerge

- 1962-1995
  - reputation for theoretical statistics and probability
  - Bayesian
- 1995-
  - building on the foundation of theoretical statistics and probability
  - acknowledging importance of data driven decisions
    - interdisciplinary statistics
    - combining efforts toward innovative solutions
  - opportunities to grow the department in new areas

# Composition of Purdue Statistics (74)

- **Faculty: 57 (FTE: 40)**

  - Full Professors: 16 (FTE:13.75)
    - Distinguished: 2
    - Joint Appointments: 3
  - Associate Professors: 12 (FTE: 10.5)
    - Joint Appointments: 3
  - Assistant Professors:  9 (FTE: 7.5)
    - Joint Appointments: 2

  - Lecturers: 10 (FTE: 8.25)
  - Limited Term and Teaching Visitors: 10 (FTE:0)

- **Non-Faculty:17 (no FTE)**
  - Courtesy, Adjunct, Emeriti: 7 (FTE: 0)
  - Administrative Professionals: 6
  - Clerical: 3
  - Visitor(s):1+

- **Undergraduates: (~ 400)**
  - 124  Statistics only (up from 62 in 2013)
  - 236  Dual Act. Sci and Statistics only
  - Expecting around 50-60 majors declared in Fall 2014
  - Gender 50/50

- **Graduates: (104)**
  - 40% Masters; gender 50/50

# Everyone has concerns

- Graduate students?
  - Trying to figure out if academic is for you?
  - Biggest concern: not academic
- Faculty?
  - Assistant Professors?
    - Trying to figure out if academics is really for you?
    - Trying to figure out the promotion process?
    - Trying to not feel alone?
- Staff
  - career development, future, promotion

- What and where are the problems?
  - Are there problems?
  - How can you facilitate change?

## Important Issues: Recruiting, Hiring, Retaining, Succeeding…

- Child care (i.e., infant care)
- Career opportunities for partners
- Actual proven record of friendly policies
- Role models and mentors
- Clear expectations for everyone
  - work environment

# What is working at Purdue…

- **During the interview (faculty, staff, students)…**
  - put success in front of candidates
  - people with similar concerns, backgrounds and interests
  - let candidate see the examples
  - share the vision

- **Help with employment opportunities for partner/spouse when hiring and when hired**

- **Improved onsite child care**
  - new…

# What is working at Purdue for faculty…

- **Promotion document template**
  - Latex/Word document
    - fill in the blank
    - updated every semester, at the same time

- **Mentoring-Match Committee**
    - reviews promotion document yearly
    - committee not the same each year
    - Chair of Mentoring Committee presents promo doc to Primary Committee (Assoc. and Full Professors)

# What is working at Purdue…

- **Yearly review of all Asst. and Assoc. Professors**
  - promotion document
    - teaching, grants, papers, citizenship

- **Written feedback and a meeting with department head reporting on Primary Committee meeting**
  - acknowledgement of job well done
  - indication of progress
    - on track, or not
  - suggestions for the next year

# What is working at Purdue…

- **Tenure Clock Hold**
  - one year
  - major life stress
    - death in family, new child, divorce, illness, etc.

- **Name/volunteer responsible people to the promotion committees beyond the department**
  - area/School/College promotion committees
  - the system is fair, and it works

# What is working at Purdue…

## Educating graduate students about academic careers

- concentrate on the high risk/flight students
  - keep them in school
- pay attention from the start
- preparing the “future faculty” courses
- open forum to discuss “academic life”
  - e.g., ask me how anything works…
- networking
  - practice “why I am special” in 2 min. or less
  - practice “what is my research topic” in 2 min. or less

**(Graduate) students are the embryo for change forward…**

# Many Complicated and Confounded Issues…

## example:

- Getting girls/boys interested in Science early
  - Elementary
  - High School
  - University
- Keeping women/men/people in the Sciences
- Acknowledging that today's academic career is VERY different from 20-30 years ago
- Facilitating the tenure process for families in Sciences

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## Scenario…

- 2nd year female undergraduate
  - Actuary major
  - MISERABLE
    - hated the subject, wanted out… TOTAL panic
    - felt “stuck” before she started
    - life was ruined
    - couldn’t possible tell her parents
  - Very interested in Biology, Genetics, Computing, Math… liked her Statistics classes

## Scenario…

- … what is Statistical Bioinformatics?
- Solution:
  - Biology project in a lab
    - Connected Biology, Math, Statistics, and Computing
  - Dual BS degree in Math and Statistics
- What happened to her 6 years later?:
  - MS in Statistics
  - Epidemiology Ph.D. Program
  - Eli Lilly
- Still mentoring

“A large proportion of women drop away before taking on a tenure-track job. They need to be counseled and supported much earlier, as graduate students, when they are making difficult decisions.”

-taken from: “Do Babies Matter? The Effect of Family Formation on the Lifelong Careers of Academic Men and Women”

Admitting

## Important Issues: ~~Hiring~~, Retaining, Succeeding…

graduate students…

- Child care (i.e., infant care)
- Career opportunities for a partner
- Actual proven record of ~~tenure~~ friendly policies
- People who are similar to you in the department
- Role models and mentors
- Clear expectations for the promotion process

graduation

THE
I.W. BURR AWARD IN STATISTICS

# Start with the graduate students…

- Educate and demonstrate success friendly policies:
  - half time loads
  - teaching assignments on limited day/times
  - talk about and acknowledge the struggles
    - family
    - money
    - time
    - balance
- Encouragement
- Keep people in graduate programs
  - mentor the skills that make success possible

# Recent Admissions Scenario…

- Female Ph.D. applicant
  - Very small college
  - Very bright
  - Hesitant about moving to Purdue
- Single (young) mother, divorced
- Concerns:
  - Money
  - School/after school daycare
  - Time (need to think about child)
- What we did/are doing…

**How important is thinking outside the box?**

**it is essential…**

## Scenario…

- Female Ph.D. graduate student
  - On track: Statistics graduate program
- Decides to leave school with MS
- Why?
  - been away from boyfriend of 6 years too long
    - tired of missing him
    - cannot see the future
    - being with him will fix everything

## Scenario…

Think outside the box…

- Identified Ph.D. research topic
- Located University near boyfriend
- Identified potential Ph.D. co-advisors
  - sent student to talk to them
- Arranged 6 month at home institution, 6 month at other institution Ph.D. research

## Scenario . . .

- End Result:
  - she stayed in school
  - she gained experience networking
  - she gained information and experience in thinking outside the box
  - a female Ph.D. student retained

# Suggestions:

## Facilitating the Modernized Tenure/Graduate Process in Science

## Suggestions . . .

- Make “Tenure Clock Hold” the default
  - no special permission
- Allow part-time tenure-track and graduate positions
  - extended years
  - same criteria
  - benefit: more people working productively
- Share best practices

## Thoughts . . .

- Take away the timeline (the year stamp) on CVs and promotion documents
  - eliminate “the gap”
  - pick best 10 papers to represent career achievement and demonstration of contribution
    - NSF CVs are this way
      - 5 most relevant
      - 5 additional
  - ask outside letter writers to assess on “best work”, not “quantity of work”
    - eliminate paper counting

# Thoughts…

- The facilitation of the process than 30 years ago, than 10 years ago
  - we still have a long way to go
- Mentor the graduate students
  - skills to make difficult decisions
- Serve on policy and review committees
  - place yourself in positions of power and influence
- Think outside the box
  - creative solutions…

# Mentoring (academic) Staff

- Talk about the (academic) environment
  - Not everyone understands the educational process
    - Benefits their families

- Encourage development/training
  - Free and paid
  - Example: Monday/Tuesday trip for two staff members
    - bonding, teamwork, building competencies

- Upon returning share best practices
  - inclusion, ownership, teamwork

- Keep resumes' current
  - Encourage promotions
  - Even if you lose the person from the unit

# Mentoring Undergraduates…

Not sure we/I know what we are doing …

- Positive responses to:
- Talk about your path and decisions…
  - First generation
  - Money struggles
  - Choosing majors, switching majors
  - Failures… “it’s okay to fail”
  - Choices: good/bad
  - Saying yes to opportunities that scare you
  - Work ethic

# Mentoring Undergraduates…

Not sure we/I know what we are doing …

- Positive responses to:

- Experiences
  - Learning styles: traditional, online, flipped
  - Research groups
  - Internships
  - Social

# Effects of Mentoring on Work Environment

- Climate Survey
  - Faculty/staff
  - Graduate Students
- Pronoun usage: “We”
  - Team, respect, everyone is in this together…
- People understand each others contributions to the team
  - Brings value