Assessing the Intra-Departmental Social Networks of Male and Female STEM Faculty: A Preliminary Analysis

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UC LEAF
Introduction

• Social relationships and intra-organizational networking have repeatedly been shown to predict career success (Sparrowe, Liden, Wayne, & Kraimer, 2001)

• Building social networks may be difficult when STEM women enter into an area where they are judged, implicitly or explicitly, to be less competent outsiders.
Specific Aims

• A key component to analyzing the success of the ADVANCE program at the University of Cincinnati (UC LEAF) entails assessing the social climate through real connections between people within UC.

• We will use data to examine whether the networks of men and women faculty within each department differ according to various network characteristics.
Method

• Closed network data from faculty in each of UC’s STEM departments to assess department-level network characteristics.

• Differences between networks of men/women
  – Number of ties
  – Tie types (e.g. research, professional, support)
  – Quality of ties (e.g. rank of others)
Networks in the Department of Biological Sciences

- **Support networks**
  - Mentorship
  - Trust
  - Friendship
  - Diversity

- **Collaboration networks**
  - Research (support, desired, actual)

- **Comparisons between men and women**
  - Likelihood to leave UC
Biology Mentorship Network

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Biology Trust Network

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Biology Friendship Network

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Biology Research Collaborator Support Network

http://docs.lib.purdue.edu/advancegsr/2013/presentations/1
Biology Research Actual Collaborators Network

[Diagram of network]
Application

• Logic models to be used in trainings with department heads to address department specific issues

• Individual feedback during workshops aimed at improving networking skills and developing better networks

• Better understand what constitutes a ‘good’ network
Future

• Network data to be compared longitudinally as a measure of UC LEAF success

• Archival data (e.g. publication, funding) and climate survey results to be integrated with social network data