Supporting Scholarly Careers of Underrepresented Faculty

Presented by
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Gender Summit 3 - North America
Diversity Fueling Excellence in Research and Innovation
Washington, D.C.
November 13 - 15, 2013
Barriers to Success for STEM Women of Color and Other Women Faculty at HBCUs

- Stereotypes based on ethnicity and gender (and the intersection)
- Women in STEM are often not considered as professionally equal to men in STEM
- Opportunities are often passed around only in certain circles
- Not having mentors, coaches, advocates, and senior faculty who care about the careers of woman faculty
- Few if any opportunities to become a part of a support community within the department or on campus
- Little appreciation that work life balance is much more often a challenge for women than for men
- Policies (recruitment, hiring, retention, tenure and promotion, and tenure clock) are not gender or race neutral policies
Barriers

As a result of these barriers (and others) female faculty, and especially minority female faculty, are not tightly integrated into the formal and informal social structures of the Academy, especially in STEM disciplines.
Supporting the Scholarly Careers of JSU STEM Women

JSU ADVANCE
“The goal of the NSF ADVANCE program is to develop systemic approaches to increase the representation and advancement of women in academic science, technology, engineering and mathematics (STEM) careers, thereby contributing to the development of a more diverse science and engineering workforce.”

The following types of projects are supported:

- Institutional Transformation (IT)
- Institutional Transformation Transformation Catalyst (IT-Catalyst)
- Partnerships for Adaptation, Implementation, and Dissemination (PAID)
JSU ADVANCE Goals and Objectives

• To advance the careers of all female faculty in the STEM and SBS disciplines at JSU

• To foster and sustain a climate and culture which seeks the inclusion of all faculty regardless of gender, race, and other target characteristics at the university and in the department

• To inform the larger academic community about the unique challenges of women in general and women of color in particular at HBCUs
JSU ADVANCE Initiatives
Summer Writing Retreat - Designed to Support the Scholarly Careers of Female Faculty

• Produce high quality scholarly products – journal articles, other refereed publications, book chapters, and proposals
• Develop an intellectual support circle for scholarly writing
• Cultivate a psychology of success about scholarly productivity
• Develop a pattern for consistent writing despite daily demands and responsibilities
Summer Writing Retreat Outcomes

20 articles submitted refereed journals with 8 published
14 presentations at national/international conferences
8 proposals submitted with 3 funded
2 book manuscripts
JSU ADVANCE Initiatives

• **International Visibility**
  - Assist STEM female faculty to establish visibility and promote a national and international reputation through international group travel
  - Support STEM female faculty to travel to national and international conferences in their areas of research

• **Outcomes**
  - Over 30 presentations at international institutions
  - 5 international presentations, workshops
  - Joint international course offered with South Africa
  - Ongoing collaboration with International Women in Science Initiatives
Future Directions

- Multidisciplinary project teams for international travel
- International peer mentor relationships via joint research collaborations
- Expanded international locales for collaboration (based on discipline interest)
- Institutionalization of international travel opportunities for STEM women faculty
Bias Awareness Training - STEM Women of Color

The Academic Woman: Balancing Expectations, Responsibilities, and Biases

- Sessions for female faculty in STEM organized around relationship status to discuss impact on experience
- Sessions for the partners of academic women to discuss work/life balance and bias in the workplace

<table>
<thead>
<tr>
<th></th>
<th>Single Women</th>
<th>Partnered Women</th>
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</thead>
<tbody>
<tr>
<td>Never participated</td>
<td>60%</td>
<td>83%</td>
</tr>
<tr>
<td>in similar conversations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you find these</td>
<td>89%</td>
<td>89%</td>
</tr>
<tr>
<td>conversations helpful?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you initially want</td>
<td>30%</td>
<td>50%</td>
</tr>
<tr>
<td>to hold these conversations?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After workshop, do you</td>
<td>89%</td>
<td>100%</td>
</tr>
<tr>
<td>want similar conversations?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results: For the first time, many STEM women engaged in discussions surrounding gender discrimination in the workplace and implications on work/life balance.
## JSU STEM Women Leadership Changes

<table>
<thead>
<tr>
<th>Position</th>
<th>Year of Appointment</th>
<th>STEM Discipline</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>2011</td>
<td>Engineering</td>
</tr>
<tr>
<td>Vice President for Information Technology</td>
<td>2012</td>
<td>Computer Science</td>
</tr>
<tr>
<td>Vice President for Research (Interim)</td>
<td>2013</td>
<td>Computer Science</td>
</tr>
<tr>
<td>Department Chair</td>
<td>2012</td>
<td>Political Science</td>
</tr>
<tr>
<td>Department Chair (Interim)</td>
<td>2013</td>
<td>Physics</td>
</tr>
<tr>
<td>Department Chair (Interim)</td>
<td>2012</td>
<td>Psychology</td>
</tr>
<tr>
<td>Center Director (Interim)</td>
<td>2012</td>
<td>Psychology</td>
</tr>
</tbody>
</table>
Supporting the Scholarly Careers of All JSU Faculty

- JSU Academy for Research and Scholarly Engagement
JSU Academy for Research and Scholarly Engagement - Objectives

- Enhance the scholarly careers of all faculty members
- Increase interaction with Federal agencies
- Increase collaborations across disciplines
- Provide access to coaches for research and writing guidance
- Develop a highly energized community of scholars
Academy Design

- Provides Academic Year Program
  - Curriculum includes
    - Workshops
    - Writing Sessions/Retreats
    - Individual Coaching
    - Visits to Funding Agencies
- Participant Expectations
  - Apply and submit proposals for evaluation and selection
  - Commit to develop and submit Research and Scholarly Agenda
  - Fully participate in all Workshops and Meetings
  - Work with scholars across multiple disciplines and career levels
  - Submit bi-monthly assignments to coaches
  - Submit competitive proposal in response to a Request for Proposals
Academy Outcomes and Accomplishments

• To increase:
  ✓ Number of faculty members submitting research grants as PIs
  ✓ Number of proposals submitted
  ✓ Funding rate
  ✓ Funding total received from competitive grant proposals

• To identify emerging researchers who can successfully recognize and develop solutions to multidisciplinary problems

• To create a community of multidisciplinary scholars
National Science Foundation awards JSU $300K for software development education

by Jackson State University  September 5, 2013

Computer science majors will get real-world software development experience thanks to a National Science Foundation grant for $299,997 awarded to Jackson State University to establish, under Dr. Hyunsook Kim’s direction, an Open Source Software community run by computer science majors.

Kim is Associate Professor in the Department of Computer Science. She said the award will be distributed over three years, beginning Sept. 1, 2013, enabling JSU to enhance computer science majors through real-world software development activities and produce well-educated and well-rounded graduates.

The project further contributes to student learning in the areas of engineering, analyzing and understanding existing code, software solution design, people and project management, and communicating with end users and clients.

More specifically, it will provide:

- A repository and knowledge base of student development projects and an incubator for further CS development.

JSU professor awarded patent for simulator used for drones

by Jackson State University  November 6, 2013

(Jackson, MS) – Dr. Kumal S. Ali, a computer engineering professor at Jackson State University, has been awarded a patent for his hardware in the Loop Simulator (HILS) for small unmanned/autonomous aerial vehicles or drones.

HILS are systems that combine the best of software flexibility and hardware accuracy, providing the user with a powerful and realistic evaluation tool. The system allows the user to compare how a plane is flying under different autopilot and weather conditions. The project is a collaboration of JSU and the U.S. Army Research Laboratory. Ali collaborated with his student, Justin Shumaker, who currently works for the Army Research Laboratory.

A copy of the system will be delivered to the U.S. Air Force on Dec. 5. This is Ali's
Supporting the Scholarly Careers of STEM Women @ JSU
Supporting the Scholarly Careers of All JSU Faculty
Supporting the Scholarly Careers of Underrepresented Faculty Internationally
What Is Left to Do?

While high-level and some mid-level administrators and many faculty peers understand and are supportive of *Institutional Transformation*, some individuals still do not understand what their role and responsibilities are to promoting the *change necessary for* *Institutional Transformation*. 
Recommendations for Institutions to Support Scholarly Careers of Underrepresented Faculty

1. Institutions must recognize that any sustainable solution(s) must be community-based.
2. Institutional Policies must be reviewed and modified to ensure equity, diversity, and inclusion by looking beyond the traditional approaches.
3. Dialogue (at times difficult) must be held with all members of the community and other constituents.
4. Institutions and individuals must determine the issues surrounding the perceptions, realities, and impact of bias.
5. Institutions and all individuals must acknowledge the value of diversity and be held accountable for change.
6. Institutions must commit and hold themselves accountable for the continuous professional advancement for women and underrepresented minority faculty.
7. Institutions should seek to create a community of (diverse) scholars at various career points.
Thank You!

Contact Information

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