**ESCALATE: ENGINEERING AND SCIENCE CAREERS IN ACADEMIA - LEARNING FROM ADVANCE & TRANSLATING EFFECTIVELY**

Introducing a WSU Initiative Focused on Institutional Climate Change & Improving Women’s Advancement in *Academic* Careers in Science & Engineering

NSF#0620013 Social, Behavioral, & Economic Sciences

*ADVANCE-PAID: Partnerships for Adaptation, Implementation, & Dissemination*
Interdisciplinary Project Team

College of Engineering
Michele Grimm, Co-PI
Ece Yaprak, Co-PI & Co-Director

College of Education
Karen Tonso, Co-PI & Co-Director

College of Liberal Arts & Sciences
Allen Batteau, PI
Diane Pawlowski, Co-PI & Evaluation Coordinator
### ADVANCE-PAID Grants

<table>
<thead>
<tr>
<th>Title</th>
<th>Organization</th>
<th>PI</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Equity and Diversity</td>
<td>UCal-Irvine</td>
<td>Herbert Killackey</td>
<td>$500,000</td>
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<tr>
<td>STEM Faculty Diversity</td>
<td>New Mexico State University</td>
<td>Tracy Sterling</td>
<td>$500,000</td>
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<td>STEM Dept. Chairs</td>
<td>University of Washington</td>
<td>Ana Mari Cauce</td>
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<td>Gender Equity in STEM</td>
<td>University of Missouri-Columbia</td>
<td>Jacquelyn Litt</td>
<td>$499,993</td>
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<td>ADVANCE PAID</td>
<td>UWisc-Madison</td>
<td>Jennifer Sheridan</td>
<td>$499,991</td>
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<td>PAID at ISU</td>
<td>Idaho State University</td>
<td>Maureen Brandon</td>
<td>$499,908</td>
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<td>Faculty Change Agents</td>
<td>UMichigan-Ann Arbor</td>
<td>Abigail Stewart</td>
<td>$499,906</td>
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<td>Jr Faculty Product’y &amp; Ldrshp</td>
<td>CUNY - Hunter College</td>
<td>Virginia Valian</td>
<td>$499,901</td>
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<td>Collaborative Research for Horizontal Mentoring</td>
<td>Harvey Mudd College</td>
<td>Kerry Karukstis</td>
<td>$361,168</td>
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<tr>
<td>Alliances ($499,864)</td>
<td>Vassar College</td>
<td>Miriam Rossi</td>
<td>$52,641</td>
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<td></td>
<td>Furman University</td>
<td>Laura Wright</td>
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<td>DePauw University</td>
<td>Bridget Gourley</td>
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<td>ESCALATE</td>
<td>Wayne State University</td>
<td>Allen Batteau</td>
<td>$499,858</td>
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<td>PoWERS</td>
<td>Texas Tech University</td>
<td>Karlene Hoo</td>
<td>$499,590</td>
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<td>Women Geoscience Leaders ($488,367)</td>
<td>Wesleyan University</td>
<td>Suzanne O’Connell</td>
<td>$259,593</td>
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<td>University of Nebraska-Lincoln</td>
<td>Mary Anne Holmes</td>
<td>$228,774</td>
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</table>

**Total Amount:** $5,987,378
Learning from ADVANCE Grants

- Earlier NSF ADVANCE Grants in 3 “clusters”
- 5 year projects intended to produce “institutional transformation”
- U of M received $3,946,508 in 2002
- ESCALATE: Partnership with U of M ADVANCE Team to deploy strategies they found effective
  - Improve the climate & career opportunities for women in tenure-track academic science & engineering careers at WSU
Rationale Behind ESCALATE

Women in academic science & engineering careers:
- Had positive in-college experiences
- Find bias accumulates during post-PhD job searches, lab set-up, mentoring, & tenure review
- Often fall outside collegiality networks needed for staying in scholarship loops
- Become isolated from others with similar experiences, especially from women with “two-body” problems & balancing work-family issues
- Come to think of these experiences as grounded in personal inadequacy, instead of in academic cultures mismatched to women’s needs, interests, and desires
ESCALATE Goals

- ESCALATE addresses two central issues that interfere with building a faculty representative of society:
  - Women’s isolation from information & collegiality networks needed for success in academic science and engineering
  - Lack of awareness about how cultures of academic science and engineering impact women and about how to better account for women’s needs, interests, and desires
### WSU Women Scientists & Engineers

#### Comparing WSU with US Top 50 Programs (%Women)

<table>
<thead>
<tr>
<th>Program</th>
<th>Assistant Professor</th>
<th>Assoc. Professor</th>
<th>Full Professor</th>
<th>All Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assistant Professor</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Biology</td>
<td>30.20</td>
<td>60.00</td>
<td>24.87</td>
<td>16.70</td>
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<tr>
<td>Chemistry</td>
<td>21.47</td>
<td>16.70</td>
<td>20.50</td>
<td>66.70</td>
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<tr>
<td>Computer Science</td>
<td>10.82</td>
<td>12.50</td>
<td>14.41</td>
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<tr>
<td>Math &amp; Statistics</td>
<td>19.60</td>
<td>20.00</td>
<td>13.19</td>
<td>25.00</td>
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<tr>
<td>Physics</td>
<td>11.15</td>
<td>0.00</td>
<td>9.41</td>
<td>0.00</td>
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<tr>
<td><strong>Engineering</strong></td>
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<tr>
<td>Electrical</td>
<td>16.94</td>
<td>15.80</td>
<td>11.17</td>
<td>13.60</td>
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<tr>
<td>Civil</td>
<td>10.86</td>
<td>18.20</td>
<td>9.84</td>
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<tr>
<td>Mechanical</td>
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<td>11.50</td>
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<tr>
<td>Chemical</td>
<td>15.65</td>
<td>0.00</td>
<td>8.89</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>All Ranks</strong></td>
<td></td>
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</tr>
</tbody>
</table>

10/9/2006 ESCALATE - NSF #0620013 SBE - PAID
Project Initiatives

- Women’s Career Development Initiatives
  - Annual Career Symposium
  - Career Networking Meetings
  - Web Resource for Career Advancement
  - Career Development Grants
  - Wider Horizons (connecting with women from other institutions)
Project Initiatives

• Infusing Institutional Climate Change
  • Resource Team
  • UM Theater Group
  • Joint Urban Presence (with UM)
• Department Transformation
  • Self-study and change in two engineering departments
Project Resource Team

Organizing the Resource Team

• Comprised of six faculty who
  • Become educated about scholarship describing/explaining women’s situations
  • Serve as resource to larger campus for sharing expertise
  • Receive $2,500/year stipend

• Recruiting/selection
  • Contact Deans and Department Chairs in Sciences and Engineering for nominations of “fair-minded” faculty (men & women), respected by their colleagues, and tenured
  • Contact faculty for self-nomination, with recommendations from colleagues/students
Grants to Women

- Women’s Career Development Grants
  - $46,000 spread over 3 years ($12,000 in year 1, $17,000 each in years 2 & 3)
  - $500-2000 each - To pay expenses related to critical career steps, such as childcare at or during conferences, meet with mentor, bring in expert in field, & meet with funding agencies

- Selection Criteria
  - Solicit applications via email
  - Staged deadlines in fall, winter, and spring
  - Justify amount, dates, & purpose, relate to critical career steps and to potential for dept. funding
  - Chair’s brief recommendation
Department Grants

- Climate change in 2 or 3 engineering departments (total of $30,000 over 3 yrs)
  - Self-study, develop plan for change, implement plan
- Inclusion criteria
  - Department interest
  - Currently few or no women faculty
Need for Campus Involvement

• Accomplishing these goals suggests the importance of campus involvement in, and support for, *ESCALATE* goals by
  • Providing access to chairs and department meetings, and websites
  • Helping us contact supervisors, mentors, and women, themselves, to invite their participation
  • And...
Thank you.
We look forward to your continued support.

Contact Project ESCALATE:
escalate @ wayne.edu
http://escalate.wayne.edu