IMPACT OF A STEM PROGRAM TO ENHANCE RECRUITMENT, RETENTION, AND SUCCESS OF HIGH POTENTIAL, HIGH PERFORMING STUDENTS

2013 NACTA CONFERENCE
June 25-29, Blacksburg, Virginia
Pamala V. Morris, Ph.D.
John A. Patterson, Ph.D.
College of Agriculture, Purdue University
Well-documented trends have been reported nationally of declining interest by underrepresented students:

- poor preparation
- a lack of diverse representation
- low persistence of U.S. students in STEM disciplines (URM students have 10-15% lower graduation rates)
Overall goal: To cultivate a diversity of leaders that will effectively compete in the global marketplace as STEM scientists

- AIMS—
  - Increase diversity
  - Improve retention and graduation
  - Increase student responsibility and involvement in the community
  - Increase students going to graduate school/ high profile jobs
Integrated program - combines financial compensation with academic and social support throughout student’s collegiate career.

Students support - FEELS directors, program manager, faculty academic and research mentors, peer mentors, and additional university support programs.
Elements –

- Seminar course each semester
  - provides weekly contact with staff
  - Sequenced topical information

- Research project

- Industry internship

- Service-Learning

- Social functions
WITHIN FEELS CHANGE OF MAJOR

- FEELS Fellows - 31 students entered the FEELS Program, 18 students continued in FEELS
- FEELS FELLOWS - 3 of 18 changed Major or Concentration, all within STEM disciplines
- Left FEELS - 9 of 13 Changed Major or Concentration, 3 within STEM disciplines
## WITHIN FEELS GPA AND GRADUATION RATES

<table>
<thead>
<tr>
<th>GPA (out of 4.0)</th>
<th>FEELS</th>
<th>3.47**</th>
<th>18 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left FEELS</td>
<td>2.51</td>
<td></td>
<td>13 Students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graduation Rate#</th>
<th>FEELS (Cohorts 1,2)</th>
<th>3.00*</th>
<th>13 of 13 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left FEELS (Cohorts 1,2)</td>
<td>1.85</td>
<td></td>
<td>3 of 13 Students</td>
</tr>
</tbody>
</table>

| Graduated/In School& | Left FEELS (Cohort 1,2) | 2.23   | 8 of 13 Students  |

** P < 0.002; * P < 0.05

# Graduation Rate – 1 = left Purdue, 2 = currently enrolled, 3 = graduated
& Graduation Rate assuming those currently in school graduate
# FEELS AND COLLEGE OF AGRICULTURE (COA) COHORT COMPARISONS

<table>
<thead>
<tr>
<th>GPA</th>
<th>FEELS (Cohort 1,2,3)</th>
<th>3.47</th>
<th>18 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COA (Cohort 1,2)</td>
<td>2.93**</td>
<td>172 Students</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>FEELS (Cohort 1,2)</td>
<td>3.00</td>
<td>13 Students</td>
</tr>
<tr>
<td>(4 Year)</td>
<td>COA (Cohort 1,2)</td>
<td>2.15</td>
<td>172 Students</td>
</tr>
<tr>
<td></td>
<td>COA (Cohort 1,2)</td>
<td>2.40</td>
<td>142 Students</td>
</tr>
</tbody>
</table>

** P < 0.002; * P < 0.05

# Graduation Rate − 1 = left Purdue, 2 = currently enrolled, 3 = graduated

& Graduation Rate Assuming Currently in School Graduate
## FEELS Graduation Rate Comparison Within Purdue

<table>
<thead>
<tr>
<th></th>
<th>4 Yr</th>
<th>&gt; 4 YR</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEELS - Completed</td>
<td>100%*</td>
<td>100%**</td>
</tr>
<tr>
<td>FEELS – All</td>
<td>76.2 %*</td>
<td>83.9%**</td>
</tr>
<tr>
<td>FEELS – Started and left</td>
<td>33.13%*</td>
<td>82.0%**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College of Agriculture</td>
<td>52.2%</td>
<td>69.9%</td>
</tr>
<tr>
<td>Purdue University</td>
<td>45.7%</td>
<td>70.2%</td>
</tr>
</tbody>
</table>

* Includes Feels Cohorts 1, 2  
** Includes FEELS Cohorts 1, 2 and 3 anticipated graduation
PROGRAMMATIC RESULTS

- Post Graduate Employment - Cohorts 1 and 2
  - Graduate school - 3
  - Vet/Med School - 4
  - Industry - 6*

*Two are interested in graduate school
CONCLUSIONS

- FEELS increased GPA of students that remained in FEELS
- FEELS increased 4 year graduation rates of students that remained in FEELS
- FEELS exposure enhanced anticipated graduation, although at a slower rate
- Requires time, $ and dedicated faculty/staff
QUESTIONS

Thank you!!!

Dr. Pamala V. Morris
Assistant Dean/Director of Multicultural Programs
pmorris@purdue.edu

Dr. John A. Patterson
Director, FEELS Program
jpatters@purdue.edu