Adventures in Assessment: Innovations in First-Year Learning Community Assessment and their Implications for Women and Students of Color

A Presentation for the First-Year Experience Conference
February 15, 2010

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LEAP Program Director
The LEAP Program

• Begun in 1994 with around 100 students

• Nearly 1000 today

• 27 first-year sections, 12 faculty

• All sections study the intersections of community and diversity
The LEAP Program (cont.)

• 2-semester course keeping students with the same classmates and instructor
• Three graduation requirements fulfilled (including diversity)
• Linked courses in writing, library research, service learning, and major selection
• Sophomore alums become Peer Advisors
The LEAP Program (cont.)

• Sections for undecided majors, residence hall students, and students interested in service

• Pre-Professional tracks in
  – Architecture
  – Business
  – College of Health
  – Education
  – Engineering
  – Fine Arts
The LEAP Program (cont).

• Multi-year LEAPs for underrepresented students in:
  – Engineering
  – Health Sciences
  – Pre-Law
The LEAP Program (cont.)

• Sections underdevelopment for:
  
  – A mix of international and American students
  
  – Non-traditional students, including returning service men and women
  
  – Science majors
Assessment of LEAP Before 2005

• Standard student course evaluations

• Pre-and post surveys measuring student satisfaction
First to Second Year Retention of LEAP vs. Non-LEAP

8 year average difference=6.47%
Percent of LEAP vs. Non-LEAP students answering "Very Greatly" or "Greatly" to questions 17-34 on the 2005-2008 Senior Surveys
Matching Criteria for the Twin Study

- Year student entered the University (cohort)
- High school student graduated from (as a proxy for socio-economic status)
- Ethnicity or race
- Age
- Gender
- Admissions Index (a composite of SAT or ACT score and high school GPA)
Demographics for the Matching Study

• 1491 pairs

• Entering the U between fall semesters 1999 to 2006

• 53% female; 47% male

• 96% Caucasian; 4% students of color
Hypotheses of the Matching Study

• LEAP students will outperform their non-LEAP demographic “twins” on the dependent variables listed below.
Dependent variables for matching study subjects

- First and second semester GPA
- First and second semester attempted and completed credits
- Fall-Fall retention rate
- Most recent (last) GPA (all students, all courses)
- Graduating GPA (for those who have graduated)
- Graduation Rate at four and six-year mark
First Semester Experience

* p<.05

<table>
<thead>
<tr>
<th></th>
<th>Non-LEAP</th>
<th>LEAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>2.93</td>
<td>3.04*</td>
</tr>
<tr>
<td>Credits Attempted</td>
<td>11.45</td>
<td>12.18*</td>
</tr>
<tr>
<td>Credits Completed</td>
<td>11.09</td>
<td>11.68*</td>
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</table>
Second Semester Experience

* $p < .05$

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<tr>
<td>GPA</td>
<td>2.96</td>
<td>3.02*</td>
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<tr>
<td>Credits Attempted</td>
<td>11.07</td>
<td>11.19</td>
</tr>
<tr>
<td>Credits Completed</td>
<td>11.30</td>
<td>11.46</td>
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</table>
Retention and 4-Year and 6-Year Graduation Rates

- **Fall to Fall Retention**: 61% (Non-LEAP), 66% (LEAP)
- **Four-Year Graduation Rate**: 10% (Non-LEAP), 15% (LEAP)
- **Six-Year Graduation Rate**: 34% (Non-LEAP), 42% (LEAP)
Overall GPA's

- Last GPA: Non-LEAP 2.92, LEAP 2.95
- Graduating GPA: Non-LEAP 3.27, LEAP 3.28
LEAP vs. non-LEAP Retention by Gender

LEAP male n=2023, LEAP female n=2545, non-LEAP male n=7989, non-LEAP female n=9452
Fall to Fall Retention by Gender

(non-Mission Corrected; *difference is significant at p<.05)

- Female (n=787): 75% non-LEAP, 82% LEAP
- Male (n=704): 46% non-LEAP, 48% LEAP
- Overall (n=1,491): 61% non-LEAP, 66% LEAP
4-Year Grad Rate by Gender
(not mission-corrected; all figures include PT and FT students; *difference is significant at p<.05)

<table>
<thead>
<tr>
<th></th>
<th>non-LEAP</th>
<th>LEAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female (n=483)</td>
<td>14.3%</td>
<td>21.5%*</td>
</tr>
<tr>
<td>Male (n=421)</td>
<td>4.5%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Overall (n=904)</td>
<td>9.7%</td>
<td>14.5%*</td>
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</tbody>
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*difference is significant at p<.05
6-Year Grad Rate by Gender

(not mission-corrected; all figures include PT and FT students; *difference is significant at p<.05)

Female (n=275):
- non-LEAP: 42.6%
- LEAP: 57.8% *

Male (n=244):
- non-LEAP: 23.4%
- LEAP: 24.2%

Overall (n=519):
- non-LEAP: 33.5%
- LEAP: 42.0% *

Legend:
- non-LEAP
- LEAP
First Semester GPA by Gender

*difference is significant at p<.05

Female (n=778):
- non-LEAP: 2.95
- LEAP: 3.12*

Male (n=692):
- non-LEAP: 2.91
- LEAP: 2.95

Overall (n=1,470):
- non-LEAP: 2.93
- LEAP: 3.04*
Second Sem. GPA by Gender

*difference is significant at p<.05

<table>
<thead>
<tr>
<th>Category</th>
<th>non-LEAP</th>
<th>LEAP</th>
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<tbody>
<tr>
<td>Female (n=726)</td>
<td>2.99</td>
<td>3.09*</td>
</tr>
<tr>
<td>Male (n=572)</td>
<td>2.91</td>
<td>2.93</td>
</tr>
<tr>
<td>Overall (1,298)</td>
<td>2.96</td>
<td>3.02*</td>
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Last GPA by Gender

*difference is significant at p<.05

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<td>Female (n=775)</td>
<td>2.93</td>
<td>3.04*</td>
</tr>
<tr>
<td>Male (n=687)</td>
<td>2.9</td>
<td>2.86</td>
</tr>
<tr>
<td>Overall (n=1,462)</td>
<td>2.92</td>
<td>2.95</td>
</tr>
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Adding the Major as a Matching Criterion

- LEAP Matching Study by College Major: 117 pairs
  - LEAP women have significantly higher 1\textsuperscript{st} and 2\textsuperscript{nd} semester completed credits.
  - LEAP men are significantly less likely to have graduated.
Match by College Major-Females

* p<.05

<table>
<thead>
<tr>
<th>Sem</th>
<th>Attempted Credits</th>
<th>Completed Credits</th>
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</thead>
<tbody>
<tr>
<td>1st</td>
<td>12.4%</td>
<td>13.3%*</td>
</tr>
<tr>
<td>1st</td>
<td>11.5%</td>
<td>12.8%*</td>
</tr>
<tr>
<td>2nd</td>
<td>13.0%</td>
<td>13.9%*</td>
</tr>
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</table>

Legend:
- non-LEAP
- LEAP
Adding the Major as a Matching Criterion

- LEAP Matching Study by Department Major: 51 pairs
  - No statistically significant differences between LEAP and non-LEAP women.
  - Non-LEAP men significantly outperform LEAP men on GPA in the first semester.
Match by Dept Major-Males

*=p<.05

1st Sem GPA

non-LEAP

LEAP
Non-White Students: GPA

*Difference is significant at p<.05

<table>
<thead>
<tr>
<th></th>
<th>1st Semester GPA (n=59)</th>
<th>2nd Semester GPA (n=57)</th>
<th>Last GPA (n=57)</th>
</tr>
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<tbody>
<tr>
<td>LEAP</td>
<td>2.78</td>
<td>2.67</td>
<td>2.7</td>
</tr>
<tr>
<td>non-LEAP</td>
<td>3.12*</td>
<td>3.11*</td>
<td>2.99*</td>
</tr>
</tbody>
</table>
Non-White Retention and Graduation Rates

- Fall to Fall Retention (n=60): 78% (non-LEAP), 90% (LEAP)
- 4-Year Graduation Rate (n=31): 7% (non-LEAP), 16% (LEAP)
- 6-Year Graduation Rate (n=16): 38% (non-LEAP), 56% (LEAP)
29 PAs matched with 170 LEAP and non-LEAP students

First semester GPAs:
- Non-LEAP 3.00
- LEAP 3.18
- PAs 3.66

First semester credits attempted:
- Non-LEAP 11.35
- LEAP 12.09
- PAs 12.90

First semester credits completed:
- Non-LEAP 11.17
- LEAP 11.79
- PAs 12.86
First Semester Experience

b=PA sig > Non-LEAP; c=PA sig > LEAP; sig= p<.05
Assessment Findings for PAs (cont.)

- Second semester GPAs:
  - Non-LEAP 3.08
  - LEAP 3.19
  - PAs 3.51

- Second semester credits attempted:
  - Non-LEAP 11.13
  - LEAP 11.44
  - PAs 13.00

- Second semester credits completed:
  - Non-LEAP 11.43
  - LEAP 11.46
  - PAs 12.87
Second Semester Experience

b=PA sig > Non-LEAP; c=PA sig > LEAP; sig= p<.05

- GPA: Non-LEAP = 3.08, LEAP = 3.12, LEAP-PA = 3.51
- Credits Attempted: Non-LEAP = 11.13, LEAP = 11.44, LEAP-PA = 13.00
- Credits Completed: Non-LEAP = 11.23, LEAP = 11.46, LEAP-PA = 12.87
Assessment Findings for PAs (cont.)

• Overall GPAs:
  – Non-LEAP 3.12
  – LEAP 3.12
  – PAs 3.46

• Graduation rates to date:
  – Non-LEAP 20%
  – LEAP 22%
  – PAs 45%
Overall GPA’s

\[ b = \text{PA sig} > \text{Non-LEAP}; \ c = \text{PA sig} > \text{LEAP}; \ \text{sig} = p < .05 \]
Graduation Rate

b = PA sig > Non-LEAP; c = PA sig > LEAP; sig = p < .05

- Non_LEAP: 20%
- LEAP: 22%
- LEAP-PA: 45%
Tentative Conclusions

• LEAP and non-LEAP twins, even when matched for major, perform at least equally well later in their college careers.

• Early differences observed may result from mismatches: Students choosing LEAP may have unrealized potential.

• OR our ‘n’ may be so low because more of the non-LEAP ‘twins’ have left school, and more LEAP students have stayed.
Tentative Conclusions (cont.)

• Both possibilities are supported by results from administration of the Student Readiness Inventory to one entering cohort.
• LEAP should be made more attractive to men, perhaps by emphasizing the program’s promotion of success as well as community.
• Data collection and analysis must continue.