Defining First-Generation Students By Degrees
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First-Generation College Students

- Lower socioeconomic status; educational aspirations; and levels of engagement
- Lower social capital (knowledge, resources and info to promote success in higher education)
- A population of interest due to lower retention and graduation rates
Definitions

- less than a bachelor degree
- less than an associate degree
- no postsecondary education

Varied definitions can lead to inconsistent policy decisions. Further, these definitions may not fully capture the unique backgrounds of students.
Research Questions

• Do students from different parental educational backgrounds exhibit different
demographic characteristics?
• academic achievement or college experiences?
• Does a conservative vs. liberal definition of first-generation status matter?
• Do differences observed warrant more nuanced definitions of first-generation students?
Methods

• Student Experience in the Research University (SERU) web-based survey administered 2011
• Institutional level response rate was 38.1% (n=81,135)
• 70,741 non-transfer students from nine large, public research universities
Demographic/Background Measures

- First-generation status
- Gender
- Race/ethnicity
- Social class
- Family income
- Immigrant and ESL status
- ACT scores
Educational Outcome Measures

- GPA
- Campus climate ($\alpha = .92$)
- Academic engagement ($\alpha = .84$)
- Sense of belonging ($\alpha = .85$)
First-Generation Status

- Nine categories: highest education reached by mother or father in either the U.S. or in a foreign country
  - No formal education; less than high school diploma
  - High school diploma or equivalent
  - Associates or postsecondary certificate
  - Bachelors degree or equivalent
  - Post-baccalaureate certificate; masters degree or equivalent;
  - Professional degree; doctorate degree or equivalent (PhD)
- Recoded and collapsed levels
First-generation students

Examined parents' degree combinations

- 42% of students had parents with the same level of education
- 15.9% both parents BA
- 13.6% BA/MA
- 9.3% HS/HS

Examined parents' highest degree of education

- 2.2% no education
- 11.8% high school
- 8.2% AA
- 30.1% BA
- 26.6% MA
- 21% PhD
First-Generation Status

**Conservative definition:** The highest level of educational attainment is less than the Associate Degree
- 14.1% less than AA ($n = 7,568$)
- 85.9% AA or higher ($n = 46,203$)

**Liberal definition:** The highest level of educational attainment is less than the Bachelor Degree
- 22.2% less than BA ($n = 11,951$)
- 77.8% BA or higher ($n = 41,820$)
Question One: Demographic Comparisons

- Liberal and conservative definitions were used to examine differences for the following demographic characteristics:
  - Race/ethnicity
  - Social class
  - Family income
  - Gender
  - Immigrant status
  - Native English speaking status
Conservative definition of first-generation college student
Race/Ethnicity

**Liberal definition of first-generation college student**

![Bar chart showing race/ethnicity distribution](chart.png)
Social Class

**Conservative** definition of first-generation college student

![Bar chart showing social class distribution for students with less than AA and AA or higher degrees. The chart uses color coding to represent different social classes: Wealthy, Upper-middle or professional-middle, Middle-class, Working-class, and Low-income or Poor.](chart.png)
Social Class

Liberal definition of first-generation college student
Family Income (Dependent Students)

**Conservative** definition of first-generation college student
Family Income (Dependent Students)

**Liberal** definition of first-generation college student

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Percent Less than BA</th>
<th>Percent BA or Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>$200,000 or more</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$125,000 to $149,999</td>
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<td>$100,000 to $124,999</td>
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<td>$80,000 to $99,999</td>
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<td></td>
</tr>
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<td>$65,000 to $79,999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50,000 to $64,999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$20,000 to $34,999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$10,000 to $19,999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*University of Minnesota*
# Gender, Immigrant, & ESL Status

## Conservative definition of first-generation college student

<table>
<thead>
<tr>
<th></th>
<th>Male*</th>
<th>Female*</th>
<th>Non Immigrant*</th>
<th>Immigrant*</th>
<th>Native English Speaker*</th>
<th>English as a Second Language*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than AA</td>
<td>37.2%</td>
<td>62.8%</td>
<td>83.6%</td>
<td>16.4%</td>
<td>67.5%</td>
<td>32.5%</td>
</tr>
<tr>
<td>AA or Higher</td>
<td>41.6%</td>
<td>58.4%</td>
<td>85.6%</td>
<td>14.4%</td>
<td>83.5%</td>
<td>16.5%</td>
</tr>
</tbody>
</table>

## Liberal definition of first-generation college student

<table>
<thead>
<tr>
<th></th>
<th>Male*</th>
<th>Female*</th>
<th>Non Immigrant</th>
<th>Immigrant</th>
<th>Native English Speaker</th>
<th>English as a Second Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than BA</td>
<td>37.0%</td>
<td>63.0%</td>
<td>85.2%</td>
<td>14.8%</td>
<td>72.6%</td>
<td>27.4%</td>
</tr>
<tr>
<td>BA or Higher</td>
<td>42.1%</td>
<td>57.9%</td>
<td>85.3%</td>
<td>14.7%</td>
<td>83.8%</td>
<td>16.2%</td>
</tr>
</tbody>
</table>
Conservative vs. Liberal Definition?

• First-generation students are different from non-first-generation students in both conservative and liberal definitions
• No major descriptive differences exist between the liberal and conservative definition (save for fewer students)

Take-away: first-generation students are a unique group no matter how defined
Examining All Levels of Education

• We next examined differences in demographic characteristics among all levels of education.
• Clear differences appear in all demographics across education levels, including within the first-generation students:
  • Race/ethnicity
  • Social class
  • Family income
  • Gender
  • Immigrant
  • ESL status
Examples by All Levels of Education
Considering All Levels of Education

- Students are different among all levels of education.
- Further, the first-generation student groups (e.g. No formal education, HS, and AA) are unique from each other.

Take away: Lumping students as first-generation shields the uniqueness of separate groups.
Academic Preparation: ACT
Academic Preparation: ACT

- No Ed.: 27.8
- HS: 28.16
- AA: 28.21
- BA: 28.94
- MA: 29.39
- PhD: 29.86

ACT
Academic Outcomes: GPA

![Graph 1: GPA vs. Less than AA vs. AA or Higher](image1)

![Graph 2: GPA vs. Less than BA vs. BA or Higher](image2)
Academic Outcomes: GPA

![Graph showing the relationship between GPA and academic outcomes.](image)
Discussion

This study has four major findings:

1. Whether defined conservatively or liberally, first-generation students are different from non-first-generation students with regard to
   - Demographics
   - Academic preparation
   - Academic outcomes
   - Student outcomes
Discussion

2. There are no major differences between first-generation students when defined liberally or conservatively.

3. Significant differences exist between education levels.

4. Differences exist within first-generation students themselves: they are not a homogenous group.
Recommendations

• Obtain more nuanced information about parental education
  – Ask more information on admission, scholarship, or financial aid application forms
  – Consider that “some college” is likely an important factor too (not present in the SERU survey)

• Avoid the dichotomous first-generation definition
Recommendations

• Learn more about how (or whether) students differ by parental education levels on your own campuses
  – Current results are limited because of the institutions included
  – Consider not only demographics, but also differences in students’ social capital and college experiences
Recommendations

• Consider restructuring programs to meet different needs of students by parental degree level
  – Tiered scholarships and programs
  – Growing populations of immigrants and ESL students
  – Varying degrees of social capital and educational messages by parental education
Thank you!

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- Laura Gorny

- Additional SERU research information located at seru.umn.edu