Selecting a College Major

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Overview

• Findings are part of ACT’s *College Choice Report*

• Focus of series
  • Class of 2012: Self-reported college preferences
  • Class of 2013: Selecting a college major
  • Class of 2014: Expanding college opportunities

• Series follows a high school graduating class over time
  • High school
  • First year of college
  • Second year of college
Overview

• Report released in three parts:

Preferences and Prospects (November, 2013)

Enrollment Patterns (July, 2014)

Persistence and Transfer (April, 2015)
Overview

Road Map:
• Planning a major
• Declaring a major
• Persisting within a major
• Needing help with planning
Planning a Major

High School
How many students select a planned major?

- Selected: 79
- Undecided: 15
- Missing: 6

Planned Major Status
Which students are more likely to be undecided?

• Males
  - Female: 14
  - Male: 16

• Higher achieving students
  - ACT 1-15: 12
  - ACT 33-36: 20

• Students whose parents have more education
  - No college: 12
  - Advanced deg.: 16

• Students whose families have more income
  - <$36k: 11
  - $100k+: 16
Which planned major areas are most/least popular?

Most popular:
• Health Sciences & Technology (24%)
• Business (11%)

Least popular:
• Area, Ethnic, & Multidisciplinary Studies (.2%)
• Philosophy, Religion, & Theology (.6%)
Which planned major areas have gender gaps?

Gaps favoring females:
• Health Sciences & Technology: 32% female, 14% male
• Education: 9% female, 4% male
• Health Administration & Assisting: 6% female, 2% male

Gaps favoring males:
• Engineering: 17% male, 3% female
• Business: 15% male, 9% female
• Computer Science & Mathematics: 6% male, <1% female
How certain are students of their planned majors?

Certainty of Planned Major

- Very sure: 41
- Fairly sure: 45
- Not sure: 15
Who is more likely to be “very sure” of their plans?

- **Females**
  - Female: 44
  - Male: 37

- **Lower achieving students**
  - ACT 1-15: 52
  - ACT 33-36: 25

- **Students whose parents have less education**
  - No college: 49
  - Advanced deg.: 33

- **Students whose families have less income**
  - <$36k: 50
  - $100k+: 33
Is there good fit between planned major and interests?

Interest-major fit: Relationship between the student’s profile of ACT Interest Inventory scores and the profile of interests of students in a given college major.

- **Good fit**
- **Moderate fit**
- **Poor fit**

Interest-major fit: Relationship between the student’s profile of ACT Interest Inventory scores and the profile of interests of students in a given college major.
Who is more likely to have “good” Interest-Major Fit?

- Higher achieving students
  - ACT 1-15: 27
  - ACT 33-36: 49

- Students whose parents have more education
  - No college: 32
  - Advanced deg.: 41

- Students whose families have more income
  - <$36k: 33
  - $100k+: 40
How important is major in choosing a college?

Most Important College Choice Factor

- Major: 50
- Other: 50
Who is more likely to think major is most important?

• Higher achieving students
  - 1-15: 39
  - 33-36: 67

• Students whose parents have more education
  - No College: 43
  - Advanced deg.: 56

• Students whose families have more income
  - <$36K: 44
  - $100K+: 57
Declaring a Major

First year of college
How many declare a major in their planned major area?

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students</td>
<td>55</td>
</tr>
<tr>
<td>4-year students</td>
<td>57</td>
</tr>
<tr>
<td>2-year students</td>
<td>44</td>
</tr>
</tbody>
</table>
How many declare a major in their planned major area?

Most Important College Choice Factor

- Other: 51
- Major: 57
Which major areas have best/worst consistency rates?

**Best rates:**
- Business (68%)
- Health Sciences & Technologies (64%)
- Engineering (63%)

**Worst rates:**
- Engineering Technologies & Drafting (15%)
- Area, Ethnic, & Multidisciplinary Studies (8%)
- Health Administration & Assisting (7%)
Where are the biggest gender gaps in consistency rates?

Gaps favoring **females**:  
• Health Sciences & Technology: 67% female, 54% male  
• Education: 55% female, 34% male  
• Health Administration & Assisting: 8% female, 5% male

Gaps favoring **males**:  
• Repair, Production & Construction: 58% male, 40% female  
• Philosophy, Religion & Theology: 38% male, 23% female  
• Engineering Technology and Drafting: 16% male, 9% female
What predicts consistency rates?

Academic achievement

<table>
<thead>
<tr>
<th>ACT Composite Score Range</th>
<th>Consistency Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-15</td>
<td>41</td>
</tr>
<tr>
<td>16-19</td>
<td>49</td>
</tr>
<tr>
<td>20-23</td>
<td>54</td>
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<tr>
<td>24-27</td>
<td>58</td>
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<tr>
<td>28-32</td>
<td>61</td>
</tr>
<tr>
<td>33-36</td>
<td>66</td>
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</tbody>
</table>
What predicts consistency rates?

Academic achievement

Certainty of planned major

<table>
<thead>
<tr>
<th>Certainty of Planned Major</th>
<th>Not sure</th>
<th>Fairly sure</th>
<th>Very sure</th>
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<tbody>
<tr>
<td></td>
<td>42</td>
<td>52</td>
<td>62</td>
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</tbody>
</table>
What predicts consistency rates?

Academic achievement
Certainty of planned major
Level of Interest-Major Fit

<table>
<thead>
<tr>
<th>Interest-Major Fit</th>
<th>Poor</th>
<th>Moderate</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46</td>
<td>54</td>
<td>61</td>
</tr>
</tbody>
</table>
What predicts consistency rates?

Academic achievement
Certainty of planned major
Level of Interest-Major Fit
All of the above
Does Interest-Major Fit change with declared major?

Among students who declare a major outside of their planned area:
- Better: 24
- Same: 44
- Worse: 32
Persisting Within a Major

Second year of college
How many students persist within their major?

Within Major Persistence

 Persisted: 81
 Did not Persist: 19
Which major areas have best/worst persistence rates?

**Best rates:**
- Repair, Production, & Construction (90%)
- Business (87%)

**Worst rates:**
- Area, Ethnic, & Multidisciplinary Studies (66%)
- Health Administration & Assisting (67%)
Where are the biggest gender gaps in persistence rates?

Gaps favoring females:
• Health Administration & Assisting: 70% female, 57% male
• Health Sciences & Technology: 79% female, 67% male

Gaps favoring males:
• Engineering Technology and Drafting: 78% male, 67% female
• Computer Science & Mathematics: 82% male, 73% female
What predicts within-major persistence?

Academic achievement

<table>
<thead>
<tr>
<th>ACT Composite Score Range</th>
<th>1-15</th>
<th>16-19</th>
<th>20-23</th>
<th>24-27</th>
<th>28-32</th>
<th>33-36</th>
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<td>78</td>
<td>79</td>
<td>81</td>
<td>84</td>
<td>89</td>
</tr>
</tbody>
</table>
What predicts within-major persistence?

Consistency of planned major choice

- Consistent: 84
- Inconsistent: 76

Consistency with Planned Major
What predicts within-major persistence?

Consistency of planned major choice & change in Interest-Major Fit

- Consistent: 84
- Inconsistent: 76

Change in Interest-Major Fit:
- Better: 79
- Same: 76
- Worse: 74
What predicts within-major persistence?

Interest-Major Fit for declared major

<table>
<thead>
<tr>
<th>Fit Level</th>
<th>Interest-Major Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Fit</td>
<td>77</td>
</tr>
<tr>
<td>Moderate Fit</td>
<td>81</td>
</tr>
<tr>
<td>Good Fit</td>
<td>83</td>
</tr>
</tbody>
</table>
How does within-major persistence differ by transfer?

To what extent are students:

1) Changing majors as a result of transferring?

OR

2) Transferring as a result of changing majors?
Needing Help With Planning

High School
How many students need help with their planning?

39 students do not need help.

61 students need help.
Which students are more likely to report needing help?

- Higher achieving students
  - ACT 1-15: 59
  - ACT 33-36: 71
- Students who are undecided about their planned major choice
  - Planned a major: 60
  - Undecided: 73
- Students who are not “Very sure” of their planned major choice
  - Very sure: 50
  - Fairly/Not sure: 68
Take Aways

During High School...

• Many students are either undecided about their major or are uncertain of their choice.

• Students with higher achievement, income, and parent education are less certain but tend to have better fit with their interests.

• Students with lower achievement, income, and parent education are more certain but tend to have worse fit with their interests.

• Most students need help, but those needs may differ depending on their academic preparation, certainty, and fit.
Take Aways

During First Year of College...

• Having higher achievement, greater certainty, and better fit means more likely to declare as planned.

• Most students who declare outside of their planned area have the same or worse fit.
Take Aways

During Second Year of College...

• Students who declare a major that is consistent with their plans are more likely to persist within that major area.

• Among students who declare a major that is inconsistent with their plans, those who improve the fit with their interests are more likely to persist within that major area.
College Major Tool

- Visualize the movement of students among 18 major areas from:
  - Pre-college plans to first-year declared major
  - First-year declared major to second-year declared major.

- Examine student flow both
  - Into each major area
  - Out of each major area
Just Released

Enrollment Planners Conference
Chicago, IL
July, 2015

Expanding Opportunities
Enrollment Patterns
Class of 2014
Contact Information

• ACT’s College Choice Report
http://www.act.org/collegechoice/

• College Major Tool
http://www.act.org/collegechoice/13/studentmovement.html

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