Assessment and Implementation of a Successful Comprehensive First-Year-Experience Program

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Outline of Presentation

- Background on Owens Community College
- Our First-Year-Experience Program:
  - How and why the program was developed
  - How the program is being implemented
- Preliminary retention results
- Method for identifying students with greatest need for additional first-year services
- Limitations, future research, and other next steps
About Owens

- Comprehensive Community College
- Serving over 45,000 students on two campuses
- Average class size of 15
- Over 130 programs
- Comprehensive Workforce Development component
- 62% of students receive financial aid (41% receive Pell)
- 34% of students require remediation in math or English
- Retention rate around 50%
Retention Initiatives

- Retention Committee Studied Retention
- Submission of Title III Strengthening Institutions Grant
  - Foundations to College
  - Supplemental Instruction
  - Success Mentors
- Course was piloted in Spring 2007
- Course was included as a requirement within programs in the School of Arts and Sciences beginning Summer 2008
Research Questions

➢ Does FYE completion predict student retention?

➢ How do we identify FYE students for the SSM program?
Next-Term Retention Rates of FYE Completers vs. Control Group

- **FYE Completers**: 93.2% (n = 292)
- **Control Completers**: 68.3% (n = 14,320)

Difference = 24.9%
Other Differences Between FYE Completers and Control Group

**FYE Group (more)**
- Females
- Students from Findlay
- Health Science Majors
- First-Time Students
- First Generation Students
- Students on Need-Based Aid
- Students with Loans
- Students on Scholarship
- Attempted Credit Hours
- Developmental Credit Hours

**Control Group**
- Older
- Higher Test Scores:
  - Compass Math
  - Compass Writing
  - Compass Reading
  - ACT English
  - ACT Math
  - ACT Reading
Determining the Unique Contribution of FYE to Retention

**Logistic Regression**

Outcome variable = Retained vs. Not Retained

Predictor variables (FYE + Student Variables):

- FYE vs. Control group
- Gender
- Campus
- School
- Age
- First Generation
- Grants
- Loans
- Scholarships
- Attempted Credit Hours
- Student Type
- ACT Scores
- Compass Scores
- Total # Developmental Hours
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- Gender
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- First Generation
- Grants
- Loans
- Scholarships
- Attempted Credit Hours
- Student Type
- ACT Scores
- Compass Scores
- Total # Developmental Hours

\[
\text{FYE } \exp(B) = 5.38, \ p < .001
\]

Adjusted Retention Rate Difference = 21.1%
Limitations and Questions for Future Research

- Limited amount of data
- What components of FYE course are important?
- Self-selection bias
- How does FYE predict long-term persistence completion, and other student outcomes?
Next-Term Retention Rates for FYE Completers and Non-Completers

- FYE Completers: 93.2% (n = 292)
- FYE Non-Completers: 37.1% (n = 140)
Significant Predictors of FYE Completion

Less Likely to Complete:
- Black
- Male
- Freshman
- Need-Based Grant
- Low Compass Scores

More Likely to Complete:
- Major in Health Sciences
- Scholarship
## FYE Needs Index

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Points Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>1</td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
</tr>
<tr>
<td>Freshman</td>
<td>1</td>
</tr>
<tr>
<td>Grant</td>
<td>1</td>
</tr>
<tr>
<td>Compass Math ( \leq 26 )</td>
<td>1</td>
</tr>
<tr>
<td>Compass Writing ( \leq 45 )</td>
<td>1</td>
</tr>
<tr>
<td>Compass Reading ( \leq 72 )</td>
<td>1</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>-1</td>
</tr>
<tr>
<td>Scholarship</td>
<td>-1</td>
</tr>
</tbody>
</table>

**Total Index Score**  
\[ \text{Range} = \sum = 2 \text{ to } 7 \]
Correlation Between Index Scores and FYE Completion:

- .37

- The higher the index score, the less likely students are to be retained

- Strength of correlation is comparable to that between ACT and first-year college GPA (~.40)
### Prediction Accuracy of Index

<table>
<thead>
<tr>
<th>Score</th>
<th>Non-Completer</th>
<th>Completer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>-1</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>0</td>
<td>1%</td>
<td>13%</td>
</tr>
<tr>
<td>1</td>
<td>8%</td>
<td>18%</td>
</tr>
<tr>
<td>2</td>
<td>24%</td>
<td>28%</td>
</tr>
<tr>
<td>3</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td>4</td>
<td>15%</td>
<td>8%</td>
</tr>
<tr>
<td>5</td>
<td>18%</td>
<td>6%</td>
</tr>
<tr>
<td>6</td>
<td>9%</td>
<td>2%</td>
</tr>
<tr>
<td>7</td>
<td>3%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Average = 3.5  
2.1
## Prediction Accuracy of Index

### Percentage of Students with Each Score who Do Not Complete

<table>
<thead>
<tr>
<th>Score</th>
<th>Do Not Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>0%</td>
</tr>
<tr>
<td>0</td>
<td>4%</td>
</tr>
<tr>
<td>1</td>
<td>18%</td>
</tr>
<tr>
<td>2</td>
<td>30%</td>
</tr>
<tr>
<td>3</td>
<td>36%</td>
</tr>
<tr>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>5</td>
<td>61%</td>
</tr>
<tr>
<td>6</td>
<td>68%</td>
</tr>
<tr>
<td>7</td>
<td>75%</td>
</tr>
</tbody>
</table>
### Cumulative Percentage of FYE Students with Each Score or Higher

<table>
<thead>
<tr>
<th>Score</th>
<th>% of FYE Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>100.0%</td>
</tr>
<tr>
<td>0</td>
<td>97.2%</td>
</tr>
<tr>
<td>1</td>
<td>88.6%</td>
</tr>
<tr>
<td>2</td>
<td>74.2%</td>
</tr>
<tr>
<td>3</td>
<td>47.4%</td>
</tr>
<tr>
<td>4</td>
<td>25.6%</td>
</tr>
<tr>
<td>5</td>
<td>15.6%</td>
</tr>
<tr>
<td>6</td>
<td>5.7%</td>
</tr>
<tr>
<td>7</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

*If FYE enrollment = 1,000 and there are enough mentors to serve 250 students, then target students with a score of 4 or higher.*
Limitations and Questions for Future Research

- Do students who receive mentoring achieve higher retention rates, and if so, for what index scores?
- Index maintenance
- Identification of students for the program should not be limited to the index alone