Structure in Community College Career-Technical Programs

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The Structure Hypothesis

“Community college students will be more likely to persist and succeed in programs that are tightly and consciously structured, with relatively little room for individuals to unintentionally deviate from paths toward completion, and with limited bureaucratic obstacles for students to circumnavigate.

• Scott-Clayton (2011)
Prior Research

• Rosenbaum, Deil-Amen & Person study compared community colleges versus occupational colleges

• Occupational colleges were found to be more “structured”
  • Programs had little choice and with a clear sequence of courses
  • Advising was intensive and mandatory
  • Peer cohorts progressed through programs
  • Strong labor market linkages
Focus on Understanding *Program-Level Structure*

- Program alignment
- Program prescription
- Information quality
- Active program advising and support
Research Questions

• How closely are programs aligned with further educational and employment opportunities?

• How prescribed are program requirements?

• What is the quality of information available to current and prospective students?

• What types of advising and student supports are offered to current and prospective students?

• Is there any relationship between the degree of structure along these dimensions and program performance?
Site Selection

• Fields of Study – selected top four fields of study by enrollments

• Colleges and Programs – selected based on variation in student outcomes in terms of long-term credential completion
# Fields of Study

## Fields of Study, Ranked by Number of Colleges with 20 or More Students Enrolled

<table>
<thead>
<tr>
<th>Field of Study</th>
<th>Rank</th>
<th>Number of Colleges with 20+ Students Enrolled</th>
<th>Total Number of Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business and marketing</td>
<td>1</td>
<td>23</td>
<td>2,259</td>
</tr>
<tr>
<td>Computer and information sciences</td>
<td>2</td>
<td>22</td>
<td>1,041</td>
</tr>
<tr>
<td>Allied health</td>
<td>3</td>
<td>21</td>
<td>1,140</td>
</tr>
<tr>
<td>Mechanics and repair</td>
<td>4</td>
<td>15</td>
<td>835</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5</td>
<td>11</td>
<td>645</td>
</tr>
<tr>
<td>Education and child care</td>
<td>6</td>
<td>10</td>
<td>724</td>
</tr>
<tr>
<td>Construction</td>
<td>7</td>
<td>10</td>
<td>1,286</td>
</tr>
<tr>
<td>Protective services</td>
<td>8</td>
<td>8</td>
<td>364</td>
</tr>
<tr>
<td>Cosmetology</td>
<td>9</td>
<td>5</td>
<td>273</td>
</tr>
<tr>
<td>Engineering/science technologies</td>
<td>10</td>
<td>5</td>
<td>536</td>
</tr>
</tbody>
</table>
## Colleges and Programs

<table>
<thead>
<tr>
<th>Field of Study</th>
<th>Difference Between Actual and Predicted Completion in the Field of Study</th>
<th>Program Pathway Selected within the Field of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>Business and marketing</td>
<td>-19</td>
<td>21</td>
</tr>
<tr>
<td>Computer and information sciences</td>
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<td>10</td>
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<tr>
<td>Allied health</td>
<td>-11</td>
<td>21</td>
</tr>
<tr>
<td>Mechanics and repair</td>
<td>-18</td>
<td>40</td>
</tr>
</tbody>
</table>
Data

• Website reviews
  • 20 colleges across the four fields of study including high and low performing
  • Program prescription and information quality

• Interviews
  • 1 high and 1 low performing program pathway in each field of study
  • Academic dean, 2 faculty members, and counselor/advisor
Program Alignment

- Labor market alignment
- Alignment with local employment opportunities
- Educational alignment
Program Prescription

• Few electives or general education requirements
• All programs had some level of prescription
• Cohort models
• Sequencing/degree of rigidity
• Integration of general education requirements
• Intentionality in course scheduling
Information Quality

- Information on program offerings
- Information on program requirements
- Communicating changes to program requirements
- Assessment of information provided to students, including website
Active Program Advising and Support

• Counseling/advising model
• Information for undecided students provided by programs
• Group sessions for advising
• Program orientation
• Monitoring of student progress
• Support for struggling students
Relationship of Structure to Outcomes

• Despite limits in performance measures, we make some cautious observations

• No differences in structure-related practices explain differences in student outcomes within fields of study

• Some variation might be explained by college-level differences
Conclusion/Recommendations

- All workforce programs examined had fairly high levels of structure overall
  - Medical Assisting: high
  - Accounting: moderate
  - Computer Network Technology: high
  - Automotive: high
- May be more important to get students into program, and to make liberal arts program more structured
For more information

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