The Impact of Developmental Summer Bridge Programs on Students’ Success

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Elisabeth Barnett
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CSCC
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Overview of Presentation

- Introduction and Problem Statement
- Description of Program
- Research Questions and Design
- Findings
  - Implementation
  - Early Program Impacts
- Moving Forward
Introduction

- NCPR is a collaboration between the Community College Research Center, MDRC, the Curry School of Education at UVA, and faculty at Harvard.

- Conducted in cooperation with the Texas Higher Education Coordinating Board, with principal funding from IES and supplemental funding from the Houston Endowment.
What is the Problem?

- Over 60 percent of entering community college students are referred to developmental education.
- Developmental education is not very effective for students near the cutoff (Calcagno & Long, 2008).
- Farther below, mixed results—dev ed influences students differently depending on their level of academic preparedness (Boatman & Long, 2010).
- A majority of students do not complete the sequences to which they are referred (Bailey, Jeong, & Cho, 2008).
- As a result, most developmental students are unable to complete college.
Pre-College Programs

- Offer comprehensive approaches by combining Academic Skills & College Knowledge
- Vary in terms of scope, sponsorship, and implementation
- Common form is summer bridge programs
  - Long used in higher education
  - Research is limited in number and rigor
    - Lack of control group, lack of follow-up, single institution studies, rely on student self-report
Texas Developmental Summer Bridge Study

- Purpose: Assess the effectiveness of a summer bridge model in improving college preparation and success for students in need of remediation.
Programs in the Texas DSB Study

- 8 open access institutions in Texas
- Recent high school graduates
- Four to five weeks (64 -100 hours)
- Accelerated instruction in developmental math, English, and/or reading at the college
- Student cohorts
- Academic and student services support
- “College knowledge” component
- Student stipend of up to $400 for completers
The Research

Implementation
- What do the programs and students look like?
- What are the challenges in implementation?
- What program design elements show promise?

Early Impacts
- Do summer bridge programs reduce the need for developmental education, and improve college outcomes over and above how students perform without these programs?
Random Assignment Design

Targeted students invited to participate in study

Students give consent

Baseline data collected

Random Assignment

Program group (60%)
Could enroll in summer bridge program

Control group (40%)
Received regular courses and services
Implementation Findings

- Areas of interest
  - Recruitment
  - Curriculum and Instruction
  - College Knowledge
  - Student Supports
- Though some challenges, considered to be well-implemented and a fair test of the DSBP model
Select Student Characteristics

- 84% Hispanic, 8.7% White, 6.6% African American
- 50% speak English only at home
- 62% Female
- 95% age 19 and below
- 41% first in family to attend college
- 61% qualified for free/reduced lunch
- Motivations for applying to summer bridge: attaining college level standing, improving skills, & experiencing college
# Participation and Attrition

<table>
<thead>
<tr>
<th>College</th>
<th>Eligible for Program</th>
<th>Control</th>
<th>Started Program # and %</th>
<th>Finished Program</th>
<th>% of starters who finished program</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso</td>
<td>165</td>
<td>108</td>
<td>139 (84%)</td>
<td>138</td>
<td>99%</td>
</tr>
<tr>
<td>Lone Star-CyFair</td>
<td>74</td>
<td>48</td>
<td>65 (88%)</td>
<td>64</td>
<td>98%</td>
</tr>
<tr>
<td>Lone Str-Kingwood</td>
<td>51</td>
<td>35</td>
<td>51 (100%)</td>
<td>41</td>
<td>80%</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>52</td>
<td>35</td>
<td>52 (100%)</td>
<td>35</td>
<td>67%</td>
</tr>
<tr>
<td>San Antonio</td>
<td>89</td>
<td>58</td>
<td>51 (57%)</td>
<td>47</td>
<td>92%</td>
</tr>
<tr>
<td>St. Phillips</td>
<td>153</td>
<td>102</td>
<td>146 (95%)</td>
<td>139</td>
<td>95%</td>
</tr>
<tr>
<td>South Texas</td>
<td>83</td>
<td>54</td>
<td>72 (87%)</td>
<td>63</td>
<td>88%</td>
</tr>
<tr>
<td>TAMU</td>
<td>126</td>
<td>85</td>
<td>113 (90%)</td>
<td>111</td>
<td>98%</td>
</tr>
<tr>
<td>TOTALS</td>
<td>793</td>
<td>525</td>
<td>689 (87%)</td>
<td>638</td>
<td>93%</td>
</tr>
</tbody>
</table>
Enrollment

Significance: * = 10%; ** = 5%; *** = 1%

- Summer 2009: Program 34.5%, Control 15.0%
- Fall 2009: Program 77.3%, Control 76.4%
- Spring 2010: Program 74.4%, Control 75.3%

Significance: * = 10%; ** = 5%; *** = 1%
Summer 2009 Credits

- Total credits attempted:
  - Program: 1.4
  - Control: 0.8

- College credits:
  - Program: 0.5
  - Control: 0.3

- Developmental credits:
  - Program: 0.9
  - Control: 0.5

Significance: *
  - Program: 0.01
  - Control: 0.05

Significance: **
  - Program: 0.001
  - Control: 0.01

Significance: ***
  - Program: 0.0001
  - Control: 0.001

Significance: *
  - Program: 0.01
  - Control: 0.05

Significance: **
  - Program: 0.001
  - Control: 0.01

Significance: ***
  - Program: 0.0001
  - Control: 0.001
Fall 2009 Credits

<table>
<thead>
<tr>
<th>Category</th>
<th>Program</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total credits attempted</td>
<td>9.1</td>
<td>8.8</td>
</tr>
<tr>
<td>College credits</td>
<td>6.1</td>
<td>5.9</td>
</tr>
<tr>
<td>Developmental credits</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Significance: * = 10%; ** = 5%; *** = 1%
Spring 2010 Credits

<table>
<thead>
<tr>
<th>Category</th>
<th>Program</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total credits attempted</td>
<td>9.3</td>
<td>9.1</td>
</tr>
<tr>
<td>College credits</td>
<td>7.7</td>
<td>7.1</td>
</tr>
<tr>
<td>Developmental credits</td>
<td>1.6</td>
<td>2</td>
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</table>

Significance: * = 10%; ** = 5%; *** = 1%
Cumulative Measures

Significance: * = 10%; ** = 5%; *** = 1%

<table>
<thead>
<tr>
<th>Category</th>
<th>Program</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total credits attempted</td>
<td>19.9</td>
<td>18.8</td>
</tr>
<tr>
<td>College credits</td>
<td>14.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Developmental credits</td>
<td>5.5</td>
<td>5.4</td>
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</table>
# Early Program Impacts Summary

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Program</th>
<th>Control</th>
<th>Impact</th>
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<tbody>
<tr>
<td><strong>Summer 2009</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment (any course)</td>
<td>34.5%</td>
<td>15.0%</td>
<td>19.5***</td>
</tr>
<tr>
<td>Total credits attempted</td>
<td>1.4</td>
<td>0.8</td>
<td>0.6***</td>
</tr>
<tr>
<td>College credits</td>
<td>0.5</td>
<td>0.3</td>
<td>0.2**</td>
</tr>
<tr>
<td>Developmental credits</td>
<td>0.9</td>
<td>0.5</td>
<td>0.4***</td>
</tr>
<tr>
<td><strong>Fall 2009</strong></td>
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<td>0.3</td>
</tr>
<tr>
<td>College credits</td>
<td>6.1</td>
<td>5.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Developmental credits</td>
<td>3.0</td>
<td>3.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Spring 2010</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment (any course)</td>
<td>74.4%</td>
<td>75.3%</td>
<td>-0.9</td>
</tr>
<tr>
<td>Total credits attempted</td>
<td>9.3</td>
<td>9.1</td>
<td>0.2</td>
</tr>
<tr>
<td>College credits</td>
<td>7.7</td>
<td>7.1</td>
<td>0.6*</td>
</tr>
<tr>
<td>Developmental credits</td>
<td>1.6</td>
<td>2.0</td>
<td>-0.3**</td>
</tr>
<tr>
<td><strong>Cumulative Measures</strong></td>
<td></td>
<td></td>
<td></td>
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<td>5.4</td>
<td>0.1</td>
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</tbody>
</table>
Moving Forward

- Initial Thoughts
- Interim report will be released in June 2011
- Final Report with 2 year follow-up to be released in July 2012
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