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I-BEST: Integrated Basic Education and Skills Training

• Basic skills education typically precedes career-technical training
• Few students make the transition
• I-BEST integrates teaching of basic skills and technical content, in order to accelerate the transition
• Funding at 1.75 normal rate per FTE
Top I-BEST Programs by Enrollment

1. Medical Assistant
2. Nurse’s Aide
3. Office Manager
4. Microcomputer Applications Specialist
5. Early Childhood Teacher
6. Auto Mechanic
7. Welder
8. Criminal Justice/Law Enforcement
9. Office/Clerical
10. Home Health Aide
# Comparison Groups

<table>
<thead>
<tr>
<th></th>
<th>I-BEST</th>
<th>Non-I-Best Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>641</td>
<td>5,591</td>
</tr>
<tr>
<td>Mean Age</td>
<td>30.94</td>
<td>26.91</td>
</tr>
<tr>
<td>Lowest SES (quintile)</td>
<td>27%</td>
<td>33%</td>
</tr>
<tr>
<td>Full-Time</td>
<td>54%</td>
<td>53%</td>
</tr>
<tr>
<td>Female</td>
<td>69%</td>
<td>66%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>13%</td>
<td>8%</td>
</tr>
<tr>
<td>Received need-based aid</td>
<td>19%</td>
<td>15%</td>
</tr>
<tr>
<td>Intent is vocational</td>
<td>51%</td>
<td>41%</td>
</tr>
</tbody>
</table>

Note: Comparison groups include only first-time college students.
## Comparison Groups (Continued)

<table>
<thead>
<tr>
<th></th>
<th>I-BEST</th>
<th>Non-I-BEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASAS math</td>
<td>218</td>
<td>219</td>
</tr>
<tr>
<td>CASAS reading</td>
<td>232</td>
<td>231</td>
</tr>
</tbody>
</table>

Note: Comprehensive Adult Student Assessment Systems. Median scores are the earliest on each test, when the test is taken multiple times.
Multivariate Model Controls

- Age
- Estimated SES (quintile)
- Full-time
- Female
- Ethnicity
- ABE/GED basic skills student
- Received need-based financial aid
- Vocational intent
- Earliest CASAS math and reading scores
Difference-in-Differences Methodology

• 14 colleges in 2006-07 began offering I-BEST

• Compared these 14 colleges with 10 colleges that did not offer I-BEST until 2007-08

• Any difference (between colleges) in differences (between cohorts) is attributed to I-BEST

• Target students included basic skills students who enrolled in at least one occupational or I-BEST course
I-BEST Program Diffusion in WA Community and Technical Colleges

<table>
<thead>
<tr>
<th></th>
<th>2005-06</th>
<th>2006-07</th>
<th>2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>0</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Group C</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>
I-BEST Enrollment Among Target Students

Academic Year

I-BEST Enrollment as Percent of Target Population

Group B
Group C

2005-06 2006-07 2007-08

Community College Research Center
TEACHERS COLLEGE, COLUMBIA UNIVERSITY
Student Outcomes: I-BEST and Non-I-BEST Colleges Compared

Student Outcomes
2005-06 cohort
2006-07 cohort

Received Any Credits
- Group B
  - 2005-06 cohort: 60%
  - 2006-07 cohort: 40%
- Group C
  - 2005-06 cohort: 50%
  - 2006-07 cohort: 50%

Earned a Certificate
- Group B
  - 2005-06 cohort: 20%
  - 2006-07 cohort: 10%
- Group C
  - 2005-06 cohort: 10%
  - 2006-07 cohort: 5%
Difference-in-Differences Regression Analysis

• Compare student outcomes among cohorts before and after I-BEST was introduced, within I-BEST and non-I-BEST colleges

\[ y_i = \beta_0 + \beta_1 \text{Group } B_i + \beta_2 \text{2006-07}_i + \beta_3 (\text{Group } B_i \times \text{2006-07}_i) + X_i \beta_4 + \nu_i \]

• \( \beta_3 \) measures the effect of I-BEST as a policy implementation to improve outcomes of eligible students
DID Regression Analysis Results

• Among our target students, being eligible for I-BEST increases the probability of obtaining college credits within three years by 11 percentage points (1% stat. sig.)

• Five percentage point increase in earning certificate within three years (5% stat. sig.)

• No change in likelihood of associate degree attainment within three years
CASAS Test Score Distribution

• Using same DID framework and outcomes, what happens when we reduce our target sample to those in top half/ top quarter of CASAS score distribution?

• Theory: More academically ready students will benefit more from the presence of I-BEST
## CASAS Test Score Distribution

### Coefficients on $\beta_3$:

<table>
<thead>
<tr>
<th></th>
<th>Certificate within Three Years</th>
<th>Any College Credits within Three Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top Quarter</strong></td>
<td><strong>0.157</strong>&lt;sup&gt;**&lt;/sup&gt;</td>
<td><strong>0.252</strong>&lt;sup&gt;***&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Top Half</strong></td>
<td><strong>0.089</strong>&lt;sup&gt;*&lt;/sup&gt;</td>
<td><strong>0.126</strong>&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Bottom Half</strong></td>
<td><strong>0.023</strong></td>
<td><strong>0.090</strong>&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
</tbody>
</table>
Concluding Remarks

- I-BEST eligibility appears to have a positive effect on outcomes for comparable workforce students
- More likely to earn college credits and a certificate within three years
- Effects are more pronounced for students with higher testing characteristics
For more information:

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