Remedial Education: Assessment and Student Success

Thomas Bailey, Director
Community College Research Center
National Center for Postsecondary Research

Presented at
New England Board of Higher Education
Annual College Ready Conference
Worcester, MA
December 6, 2009
CCRC and NCPR Research on Developmental Education

• Community College Research Center
  – Assessment, completion, pathways and sequences, outcomes, evaluation of models and initiatives
  – http://ccrc.tc.columbia.edu/

• National Center for Postsecondary Research
  – Analysis of effectiveness using state data
  – Experimental evaluations of learning communities and intensive summer bridge programs
  – http://www.tc.columbia.edu/centers/ncpr/
Conclusions

• Assessments need to provide more information to help design appropriate interventions for students
• As it is taught, remediation is not very effective
• The sharp distinction between “remedial” and “college ready” students doesn’t serve either group well
• Developmental education is overly complicated and most referred students fail to complete their assigned sequences
What is Developmental Education?

- Services to students with weak academic skills
- Remediation versus developmental education
- Referral to remediation based on some form of assessment
- No overall consensus on the meaning of being ready for college
Referrals to Levels of Dev. Ed.

Math - Full Sample
- Not referred: 41%
- 1 level below: 24%
- 2 levels below: 16%
- 3 levels below: 19%

Reading - Full Sample
- Not referred: 67%
- 1 level below: 23%
- 2 levels below: 7%
- 3 levels below: 3%

CCRC Community College Research Center
Teachers College, Columbia University
Outcomes for remedial students

Outcomes for non-remedial students

Local treatment effect
Completion of First College-Level Course and Retention by CPT Score and Subject

Outcome: Completion of First College-Level Course
Estimated Discontinuity (Math ITT Table 4) = -0.061(0.013)

Outcome: Fall-to-Fall Retention
Estimated Discontinuity (Math ITT Table 4) = -0.021(0.011)

Estimated Discontinuity (Reading ITT Table 4) = -0.068(0.008)

Estimated Discontinuity (Reading ITT Table 4) = -0.009(0.008)
What Does This Say About Assessment?

- No obvious cutoff point
- Confusion about what it means to be “college ready”
- Assessments are not good predictors of future success in college
- Do they measure current skill levels?
Implications for Effectiveness

• Current system neglects the academic needs of weaker “college level” students
• Applies primarily to upper level developmental ed students
• We know little about the effectiveness of services for students far from the cutoff scores
• We do know that few referred to multiple levels of remediation finish
Achieving the Dream Database

- 250,000 students
- All first time (in the college) degree seeking students (full or part time)
- 57 colleges in CT, FL, NC, NM, OH, PA, TX, VA, WA
- Not representative of all CCs—similar to large, urban institutions with lower funding per student
In-Order Course Completion and Enrollment for Math Remediation

- Not enrolled: 18%
- 3 levels below: 25%
- Not completed: 12%
- Completed: 16%

- Not enrolled: 16%
- 1 level below: 22%
- Passed: 29%
- Not completed: 6%

- Not enrolled: 7%
- 2 levels below: 41%
- Enrolled: 57%
- Not completed: 12%

- Not enrolled: 16%
- 3 levels below: 82%
- Enrolled: 57%
- Passed: 41%

- Not enrolled: 18%
- Referred to Lev. 3

- Not completed: 25%
Enrollment and Progression Patterns Among Achieving the Dream Students

<table>
<thead>
<tr>
<th>Referred to</th>
<th>Not Enrolled</th>
<th>Not Passed</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>40%</td>
<td>29%</td>
<td>33%</td>
</tr>
<tr>
<td>1 level below</td>
<td>38%</td>
<td>18%</td>
<td>44%</td>
</tr>
<tr>
<td>2 levels below</td>
<td>40%</td>
<td>31%</td>
<td>29%</td>
</tr>
<tr>
<td>3 levels below</td>
<td>42%</td>
<td>42%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Legend:
- Not Enrolled
- Not Passed
- Completed

CCRC
Community College Research Center
TEACHERS COLLEGE, COLUMBIA UNIVERSITY
Student Progression by Enrollment and Gatekeeper in Math

Math - Full Sample

<table>
<thead>
<tr>
<th>Referred to</th>
<th>Never enrolled</th>
<th>Not re-enrolled</th>
<th>Not completed dev</th>
<th>GK Not enrolled</th>
<th>GK Not passed</th>
<th>GK Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>28%</td>
<td>11%</td>
<td>31%</td>
<td>11%</td>
<td>4%</td>
<td>16%</td>
</tr>
<tr>
<td>1 level below</td>
<td>38%</td>
<td>18%</td>
<td>17%</td>
<td>6%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>2 levels below</td>
<td>26%</td>
<td>13%</td>
<td>32%</td>
<td>10%</td>
<td>4%</td>
<td>15%</td>
</tr>
<tr>
<td>3 levels below</td>
<td>18%</td>
<td>24%</td>
<td>42%</td>
<td>5%</td>
<td>2%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Legend:
- Never enrolled
- Not re-enrolled
- Not completed dev
- GK Not enrolled
- GK Not passed
- GK Passed

CCRC Community College Research Center
Teachers College, Columbia University
Reform Strategies

• Too many opportunities to leave
• Improve diagnostic power of assessments
• Combine college level and developmental instruction (help “college ready” students as well)
• Compressed schedules
• Summer bridge programs
Implications

• Rethink assessment
• Challenge the distinction between developmental and “college ready”
• Accelerate progression through remedial sequences