Multiple Measures Placement

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Multiple Measures: The Measures
Measures Used to Determine College Readiness in Community Colleges

- **Standardized Tests**: 100%
- **High School Performance**: 40%
- **Planned Course of Study**: 20%
- **Other Indicators of Motivation or Commitment**: 10%
- **College Readiness Not Assessed**: 0%

**SOURCE**: Data from CAPR’s institutional survey.
**NOTE**: Categories are not mutually exclusive.
SUNY COLLEGE 2: ENGLISH

SUNY COLLEGE 2: MATH
Multiple Measures: The Models
Algorithm Example

Student Applies

Exemptions? → Yes

HS Record, Accuplacer, Non-Cog data fed into Algorithm

Resulting Probability of Success → High

Remedial Level Placement

Exemptions? → No

Resulting Probability of Success → Low

Remedial Level Placement
Decision-Rule Example

1. Student Applies
   - Exemptions?
     - Yes
     - HS Record and/or Non-Cog Performance?
       - Low
         - Accuplacer Test
         - Remedial Level Placement
       - High
         - College Level Placement
     - No
       - Accuplacer Test
       - Remedial Level Placement
Decision-Band Example

1. **Exemptions?**
   - Yes
   - No

2. **Accuplacer Test**
   - Above Band
   - Below Band

3. **HS Record and/or Non-Cog Performance?**
   - High
   - Low

   - Remedial Level Placement

   - College Level Placement

**Student Applies**
Multiple Measures: The Research
CAPR Assessment Research

1. 7 State University of New York (SUNY) community colleges.

2. Each worked with CAPR team to develop an alternative placement method using an **algorithm**. We worked with faculty and staff to set cut scores.

3. Students were randomly assigned to be placed using either the existing placement method or the algorithm (n = 12,971).

4. We looked for differences in student outcomes based on placement method.
Differences in Placement among Program Students

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lower placement (bumped down)</th>
<th>No change (Dev Ed)</th>
<th>No change (College-level)</th>
<th>Higher placement (bumped up)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>10%</td>
<td>28%</td>
<td>46%</td>
<td>16%</td>
</tr>
<tr>
<td>English</td>
<td>7%</td>
<td>37%</td>
<td>12%</td>
<td>44%</td>
</tr>
</tbody>
</table>
Treatment Effects: College-Level English

*** p < .01, ** p < .05, * p < .10.
Treatment Effects: College-Level Math

<table>
<thead>
<tr>
<th></th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement</td>
<td>37%</td>
<td>39%</td>
<td>46%</td>
</tr>
<tr>
<td>Enrollment</td>
<td>44%</td>
<td>40%</td>
<td>48%</td>
</tr>
<tr>
<td>Term 1</td>
<td>27%</td>
<td>15%</td>
<td>23%</td>
</tr>
<tr>
<td>Term 2</td>
<td>29%</td>
<td>17%</td>
<td>24%</td>
</tr>
<tr>
<td>Term 3</td>
<td>30%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***p < .01, **p < .05, *p < .10.
Treatment Effects: CL English by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Placement Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Business-as-Usual Group: 51% Program Group: 82%</td>
</tr>
<tr>
<td>Black</td>
<td>Business-as-Usual Group: 35% Program Group: 74%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>Business-as-Usual Group: 48% Program Group: 41%</td>
</tr>
</tbody>
</table>

Legend:
- Business-as-Usual Group
- Program Group

Statistical Significance:
- *** p < 0.001
- ** p < 0.01
- * p < 0.05
Treatment Effects: CL Math by Race/Ethnicity

***p < .01, **p < .05, *p < .10
Great Lakes Assessment Research

1. Four Minnesota State Colleges

2. Each worked to develop an alternative placement system using a decision-band or decision-rule approach.

3. Students were randomly assigned to be placed using either the existing placement method or the alternative system designed by each college (n = 5,282).

4. We looked for differences in student outcomes based on placement method.
First Semester College Transcript Outcomes

***p < .01, **p < .05, *p < .10
Conclusion and Recommendations
Conclusion and Recommendations:

- Multiple Measures systems can improve student outcomes but colleges’ decisions will drive the results.

- If Multiple Measures indicate a student would not meet the threshold for success but they have some strong measures (test, GPA, or others) consider allowing them to enroll in college-level courses anyway.

- For students who clearly need additional support, consider corequisites instead of traditional developmental sequences.
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