Multiple Measures Assessment and Placement: What We Know

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Agenda

- Why use multiple measures for placement
- Selection of a multiple measures system
- What others are doing
Definition of Multiple Measures Assessment

...a system that combines two or more measures to place students into appropriate courses and/or supports

(Barnett and Reddy, 2017)
Percent of Colleges Using Measures Other than Standardized Tests for Assessment

SOURCES: 2011 data from Fields and Parsad (2012); 2016 data from the CAPR’s institutional survey.
NOTE: The Fields and Parsad (2012) reading statistics are for reading placement only, whereas the CAPR survey data are for both reading and writing.
Processes Used to Determine College Readiness in Community Colleges

- Standardized Tests: 98.4% Math, 100% Reading and Writing
- High School Performance: 48.7% Math, 80% Reading and Writing
- Planned Course of Study: 27.9% Math, 60% Reading and Writing
- Other Indicators of Motivation or Commitment: 55.5% Math, 95% Reading and Writing
- College Readiness Not Assessed: 0.0% Math, 0.0% Reading and Writing

SOURCE: Data from CAPR's institutional survey.
NOTE: Categories are not mutually exclusive.
Why Use Multiple Measures Assessment
Students needing 1+ developmental education course (NCES, 2013)

Community Colleges: 68%
Open Access 4-Year Colleges: 40%
Community college 8-year graduation rates
(Attewell, Lavin, Domina, and Levey, 2006)

- 28% Students Needing Remediation
- 43% Students Not Needing Remediation
Students would be better off going through developmental education.

Developmental education student outcomes
(Results from 8 studies, CCRC analysis 2015)
Under-placement and Over-placement

<table>
<thead>
<tr>
<th>Student Ability</th>
<th>Placement According to Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Developmental</td>
</tr>
<tr>
<td>Developmental</td>
<td><img src="https://via.placeholder.com/15" alt="✓" /></td>
</tr>
<tr>
<td>College Level</td>
<td><strong>Under-placed</strong> (English – 29%) (Math – 18%)</td>
</tr>
</tbody>
</table>
Multiple Measures Assessment
Multiple Measures Assessment and Placement

- Existing placement tests are not good predictors of success in college courses.
- More information improves most predictions, ESPECIALLY THE HIGH SCHOOL GPA.
- Different measures better best place specific student groups.
## Multiple Measures Options

<table>
<thead>
<tr>
<th>MEASURES</th>
<th>SYSTEMS OR APPROACHES</th>
<th>PLACEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administered by college:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Traditional or alternative placement tests</td>
<td>• Waiver system</td>
<td>• Placement into traditional courses</td>
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<tr>
<td>2. Non-cognitive assessments</td>
<td>• Decision rules or bands</td>
<td>• Placement into alternative coursework</td>
</tr>
<tr>
<td>3. <strong>Computer skills or career inventory</strong></td>
<td>• Placement formula (algorithm)</td>
<td>• Placement into support services</td>
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<tr>
<td>4. <strong>Writing assessments</strong></td>
<td>• Directed self-placement</td>
<td></td>
</tr>
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<td>5. <strong>Questionnaire items</strong></td>
<td></td>
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<tr>
<td>Obtained from elsewhere:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. High school GPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Other HS transcript information</td>
<td></td>
<td></td>
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<tr>
<td>3. Standardized test results (e.g., ACT, SAT, AP)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Decision-Rule Example

Student Applies

Yes

Exemptions?

No

HS Record and/or Non-Cog Performance?

High

Low

Accuplacer Test

High

College Level Placement

Low

Remedial Level Placement
Algorithm Example

Student Applies

Yes

Exemptions?

No

High

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

Resulting Probability of Success

Low

Remedial Level Placement

College Level Placement
Concerns about the HS GPA
(with thanks to John Hetts and Brad Bostian)

- How are we going to get the HS GPA?
- *Our* test is different/better/more awesome.
- High school GPA is only predictive for recent graduates.
- Different high schools grade differently.
Sources of HS transcript data

- The students bring a transcript.
- The high school sends.
- Obtained from state data files.
- Self report.

Note: Consider using the 11th grade GPA.

Self-report research

- UC admissions uses self-report but verifies after admission. In 2008, at 9 campuses, 60,000 students. No campus had >5 discrepancies b/w reported grades and student transcripts (Hetts, 2016)
- College Board: Shawn & Mattern, 2009: “Students are quite accurate in reporting their HSGPA”, $r = .73$.
- ACT research often uses self-reported GPA and generally find it to highly correlate with students actual GPA: ACT, 2013: $r = .84$. 
None of the tests are that good for placement

North Carolina English

North Carolina Math

From Bostian (2016), North Carolina Waves GPA Wand, Students Magically College Ready; adapted from research of Belfield & Crosta, 2012)
HS GPA is a better predictor than test results for long time (from Hetts, 2016)
For the most part, college grades stay parallel with feeder high school grades (Bostian, 2016)
Examples from other states

- MINNESOTA – state mandate, local decision rules, non-cognitive assessments
- NORTH CAROLINA – statewide decision rules, centralized data system
- FLORIDA – no required deved for high school graduates
The North Carolina Community College System has adopted a multiple measure placement hierarchy. The 58 colleges began implementing in 2013. All colleges required to implement by fall 2016.

CRITERIA
1. Unweighted HS GPA 2.6 + 4 college prep math courses
2. ACT/SAT at national benchmark scores
3. NCDAP placement test
<table>
<thead>
<tr>
<th>Unweighted GPA = or &gt; 2.6 Four High School Math Courses*</th>
<th>Student is college ready for any gateway math course and any course that has a DMA prerequisite. Colleges may require students to take a supplemental math lab as a co-requisite, based on college policies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unweighted GPA = or &gt; 2.6 And Four High School Math Courses*</td>
<td>Student is college ready for any English course up to and including English 111 and any course that has a DRE prerequisite. Colleges may require students to take a supplemental English composition lab as a co-requisite, based on college policies.</td>
</tr>
</tbody>
</table>
| Unweighted GPA < 2.6 | College will evaluate subject-area ACT or SAT scores to determine if student is college ready in math and English using the following scores (based on national and state validation studies):  
  **English:** ACT Reading 22 OR ACT English 18  
  SAT Writing 500 OR SAT Critical Reading 500  
  **Math:** ACT Math 22  
  SAT Math 500 |
| Unweighted GPA < 2.6 and subject-area score(s) below college ready | Student will take subject-area State Board-approved assessment(s) to determine placement. |
| Students without a recent transcript GPA or without ACT or SAT scores | Student will take subject-area State Board-approved assessment(s) to determine placement |

*Approved by the State Board of Community Colleges on March 21, 2014
Revised August 2015
Florida Senate Bill 1720
(Hu, Park, Mokher, and Jones, 2019)

• Implemented in Fall 2014
• Gave “exempt” students the option to bypass placement tests and developmental education (DE) courses.
  • Students who entered ninth grade at a Florida public high school in 2003 or after, and graduated with a standard high school diploma
  • Active duty members of the U.S. Armed Services
• Legislative mandates regarding DE instructional strategies, enhanced advising, and student support services.
Thank you!

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