Extraordinary Measures and Practical Steps: Evidence-based Practices to Reduce Unnecessary Remediation in Mathematics

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Meet Ruby
It will take you four years to transfer.
A majority of students of color land in the community college system

**Enrollment by Ethnicity: 2010**

- **California Community Colleges**
  - Total Enrollment: 1,529,599
  - Latinos: 513,729
  - African Americans: 114,614

- **California State University**
  - Latinos: 100,342
  - African Americans: 18,205

- **University of California**
  - Latinos: 179,245
  - African Americans: 6,477

*Source: Postsecondary Education Commission, 2010*
Improved Placement

It will take you four years to transfer.

Community College Counselor
Improved Placement

It will take you four years to transfer.
I got my placement test results and I thought...

How come I placed in this class?
I was placed in Math 840.

x + y = y + x

I felt like I learned it in kindergarten.
They did a poor job of preparing students for placement tests in general.
I got my test results and I cried.

It was going to take me years to get through math alone.

I thought to myself—

Will I ever graduate from community college?
Access to College Level Courses is Denied to Many Community College Students

- About two thirds of all CC students in CA and nationally enroll in one or more remedial courses. (BPS 2003-2004 cohort; CCCO 2009)

- Only 33% assigned to math complete the remedial sequence

- Only 46% assigned to English complete the remedial sequence. (Bailey, Jeong & Cho 2008)

- In fact, enrolling in remedial courses negatively affects student’s chances of earning a credential. (Dadgar 2012; Martorell Scott-Clayton & Rodriguez 2012)

- Yet the majority of students placed into remediation would have earned a C or higher in a college level course (many a B or higher)
Assignment to Remedial Courses: An Equity Issue

![Bar chart showing the percentage of students assigned to remedial courses based on ethnicity in Developmental Math and Developmental English.](chart)

Source: Bailey, Jeong, & Cho (2008). Data from Achieving the Dream Colleges
# The Current Assessment and Placement Landscape

*In 2011, 90% of colleges used either ACCUPLACER or COMPASS*

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>◆ Inexpensive to purchase, administer &amp; grade;</td>
<td>◆ In mathematics 1 in 4 students are severely misplaced; in English 1 in 3 are severely misplaced</td>
</tr>
<tr>
<td>◆ Consistent measure across all students</td>
<td>◆ Being placed too low is 5-6 times more common that being placed too high</td>
</tr>
</tbody>
</table>

(Scott-Clayton, Crosta & Belfield 2012)
## Alternative Measures?

### Comparison of Different Measures of Student Success

While standardized assessments provide a single and consistent measure for placement across all students, they are neither strong predictors of college success, nor intentionally aligned with high school curricula.

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>Predictive of College Success</th>
<th>Aligned with HS curricula</th>
<th>Consistent</th>
<th>Measure Implemented by states and/or community colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized Assessments (ACCUPLACER/COMPASS)</td>
<td><img src="low.png" alt="Low" /></td>
<td><img src="high.png" alt="High" /></td>
<td>YES</td>
<td>Most common assessment, (nationwide)</td>
</tr>
<tr>
<td>High School GPA</td>
<td><img src="low.png" alt="Low" /></td>
<td><img src="high.png" alt="High" /></td>
<td>NO</td>
<td>North Carolina Massachusetts Hawaii Long Beach City College</td>
</tr>
<tr>
<td>Math/English courses and grades</td>
<td><img src="low.png" alt="Low" /></td>
<td><img src="high.png" alt="High" /></td>
<td>NO</td>
<td>Long Beach City College</td>
</tr>
<tr>
<td>Smarter Balanced Assessments</td>
<td>Unknown</td>
<td><img src="high.png" alt="High" /></td>
<td>YES</td>
<td>Washington State</td>
</tr>
</tbody>
</table>

Note: Information on the predictive power of various measures is based on the following studies: Scott-Clayton, 2012; Belfeld & Crosta, 2012; Bahr et al., 2014; and Willett & Karandjeff, 2014. Information on implementation by state or college is based on Bracco et al. (2014).
The Opportunity: Improve Placement Accuracy

Use more than one measure especially HS GPA or transcript in the following ways:

- Use GPA to **exempt** students from placement testing, then use placement tests for students with invalid or old GPAs and those not meeting threshold

- **Combine** GPA, tests and other measures into a weighted formula

- Use early assessment and offer **pre-collegiate remediation**
Examples

- Long Beach City College
- North Carolina
- City College of San Francisco
Long Beach City College

Transfer-level Placement Rates F2012

- F2011 First time students
- F2011 LBUSD
- F2012 Promise Pathways - Accuplacer Only
- F2012 Promise Pathways - Multiple Measures

Transfer Level English:
- 11%
- 13%
- 14%

Transfer Level Math:
- 7%
- 9%
- 9%

60%
F2012 Promise Pathways vs.
Fall 2012 2-Year Rates of Achievement

- Successfully Completed Transfer Math: 13.3% (F2011 LBUSD, N=1654) vs. 22.9% (F2012 Promise Pathways, N=933)
- Successfully Completed Transfer English: 24.2% (F2011 LBUSD, N=1654) vs. 52.0% (F2012 Promise Pathways, N=933)
- Successful Completion of English 3: 3.0% (F2011 LBUSD, N=1654) vs. 19.5% (F2012 Promise Pathways, N=933)
- Behavioral Intent to Transfer: 31.0% (F2011 LBUSD, N=1654) vs. 53.8% (F2012 Promise Pathways, N=933)

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North Carolina

- In 2015 Multiple Measures Policy to be Implemented Statewide

- Students with GPA ≥ 2.6 & graduated in less than 5 years from a NC High School are exempted from remediation

- 2010 Faculty task force working with researchers to examine different measures and find threshold
City College of San Francisco

93% of SFUSD graduates who attend City College of San Francisco are placed into remedial math or English based by CCSF’s placement exam results (CCSF, 2010)
CC placement tests are not aligned with what they are learning in high school.
SFUSD and CCSF English Misalignment

The chart shows a scatter plot with the X-axis representing CST ELA Raw Score (11th Grade) ranging from 10 to 75, and the Y-axis representing CCSF English Placement Test Raw Score ranging from 10 to 110. The chart indicates that there is a distribution of scores where many students fall within the proficient range on CST (4) and advanced on CST (5) categories. The chart also highlights a group of students who meet college-level at CCSF.
San Francisco Policy Pilot

• “Stop pointing the fingers dinners”
  • Monthly meetings
  • Curriculum gaps
  • Placement test decision

• 2012 Board Resolution: English and Math Bump Up:
  • English: GPA 2.7 or higher in English, Junior year CST (California Standards Test) rating of Proficient, overall GPA 2.5
  • Math: GPA of 2.7 or higher in math, Junior year of CST, (California Standards Test) rating of Proficient, attendance rate of 90% or higher
Policy Context Supporting Multiple Measures

- National trend in proposing/implementing multiple measures and Dev Ed reform

- Timely Issue in California

  - Title 5 requires the use of multiple measures
  - Student success act requiring common assessment
  - Academic senate’s resolution supporting the use of multiple measures:

    "Using placement exam scores as the sole determinant of college access simply for the sake of consistence and efficiency may not be justified"
Implementation Framework

- Analyze historical data
- Create a workgroup of math and English faculty
- Create a platform for long-term collaboration between community college and high school math and English faculty and teachers.
- Work with the Matriculation Office to put in place a system where transcript records can be automatically translated into placement decisions. This will minimize additional workload for college counselors.
- Evaluate the pilots’ implementation. Compare outcomes for students who are placed based on multiple measures versus students placed according to a placement exam.
- Present evaluation findings to the appropriate shared governance committee(s) and, if the multiple measures pilot increases student success, propose a policy change.
Policy Reform of Placement Exam for Improved Placement

It will take you four years to transfer.

COMMUNITY COLLEGE COUNSELOR
high school

community college
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