Let Icarus Fly
Multiple Measures in Assessment and Other Cornerstones of the Re-imagination of Student Capacity

November 18, 2016

To prepare for embedded survey activity, please navigate to http://PollEv.com/jjhetts on your smartphone, tablet, or laptop or send the text JJHETTS to the number 37607 to join

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@jjhetts #LetIcarusFly

Overview

- Standardized assessment has led us to systematically and substantially underestimate student capacity
  - Particularly for students of color, low income students, first generation college students, women
- Evidence-based, multiple measures is one of four key cornerstones on which to rebuild the foundations of community college education
  - Demonstrates fundamental capacity of far more of our students to succeed if given the chance
  - Powerful completion, equity, and real world implications
  - Based powerfully on basic principles of assessment and measurement, on careful analysis of performance of previous community college students, and increasing evidence from community colleges around the country
Daedalus and Icarus

- Daedalus crafted the labyrinth of inescapable complexity for King Minos
- Helped Theseus escape & imprisoned in tower with his son Icarus
- To escape from Minos, Daedalus built wings of feather and wax for his son Icarus and himself
- Don’t fly too high, lest sun melt the wax and you plummet to your doom
  - Dangers of innovation/invention, hubris,
  - Importance of knowing your limits, listening to your wiser elders
- But most of us forget the rest of that story…

Transition to College: Assessment and Placement

- Community colleges are open enrollment institutions
  - Requires assessing and planning for educational needs of students.

- Goal
  - Effectively place student at most appropriate level for their skill – where challenge matches skill level
    - Zone of proximal development
    - Optimal performance, flow
  - If you think you can catch the bus, you will run for it.”
    - Lee Peng Yee, Singapore National Institute of Education Mathematician
The Purpose of Assessment

The purpose of assessment is to identify the skill levels of students so that they will enroll in courses where they will thrive

- For most of our students, that largely means a standardized test, often with little fanfare or introduction…
- What if we applied that concept to presentations …
- The purpose of this very brief assessment is to identify the skill levels of attendees to make certain that everyone is adequately prepared to be able to process and retain the information from formal presentations…
- If you haven’t already, please navigate to http://PollEv.com/jjhetts or text JJETTS to the number 37607 to join
1. Although only sixteen years old, the university accepted her application because of her outstanding grades.

A. the university accepted her application because of her outstanding grades.
B. her application was accepted by the university because of her outstanding grades.
C. her outstanding grades resulted in her being accepted by the university.
D. she was accepted to study at the university because of her outstanding grades.

The phrase *Although she was only sixteen years old* describes the characteristics of the female student. Phrases like this one need to be followed by the name of the person or thing they are describing. Therefore, "she" needs to come after this phrase.
Your poll will show here

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“She is a good teacher because she is kind and patient.”

Rewrite, beginning with: “Kind and patient”

Your new sentence will include:

A. of a good teacher
B. is a good teacher
C. make a good teacher
D. which a good teacher

As in any sentence, you should put a descriptive phrase directly before or after the person or thing it is describing. Also remember that you may need to use a comma after your phrase.

Therefore, your new sentence will be: Kind and patient, she is a good teacher.
“It will be easy to pass my math test, but I cannot say the same about my physics test.”

Rewrite, beginning with “Unlike my physics test,”

The next words will be:

A. it will be easy
B. I should easily
C. my math test
D. passing math

The phrase "Unlike my physics test" is an adjectival phrase that makes a direct comparison with "my math test." Therefore, "my math test" must come directly after the comma.
5y(2y – 3) + (2y – 3) =

A. \((5y + 1) (2y + 3)\)  ▪ Rewriting 5y(2y-3) + (2y-3) slightly
B. \((5y + 1) (2y – 3)\)  ▪ gives:
C. \((5y – 1) (2y + 3)\)  ▪ 5y(2y-3) +1 (2y-3) which quickly
D. \((5y-1)(2y-3)\)  ▪ simplifies to:
E. 10y(2y–3)  ▪ (5y+1)(2y-3)
A job is shared by 4 workers, W, X, Y, and Z. Worker W does 1/4 of the total hours. Worker X does 1/3 of the total hours. Worker Y does 1/6 of the total hours. What fraction represents the remaining hours allocated to Worker Z?

Find the lowest common denominator to solve: $\frac{1}{4} + \frac{1}{3} + \frac{1}{6} + Z = 1$
3, 4, and 6 are denominators so the lowest common denominator is 12.

Now convert the fractions:
$\frac{1}{4} \times \frac{3}{3} = \frac{3}{12}$
$\frac{1}{3} \times \frac{4}{4} = \frac{4}{12}$
$\frac{1}{6} \times \frac{2}{2} = \frac{2}{12}$

Now add the fractions together:
$\frac{3}{12} + \frac{4}{12} + \frac{2}{12} + Z = 1$
$\frac{9}{12} + Z = 1$
$Z = 1 - \frac{3}{4}$
$Z = \frac{1}{4}$

A. 2/3  
B. 5/12  
C. 1/3  
D. 1/4
How many 4 letter permutations can be made from the letter set: A B C D E?

A. 120
B. 100
C. 60
D. 9

- Permutations take into account the order of the items in each group. In order to calculate the number of permutations of size $S$ taken from $N$ items, use: $N! \div (N - S)!$

$N = 5$ and $S = 4$

$N! \div (N - S)! =$

$(5 \times 4 \times 3 \times 2 \times 1) \div (5 - 4) =$

$(5 \times 4 \times 3 \times 2) \div 1 =$

120

Purpose of Assessment

- The purpose of assessment is to identify the skill levels of students so that they will enroll in appropriate courses.

- For many of our students, that means a standardized test, often with little fanfare or introduction…

- What if we applied that concept to presentations …

- The purpose of this very brief assessment is to identify the skill levels of attendees to make certain that everyone is adequately prepared to be able to process and retain the information from formal presentations…

- What if we applied that to all of us…
Why are multiple measures important in assessment?

- Basic assessment/measurement theory:
  - When you measure something you get:
    - True score (thing you care about)
    - Systematic error (regular error or bias in measurement)

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Why are multiple measures important in assessment?

- Basic assessment/measurement theory:
  - When you measure something you get:
    - True score (thing you care about)
    - Systematic error (regular error or bias in measurement)
    - Random error (temporary errors)
  - Important not to confuse precision (repeatability) with accuracy (relation to true score)
Precision vs. accuracy

Why is the use of multiple measures important in assessment?

- Methodological gold standard of assessment
  - To avoid systematic and random error, triangulate to true score through assessment across different:
    - methods of assessment (how)
    - context of assessment (who/where)
    - content domains (what)
    - time (when)
Reality of current practice

- Community colleges rely nearly entirely on standardized assessment
  - 100% (Fields & Parsad, 2012) bit.ly/NAGB2012
    - Only 27% of public CCs use anything other than test in math, 19% in reading

- Majority of students placed below transfer-level
  - 68% take at least one deved course (Scott-Clayton & Belfield, 2015)
    bit.ly/CCRCPlacementAccuracy

Sorting hat having rough decade
Consequences of remedial placement

- Placement below transfer level can be a significant barrier to completion (Bailey, Jeong, & Cho, 2010)
- ~30% never attempt a course in the sequence

Student Progression Through the Developmental Math Sequence\textsuperscript{21}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{student_progression}
\caption{Student Progression Through the Developmental Math Sequence}
\end{figure}

\textbf{Source: CCRC}
Consequences of remedial placement

- Placement below transfer level can be a significant barrier to completion (Bailey, Jeong, & Cho, 2010) bit.ly/Bailey2010
  - ~30% never attempt a course in the sequence
  - Only 30-40% placed into remediation complete sequence in six or more years
- 50-60% of equity gap in college completions occur during assessment and matriculation (Stoup, 2015: bit.ly/STOUP2015)

Quantifying the contribution to inequity in completion (preliminary findings)

Preliminary findings from one large California District

What other impact can this have on students?

- Students’ first interaction with college can communicate lack of trust in capacity
  - Can communicate to students they don’t belong
  - Often the second and third interactions as well.

- Implies to many that most students not ready for college and likely to fail
  - Convinced nearly everyone
  - Including many of our students

Conventional Wisdom Explaining Assessment Results

- It is a problem with today’s students
  - Students are simply, vastly unprepared for college
  - Kids these days ....
That seems awfully familiar

The Whiny Generation

EVER SINCE THE PUBLICATION OF DOUGLAS COPLAND'S book "Generation X," we've been subjected to a barrage of essays, op-ed pieces and feature articles blaming us baby boomers for the ills of society. The generation gap has been turned into a battle line, and the boomers are cast as the villains.

But what has been overlooked is that the generation that followed us, the generation that has been called the "Millennial" generation, is actually the one that has been hardest hit by the economic downturn.

Well, enough is enough. As a baby boomer, I'm fed up with the constant bashing of a handful of privileged, self-indulgent, overgrown adolescents. Generation X may like to call themselves the "Why Me?" generation, but they should be called the "Whiny" generation. If these self-centered, pampered young adults would put as much effort into getting a job as they do into writing about their problems, we'd be spared the weekly barrage of negative stories.

Let's examine for a moment the horrible fate visited upon Generation X. This is a generation that was raised with the highest standard of living in the history of the world. By the time they arrived on the scene, their parents were comfortably established in the middle class and could afford to satisfy their offspring's every whim. And they did, in spades.

Too familiar

(Bye Bye Birdie – 1963)
Evidence that Conventional Wisdom is Wrong…

- Substantial, long-term increase in IQ: bit.ly/FlynnEffectIQ
- 18-24 with HS degree: 92.4% - highest ever:
  bit.ly/2016HS18-24
- National Assessment of Educational Progress: at or near all-time highs in virtually every demographic category, though with a slight decrease in the most recent year: see bit.ly/NAEPInfo for much more

NAEP Math and Reading Assessments
Evidence that the conventional wisdom is wrong

- Research increasingly questions effectiveness of standardized assessment for understanding student capacity
  - Little relation to college course outcomes
  - Incredible variability in cutscores and 2-year colleges often use HIGHER cutscores than 4-year
  - Underestimates capability of students of color, women, first generation college students, low SES

What if?

- What if the problem has not solely been with limitations of our students but at least in part with limitations in how we have assessed and understood their capacity to do college-level work?
It gets worse…

- What if an incomplete/flawed method for understanding and “remediating” student capacity has actually had the opposite effect, actively undermining their capacity?
  - Self-fulfilling prophecies/golem effects, stereotype threat, activation/reinforcement of negative lay theories of education

But there’s good news…

- What if one of the key barriers to our students’ successful transition to and success in college is one that we fully control?

- That any college could change right now, today, and improve outcomes for their very next cohort of students?
Improving assessment through evidence-based multiple measures

Resources/references:

- http://www.lbcc.edu/PromisePathways
- http://cccassess.org

LBCC Multiple Measures Research

- Five cohorts tracking more than 7,000 HS grads who matriculate to LBCC directly
- Examined predictive utility of wide range of high school achievement data
- For predicting:
  - How students are assessed and placed
  - How students perform in those classes
  - (and alignment between them)
Predicting placement & performance in English at LBCC

Predicting Placement

Ordinal Regression Coefficients

Predicting Performance

Logistic Regression Coefficients

* p < .05, ** p < .01, *** p < .001, x = p < 1 x 10^-10

Predicting placement and performance in Math at LBCC

Predicting Placement

Ordinal Regression Coefficients

Predicting Performance

Logistic Regression Coefficients

* p < .05, ** p < .01, *** p < .001, x = p < 1 x 10^-10
Key Takeaways
(Warning: they may shock you)

Sample focus group responses:

- Assessment should predict how students will perform at our colleges
- Instead:
  - Previous standardized tests predict later standardized tests
  - Previous classroom performance predicts later classroom performance
  - More information tells us more about student capacity than less information
Re-imagined student capacity

- Starting in Fall 2012, students from LBUSD were provided an alternative assessment
  - (now 6 districts covering >30 high schools and growing)
  - Reverse engineered analysis to place students using:
    - Overall HSGPA
    - Last high school course in discipline
    - Grade in last course in discipline
    - Last standardized test in discipline (and level)
  - Placed students in highest course where predicted success rate higher than average success rate for that course.

Implementing Multiple Measures Placement:
Initial LBCC Transfer-level Placement Rates F2012

- F2011 First time students
- F2011 LBUSD
- F2012 Promise Pathways - Accuplacer Only
- F2012 Promise Pathways - Multiple Measures
Common Concerns/Multiple Measures Myths

- Students placed via multiple measures will not be successful
- Model built solely on Long Beach data and/or just uses GPA
- Grade inflation/social promotion prevents this from working
- *Our* test is different/better/more awesome
  - It won’t work at my school/type of institution
- High school GPA is only predictive for recent graduates
- It’s too hard to get or use transcripts/it’s not worth it
- Will threaten my college’s enrollment/FTES

Students placed by multiple measures are as or more successful, not just at Long Beach
Comparison against traditional sequence: LBCC success rates in transfer-level courses

First Cohort, F2012

Neither of these differences approach significance, p >.30

Cohort 1 English 1 Success Rates by Original Placement (vs. 6 year completion)
Maintains or improves success rates in transfer-level courses: CA

Fall 2014 LBCC

F2014 Sierra College: English

For other CCC pilots, see also

Fall 2015: SDCCD Pilot

Transfer-level Success Rates by Method of Entry

http://bit.ly/MultipleMM
Transfer-level course completion, recent national examples at scale: http://bit.ly/CCCSEMM

Davidson County CC 2013-2015

- English: 59% Comparison, 65% HS Data
- Math: 48% Comparison, 76% HS Data

Ivy Tech 2014-2015

- English: 64% Accuplacer, 68% HS Data
- Math: 64% Accuplacer, 57% HS Data
- Reading: 57% Accuplacer, 64% HS Data

Rules used for English and Math: HSGPA >=2.6 and completion of four years of mathematics including one year beyond Algebra 2

Rules used for English and Math: HSGPA >=2.6

Powerful impacts on sequence completion/throughput
Potential equity & completion impact: LBCC F2011
Baseline Equity Gaps for 2-year rates of achievement

LBCC: F2012 2-year rates of achievement
Multiple Measures Assessment Project

- Collaborative effort of CCCCO, Common Assessment Initiative (CAI), Cal-PASS Plus (Educational Results Partnership & San Joaquin Delta College), RP Group and now >60 CCC pilot colleges
  - Replications and extension of Student Transcript Enhanced Placement Study
- Identify, analyze, & validate multiple measures data (including HS transcript data, non cognitive variable data, & self-report HS transcript data
  - For English, Mathematics, ESL and Reading
  - Focus on predictive validity (success in course) using categorization and regression tree models (robust to missing data, non-linear effects, and interactions)
- Engage pilot colleges to conduct local replications, test models and pilot use in placement, and provide feedback

bit.ly/MMAP2017
Data Set for Models

- CCC students from all colleges in the system enrolled in an English, Math, Reading or ESL course past census with matching high school data in CalPASS
- >1 million cases for Math & English; >200,000 for Reading & ESL from 2008-2014
- Data files include:
  - High school courses in discipline and grades, unweighted HSGPA, course level/type
  - Assessment data, wherever avail. (ACCUPLACER, CST, EAP)
  - CCC data (course grades, course level)
  - Other derived info. (e.g., delay, CCC math class type)
  - Rules developed with subset of students with 4 years of HS data (about 25% of total sample)

High school variables that predict college success

- **English**
  - Cumulative HS GPA
  - Grade in last HS English
  - Score on English CST
  - Non-remedial status in HS English

- **Math**
  - Cumulative HS GPA
  - Enrollment and grades in Geometry, Algebra II, Trigonometry, Pre-calculus, Statistics, Calculus
  - Taking a more challenging CST
  - Score on math CST
  - Delay*
Examples of transfer-level decision rules

**English**

11th Grade High School GPA ≥ 2.6

**Math (College Alg.)**

11th Grade High School GPA ≥ 3.2 & Algebra II C or better

OR

11th Grade High School GPA ≥ 2.9 & Pre-calculus C or better


Projected impacts on placement and success

<table>
<thead>
<tr>
<th>Placement into transfer-level</th>
<th>Projected Success Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Math</td>
</tr>
<tr>
<td>Successful completion (C or better) of transfer-level course</td>
<td></td>
</tr>
</tbody>
</table>

Historic: 28% English, 15% Math
Projected: 61% English, 42% Math

Historic success rate: 62% Math, 62% English
Projected success rate: 72% Math, 71% English
... What about grade inflation/social promotion in HS?

Evidence for grade inflation low at best

- Little evidence for grade inflation over last decade
- Earlier observations of grade inflation may have been partly artifactual
  - adjustments to GPA for AP/IB/Honors
Concerns about grade inflation and social promotion do not fit evidence

- Suggests that there should be little to no relation between HS grades and college grades because HS grades unrelated to performance
  - Everyone gets As and Bs would mean no variation to predict outcomes
- Yet, predictive utility strongly observed
  - Stronger than standardized tests
  - Even by standardized test companies

Nationwide pattern of key aspects of multiple measures being more predictive regardless of test compared
Their test wasn’t different - Compass

<table>
<thead>
<tr>
<th>Course</th>
<th>Compass Test</th>
<th>Compass</th>
<th>HSGPA</th>
<th>HSGPA + Compass</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1</td>
<td>Writing Skills</td>
<td>.31</td>
<td>.57</td>
<td>.62</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>Pre-Algebra</td>
<td>.57</td>
<td>.34</td>
<td>.66</td>
</tr>
<tr>
<td>Algebra</td>
<td>Pre-Algebra</td>
<td>.36</td>
<td>.65</td>
<td>.80</td>
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<tr>
<td>Intermediate Algebra</td>
<td>Algebra</td>
<td>.47</td>
<td>.66</td>
<td>.84</td>
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<tr>
<td>College Algebra</td>
<td>Algebra</td>
<td>.41</td>
<td>.76</td>
<td>.88</td>
</tr>
<tr>
<td>College Algebra</td>
<td>College Algebra</td>
<td>.51</td>
<td>.76</td>
<td>.94</td>
</tr>
</tbody>
</table>

http://bit.ly/COMPASSValidation (Table 4 - Median Logistic R)


<table>
<thead>
<tr>
<th>HSGPA</th>
<th>30</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>90</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00</td>
<td>23%</td>
<td>26%</td>
<td>28%</td>
<td>29%</td>
<td>32%</td>
</tr>
<tr>
<td>3.00</td>
<td>43%</td>
<td>47%</td>
<td>49%</td>
<td>51%</td>
<td>55%</td>
</tr>
<tr>
<td>4.00</td>
<td>65%</td>
<td>69%</td>
<td>70%</td>
<td>72%</td>
<td>75%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Compass Score (Algebra)</th>
<th>30</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>90</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSGPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.00</td>
<td>10%</td>
<td>14%</td>
<td>17%</td>
<td>23%</td>
<td>27%</td>
</tr>
<tr>
<td>3.00</td>
<td>27%</td>
<td>35%</td>
<td>40%</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>4.00</td>
<td>55%</td>
<td>64%</td>
<td>69%</td>
<td>73%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Their test wasn’t different - Accuplacer

<table>
<thead>
<tr>
<th>English</th>
<th>Accuplacer</th>
<th>11th Grade GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer</td>
<td>.10</td>
<td>.27</td>
</tr>
<tr>
<td>1 level below</td>
<td>.12</td>
<td>.24</td>
</tr>
<tr>
<td>2 levels below</td>
<td>.12</td>
<td>.25</td>
</tr>
<tr>
<td>3 levels below</td>
<td>.12</td>
<td>.18</td>
</tr>
<tr>
<td>4 levels below</td>
<td>.07</td>
<td>.21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Math</th>
<th>Accuplacer</th>
<th>11th Grade GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer - STEM</td>
<td>.19</td>
<td>.24</td>
</tr>
<tr>
<td>Transfer – Stats</td>
<td>.16</td>
<td>.31</td>
</tr>
<tr>
<td>Transfer – GEM</td>
<td>.09</td>
<td>.26</td>
</tr>
<tr>
<td>1 level below</td>
<td>.21</td>
<td>.28</td>
</tr>
<tr>
<td>2 levels below</td>
<td>.11</td>
<td>.26</td>
</tr>
<tr>
<td>3 levels below</td>
<td>.11</td>
<td>.23</td>
</tr>
<tr>
<td>4 levels below</td>
<td>.05</td>
<td>.19</td>
</tr>
</tbody>
</table>

MMAP (in preparation): Correlation with success (C or better) in course in CCC
Their tests weren’t different - NC

From Bostian (2016), North Carolina Waves GPA Wand, Students Magically College Ready adapted from research of Belfield & Crosta, 2012 – see also Table 1)

Their tests weren’t different - AK

Their tests weren’t different - AK


Their tests weren’t different – University of California

Std. tests increasingly confounded w/SES (Geiser, 2015) http://bit.ly/Geiser2015
High School GPA is as or more predictive than tests for far longer than people think

**Predicting Transfer-Level English**

Decay function for the predictive utility of HSGPA on English grades

MMAP (in preparation): correlations b/w predictor and success (C or better) in transfer-level course by # of semesters since HS
Predicting Transfer-Level math

Decay function for the predictive utility of HSGPA on Math grades

MMAP (in preparation): correlations b/w predictor and success (C or better) in transfer-level course by # of semesters since HS

Utility of HSGPA vs. Compass for non-traditional students

Traditional first-time students (<20YO)

Non-traditional first-time students (≥20YO)

Logistic regression coefficients of HSGPA and test (in parentheses) for each course (Table 5) http://bit.ly/COMPASSValidation
It doesn’t have to be hard or expensive

Self-reported HSGPA potential alternative

- College of the Canyons Research (Gribbons, 2014)
  - Self-report of last course and grade in Fall term very accurate
  - Errors that do occur in part because of timing of assessment
- UC admissions uses self-report but verifies after admission
### GPA vs. Self-reported HSGPA

<table>
<thead>
<tr>
<th>HSGPA Level</th>
<th>N</th>
<th>Mean HSGPA</th>
<th>Mean diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Actual</td>
<td>Self-reported</td>
</tr>
<tr>
<td>3.50–4.00</td>
<td>599</td>
<td>3.79</td>
<td>3.75</td>
</tr>
<tr>
<td>3.00–3.49</td>
<td>451</td>
<td>3.24</td>
<td>3.23</td>
</tr>
<tr>
<td>2.50–2.99</td>
<td>408</td>
<td>2.81</td>
<td>2.76</td>
</tr>
<tr>
<td>2.00–2.49</td>
<td>265</td>
<td>2.24</td>
<td>2.35</td>
</tr>
<tr>
<td>1.50–1.99</td>
<td>172</td>
<td>1.77</td>
<td>2.04</td>
</tr>
<tr>
<td>0.00–1.49</td>
<td>85</td>
<td>1.03</td>
<td>1.85</td>
</tr>
<tr>
<td>Total</td>
<td>1,980</td>
<td>2.95</td>
<td>3.02</td>
</tr>
</tbody>
</table>


### GPA vs. Self-reported HSGPA

<table>
<thead>
<tr>
<th>School-Reported HSGPA</th>
<th>Self-Reported HSGPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>A (n = 13,688)</td>
</tr>
<tr>
<td>A+</td>
<td>A- (n = 10,214)</td>
</tr>
<tr>
<td>B+</td>
<td>B (n = 8,068)</td>
</tr>
<tr>
<td>B+</td>
<td>B- (n = 1,704)</td>
</tr>
<tr>
<td>C+</td>
<td>C (n = 675)</td>
</tr>
<tr>
<td>C+</td>
<td>C- (n = 281)</td>
</tr>
<tr>
<td>C+</td>
<td>C- (n = 48)</td>
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Under-reporting was 2-4X as common as over-reporting.
It might actually help outcomes AND FTES

Testing & underplacement pushes students away

- Failure to enroll in the first course in the sequence often single biggest loss point in the developmental course.
  - (Bailey, Jeong, & Cho, 2010)
  

http://bit.ly/CCRCWhatWeKnow
Validating student effort/performance attracts students to college

- "Students were profoundly grateful not to have to take the assessment test." – Canada College Multiple Measures Presentation at RP Group Conference April 8, 2016

- "While students generally like to be treated with respect, a perceived lack of respect is more damaging to the students whose cultural claim on higher education isn’t as broadly accepted. They’ve already internalized some doubt, so they’re quicker to take indifference or hostility as confirmation that they don’t belong." Matt Reed


Does this solve everything for every student?

- No

- This method can’t be used (yet?) for:
  - international students
  - students who didn’t attend high school
  - students who are returning to education decades after high school

- Not every student placed this way will will succeed
  - just as every student placed via the test hasn’t succeeded

However...

- None of these reflect legitimate reason for a college not to engage in this work
- They represent reasons to get motivated to find additional solutions for those students as well such as:
  - Noncognitive and other variables in assessment
  - Better aligned and concurrent rather than sequential support
    - Redesigned developmental education: California Acceleration Project (e.g., Hayward & Willett, 2014) [bit.ly/CAPEval]
  - Adjusting cut scores
    - Henson & Hern, 2014 [bit.ly/LetThemIn]

... Sounds great and very important but it’s going to take us a year or two to work this out...
2-3 years? I call shenanigans. It doesn’t have to take that long

Reality - it’s ultimately not really about any single one of these concerns.

- We can always make it as complicated as we want but…
- It’s about institutional choices and institutional leadership
  - Cañada College went from zero to implementation in 3 months, including full local replication of statewide MMAP research
- A substantial proportion of the benefit for students and institutions could be accomplished at every institution here today by adding a handful of questions at application or assessment and writing at most a couple hundred lines of code
  - By next week
  - Mira Costa College went from sign-up as a MMAP pilot college to implementation of new multiple measures placement rules for students in English (using self-report) in the last 4 business days before Thanksgiving F2015.
Reasons not to wait:
What might this mean for students?

- Strategies are all strongly underscore that far more of our students have the capacity to do college level work than we’ve been giving them credit for
- These strategies save students 1-2 semesters of developmental education and
  - Two to five times transfer-level course completion
  - Comparable or higher success rates
  - Works across demographic groups & placement levels
  - Tremendous equity implications
- Direct costs in CA
  - $200-$250 per course for student (~$50/unit +books!)
  - $800-$1000 per course for state (~$200/unit NR fees)
- Opportunity costs even higher
  - Median 2012 salary of “some college” is ~$30,000/year
  - Students don’t lose first or median year, they lose either their last (often highest) year of salary or the opportunity to retire earlier.

Reasons not to wait:
What might this mean for colleges?

- See above re: what it means for students
  - Changes tenor of relationship of students to the college
  - Improved student morale, engagement, identification with education and the institution
- Opportunity to improve:
  - conversion (increase enrollment rate of students who have applied/reduce “summer melt”)
  - persistence
  - achievement of academic milestones
  - graduation rate
  - relationship with K-12 educational partners and colleagues
Support for getting started

- Multiple Measures Assessment Project Support (free)
  - bit.ly/MMAP2017
  - bit.ly/MMAPGetStarted
  - bit.ly/MMAPImplement

- MMAP Project Team Support
  - Webinars: bit.ly/MMAPWebinars
    - Including with implementation: bit.ly/MMAPImplement
  - In person convenings
    - Connection to peers and tips, tricks, and pitfalls they’ve experienced
  - Tools and support for research methodology and data analysis: bit.ly/MMAPTools
  - Provision of statewide model placement recommendations and/or data for local, evidence-based model: bit.ly/MMAPRules

- Opportunity for 1-2 colleges: Arnold Foundation grant support for implementation of rigorous RCT implementation and evaluation of additional of multiple measures to assessment process

Final thoughts

- A different “what if” to consider…

- What if we were designing assessment, matriculation, foundational sequences, and our colleges’ front door experiences for our children, for our families, for ourselves…

- How might we approach it differently?
  Design it differently?

What do colleges gain through reimagining student capacity?

- Better, evidence-based understanding of students
- Transformation of student outcomes
- Powerful levers to address student equity gaps
- Renewed opportunities to collaborate with K-12 educational colleagues
- The chance to stop meeting students at front door to tell them they don’t belong
- The opportunity for something truly amazing to happen for our students and for us all
- A reminder of Daedalus’ second instruction to Icarus
  - It’s just as important not to fly too low.
Thank you!

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>The Fierce Urgency of Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Hetts</td>
<td>“We are now faced with the fact that tomorrow is today. We are confronted with the fierce urgency of now. In this unfolding conundrum of life and history, there &quot;is&quot; such a thing as being too late. This is no time for apathy or complacency. This is a time for vigorous and positive action.”</td>
</tr>
<tr>
<td>Educational Results Partnership</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:jhetts@edresults.org">jhetts@edresults.org</a></td>
<td>– Dr. Martin Luther King, Jr.</td>
</tr>
<tr>
<td>916-498-8980 ext. 208</td>
<td></td>
</tr>
<tr>
<td>714-380-2678 cell</td>
<td></td>
</tr>
<tr>
<td>Twitter: @jjhetts</td>
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