Multiple Measures Assessment Project (MMAP): Pilot College Convening

De Anza College
December 4, 2014

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Partnership for Achieving Student Success
www.calpassplus.org

Agenda:

- **Overview of the day and expected outcomes** *(11:00-11:10)*
- **About MMAP** *(11:10-12:00)*
  - Role of Pilot Colleges
  - Where did MMAP get its start and why?
  - Multiple Measures in action
    - Peter Bergman, Senior Research Associate at CCRC and new CAPR
    - Erik Cooper, *Dean of Planning, Research and Resource Development, Sierra College*
- **Break** *(12:00-12:15)*
- **Working Lunch** *(12:15-1:00)*
  - **Decision trees and logistic regression**
    - Multiple Measures scenarios
    - Disproportionate impact
- **Small group discussions** *(1:00-2:00)*
- **Reporting out of small group discussions** *(2:00-2:30)*
- **Interface discussion** *(2:30-2:45)*
- **Wrap up and additional questions** *(2:45-3:00)*

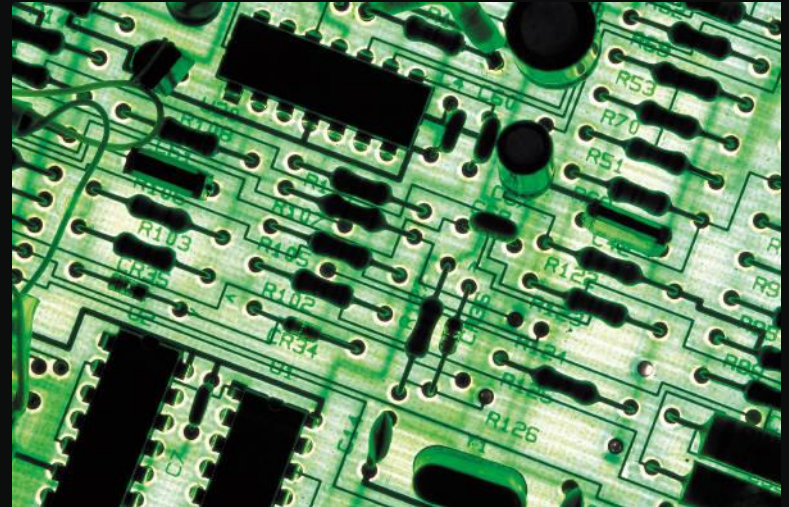# Multiple Measures Assessment Project

- Data warehouse
- Research base and predictive analytics
- K-12 messaging and data population
- Decision models and tools
- Professional development
- Pilot colleges and faculty engagement
- Integration with Common Assessment

- Key idea: Less about testing more about placement and support for student success

Data Warehouse for MMAP

Data in place…

- K-12 Transcript Data
- CST*, EAP and CAHSEE
- Accuplacer
- CCCApply
- MIS
- Other College Board assessments (AP, SAT, PSAT)
- Local Assessments

Coming soon…

- Compass
- Common Assessment and SBAC

Pilot Colleges Participating

- Allan Hancock
- Bakersfield College
- Cañada College
- Contra Costa Community College District (Contra Costa and Diablo Valley Colleges)
- Cypress College
- Foothill-De Anza Community College District (Foothill and De Anza Colleges)
- Fresno City College
- Irvine Valley College
- Peralta Community College District (Alameda, Laney, Merritt, Berkeley Colleges)
- Rio Hondo College
- San Diego City College
- Santa Barbara City College
- Santa Monica College
- Sierra College

Role of Pilot Colleges

Compare

Track

Test

Feedback

Role Of Pilot Colleges:

- **COMPARE** student placements using MMAP analysis to the college's current system
- **TRACK** cohort outcomes after applying multiple measures through the project, with help of MMAP Team and Cal-PASS Plus
- **TEST** placement tools as they are developed with your guidance
- Provide constructive and thoughtful **FEEDBACK** to MMAP and Cal-PASS Plus throughout process.

Ongoing work of pilot colleges

- Work to develop internal capacity and support necessary to locally implement more robust multiple measures in assessment and placement

- Work cooperatively with other pilot colleges to share best practices (and dead ends/false starts)

Projected Timeline:

December – January:
- Complete research on system-wide models and algorithms
- Develop and share online analytic tools and decision tree models

January – April:
- Professional development and direct support to pilot colleges to test multiple measures tools and applications
- Pilot colleges begin to develop plan for multiple measures pilot project for fall 2015
- Develop and test local user interface to re-identify data for local placement decisions

March – May:
- Integrate multiple measures project with Common Assessment Initiative
- Finalize planning, begin implementation of multiple measures pilot project for Fall 2015.

July-August:
- Complete implementation, report out on initial progress

Interlude: What do you consider to be "highly unlikely"?

Highly Unlikely

- **Using only a number between 1 and 100, what percentage do you think most reasonable people would agree corresponded to an outcome that was "highly unlikely" to happen**

- Send a text to **22333**
  - Start text with **454214**, followed by a space, followed by your answer

- **Example:** If Terrence thought 5% represented an outcome that was "highly unlikely" he would send the following text to 22333:
  - 454214 5

- Poll Everywhere

What has been the Impetus for the Multiple Measures Assessment Project?

CA Legislative and Policy Backdrop

- 1988: *Romero-Frias et al. v. Mertes et al.* challenges system-wide assessment practices
  - *1990-3:* Changes to Title 5*
  - "Highly unlikely" to pass course without meeting prerequisite

- 2006: Title 5 revised: transfer-level English and Intermediate Algebra required for AA starting 2009
  - 2006-7: Basic Skills Initiative to address consequences of Title 5 revision for access, completion

- 2012: Student Success Act (SB1456)
  - fully require assessment, orientation, goal setting, & ed plans
  - develop Common Assessment
  - renew emphasis on multiple measures in assessment

College, State, and Regional and National Research

- Colleges
  - Austin Peay (Indiana) – 2007
  - Baltimore County (Maryland) - 2007
  - Grossmont-Cuyamaca - 2011
  - Long Beach City College – 2011
  - **Sierra College**, Bakersfield College, Rio Hondo College - **2014**

- California
  - Willett, Hayward, & Dahlstrom, 2008
  - STEPS - Student Transcript-Enhanced Placement Study – 2012 (Willett & Karanjeff, 2014

- Regional or larger
  - Scott-Clayton, 2012
  - Belfield and Crosta, 2012
  - Scott-Clayton & Rodriguez, 2012
  - Hiss & Franks, 2014 (4 year)

National Legislative & Policy Context

- State-level
  - **North Carolina** – 2.6 GPA & 4 years of math➜ transfer-level
  - **Florida** – developmental educational optional
  - **Virginia** – re-design of assessment in, modularization of math
  - **Connecticut** – dev. education cut to 1 semester, coreq only
  - **Hawaii** CCs- pilots using HSGPA in assessment
  - **Colorado, Montana, Mississippi*** - move to corequisite models

- National level
  - 2013: US Governmental Accountability Office report on Developmental Education in Community Colleges
  - 2014: Center for the Analysis of Postsecondary Readiness established by CCRC, MDRC

Multiple Measures in Action

Peter Bergman, Senior Research Associate, CCRC, CAPR
Erik Cooper - Sierra College

Break and Lunch

Small Group Discussion Questions

https://www.surveymonkey.com/s/Y7CLDVT

Discussion Questions (35 min)

1. (10 min) How would you weigh evidence showing that a student has a high probability of achieving a particular course outcome (criterion validity) relative to the results of a test that extensively covers content areas of the construct (content validity), but that may not be as strongly related to the outcome?

a) How should content validity and criterion validity play into decisions about multiple measures?

Discussion questions

2. (15 min) Any system for assessing student's capacity and placing students will inevitably have a certain degree of error. Given that this is the case:

    a. What are the issues associated with underpredicting a student's likelihood of success and thereby requiring them to take a lower level course when they would likely have succeeded in a higher level course (i.e., underplacement)?

    b. What are the issues associated with overpredicting a student's odds of success and placing them into a higher-level course than they are fully ready for (i.e., overplacement)?

    c. Keeping in mind the assigned readings, do you think there is more underplacement or more overplacement in current placement systems?

    d. If you had control of a system that was 75% accurate but had a 25% misplacement rate, how would you distribute that 25% error? Why?

https://www.surveymonkey.com/s/Y7CLDVT

Discussion questions

3. Given your discussions today, how would you place the student in Table 1?

   a. How do you weigh different types of success criteria? For example, the probability of success in a given course in a sequence relative to the probability of successfully completing the transfer-level gatekeeper course?

   b. What logic or principles might you use in placing the student?

https://www.surveymonkey.com/s/Y7CLDVT

Small Group Brainstorming/Preparation/Homework

assignment to complete

Planning Your MMAP Team:

How many members will you have?

The different college stakeholders that need to be represented

The type of group (e.g., unofficial vs. official, workgroup, committee, etc.)

The charter of the group (e.g., what tasks and responsibilities has it been assigned, reporting it has to provide, decision-making)

The level of support for developing a more holistic multiple measures approach to assessment from the current team, stakeholders, and the college and how this might change over time

Make A Plan:

What are the barriers you will face? In development? In implementation?

How might you address those barriers most productively?

What are better strategies to implement multiple measures assessment locally?

What mechanisms of social influence and persuasion might you leverage to support your work?

What types of options might you consider?

- Disjunctive, conjunctive, or blended among:
  - Take higher of two placements
  - Bump students up a placement if placement is close to cutoff
  - Pre-identify students who can bypass assessment (a la EAP)?
  - Identify students to target for pretest intervention, practice
  - Supplement current assessment, future CAI
  - Identify students for accelerated or compressed curriculum

Your Decision

What will be your
primary focus in MM implementation?

Multiple Measures Data Warehouse Interface

Development of Interface: Data Warehouse

- Types of Access
  - Data files to colleges
  - Research interface -- algorithms
  - Student level match –placement

- Challenges
  - Data warehouse student blind
  - SIS integration
  - Common Assessment considerations
  - Validation of local measures and NCFs

Development of Interface: Data Warehouse

- What should it contain?
- Who will use it/have access to it?
- What types of options should it have? How do local variations in desired methods (disjunctive, blended, conjunctive) influence structure of interface?

Parting Thoughts:
The Story of Daedalus & Icarus

What is the Moral of the Myth?

- Icarus forgets himself and flies too close to the sun and the heat from the sun melts the wax holding the feathers to his wings
- Hubris, over-reach, the perils of misplaced ambition
  - Listen to your elders

But What Was Daedalus' Other Instruction?

- Daedalus also cautioned Icarus not to fly too low because his wings will get too heavy from moisture and he will crash
- Central lesson of work across education and psychology
  - Vygotsky - zone of proximal development
  - Csikszentmihalyi - flow/optimal performance

Contact:

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- Beta/draft Frequently asked questions: http://bit.ly/MMAPFAQ