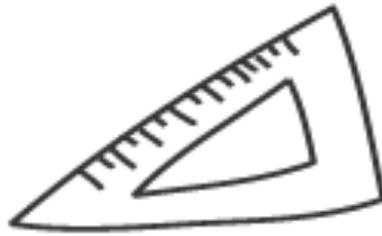




$$a+b+c$$



$$x-y=?$$



@sdmathnetwork

Zeroing in on Algebra II/Integrated III A Problem-Solving Symposium

August 11th, 2017 | Kearny High School

#zerosd17 | sdmn.events.ucsd.edu



$$a+b+c$$





$$x - y = ?$$

Defining the Problem

Myra Snell, Mathematics Professor,
Los Medanos Community College;
Co-Founder, California Acceleration Project

San Diego Math Symposium: a Community College Perspective

Myra Snell

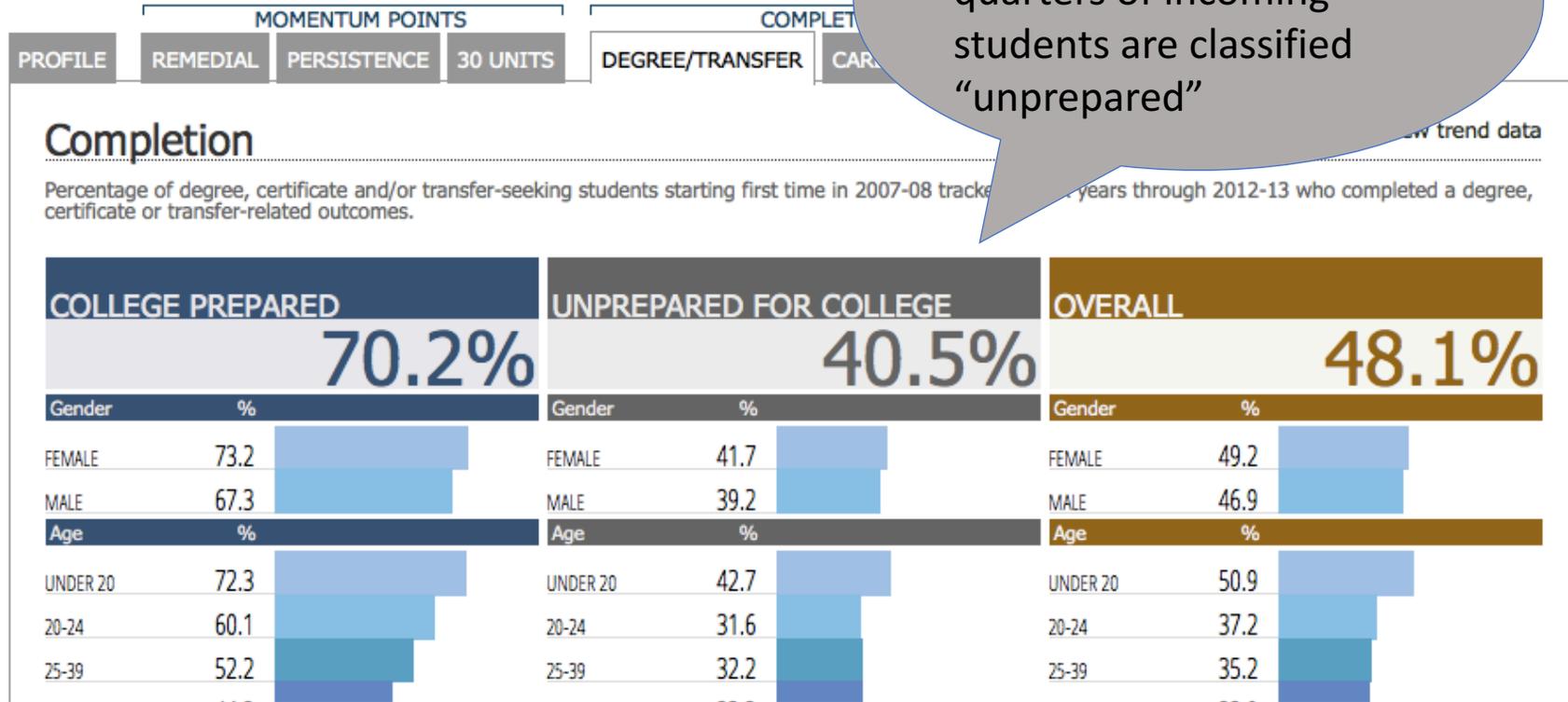
Math Professor, Los Medanos College

Co-Founder, California Acceleration Project

AccelerationProject.org

The Problem

Statewide



Statewide, more than three-quarters of incoming students are classified "unprepared"

Placement Is Destiny

Students' Starting Placement Mathematics	% Completing Transfer-Level Math in 3 Years
One Level Below	35%
Two Levels Below	15%
Three or more Levels Below	6%

Across CA, more than half of Black and Hispanic students in remedial math begin here

Statewide data, Basic Skills Cohort Tracker, Fall '09-Spring '12

Placement drives inequity

A 2015 study of the three colleges in Contra Costa County estimates that 50-60% of racial inequities in degree completion and transfer-readiness is explained by initial placement.

- Greg Stoup
President, RP Group

Do students placed into remediation complete AA/AS degree requirements in math?

Statewide completion of intermediate algebra (or “college-level” math) in 6 years for students enrolled in developmental math

- Overall: 34%
- African Americans: 20%
- Hispanics: 33%
- White: 39%

Do students complete transfer requirements in math?

Statewide completion of transfer-level math in two years for students completing 6-units and enrolling in any math

- Overall: 29%
- African Americans: 16%
- Hispanics: 21%
- White: 34%

We can do better!

What college in the San Diego area is performing dramatically above statewide averages?

Cuyamaca College

Completion of Transfer-Level Math at Cuyamaca

For under-prepared students, completion of transfer-level math in one year:

- Overall: 67% in one year (vs. 29% of all math takers statewide in two years)
- African Americans: 55% (vs. 16%)
- Hispanics: 65% (vs. 21%)

What is Cuyamaca doing in math?

CHANGES TO PLACEMENT

- Traditional approach: Testing
Standardized test used to identify students who need additional preparation
- Cuyamaca approach: High School Grades
Self-reported high school GPA and/or math course performance used to place students

Impact on direct placement into transfer-level math

- Fall 2015: 24% with disproportionate impact for students of color.
- Fall 2016: 84% with NO disproportionate impact

CHANGES IN APPROACH TO REMEDIATION

- Traditional approach: Long sequences
Students scoring below “transfer-level” required to enroll in one to four developmental math courses
- Cuyamaca approach: Co-requisites
No courses below intermediate algebra. The vast majority mainstreamed into transfer-level with concurrent support options.

CHANGES IN APPROACH TO REMEDIATION

- Traditional approach: One-size-fits-few

All students seeking degree or transfer required to demonstrate competency in intermediate algebra before taking transfer-level math, regardless of its relevance to program of study

- Cuyamaca approach: Math Pathways

Concurrent support aligned with five programs of study: General Ed, STEM, Business, Education, Technical

CHANGES IN APPROACH TO TEACHING

- Traditional approach: Predominantly lecture with focus on procedural skills
- Cuyamaca approach: “Brains-on” activity-based, contextualized, with just-in-time remediation

CSU policy changes on the horizon ...

- Anticipated revision of CSU Executive Order 1100: Media reports that CSU will no longer require intermediate algebra for general education math courses
- CSU currently allowing statistics pathways for some Transfer Model Curriculum (lower division major prep in the ADTs) and investigating whether intermediate algebra competencies are needed for others

UC and statistics pathways

- Statway articulates to UC
- UC Transfer Course Agreement (TCA) for Statistics does not require intermediate algebra

AB 705: Legislation for System-Level Policy

- Requires community colleges to use high school grades in English/math placement and maximize students' likelihood of completing transfer-level courses within one year
- Prohibits colleges from requiring remedial courses that lengthen students' time to degree unless placement research shows that they are "highly unlikely" to succeed in transfer-level courses
- Provides for colleges to require students to receive extra support in corequisite models instead of stand-alone remedial courses
- Passed unanimously in the CA Assembly and Senate Education Committee. Senate vote will take place in September.