

CSU The California State University

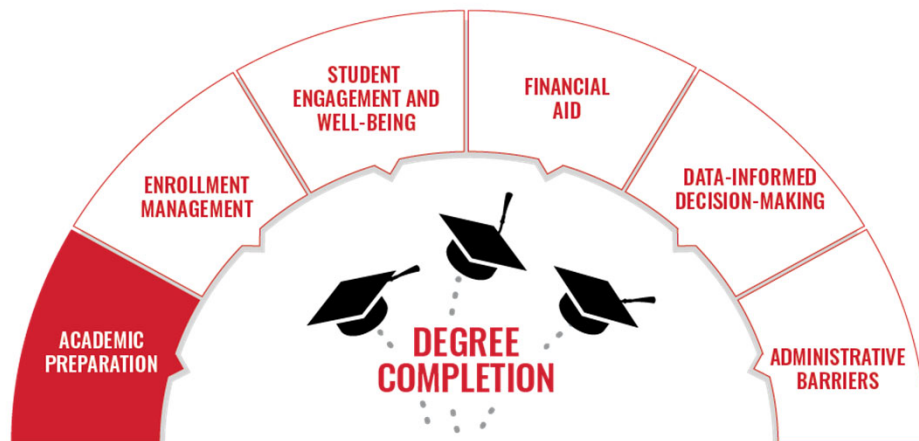
Academic Preparation Annual Report and Quantitative Reasoning Update

CSU Board of Trustees
Committee on Educational Policy—Item 3
March 23, 2021



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Six Pillars of Degree Completion



Pillars of Preparation

- Redefining “college ready”
- Focus on credit bearing courses
- Creating more options, earlier in the college journey



Student Outcomes:

Completion of Mathematics/Quantitative Reasoning General Education in the First Year

Prior to EO 1110

2017

63%

Following EO 1110

2018

74%

2019

77%

Student Outcomes:

Completion of Written Communication General Education in the First Year

Prior to EO 1110

2017

79%

Following EO 1110

2018

82%

2019

83%

January 2020 CSU Board Action

Progress Report on Proposed Requirement

- Third-party, independent analysis of potential impacts
- Progress on teacher capacity and preparation
- Creation of Steering Committee
- Progress on outreach efforts

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**Senior Research
Associate**



Role of MDRC



Provide an independent analysis of the planned implementation and potential impact of the proposed quantitative reasoning requirement. Specifically:

1. CSU Access

Potential effects the proposed policy change may have on all California public high school students' **access** to the CSU system.

2. Success at CSU

Associations between additional quantitative reasoning course taking in high school and students' college **success** at a CSU.

3. Disparate Effects

Potential disparate effects the policy change may have on underserved students including students of color and low-income students.

4. Implementation

An assessment of the implementation needs for the proposed change to be successful and equitable.

Research Questions and Analyses



1 Underserved students' *access* to CSUs

2019 and 2020 high school graduates

- Identify percentages of students who:
 - Met A-G but did not complete an additional quantitative reasoning course.
 - Did not meet A-G requirements.
- Explore reasons for not meeting A-G or proposed requirement.

2 Underserved students' *success* at CSUs

Current and recent CSU students

- Compare students who passed additional quantitative reasoning course to those who did not on:
 - Success in college-level math
 - Persistence in college/college credits earned
 - Degree attainment

Research Questions and Analyses (Cont.)

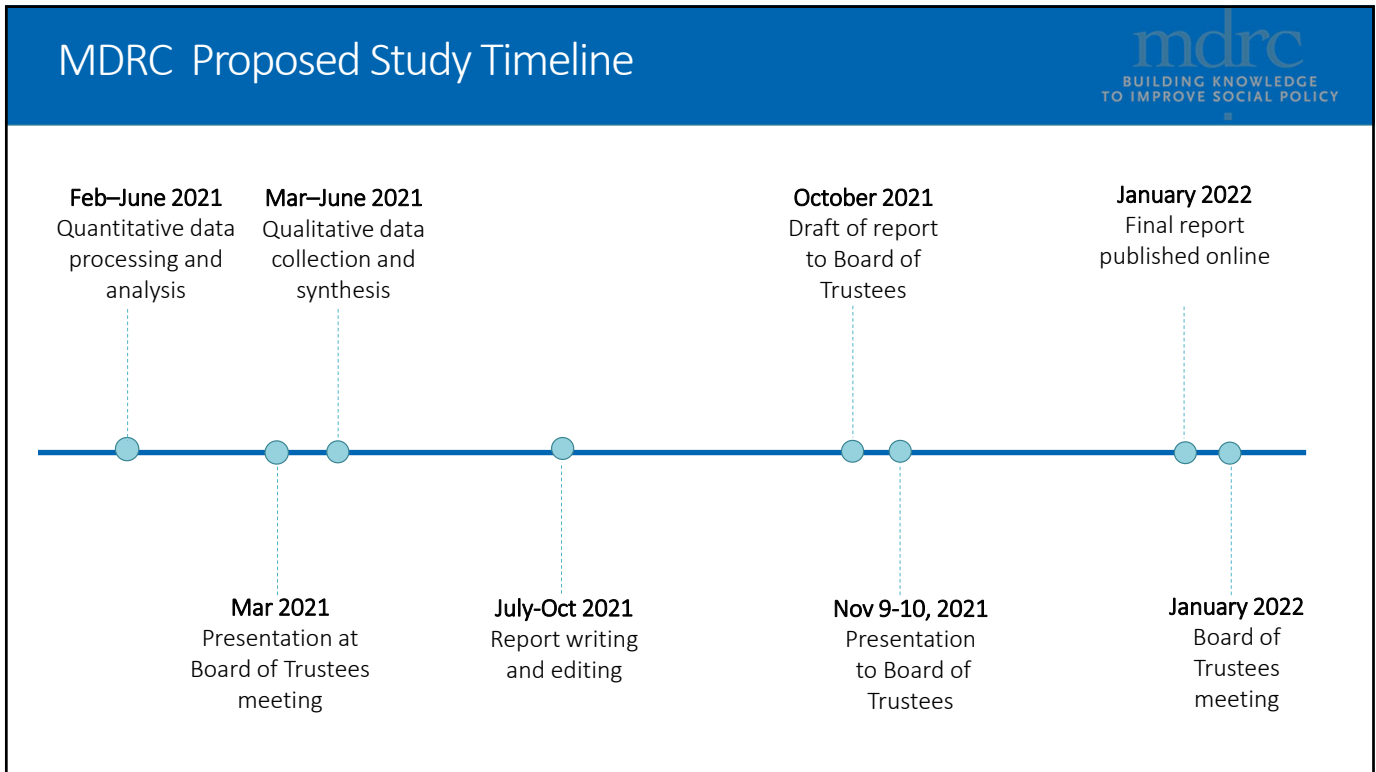


3 High schools' current capacity to meet the proposed requirement

- Look at current A-G course offerings by school.
- Assess percentage of juniors and seniors currently taking quantitative reasoning courses by school.

4 Resources needed to make the proposed change equitable

- Interviews with key school, district, and CSU stakeholders across California.
- Group interviews with students and family members across California.



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Implementation Updates

January 2020-Present

“The intent of the proposed quantitative reasoning requirement is to further close gaps in quantitative reasoning skills, retention and graduation rates...”

The background image shows a scientist in a white lab coat and glasses, looking upwards and to the right while holding a small glass vial.

Implementation Updates

January 2020-Present

Convening of CSU Steering Committee on Academic Preparation and Quantitative Reasoning

- Building PK-12 teaching and course capacity
- Measuring impact of implementation via third-party review
- Comprehensive outreach and communications plan

Implementation Updates

January 2020-Present

Supporting high school curriculum development

- Transitional Senior year mathematics courses
- Supplementary authorization in Computer Science programs with faculty at:
 - Dominguez Hills
 - Cal State LA
 - Sacramento State
 - San Francisco State

Implementation Updates

January 2020-Present

- Building teaching capacity
- Developing an outreach plan
- Collaborating with MDRC

Looking Ahead

Quantitative Reasoning Timeline

- Ongoing consultation with Steering Committee and others
- Review of research study results on student impact
- Raise awareness through comprehensive outreach
- Provide updates to the board and stakeholders

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“More rigorous graduation requirements, particularly in math and science, can improve access to college by increasing enrollment in advanced courses, which might enhance college readiness and performance on standardized assessments.”

– “Does Raising High School Graduation Requirements Improve Student Outcomes?” PPIC, February 2021

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- Dr. Mary Barlow
Kern County Superintendent of Schools
- Dr. Dale Marsten
Former San Bernardino City Unified
School District Superintendent
- Deacon John Wilson
Director, Education and Enrichment
Program at West Los Angeles Church



Student Success Begins with Academic Preparation

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