Academic Preparation Annual Report and Quantitative Reasoning Update

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

Six Pillars of Degree Completion

- Academic Preparation
- Enrollment Management
- Student Engagement and Well-Being
- Financial Aid
- Data-Informed Decision-Making
- Administrative Barriers

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

<table>
<thead>
<tr>
<th>Prior to EO 1110</th>
<th>Following EO 1110</th>
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<tbody>
<tr>
<td>2017 63%</td>
<td>2018 74%</td>
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<td>2019 77%</td>
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### Student Outcomes:

**Completion of Written Communication General Education in the First Year**

<table>
<thead>
<tr>
<th>Prior to EO 1110</th>
<th>Following EO 1110</th>
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</thead>
<tbody>
<tr>
<td>2017 79%</td>
<td>2018 82%</td>
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<tr>
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<td>2019 83%</td>
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</tbody>
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### 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
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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MDRC Proposed Study Timeline

- **Feb–June 2021**: Quantitative data processing and analysis
- **Mar–June 2021**: Qualitative data collection and synthesis
- **October 2021**: Draft of report to Board of Trustees
- **January 2022**: Final report published online

- **Mar 2021**: Presentation at Board of Trustees meeting
- **July–Oct 2021**: Report writing and editing
- **Nov 9–10, 2021**: Presentation to Board of Trustees
- **January 2022**: Board of Trustees meeting

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…”
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
“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

• 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