AB1705 – UPDATE SBVC ACADEMIC SENATE MEETING 5 FEBRUARY 2025

Tatiana Vásquez, Senator, Science Division & VP of Academic Senate

1. DATE OF SOURCE: MAY 22, 2023 SOURCE: California Community Colleges Office (CCCO) MEMORANDUM Excerpt:

"REQUIRED ACTION #2

Students shall begin in the transfer-level English and math/quantitative reasoning coursework that satisfies a course requirement for the student's intended certificate or associate degree or a requirement for transfer within the intended major. Education Code references: §78213 (e),(f),(g) and (i)(2)

By July 1, 2024, all colleges shall discontinue the enrollment of students into transfer-level prerequisites to gateway English or math coursework for non-STEM programs that do not satisfy a course requirement for the student's intended certificate or associate degree or a requirement for transfer within the intended major. <u>Colleges can only</u> continue to enroll students into transfer-level prerequisites to gateway English or math coursework for non-STEM programs that do not satisfy a course requirement for the student's intended certificate or associate degree or a requirement for the student's intended certificate or associate degree or a requirement for the student's intended certificate or associate degree or a requirement for the student's intended certificate or associate degree or a requirement for the student's intended certificate or associate degree or a requirement for transfer within the intended major (begin underline) if end local data validates the benefit to students as described in the law and outlined below."

"Per Education Code §78213, validation of non-STEM transfer-level prerequisites is due July 1, 2023. However, given the time of the academic year, the Chancellor's Office will collect this certification from colleges on a rolling basis from July 1, 2023, to September 1, 2023."

2. DATE OF SOURCE: December 23, 2022

SOURCE: California Community Colleges Office (CCCO) MEMORANDUM

Excerpt 1:

"KEY PROVISIONS OF AB 1705

3) A community college shall not require students to repeat coursework that they have successfully completed in high school or college or take coursework that repeats competencies that the student has demonstrated through other methods of credit for prior learning.

(4) A community college shall not enroll into noncredit coursework students who have graduated from a United States high school or been issued a high school equivalency certificate, as a substitute or replacement for direct placement and enrollment into transfer-level English and mathematics (quantitative reasoning) coursework as described in paragraph (1) of subdivision (c).

Excerpt 2:

EXCEPTIONS TO THE KEY PROVISIONS

1. Some student populations are exempt from §78213, subd. (i), such as students pursuing a GED or students with documented disabilities taking educational assistance classes, or students in certificate programs that do not have math or English requirements.

Excerpt 3:

3. §78213, subd. (e) states an exemption to §78213, subd. (i)(2) by allowing colleges to require transfer-level prerequisite coursework that does not satisfy requirements for a student's intended certificate, degree, or transfer in non-STEM programs if the college has provided local research by July 2023 showing that both of the following are true:

BACKGROUND

• The student is highly unlikely to succeed in a transfer-level English or mathematics course that satisfies a requirement for the intended certificate or associate degree, or a requirement for transfer within the intended major, and

• The enrollment will improve the student's probability of completing transfer-level mathematics or English coursework that satisfies a requirement for the intended certificate or associate degree, or a requirement for transfer within the intended major, within a one-year

timeframe.

If evidence shows the prerequisites do not improve student progress as described above, the college shall not require or recommend the prerequisite coursework after July 2024.

4. §78213, subd. (f) states the following stipulations and exemptions for STEM programs where transfer-level prerequisite coursework does not satisfy requirements for a student's intended associate degree or transfer within a STEM major:

A. Transfer-level prerequisite coursework prior to the first calculus course is limited to at most two transfer-level courses as of July 2024.

B. By July 2024 colleges shall provide local research showing that transfer-level prerequisites to the first STEM calculus course improve the student's progression to and through calculus by showing that all of the following are true:

• The student is highly unlikely to succeed in the first STEM calculus course without the additional transfer-level preparation,

• The enrollment will improve the student's probability of completing the first STEM calculus course, and

• The enrollment will improve the student's persistence to and completion of the second calculus course if required for the program.

Excerpt 4:

b. Extended timeline for STEM programs:

By July 2024, colleges shall have at most two transfer-level prerequisites that do not satisfy the student's intended associate degree. For example, calculus is the lowest level of math that satisfies the Transfer Model Curricula for Physics or lower division transfer requirements for an engineering major. Colleges that require some students to take three transfer-level math prerequisites, such as college algebra, trigonometry and precalculus, before gaining access to calculus will need to replace this three course preparatory sequence with at most two courses.

If the college currently requires some students in STEM programs to take any transfer level prerequisites that do not satisfy the student's intended associate degree, colleges shall complete the data template provided by the Chancellor's Office by July 2024 to verify that the student's progress is improved by taking the prerequisite(s) per standards in Education Code §78213, subd. (f). The prerequisite requirements may only be continued after July 2025 if these standards are met.

STATE-LEVEL FACULTY ACTIVATION

1. Date of Source: Fall 2022 issue

SOURCE: <u>Fall 2022 Journal of FACCCTS Issues</u>, From FACCC Website Article Title: "Politics, Pendulums, and AB 1705. Opposing AB 1705 Does Not Mean Opposing Acceleration" by Troy Myers, Sacramento City College Faculty Association of California Community Colleges (FACCC) is a nonprofit professional association that advocates for all California Community College faculty Excerpt " [Daniel Judge, ELAC Math faculty] Judge noted that enrollment went up in transfer courses that year, especially in math, naturally leading to a greater number of students completing transfer math in their first year. This outcome, which was higher throughout, is perennially emphasized by those who support 1705. But what was the cost? Among Hispanic students at Los Angeles Mission College, 176 additional students attempted transfer-level math and only 11 students completed it. An additional 165 Hispanic students did not succeed in transfer-level math and were left with substandard grades on their permanent academic records.

Every student group had increased fail rates in transfer math at Los Angeles Mission College, and the success gaps between white students and students of color grew. At Los Angeles City College, during the same one-year period, the number of all students who attempted transfer math surged from 220 to 1,010, and the number of completers also rose, from 130 to 313. These are significant gains. But the number of students who failed at the transfer level exploded from 98 to 697. That's 697 people who were left with failing marks on their transcripts. Disaggregated data reveals that, among Hispanic and Black students, 587 students attempted the transfer course in Fall 2019 and, for both groups, only 106 successfully completed. A total of 481 students of color failed transfer math. For African Americans, only one additional student completed transfer math after pre-transfer courses were eliminated, and 31 additional Black students failed. "

The Reality Our Students Know

The overt exclusion of faculty, the powerful lobbying efforts of the "advocates," incomplete acknowledgment of existing data, the distrust of faculty and faculty groups at the Chancellor's Office, and the willingness of the Legislature to dramatically alter the experience of our least-prepared students without engagement with the Academic Senate, is a perfect storm. With the passage of AB 1705, reform groups are cheering over their massive victory for "equity." Other states may follow their own laws, eliminating all pre-transfer level courses. Only time will reveal the human cost, wounds, avoidable mistakes, and foolish shortcuts of this unprecedented level of deceit and arrogance."

2. Date of Source: Fall 2024

SOURCE: Academic Senate for California Community Colleges (ASCCC) Plenary | ADOPTED RESOLUTIONS Excerpts – all resolves

Resolution Title: 105.06 F24 Negative Impacts on Equity and Inclusion in Relation to California Community Colleges Chancellor's Office Guidance on AB 1705

Resolved, That the Academic Senate for California Community Colleges work with the California Community Colleges Chancellor's Office to ensure that transfer-level math preparatory courses for STEM Calculus 1 be permitted at the California community colleges as written in California Education Code 78213 (f)(1), validated in alignment with Chancellor's Office Guidelines for Title 5 Section 55003(f).

Contact: Tina Akers-Porter, Modesto Junior College

Resolution Title: 114.03 F24 Encroachment on Academic and Professional Matters Due to California Community Colleges Chancellor's Office Guidance on AB 1705

Resolved, That the Academic Senate for California Community Colleges (ASCCC) reaffirm primacy in curricular matters as defined in Title 5 §53200 and §53206 and encourage the California Community Colleges Chancellor's Office to continue to consult with the ASCCC in updating future guidance for AB1705 implementation;

Resolved, The Academic Senate for California Community Colleges express its strong opposition to the California Community Colleges Chancellor's Office guidance on AB1705 with respect to preparatory courses for STEM Calculus 1 including restrictions on course development, validating prerequisites, and establishing maximum units; and Resolved, That the Academic Senate for California Community Colleges commit to collaborating with the California Community Colleges Chancellor's Office to revise the guidance on AB 1705 to affirm local colleges' authority to develop curriculum for preparatory courses for STEM Calculus 1 in accordance with California Education Code §78213 (f) and to examine the appropriate unit value for those courses.

Contact: Tina Akers-Porter, Modesto Junior College

Resolution Title: 113.01 F24 Legislative Advocacy to Restore Student Choice on English and Math Courses

Resolved, That the Academic Senate for California Community Colleges advocate for revisions to California Education Code §78213 to allow community college districts to offer pre-transfer level English and mathematics courses and, for STEM majors, mathematics courses below Calculus so that students will have the choice of taking those courses when the course are requested by students, local college data supports the value of the courses irrespective of one-year throughput, or CSU and UC faculty from the affected disciplines recommend the additional preparation students receive from such courses.

Contact: Jeffrey Hernandez, Los Angeles Community College District, Area C

3. Date of Source: December 10, 2024

SOURCE: California Community Colleges Office (CCCO) MEMORANDUM

"The Chancellor's Office will continue to rigorously evaluate the effectiveness of the different approaches in students' completion of Calculus, Calculus 2, student performance and persistence in STEM, and their completion of their STEM degrees. As indicated in ESLEI 24-15, any prior to calculus pathway will undergo additional validation by July 1, 2027, and must achieve full validation status in order to continue as a placement and enrollment option beyond July 1, 2027 (i.e., the course will need to meet all three standards described in §78213(f)(1)). As always, we not only continue to welcome but also strongly encourage colleges to submit any evidence they have for effective approaches to improving the rates of students' successful completion of their gateway courses in mathematics."

4. Date of Source: December 10, 2024

SOURCE: AB 1705 Advocacy Training, Faculty Association of California Community Colleges (FACCC) Website and Email Update, Excerpts

"Equitable Placement Guidance, released in February 2024, drastically changed the role of the California Community College system around math placement into STEM pathways, with colleges being required to eliminate precalculus and trigonometry by Fall 2025."

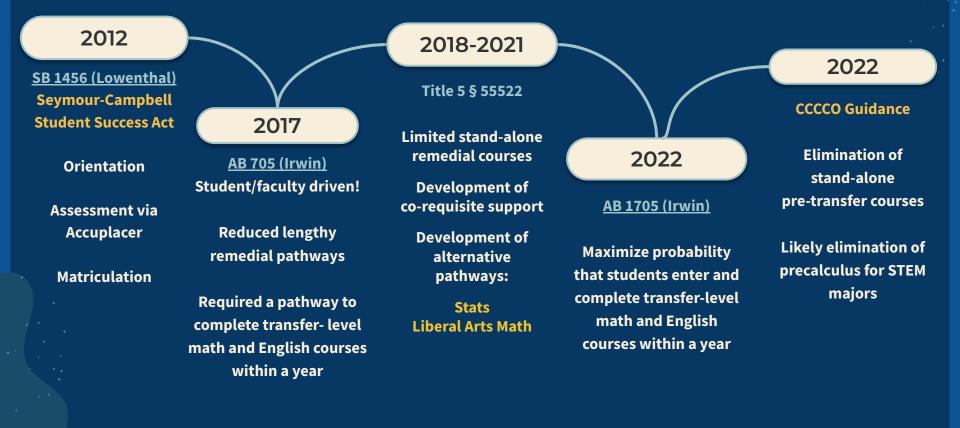
For community colleges to truly serve the whole community, they should be allowed to offer curricula in formats that meet community needs. Equity means that every student can enroll in classes that meet their needs instead of being required to attempt courses they are not ready for."

"FACCC seeks to enact legislation clarifying that California Community Colleges students can enroll in (and California Community Colleges can offer) standalone foundational pre-transfer courses to promote student agency and equitable access."

LOCAL-LEVEL FACULTY ACTIVATION

^{**}Tatiana's requests: 1) Write a resolution to support our local academic senate and state support system (FACCC & ASCCC) to advocate for meaningful options for our students to achieve STEM course success and transfer. 2) Help in writing resolution to bring to the body of our local senate and thus empower local and state-level faculty and student-centered advocacy.

The Legislative Landscape: An Overview

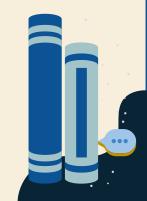


STEM Pathway: New Guidance

These placement rules pertain only to students who require STEM Calculus 1 for their program or major. In addition to corequisite support courses for Calculus and innovative courses that colleges are developing, colleges *may* use existing transfer-level courses prior to Calculus using the following matrix. Additionally, STEM students who also need Statistics for their program or major continue to be allowed to begin in that course.

STEM Calculus Pathway	Placement and Enrollment in the STEM Calculus Pathway for STEM
Placement	Students in Majors that Require STEM Calculus 1
Student successfully completed or demonstrated through CPL: Integrated Math 4, Trigonometry, Precalculus, or equivalent	By July 1, 2025, students pursuing STEM programs <i>must be given access to STEM calculus</i> (with or without concurrent support). Students cannot be denied access to STEM Calculus 1 after July 1, 2025.
Student successfully completed or demonstrated through CPL: Integrated Math 3 or Intermediate Algebra or equivalent	The college may enroll the student in a one semester course prior to Calculus (typically Pre-Calculus) or in Calculus, with or without concurrent support. If such students begin in a prior to Calculus course and successfully complete it, their next course is STEM Calculus 1. Enrollment in the course prior to Calculus should be restricted to students who have not successfully completed Integrated Math 4, Trigonometry, Precalculus, or equivalent.
Student did not successfully	The college may enroll the student in a two-semester sequence at transfer-
complete or demonstrate	level prior to Calculus, with or without concurrent support. Enrollment in the
through CPL:	first course in the two-semesters prior to Calculus should be restricted to
Intermediate Algebra,	students who have not successfully completed Intermediate Algebra,
Integrated Math 3 or equivalent	Integrated Math 3 or equivalent.





The Legislature's Vantage Point

SUPPORT

Blu Educational Foundation California Acceleration Project California Community Colleges Chancellor's Office California Community Colleges Chief Instructional Officers California Competes California Edge Coalition Californians Together Campaign for College Opportunity Career Ladders Project Central Valley Higher Education Consortium Cerritos College Community College Highered Access, Leadership, and Equity Scholarship

OPPOSITION

Mt. San Antonio College Faculty Association of California Community Colleges One individual **Complete College America** Congregations Organized for Prophetic Engagement (COPE) Genup **Growing Inland Achievement** Hispanas Organized for Political Equality (HOPE) Improve Your Tomorrow, INC. Just Equations Office of Lieutenant Governor Eleni Kounalakis Pasadena Area Community College District Pasadena City College **Promesa Boyle Heights** Public Advocates Public Advocates INC. Southern California College Attainment Network Student Senate for California Community Colleges Students Making a Change (SMAC) The Education Trust-West The Institute for College Access & Success Uaspire UC Student Association Unidosus United Way of Greater Los Angeles USC Race and Equity Center Young Invincibles



2024 Fall Plenary Session

Adopted Resolutions

ASCCC 2024-2025 Resolutions Committee

Robert L. Stewart, Jr, ASCCC Resolutions Chair, Area C Dr. Karen Chow, ASCCC At-Large Representative, Area B Davena Burns-Peters, San Bernardino Valley College, Area D Nikki Grose, Feather River College, Area A Yuting Lin, Sierra College, Area A Krystinne Mica, ASCCC Executive Director

RESOLUTIONS CATEGORIES

New resolutions categories that more closely align with the purview of the ASCCC were piloted for the 2024 Spring Plenary Session and approved for post-pilot use by the ASCCC Executive Committee at its May 2024 meeting. Numbering of these new categories begins from 101 for the first category, 102 for the second category, and so forth to distinguish them from the old categories. The approved new categories are as follows:

- 101. Curriculum
- 102. Degree and Certificate Requirements
- 103. Grading Policies
- 104. Educational Program Development
- 105. Student Preparation and Success
- 106. Governance Structures
- 107. Accreditation
- 108. Professional Development
- 109. Program Review
- 110. Institutional Planning and Budget Development
- 111. Academic Senate for California Community Colleges
- 112. Hiring, Minimum Qualifications, Equivalency, and Evaluations
- 113. Legislation and Advocacy
- 114. Consultation with the Chancellor's Office

ADOPTED RESOLUTIONS

105.06 F24 Negative Impacts on Equity and Inclusion in Relation to California Community Colleges Chancellor's Office Guidance on AB 1705

Whereas, The Academic Senate for California Community Colleges is committed to upholding the principles of academic freedom, shared governance, equity, and inclusion as well as transparency within the California Community Colleges system;

Whereas, The California Community Colleges Chancellor's Office AB 1705 guidance memorandum ESLEI 24-15¹ establishes a validation standard on preparatory courses for STEM Calculus 1 and states that none of the 115 California community colleges were able to attain validation, and the guidance for implementing AB 1705 (Irwin, 2022)² exceeds both the requirements and intent of the legislation;

¹ Chancellor's Office. ESLEI Memo 24-15. <u>https://www.cccco.edu/-/media/CCCCO-Website/docs/memo/ESLEI-</u> 2415-AB-1705-Validation-of-Equitable-Placement-Support-and-Completion-Practices-for-STEM-Progr.pdf?la=en&hash=60D9524BAD2695B8D34252BFFDA8CF8F4805F197&hash=60D9524BAD2695B8D34252BFF DA8CF8F4805F197

²California Education Code 78213. <u>https://codes.findlaw.com/ca/education-code/edc-sect-78213/</u>

Whereas, A recent California State University Math Council Resolution³ raises serious concerns about the California Community Colleges Chancellor's Office AB 1705 implementation guidance, noting that requiring students who have not completed STEM preparatory coursework to enroll directly in Calculus 1 could harm STEM enrollment and jeopardize students' academic and career pathways; and

Whereas, The impact of the validation criteria for preparatory STEM Calculus 1 courses will diminish California community college students' equitable access to math preparatory courses for STEM Calculus 1, while California State University and University of California students have opportunities to enroll in these courses;

Resolved, That the Academic Senate for California Community Colleges work with the California Community Colleges Chancellor's Office to ensure that transfer-level math preparatory courses for STEM Calculus 1 be permitted at the California community colleges as written in California Education Code 78213 $(f)(1)^4$, validated in alignment with Chancellor's Office Guidelines for Title 5 Section 55003 $(f)^5$.

Contact: Tina Akers-Porter, Modesto Junior College

113.01 F24 Legislative Advocacy to Restore Student Choice on English and Math Courses Whereas, California Education Code §78213⁶, as revised in 2022 by AB 1705 (Irwin), prohibits community college districts from enrolling students in pretransfer-level English and mathematics courses and enrolling STEM majors in mathematics courses below Calculus 1 unless the college can demonstrate better aggregate results in one-year throughput for those courses without consideration of whether individual students may want the option to take the courses, effectively banning access to academic subjects such as algebra for community college students;

Whereas, California Education Code §78213, as revised in 2022 by AB 1705 (Irwin), prevents community colleges from offering the prohibited courses to students who are not succeeding in the one-year throughput metric without consideration of whether such students would like the option of taking such courses, whether community colleges had other success data metrics to support the value of the courses, or whether CSU and UC faculty from the affected disciplines expect the additional preparation students receive from the courses;

Whereas, California Education Code §78213, as revised in 2022 by AB 1705 (Irwin), does not account for students who may feel so excluded by being forced to take transfer-level English or mathematics or, for STEM majors, transfer-level Calculus that they are opting to drop before

³ CSU Math Council Resolution

 ⁴ California Education Code 78213(f)(1). <u>https://codes.findlaw.com/ca/education-code/edc-sect-78213/</u>
 ⁵ Chancellor's Office. Guidelines for Title 5 Section 550003 (2012). <u>https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/Prerequisites Guidelines 55003-Final_pdf.pdf
</u>

⁶ <u>https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=EDC§ionNum=78213</u>

census or to not enroll altogether, which contradicts the shared goal of all public educational institutions in California "to provide educational opportunity and success to the broadest possible range of our citizens" as specified in California Education Code §66010.2⁷; and

Whereas, The Academic Senate for California Community Colleges has long expressed concerns that the ability of community colleges to serve all students has been threatened by the implementation of AB 705 and AB 1705⁸;

Resolved, That the Academic Senate for California Community Colleges advocate for revisions to California Education Code §78213 to allow community college districts to offer pre-transfer level English and mathematics courses and, for STEM majors, mathematics courses below Calculus so that students will have the choice of taking those courses when the course are requested by students, local college data supports the value of the courses irrespective of one-year throughput, or CSU and UC faculty from the affected disciplines recommend the additional preparation students receive from such courses.

Contact: Jeffrey Hernandez, Los Angeles Community College District, Area C

114.03 F24 Encroachment on Academic and Professional Matters Due to California Community Colleges Chancellor's Office Guidance on AB 1705

Whereas, Title 5 §53200⁹ and §53206¹⁰ authorize the Academic Senate for the California Community Colleges to provide California community college faculty with a formal and effective mechanism for participating in the development of state policies on academic and professional matters and to serve as the representative of the faculty within the system;

Whereas, The California Community Colleges Chancellor's Office's February 2024 guidance¹¹ set limits on the maximum number of units allowed for preparatory courses without reaching

 ⁷ <u>https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=EDC§ionNum=66010.2</u>
 ⁸ See the following ASCCC resolutions:

F23 07.04 AB 1705 Meaningful Metrics for Equitable Outcomes

F22 07.11 Determining When Pre-transfer English and Mathematics Meets the Needs of a Defined Student Population

<u>S22 06.03 Upholding the California Community College Mission – Oppose AB 1705 (Irwin, 2022) as of April 9, 2022</u> <u>Unless Amended</u>

S22 06.04 Students' Right to Choose to Take a Pre-Transfer Level English or Mathematics Course

S22 06.05 Regarding Chancellor's Office Student Enrollment Data in AB 1705 (Irwin, 2022)

F19 09.09 Ensuring Access and Opportunity for Success for All Students Through AB 705 (Irwin, 2017) Implementation

⁹ <u>https://casetext.com/regulation/california-code-of-regulations.title-5-education.division-6-california-community-colleges.chapter-4-employees.subchapter-3-certificated-positions.article-2-academic-senates.section-53200-definitions</u>

¹⁰ <u>https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV§ionNum=53206</u>

¹¹ <u>https://www.cccco.edu/-/media/CCCCO-Website/docs/memo/ESLEI-2415-AB-1705-Validation-of-Equitable-</u> Placement-Support-and-Completion-Practices-for-STEM-

consensus with the Academic Senate for California Community Colleges, resulting in directions that conflict with established C-ID standards and previous guidance that did not restrict units as indicted in the December 2022 Guidance Memo ¹² and March 2023 Implementation Guide¹³;

Whereas, The California Community Colleges Chancellor's Office's timeline for the removal of transfer level preparatory courses for STEM Calculus 1 does not provide sufficient time to collect relevant data, implement thoughtful curricular design, or achieve articulation with fouryear institutions; and

Whereas, The California Community Colleges Chancellor's Office's February 2024 memo¹⁴ stated the following: "At no college were the Lowest STEM Placement students highly unlikely to succeed with direct enrollment into STEM Calculus 1 (using a throughput of 15% as the definition of 'highly unlikely')," invalidating all current transfer level preparatory courses for STEM Calculus 1:

Resolved, That the Academic Senate for California Community Colleges (ASCCC) reaffirm primacy in curricular matters as defined in Title 5 §53200 and §53206 and encourage the California Community Colleges Chancellor's Office to continue to consult with the ASCCC in updating future guidance for AB1705 implementation;

Resolved, The Academic Senate for California Community Colleges express its strong opposition to the California Community Colleges Chancellor's Office guidance on AB1705 with respect to preparatory courses for STEM Calculus 1 including restrictions on course development, validating prerequisites, and establishing maximum units; and

Resolved, That the Academic Senate for California Community Colleges commit to collaborating with the California Community Colleges Chancellor's Office to revise the guidance on AB 1705 to affirm local colleges' authority to develop curriculum for preparatory courses for STEM Calculus 1 in accordance with California Education Code §78213 (f)¹⁵ and to examine the appropriate unit value for those courses.

Contact: Tina Akers-Porter, Modesto Junior College

a11y.pdf?la=en&hash=0B8CD769C64A1553279A9C12FE2BB65ED86B07C0

Progr.pdf?la=en&hash=60D9524BAD2695B8D34252BFFDA8CF8F4805F197&hash=60D9524BAD2695B8D34252BFF DA8CF8F4805F197

¹² Chancellor's Office. ESS Memo 22-400-009. December 2022. <u>https://www.cccco.edu/-/media/CCCCO-Website/docs/ab705/ess22400009ab1705implementation122322a11y.pdf</u>

¹³ Chancellor's Office. AB 1705 Implementation Guide. <u>https://www.cccco.edu/-/media/CCCCO-</u> Website/docs/ab705/ab-1705-implementation-guide-11-30-23-

¹⁴ Chancellor's Office. ESLEI Memo 24-15 (February 2024). <u>https://www.cccco.edu/-/media/CCCCO-</u>

<u>Website/docs/memo/ESLEI-2415-AB-1705-Validation-of-Equitable-Placement-Support-and-Completion-Practices-for-STEM-</u>

Progr.pdf?la=en&hash=60D9524BAD2695B8D34252BFFDA8CF8F4805F197&hash=60D9524BAD2695B8D34252BFF DA8CF8F4805F197

¹⁵ <u>https://codes.findlaw.com/ca/education-code/edc-sect-78213/</u>



Academic Affairs 24-69 | Via Email

- TO: Chief Executive Officers Chief Student Services Officers Chief Business Officers Articulation Officers Curriculum Chairs Admissions and Registrars Professionals Institutional Research, Planning, and Effectiveness Professionals
- **FROM:** John Stanskas, Ph.D., Vice Chancellor of Academic Affairs Cheryl Aschenbach, President, Academic Senate for the California Community Colleges Omar Torres, Ed.D., President, California Community Colleges Chief Instructional Officers
- **RE:** Updated Guidance for Placement and Enrollment for Students in STEM Programs

This memo updates guidance on STEM-Calculus placement described in ESLEI 24-15 distributed on February 27, 2024.

Vision 2030: A Roadmap for California Community Colleges prioritizes data-based, studentcentered strategies and includes added emphasis on equitably strengthening access, support, and success in STEM. Achieving those goals and strengthening the STEM pathways across California community colleges requires effective implementation of Assembly Bill 1705, which requires math placement, initial math enrollment, and academic support to be data-driven in its design with the goal of producing strong and equitable completion of gateway calculus requirements for STEM programs.

These requirements were detailed in the AB 1705 guidance memo (<u>December 2022</u>) and in the AB 1705 Implementation Guide (<u>March 2023</u>). Subsequent guidance was disseminated for the validation of general education and non-STEM transfer-level placement and enrollment practices (<u>May 2023</u>), which included the certification of local implementation.

In response to meaningful and thoughtful feedback from stakeholders across the system, this guidance memorandum provides additional direction on placement and enrollment options for students majoring in STEM programs that colleges may deploy without additional submission (described in Required Action 2 in previous memos, and described in Education Code §78213, subsections (f) and (i)).

Expanding STEM Pathways for the STEM Workforce

The California Community Colleges are to be commended for the breadth and depth of work that has been accomplished over the past six years to expand students' access to essential gateway and preparatory courses. This work has not been easy, but our institutions have risen to the challenge to reimagine course sequences, course content, and teaching approaches, as well as

academic, social-emotional, and basic needs supports for our students. Your work is to be applauded and congratulated.

Validation of STEM Calculus Pathway Placement and Initial Math Enrollment

Education Code §78213 (i) mandates that students begin in transfer-level English and math coursework that satisfies a requirement for their certificate, degree, or transfer program, with limited exceptions as described in §78213 (j), by July 1, 2023. Education Code §78213 (f)(1) extends this deadline to July 1, 2024 for STEM programs and allows for local validation of preparatory coursework for STEM Calculus 1 that would satisfy the exception described in §78213 (j)(8). If preparatory coursework is not validated, colleges may not require or recommend the courses as of July 1, 2025, as stated in §78213 (f)(2). The guidance in this memorandum seeks to continue to adhere to the legislatively set timelines for STEM programs while affording a period of data-driven innovation as colleges move toward achieving full compliance for STEM programs.

AB 1705 specifies that colleges must examine the impact of placing and enrolling students into transfer-level courses in order to verify the benefit of transfer-level math preparatory courses for STEM Calculus 1 by showing all of the following:

- The student is highly unlikely to succeed in the first STEM calculus course without the additional transfer-level preparation.
- The enrollment will improve the student's probability of completing the first STEM calculus course.
- The enrollment will improve the student's persistence to and completion of the second calculus course in the STEM program, if a second calculus course is required.

To support colleges in their validation efforts, the Chancellor's Office contracted with the RP Group's Multiple Measures Assessment Project team to conduct a statewide analysis and a local analysis for each college to assess:

- 1. Which students are highly unlikely to succeed when enrolled directly in the first STEM calculus course?
- 2. Which students are more likely to complete STEM Calculus 1 when they start in a transferlevel preparatory course?
- 3. Which students are more likely to persist to and complete STEM Calculus 2 when they start in a transfer-level preparatory course before STEM Calculus 1?

Based on feedback from the field, the Chancellor's Office will retain the RP Group to conduct additional research to more thoroughly understand how students access Calculus 1. At this time, the Chancellor's Office provides these updated guidelines.

Guiding Principle of Placement

Honoring our students' high school coursework and prior learning is a guiding principle of equitable placement, and AB 1705 was a response to attempts to extend the mathematics sequence (or otherwise seek to replicate developmental education sequences). To that end, STEM majors who successfully completed prerequisite high school coursework should not have to repeat coursework previously successfully completed. Self-reported high school information where transcript information is not readily available is important to continue to utilize as this process moves forward.

STEM Calculus Pathway Placement Rules

The following STEM Calculus Pathway Placement table amends the previous guidance and provides the next steps toward achieving AB 1705 compliance to align with legislatively set deadlines, while also allowing colleges flexibility in transitioning to new curricular models of learning support for STEM calculus. While colleges are **strongly encouraged** to continue to develop corequisite supports at Calculus and an innovative course prior to Calculus for students that require additional support, these placement rules are designed to provide additional options for students with less mathematics preparation prior to enrollment at a community college.

These placement rules pertain only to students who require STEM Calculus 1 for their program or major. In addition to corequisite support courses for Calculus and innovative courses that colleges are developing, colleges *may* use existing transfer-level courses prior to Calculus using the following matrix. Additionally, STEM students who also need Statistics for their program or major continue to be allowed to begin in that course.

STEM Calculus Pathway	Placement and Enrollment in the STEM Calculus Pathway for STEM
Placement	Students in Majors that Require STEM Calculus 1
Student successfully completed or demonstrated through CPL: Integrated Math 4, Trigonometry, Precalculus, or equivalent	By July 1, 2025, students pursuing STEM programs must be given access to STEM calculus (with or without concurrent support). Students cannot be denied access to STEM Calculus 1 after July 1, 2025.
Student successfully completed or demonstrated through CPL: Integrated Math 3 or Intermediate Algebra or equivalent	The college may enroll the student in a one semester course prior to Calculus (typically Pre-Calculus) or in Calculus, with or without concurrent support. If such students begin in a prior to Calculus course and successfully complete it, their next course is STEM Calculus 1. Enrollment in the course prior to Calculus should be restricted to students who have not successfully completed Integrated Math 4, Trigonometry, Precalculus, or equivalent.
Student did not successfully	The college may enroll the student in a two-semester sequence at transfer-
complete or demonstrate	level prior to Calculus, with or without concurrent support. Enrollment in the
through CPL:	first course in the two-semesters prior to Calculus should be restricted to
Intermediate Algebra,	students who have not successfully completed Intermediate Algebra,
Integrated Math 3 or equivalent	Integrated Math 3 or equivalent.

Significant work related to co-requisite support for STEM students has been evaluated by colleges. In addition, community building structures that support students' identities, basic needs, and sense of belonging not only at the college but also in STEM have been explored and utilized to good effect at our colleges. Let's celebrate the progress we have made on those fronts and continue to explore how we support our students holistically as we collectively work to execute on our AB 1705 Implementation Funds. This is a time to use what we have learned and DO BETTER by our students. *When we know better, we do better,* as Dr. Maya Angelou said, and now is the time to see that in action. The Chancellor's Office continues to be here to support you as you support our students by asking colleges to evaluate their STEM pathway programs every two years with questions like, what innovative practice did you try to implement and how did it work?

The Chancellor's Office will continue to rigorously evaluate the effectiveness of the different approaches in students' completion of Calculus, Calculus 2, student performance and persistence in STEM, and their completion of their STEM degrees. As indicated in ESLEI 24-15, any prior to calculus pathway will undergo additional validation by July 1, 2027, and must achieve full validation status in order to continue as a placement and enrollment option beyond July 1, 2027 (i.e., the course will need to meet all three standards described in §78213(f)(1)). As always, we not only continue to welcome but also strongly encourage colleges to submit any evidence they have for effective approaches to improving the rates of students' successful completion of their gateway courses in mathematics.

Resources

- AB 1705 Guidance Memo (December 2022)
- AB 1705 Implementation Guide (March 2023)
- <u>AB 1705 FAQ</u>

Chancellor's Office Program Contacts

Please direct inquiries regarding this guidance to the Chancellor's Office Educational Services and Support Division at <u>ab1705@cccco.edu</u>.

cc: Dr. Sonya Christian, Chancellor

Dr. Rowena Tomaneng, Deputy Chancellor

Dr. John Hetts, Executive Vice Chancellor, Innovation, Data, Evidence, and Analytics (IDEA) Office All Chancellor's Office Staff

Subject: Act Now to Protect Equitable STEM Pathways - Your Voice Is Critical!

- Date: Friday, December 20, 2024 at 12:45:01 PM Pacific Standard Time
- From: Faculty Association of California Community Colleges

To: Vasquez, Tatiana

Blog Events Donate to FACCC EI Facebook X Instagram

Image

?

Dear Members,

We're asking for your help. Your voice is urgently needed to protect equitable

access to STEM pathways for our students. Together, we can advocate for their success and ensure they have the opportunities they deserve.

Equitable Placement Guidance, released in February 2024, drastically changed the role of the California Community College system around math placement into STEM pathways, with colleges being required to eliminate precalculus and trigonometry by Fall 2025. Students intending to major in a STEM field would be required to start in Calculus 1 without access to optional preparatory coursework —an academic threshold even higher than that of the UC and CSU systems. If implemented, this would have placed barriers for students who did not have access to high school STEM prep, especially those from backgrounds traditionally underrepresented in STEM.

Ultimately, this would have potentially prevented those students from pursuing their educational dreams– contrary to the work our system has done to increase diversity in STEM.

Following widespread student and faculty concerns, the California Community Colleges Chancellor's Office released <u>a new guidance memo</u>, allowing access to one or two-semester sequences prior to calculus for students who did not successfully complete equivalent coursework in high school. This recognition of the need for some students to be allowed access to courses prior to calculus is significant progress and will open up the door for many more students to successfully pursue degrees and careers in STEM. FACCC is grateful to the Chancellor's Office for providing this new guidance, which we believe more clearly articulates the intent of the AB 705 and AB 1705 legislation.

While many are grateful for the progress this memo will bring, a coalition of special interest groups are dissatisfied with this expansion of flexibility and plan to voice their opposition **at the January 14 Board of Governors meeting**. It's essential for students and faculty to attend and provide public comment, **likely around 5:00 pm**, to support the Chancellor's Office memo and ensure the preservation of these flexible pathways that support student choice and success.

Attendance options are:

- 1. In-person: California Community Colleges Chancellor's Office Sixth Floor, Board Chambers | 1102 Q StreetSacramento, CA 95811
- 2. Zoom: <u>Save this link</u>.
- 3. Written: Submit your comments by January 8 to

<u>BoardComments@CCCCO.edu</u> or use this action alert to send a written message to the Board of Governors expressing your support for the memo.

Below is an example of written comment and in-person talking points:

Written Comment:

I wanted to express my sincere appreciation for the release of the Chancellor's Office Memo Academic Affairs 24-69 AB 1705 STEM Preparatory Course Validations on December 10, 2024. The memo responds to widespread student and faculty concerns regarding the planned elimination of precalculus and trigonometry by Fall 2025, and increases flexible access to these courses for students lacking adequate high school STEM preparation. I am grateful that concerns from the field have been acknowledged, explored, and addressed with enough time for colleges to act accordingly. The Chancellor's Office's recognition of the need for some students to be allowed access to preparatory coursework is significant progress, and will enable many more students to successfully pursue degrees and careers in STEM. If preparatory coursework was removed as planned, it would have placed barriers to success for students who did not have access to high school STEM prep, especially those from backgrounds that are traditionally underrepresented in STEM. This guidance memo is a remarkable development that will increase diversity within STEM majors and the STEM workforce at large-- and is in line with our system's equity efforts to support marginalized students. Once again, I thank you for this guidance memo, and I look forward to the *Chancellor's Office continuing to be responsive to the needs of our diverse students.*

In-person Talking Points:

- Two minutes maximum speaking time- please be brief!
- Thank the Chancellor's Office for the memo and for being responsive to concerns of students and faculty.
- Highlight how being able to offer preparatory STEM coursework will benefit students, specifically students traditionally underrepresented in STEM.
- Be as diplomatic as possible! Conducting ourselves with decorum will make us look good and the opposition look bad– setting us up for success in pre-transfer reform efforts.

Your voice can make a difference! By standing together, we can ensure that students, especially those from underrepresented backgrounds, have the opportunity to thrive in STEM pathways.

If you wish to stay updated on FACCC's advocacy efforts, upcoming webinars, and receive notifications about our action alerts, <u>subscribe to the FACCC Advocacy Listserv</u>.

This email was sent to <u>tvasquez@sbccd.cc.ca.us</u> by <u>info@faccc.org</u>	
Faculty Association of California Community Colleges • 1823 11th Street, Sacramento, California	
95811, United States • <u>916-447-8555</u> Remove My Email or Manage Preferences • Privacy Policy	
<u>Kemove wy Eman or Manage Treferences</u> • <u>Trivacy Toncy</u>	

This Footer added by SBCCD Technology & Educational Support Services: This message is from an external NON-SBCCD sender. TESS / Helpdesk will NEVER ask for your password. Any such request is not from SBCCD. Any email asking you to click on a link and provide account information is an attempt to compromise your account! Always use caution when deciding to click a link. If you are not sure, ask for help. ---Footer automatically generated by SBCCD mail server.---

EdSource

COMMUNITY COLLEGES

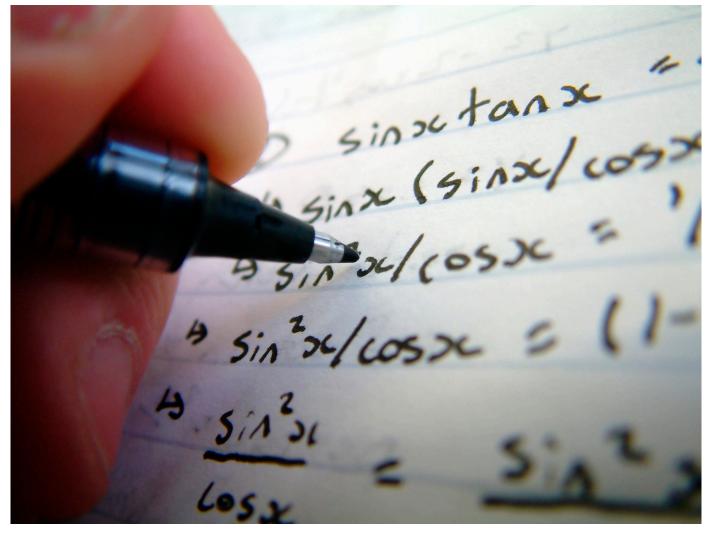
Community colleges loosen STEM math placement rules, calming some critics

New guidance about getting students into calculus could face legal challenge

MICHAEL BURKE AND AMY DIPIERRO

PUBLISHED DECEMBER 13, 2024

4 COMMENTS



STEM students at California community colleges will be able to enroll in calculus prerequisites like trigonometry if they didn't take those classes in high school.

Credit: James McQuillan/istock

Este artículo está disponible en Español. Léelo en español.

California math educators this fall have been locked in a vigorous debate: Will the implementation of <u>a new law</u> help more community college STEM students by skipping prerequisites and placing them directly into calculus, or will it set up the state's least-prepared students for failure?

This week, critics scored something of a victory. In a move that already faces legal scrutiny, the chancellor's office for the state's community colleges <u>issued a</u> <u>memo</u> making clear that, when the law takes effect next fall, students in

science, technology, engineering and math majors who haven't passed courses like trigonometry in high school will still have the option to start college math with up to two semesters of courses that are considered preparation for calculus.

Previous guidance instructed colleges to enroll those students directly into calculus — sometimes with a simultaneous 1- or 2-unit support class — or place them in new semester-long preparatory classes offered on a trial basis.

RELATED READING



Educators divided on impact of changes in STEM math placement at California community colleges NOVEMBER 20, 2024

The changes were made after some math faculty across the state criticized the original guidance, <u>including during an EdSource roundtable on the topic</u> <u>hosted last month</u>. They worried that students without a solid math foundation would struggle if forced to start right away in calculus and said the original guidance went beyond what is required by the law, Assembly Bill 1705.

Other math faculty joined advocacy groups in defending the initial rollout plan, citing research that students perform better when they can go straight into calculus regardless of their high school math preparation. Critics, though, say some of that research is flawed.

The chancellor's office issued the memo after gathering feedback from faculty, administrators and students about whether the state's least experienced math students, such as those who didn't take a class higher than geometry in high school, would be ready for calculus without taking prerequisites, said Melissa Villarin, a spokesperson for the office.

"We've been listening to folks, examining the evidence that colleges are bringing to us, and we got to the point that we needed to make a decision," added John Hetts, the college system's executive vice chancellor for the Office of Innovation, Data, Evidence and Analytics. "If we didn't make a decision now, it would not leave colleges enough time to prepare for fall 2025."

Calculus is often a required course for many science, technology and engineering majors. In the past, research has shown that some students never get to calculus because they fail to complete necessary prerequisite courses like trigonometry or precalculus, effectively blocking those students from pursuing their degrees.

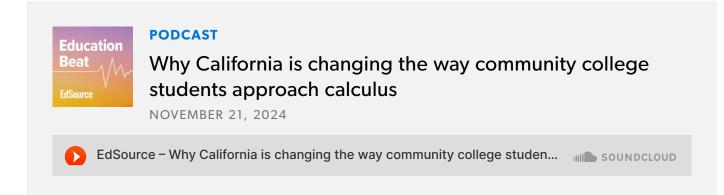
AB 1705, signed into law in 2022, requires the college system to evaluate the impact of enrolling students in prerequisites to calculus and, if they can't prove students benefit from those classes, to stop requiring or even recommending them.

Some backers of the law interpret it as mandating a shift as much as possible to enrolling all STEM students directly into calculus. They cite a section that states students "shall be directly placed into" the transfer-level class that satisfies the requirement for their degree.

Chancellor's office officials, however, maintain that the latest guidance is consistent with the law. "The guidance is fully within the parameters of AB 1705," Paul Feist, a spokesperson for the system, said in an email.

Under the new guidance, students who didn't pass Algebra II or its equivalent in high school will be allowed to take two semesters worth of calculus prerequisites, which could include some combination of college algebra, trigonometry or precalculus. Students who did pass that course but not trigonometry or precalculus will be allowed to enroll in a one-semester prerequisite course, typically precalculus.

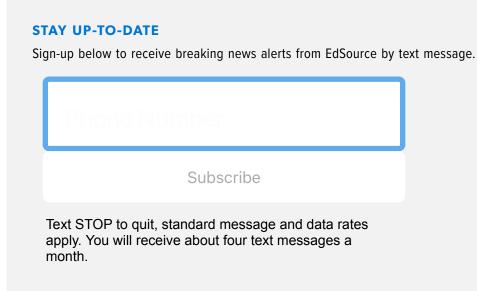
The new guidance is a compromise, said Pamela Burdman, executive director of Just Equations, a nonprofit organization focused on the role of math in education equity.



"I think the chancellor's office is trying to strike a balance here," she added. "I do think there has been a tendency to place students in more prerequisites than they may need, but we don't know enough from the research exactly what the optimal placement system is and how to identify which students need which levels of support."

The guidance won't be the final word on the issue. It could face a future legal challenge. Jetaun Stevens, an attorney with the civil rights law firm Public Advocates, said the chancellor's new directive urges colleges "to violate the law." Stevens said the firm is still "assessing what we can do" and did not rule out a lawsuit. "This guidance gives colleges permission to completely ignore students' rights to be placed in calculus. It creates exceptions in the law that don't exist," Stevens said. "This is illegal and beyond the chancellor's office's authority. They don't get to pick what part of the law they want to enforce."

Faculty, meanwhile, still plan to pursue legislation next year that would permanently clarify that colleges can offer "standalone foundational pretransfer courses," according to a memo being circulated by the Faculty Association for California Community Colleges, a faculty advocacy organization. Wendy Brill-Wynkoop, president of the association, said the draft is being "shared widely with system partners and legislators."



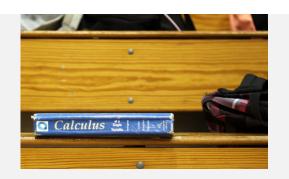
In the meantime, starting next year, the chancellor's office plans to collect data from each college and examine how students are accessing calculus. Colleges will have to prove that students are at least as likely to get to and complete calculus when they start in prerequisites as when they start right away in calculus. If the prerequisite path shows worse results, guidance says those prerequisites will need to be eliminated for STEM majors by 2027. The updated guidance is "simple and based in common sense," said Tina Akers-Porter, a math professor at Modesto Junior College and one of the leading critics of the original guidance. "If you've taken the preparatory courses, then go into calculus. But if you haven't, then still offer the preparatory courses. That's what we wanted."

Tammi Marshall, dean of math, science and engineering at Cuyamaca College, was disappointed in the chancellor's office's new direction. She said the chancellor's office has previously "done a great job of holding the colleges accountable" to evidence suggesting students perform better when placed directly into calculus with a companion support course than in longer sequences of preparatory courses. Her college has been highlighted as an early adopter of AB 1705 and has reported improved calculus completion rates across racial groups.

"I felt like they were pressured into making a decision that isn't completely based on the data," she said of the new guidance.

Some math faculty said the new guidance leaves departments little time to adapt and may sap energy from attempts to reimagine math courses ahead of next fall. Many departments have designed new classes to prepare students for calculus in anticipation of AB 1705, but it's unclear whether colleges will choose to offer those courses next fall, as they initially planned, or fall back on older courses.

RELATED READING



What to know about changes in STEM math placement at California community colleges NOVEMBER 15, 2024

"We just don't know where to focus our energy right now," said Rena Weiss, a math professor at Moorpark College, adding that she's glad the chancellor's office listened to faculty members' concerns and is grateful for the option to place STEM students into courses like trigonometry.

Other faculty are hoping for more information about exactly which students they can now place into precalculus courses.

Forecasts of what the guidance means for access to STEM education varied. Marshall predicted greater inequity at colleges that opt to continue calculus prerequisite sequences with high attrition rates, which she said have a "disproportionate impact on our Black and brown STEM students."

On the other side, Southwestern College math professor Kimberly Eclar said this week's guidance gives more options to students whose high schools do not offer higher math classes. James Sullivan, a math professor at Sierra College, said the updated rules will benefit students who transition into a STEM career later in life but haven't yet learned the concepts they'll need for calculus.

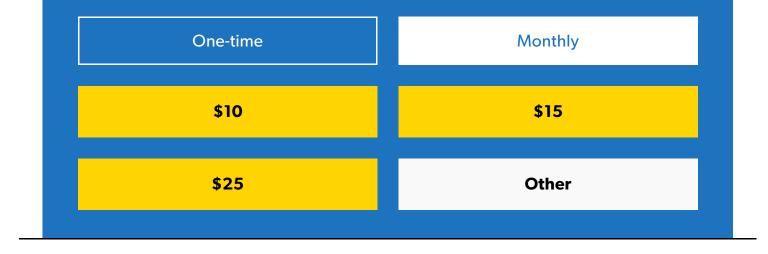
Hetts, the executive vice chancellor, said the current evidence is simply "not strong enough" to prohibit colleges from offering prerequisites next year. The

chancellor's office, in consultation with the RP Group, a nonprofit that conducts research on behalf of the college system, plans to conduct additional research starting in 2025 "to more thoroughly understand" how students access calculus.

The RP Group is also deciding whether to conduct a follow-up study that would compare the longer-term outcomes of students who enroll directly in calculus to those who do not, according to Alyssa T. Nguyen, the organization's senior director of research and evaluation. Such a study could examine how often each group of students completes associate degrees or transfers. Nguyen wrote in an email that RP Group will continue to draw from student records in its analysis and may also survey, interview or conduct focus groups with students.

Independent journalism you can't find anywhere else

As a nonprofit newsroom, we rely on our readers to support our independent, equity-focused education journalism. Throughout this year, we plan to cover topics like reading and math standards for K-12 students, shifts in federal funding across all education levels and the ongoing crisis of how students pay for college. Will you chip in to support this coverage?



436 14th St. Suite 310	Phone 510-433-0421
Oakland, CA 94612	Fax 510-433-0422

2025 EDSOURCE. ALL RIGHTS RESERVED.