Thursday, February 13, 2025

Equitable Placement, Support and Completion: AB 1705 Updates

Presenters

Dr. Rowena Tomaneng, Deputy Chancellor, CCCCO

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Dr. John Hetts – Executive Vice Chancellor, CCCCO

California Community Colleges

Overview

- Opening Remarks
- Faculty Perspective
- Our System's Journey
- Review of Previous AB1705 Policy and Guidance
- AB1705 December Guidance
- Review of Resources
- Q & A

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Opening Remarks – Deputy Chancellor Tomaneng

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Faculty and Academic Senate Perspective – President Aschenbach

We've come a long way

- Basic Skills Initiative
- Multiple Measures Assessment Project
- Basic Skills Outcome Transformation Grants
- AB705
- AB1805
- AB1705

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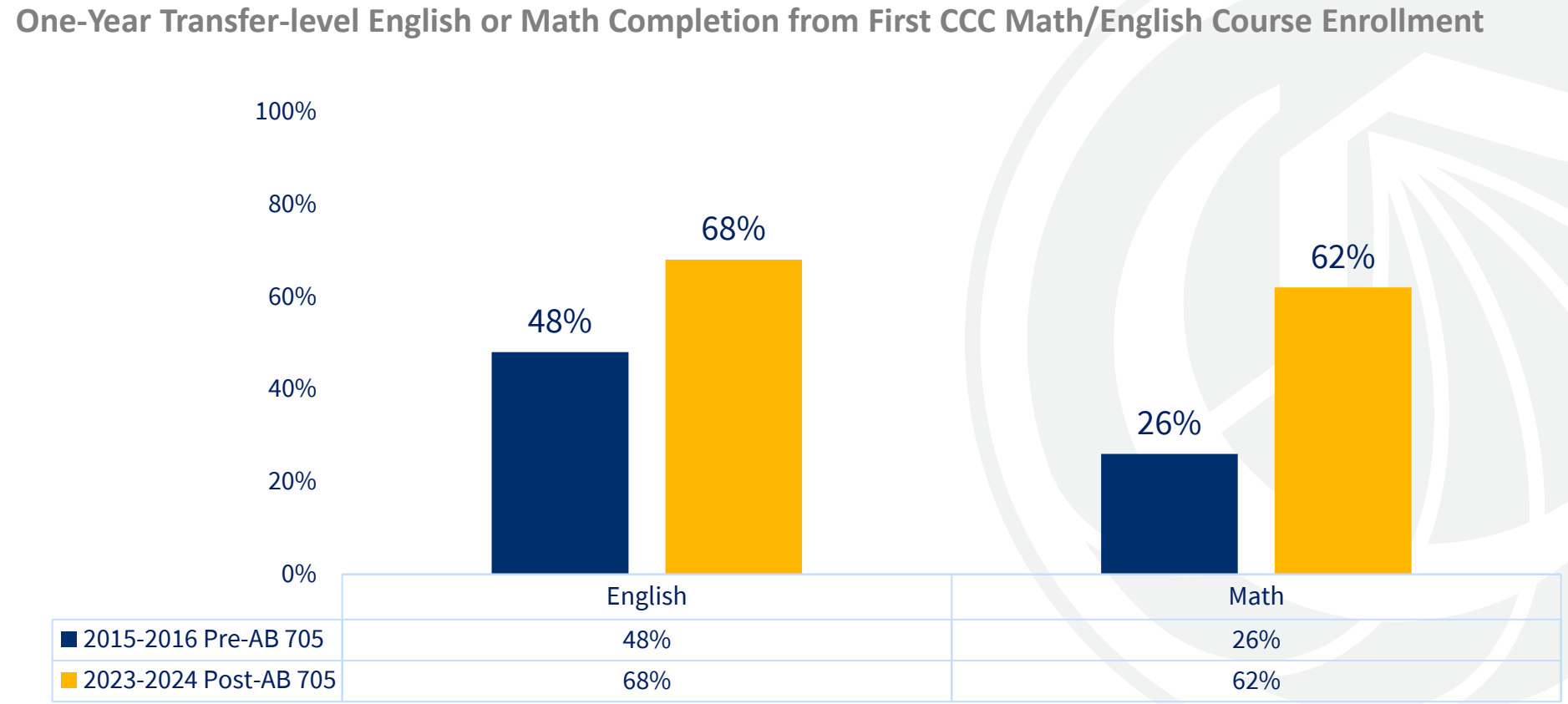
AB 705 produced unprecedented student gains in timely completion of transfer-level English and math



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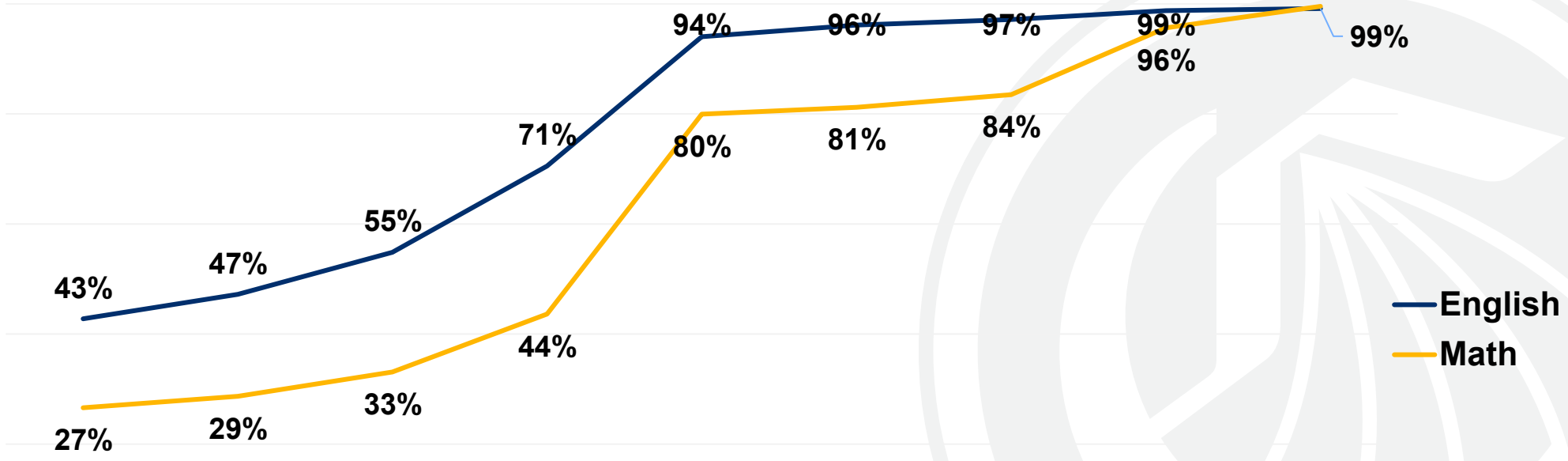
Source: CCCCO Transfer-Level English and Math Completion Dashboard
Any starting level, one-year completion

Students enrolling directly in transfer-level English and math is now near universal



	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
English	43%	47%	55%	71%	94%	96%	97%	99%	99%
Math	27%	29%	33%	44%	80%	81%	84%	96%	100%

Source: CCCCO Transfer-Level English and Math Completion Dashboard

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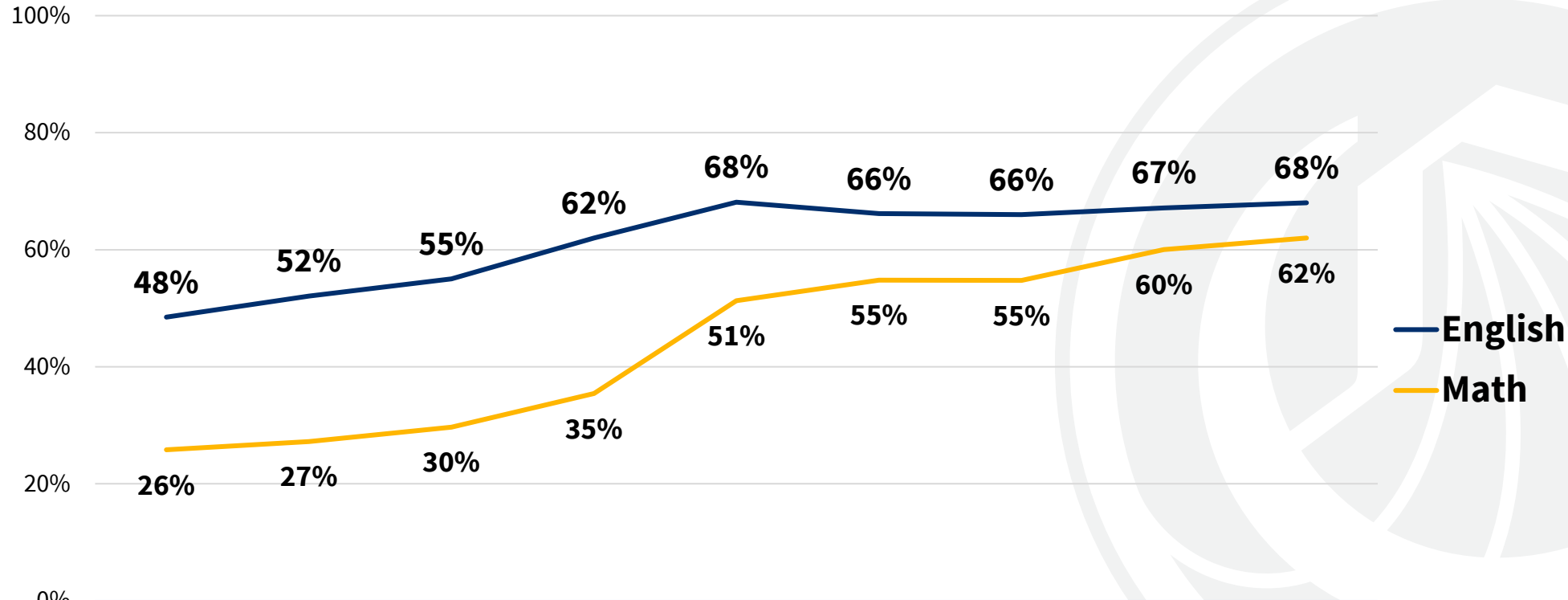
Successful completion of transfer-level English and math (in one year from first English/math enrollment) increased substantially



	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
English	48%	52%	55%	62%	68%	66%	66%	67%	68%
Math	26%	27%	30%	35%	51%	55%	55%	60%	62%

Source: CCCCO Transfer-Level English and Math Completion Dashboard

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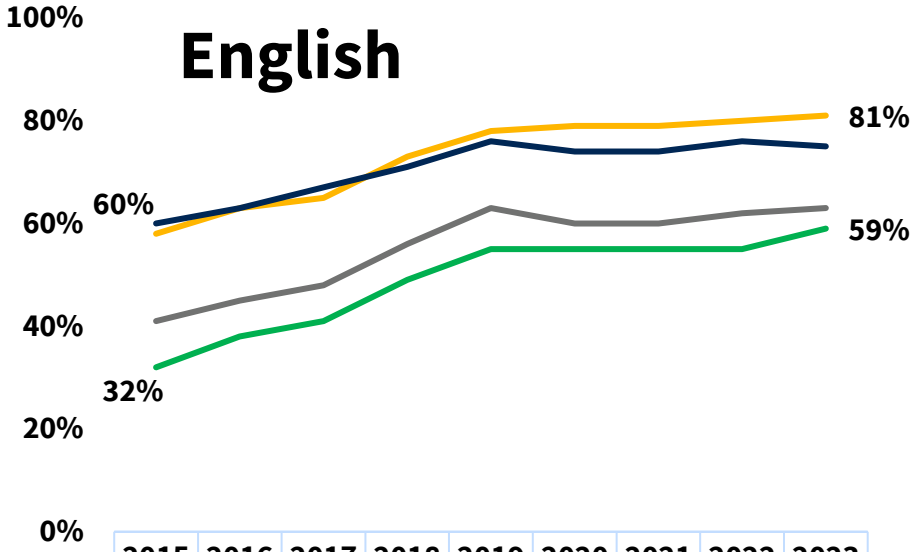
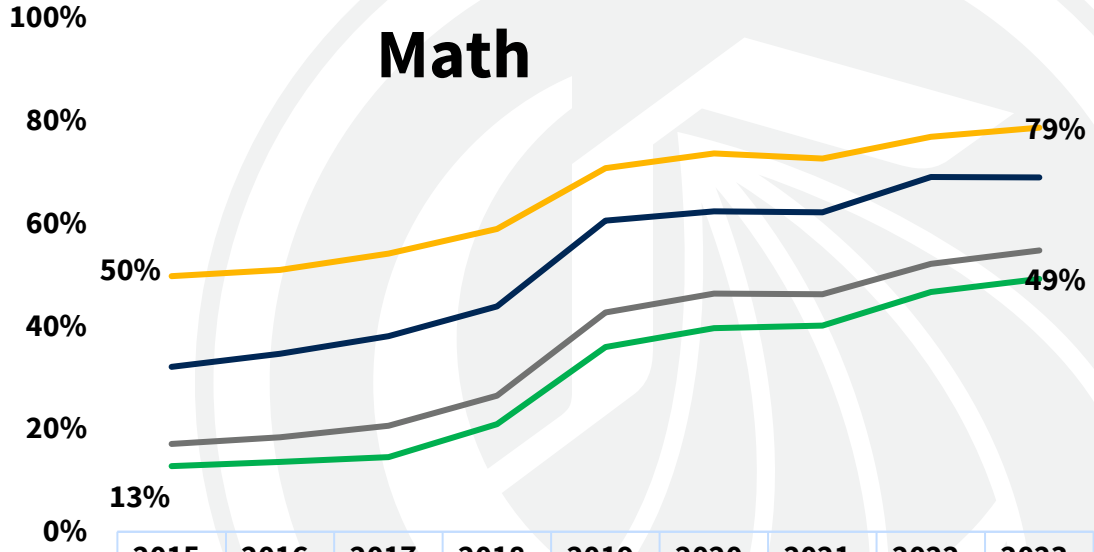
All student demographic groups achieved higher transfer-level completion rates, in English and math

Transfer-level English and Math Completion Gains for Special Populations 2015-2016 vs. 2023-2024								
Statewide	African American	Hispanic	Disabled	EOPS	Over 35 years	Low High School GPA	Military	Foster youth
English	☑	☑	☑	☑	☑	☑	☑	☑
Math	☑	☑	☑	☑	☑	☑	☑	☑

Successful completion of transfer-level English and Math (in one year of first English/math enrollment) increased for all racial/ethnic groups; though equity gaps persist



	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
African American	32%	38%	41%	49%	55%	55%	55%	55%	59%
Asian	58%	63%	65%	73%	78%	79%	79%	80%	81%
Latine	41%	45%	48%	56%	63%	60%	60%	62%	63%
White	60%	63%	67%	71%	76%	74%	74%	76%	75%



	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
African American	13%	14%	15%	21%	36%	40%	40%	47%	49%
Asian	50%	51%	54%	59%	71%	74%	73%	77%	79%
Latine	17%	18%	21%	26%	43%	46%	46%	52%	55%
White	32%	35%	38%	44%	61%	62%	62%	69%	69%

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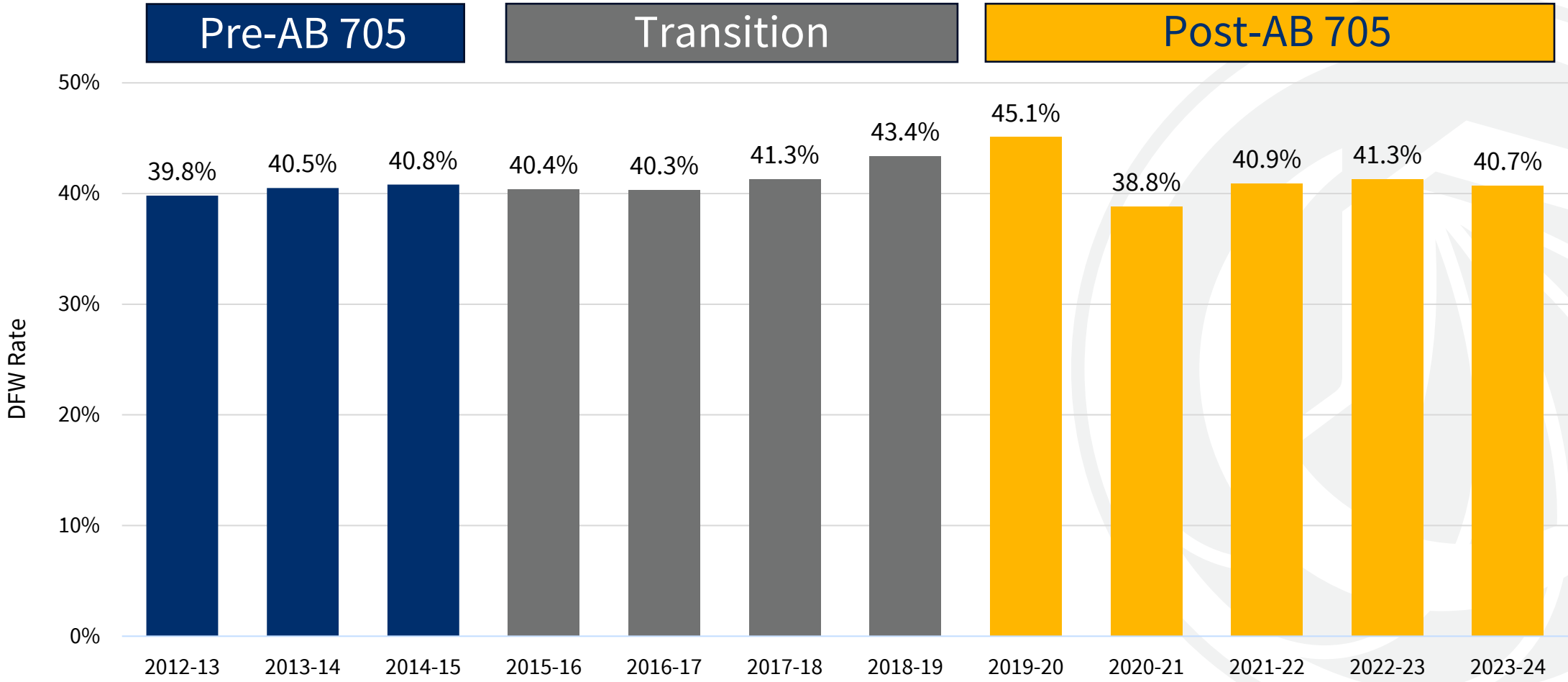
Source: CCCCO Transfer-Level English and Math Completion Dashboard

The overall percentage of failing grades (DFW) in the first math attempt remained consistent even as more students began in transfer-level courses.



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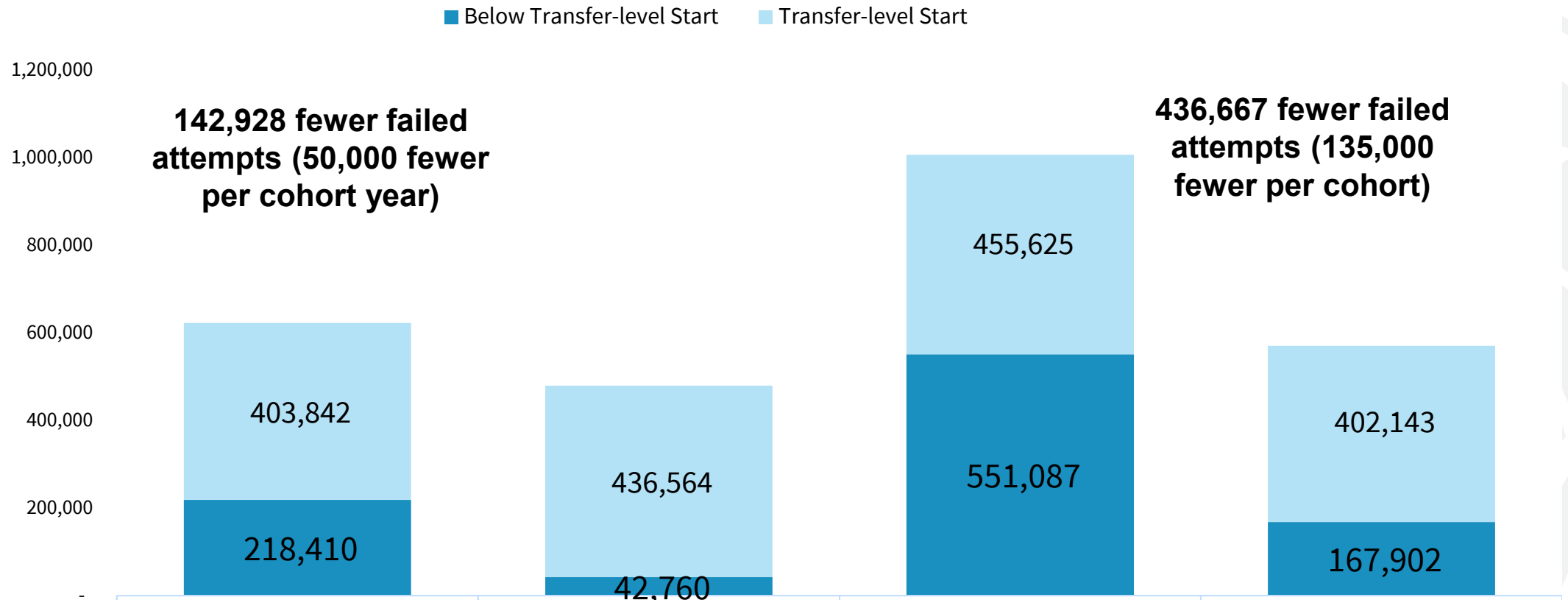
The total volume of unsuccessful completions (or failed attempts with grade D, F, or W) has decreased.



	English		Math	
Transfer-level Start	403,842	436,564	455,625	402,143
Below Transfer-level Start	218,410	42,760	551,087	167,902

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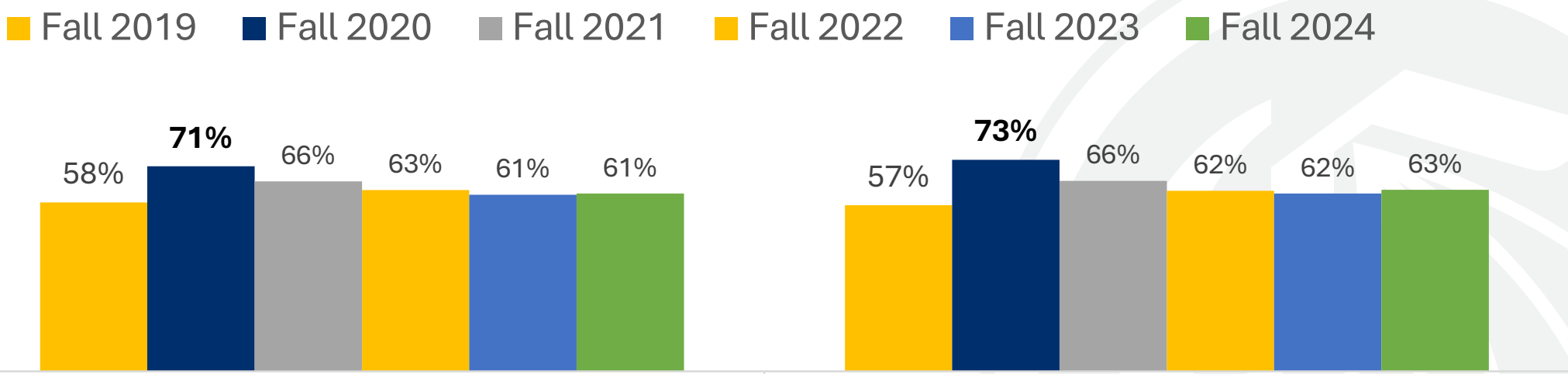
Pre-cohort = Students starting in the discipline in any term of academic year 2015-16, 2016-17 and 2017-18 tracked for two years.
Post-cohort = Students starting in the discipline in any term of academic year 2018-19, 2019-20, 2020-21 tracked for two years.

Success Rate Trends in Calculus



	Business Calculus	STEM Calculus 1
Fall 2019	58%	57%
Fall 2020	71%	73%
Fall 2021	66%	66%
Fall 2022	63%	62%
Fall 2023	61%	62%
Fall 2024	61%	63%

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Fall 2024 data are preliminary and may change slightly after all colleges have submitted their Fall data

AB 1705 Addresses Issues with AB 705 Implementation

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Students must begin in a course aligned with their program of study.

Under AB 1705 (2022),

- Students **begin** in transfer-level English and math courses that count toward their degree or transfer program, with some well-defined exceptions.
- Preparatory coursework is an **option** if colleges can **demonstrate** that this delay improves the students' chances of completing the transfer-level English and math requirements for their program within a year of their first English or math course.
- Students needing extra academic support receive it **concurrent** with their enrollment in transfer-level coursework.

Implications and Guidance of Initial Research for STEM

- Direct placement into STEM Calculus 1 yields positive benefits for students.
- Widen access, provide support, allow innovation.
- Continue to assess the needs and outcomes of students.

STEM Calculus Pathway Placement Rules

The STEM Calculus Pathway Placement Rules:

- Operationalized the research and provide guidance on placement and enrollment according to AB 1705 standards.
- Allowed colleges flexibility in transitioning to new curricular models of learning support for STEM calculus.
- The placement rules pertain only to students who require **STEM Calculus 1** for their program or major.
- STEM students who need applied calculus for their major should begin in that course.

Reminder: STEM Calculus Pathway Placement Rules All Students

STEM Calculus Pathway Placement	Placement and Enrollment in the STEM Calculus Pathway for STEM Students in Majors that Require STEM Calculus 1
For All Students	· By July 1, 2025, all 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, unless the college has full validation status, as defined below. · As of July 1, 2025, concurrent support in the form of a corequisite or an enhanced STEM Calculus 1 course, of no more than two additional units, must be available as an option but can only be required for Lowest Placement students (defined below).

	Placement and Enrollment for STEM Students in Majors that Require STEM Calculus 1
HS GPA > 2.6 **AND** **Successfully completed HS Trigonometry, Precalculus, or Calculus with a C or better**	Placement and initial enrollment is STEM Calculus 1 Low unit (2 or fewer units) corequisite course or enhancement to STEM Calculus 1 may be recommended to students but not required
HS GPA <= 2.6 **OR** **Did not successfully complete HS Trigonometry, Precalculus, or Calculus with a C or better**	Must be given option to begin in one of: • STEM Calculus 1 • STEM Calculus 1 with 2 or fewer units of support • An optional preparatory course with interim approval (Option C below) or an innovative preparatory course (see Option D below), but not both For colleges with full validation status, can be placed and enrolled into the validated preparatory course(s)

AB1705 STEM Implementation Options for Colleges

Option A (**STEM Calculus 1 Implementation**):
By July 1, 2025

- Replace stand-alone prep courses with support-enhanced STEM Calculus 1 or coreq support
- Restrict all other enrollments into prior to transfer-level courses
- Submit certification form; no data submission required

Option B (**Apply for Validation Approval**): Validate course(s) meet AB 1705 standards

- Confirmed by CO analysis (submit certification form; no data submission required)

OR

- Submit local data (submit certification form & data template)
- Continue to implement validated course(s)

Option C (**Apply for Interim Approval**):
Two-year STEM Calculus 1 throughput is 50% or greater for Lowest Placement Students

- Confirmed by CO analysis (submit certification form; no data submission required)

OR

- Submit local data (submit certification form & data template)
- Submit 2025-2027 validation data July 2027

Option D (Implement an Innovative Course):
Establish an innovative preparatory course for Lowest STEM Placement students

- Submit certification form; no data submission required
- Implement course 2025-2027
- Submit 2025-2027 validation data July 2027

AB 1705 Certification Process

In July 2024, as part of compliance reporting detailed in memorandum ESLEI 24-15, colleges chose one of four options for implementing the STEM Calculus Pathway Placement Rules.

To help inform their decision, colleges received college-specific reports examining the impact of their STEM Calculus pathways on their STEM students' calculus completion. Every college had the opportunity to submit additional data to validate their pathways or to apply for interim approval.

- Four colleges submitted additional data. One college earned interim approval based on their data submission.
- **Calculus with concurrent support, no preparatory courses** (Option A): 42 colleges
- **Full validation status for a preparatory course** (Option B): 0 colleges
- **Interim status for a preparatory course** (Option C): 9 colleges (an additional 8 colleges had interim status but chose another option)
- **Innovative preparatory course** (Option D): 64 colleges.

AB 1705 Implementation Progress Overview

STEM programs:

- Work is underway at all colleges to address inequitable access to STEM calculus and to ensure that pathways to calculus effectively support STEM programs.

- By Fall 2025, all colleges will **broaden access to calculus** and implement new approaches to supporting students to complete calculus. Including **calculus with support**, **innovative preparatory courses** and restricted access to one or two **transfer-level preparatory courses** (based on high school math preparation).

- Innovative courses and transfer-level preparatory courses will be **re-evaluated in July 2027**.

December 2024 Updated Guidance

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https://www.cccco.edu/-/media/CCCCO-Website/docs/memo/academic-affairs-24-69-ab-1705-stem-preparatory-course-validations.pdf?la=en&hash=6A9EEC3D88FED07747BF478E600F6A99F3005FD5

December Memo Does Not Replace or Undo Previous Guidance

- Designed to provide colleges an additional option for students with the least mathematics preparation to give additional flexibility during the review period between now and July 1, 2027
- Careful review of degree of certainty in thoughtful consultation with system and statewide stakeholders

Addendum to existing guidance during the Innovation Period (through July 1, 2027)

- colleges **may** offer existing curriculum to students whose last math was at the level of intermediate algebra or lower
  - intermediate algebra or lower: may be offered one transfer-level course prior to calculus (most commonly precalculus)
  - geometry or lower: up to two transfer-level courses prior to calculus

Previous guidance continues to apply

- colleges **must** continue to provide STEM majors direct access to Calculus unless they have a validated prior to calculus sequence, other than for exceptions allowed for in the law
- colleges **may** offer an innovative preparatory course option or preparatory course option with interim approval if they submitted that as an option
- colleges **may** continue to use HSGPA as one of their considerations for the lower band of STEM placement
- colleges will be required to validate all transfer-level preparatory courses (existing, innovative, or interim approved) prior to Calculus by July 1, 2027

Model Data Submission Template Forthcoming

Colleges must submit data on any transfer-level preparatory course or innovative course by July 1, 2027, to demonstrate that the course meets all three standards described in §78213(f)(1)).

Table 1. Calculus 1 Throughput in Two Years for the Lowest STEM Placement Group by CCC Starting Level		
Cohort Details		
STEM TOP Codes (SMO2 or SS02): List 6-digit STEM TOP Codes or indicate All Students	1905.00, 0706.00, 0707.00, 0707.10, 0901.00, 1914.00, 1701.00, 1902.00, 0401.00, 4902.00	
Give the cohort timeframe (e.g., 2019-20 and 2020-21 or Fall 2019 and Fall 2020)	Fall 2020, Fall 2021, Fall 2022	
Course Details	**Transfer-Level Preparatory Course Start**	**STEM Calculus 1 Start**
Give the Course Control Number (CB00)	CCC000187803	CCC000562587
Give the Local Course ID	MATH105	MATH1A
Give the Course Title (CB02)	College Algebra	Calculus

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Reminder: as of July 1, 2027, the STEM Calculus Pathway Placement Rules apply to all colleges, with the exception of validated courses.

As indicated in ESLEI 24-15, any prior to calculus pathway (innovative, interiem, or existing curriculum) for STEM majors will undergo additional validation by July 1, 2027, and must achieve full validation status to continue as a placement and enrollment option beyond July 1, 2027.

The path ahead: Finishing the journey

- Resources on CCCCO Equitable Placement webpage:
  - ESLEI Memorandum 24-15
  - AA Memorandum 24-69
  - STEM Validation of Practices Webinar Recording and PDF
  - STEM Calculus Pathways FAQ
    - Will be update after webinar
  - AB1705 Implementation Guide
  - Equitable Placement Spring and Fall 2024 Webinars
  - Announcements coming soon:
    - Spring 2025 AB1705 Webinars
    - Spring 2025 AB1705 Regional Support Meetings
  - https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/equitable-placement

Calculus with Support: Experiences from Cuyamaca College

The Results

Students without precalculus who started in Calculus with support had twice the success in half the time compared to students taking Precalculus (Figure 1).

Figure 1

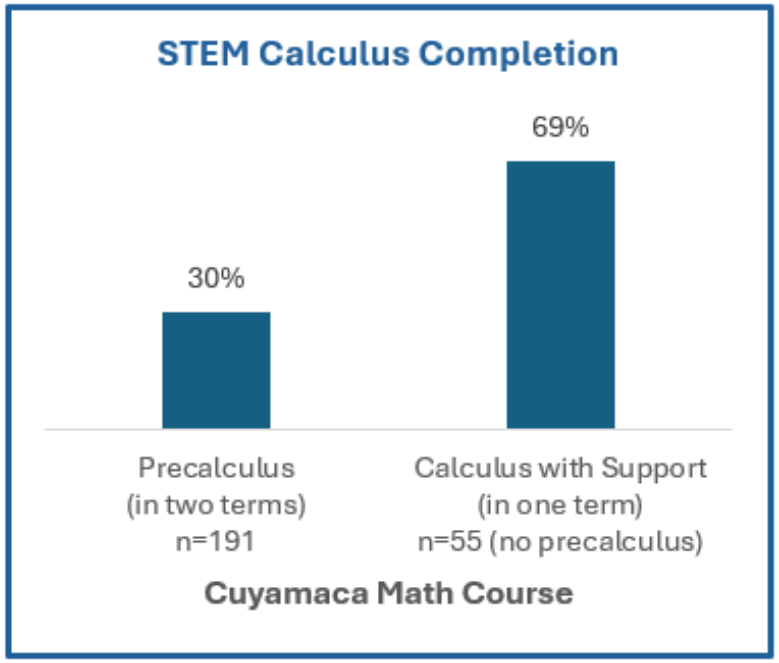
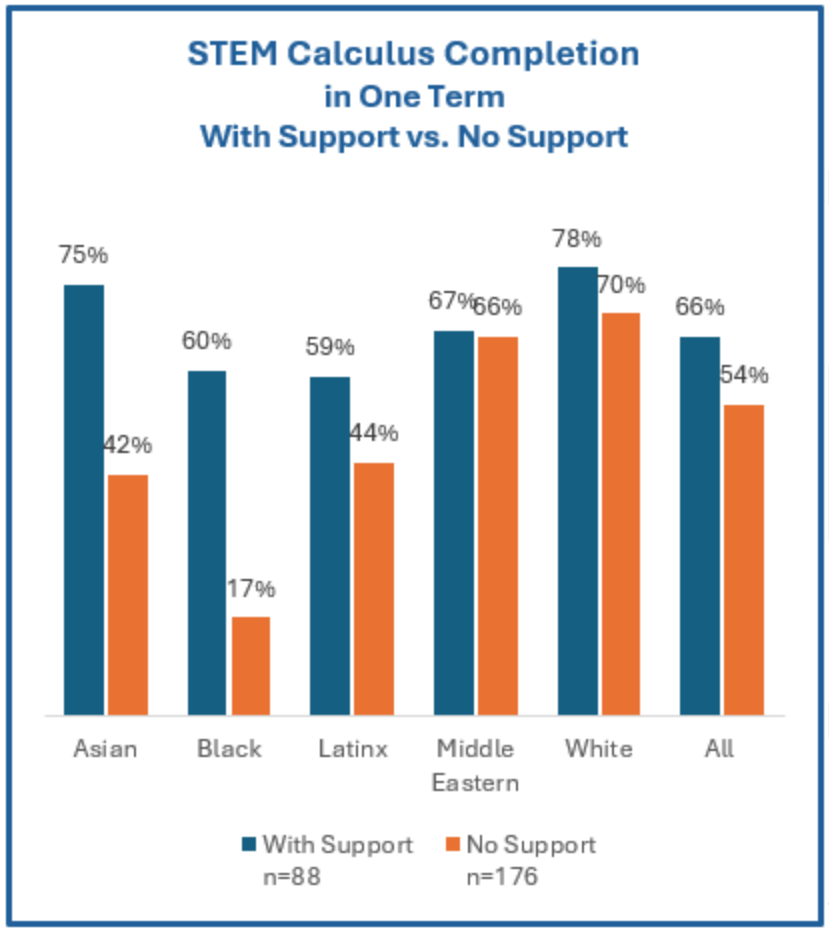


Figure 2



Student Voice

"... my professor gave us a grasp of the foundations that we needed. ... He was good at making time to answer individual questions and still making sure our class moved forward together." -Izzy (Biomedical Engineering)

"The first day was the pumpkin drop. We had to find the instantaneous velocity. I was drawn in right away." -Megan (Engineering)

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Calculus with Support: Experiences from Chaffey College

The Results

For STEM majors, calculus completion increased 70% in half the time (Figure 1).

Figure 1

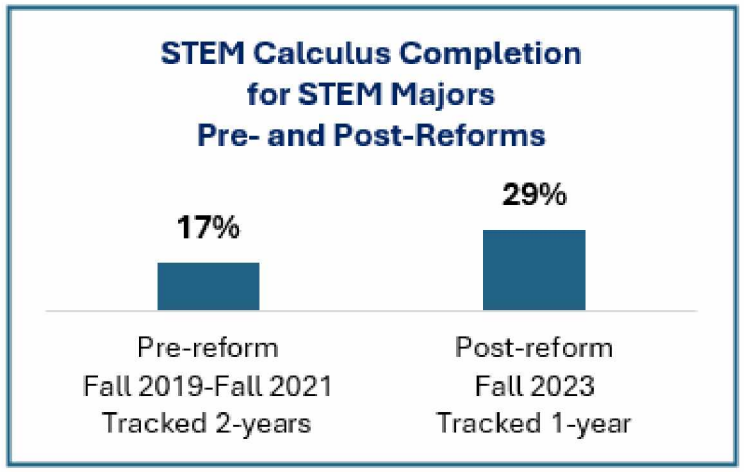
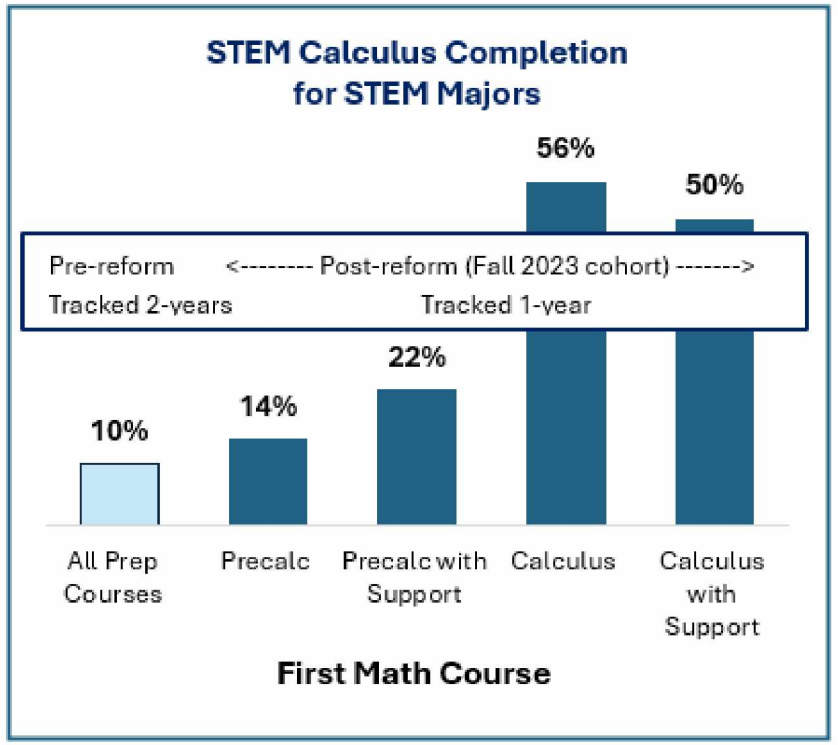


Figure 2



Student Voice

"At first, I was worried. I didn't remember any trig., but my professor used the unit circle to explain it. It made so much sense. I also liked that we worked in groups at the board every class. We helped each other. It was engaging." - Vincent (Biochemistry)

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Q & A

Thank you for attending

The webinar and materials will be posted in the Equitable Placement and Completion community in the Vision Resource Center, and the Chancellor's Office Equitable Placement, Support and Completion webpage

Email: AB1705@cccco.edu

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December 2024 Updated Guidance

STEM Calculus Pathway Placement	Placement and Enrollment in the STEM Calculus Pathway for STEM 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 complete or demonstrate through CPL: **Intermediate Algebra, Integrated Math 3 or equivalent**	The college may enroll the student in a two-semester sequence at transfer-level prior to Calculus, with or without concurrent support. Enrollment in the first course in the two-semesters prior to Calculus should be restricted to students who have not successfully completed Intermediate Algebra, Integrated Math 3 or equivalent.

https://www.cccco.edu/-/media/CCCCO-Website/docs/memo/academic-affairs-24-69-ab-1705-stem-preparatory-course-validations.pdf?la=en&hash=6A9EEC3D88FED07747BF478E600F6A99F3005FD5