

AB 705: Spillover and Downstream Effects

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*Interactive polling during
presentation (please log on):*

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What is your role at your institution?

IRPE Professional **A**

Instructional Faculty **B**

Student Services Staff / Faculty **C**

Student **D**

Administrator (Non-IRPE) **E**



Refresher: AB 705 (Remedial Education Reform)

-
- CA state legislation for students with an educational goal of degree / transfer
 - Requires California community colleges to **maximize** the probability that a student will enter and complete transfer-level coursework in English and math within a one year timeframe (starting in fall 2019)
 - Math/English placement using multiple measures rather than a mandatory assessment exam

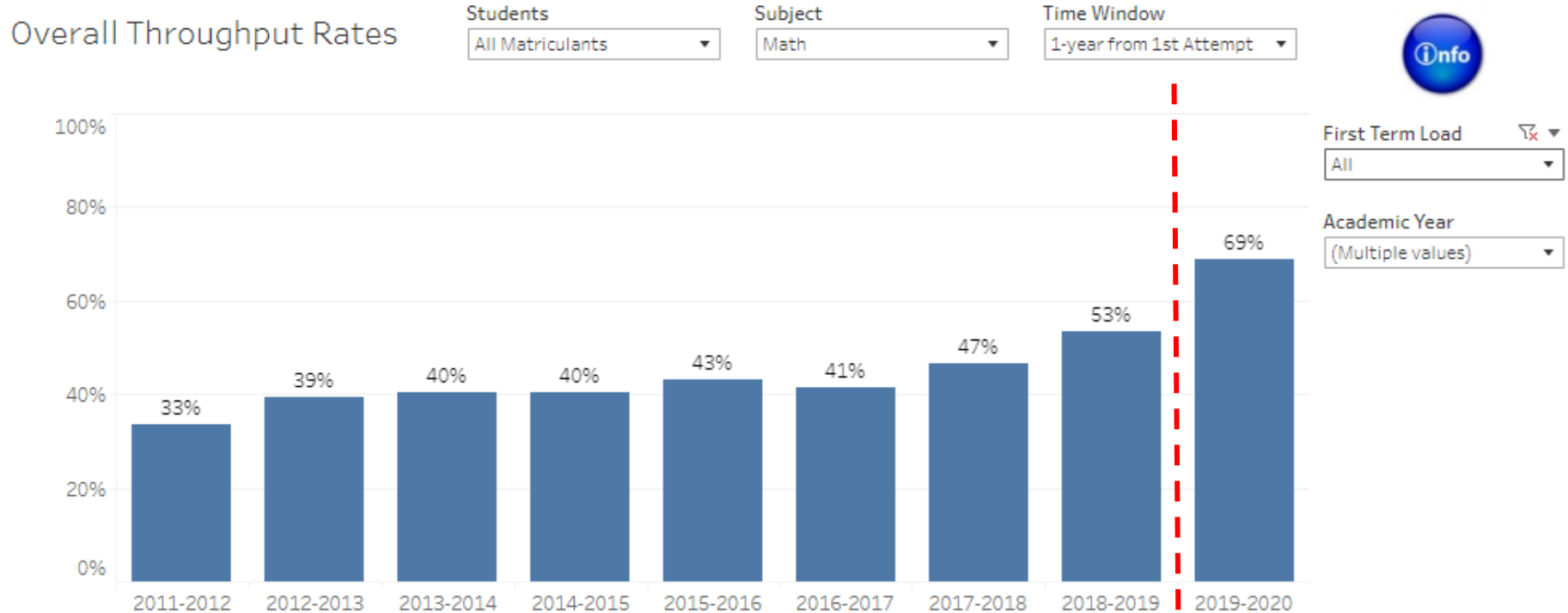
What evidence have you seen that demonstrates AB 705 is a good policy?



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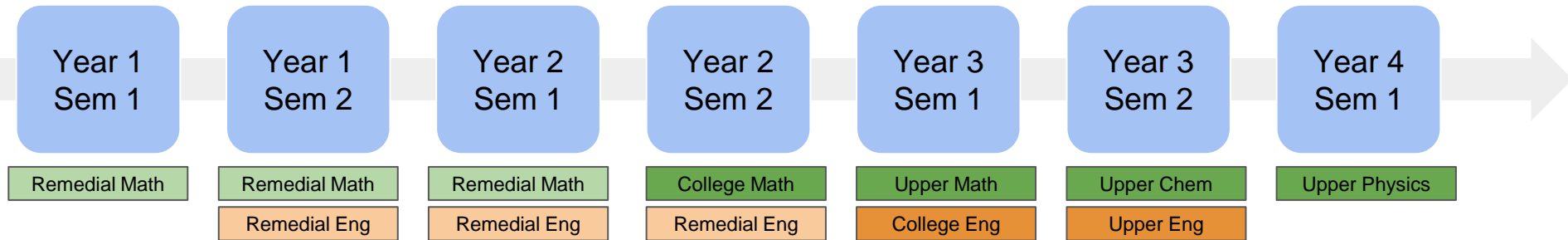
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Math 1-year Completion / Throughput @ IVC



Each college may find their own rates at the CCCCO Transfer Level Gateway Completion [Dashboard](#).

Student Journey: Pre-AB 705



** Not accounting for attrition / stop-out*

Post-AB 705 and Research Questions

Year 1
Sem 1

College Math

College Eng

Year 1
Sem 2

Upper Math

Upper Eng

Year 2
Sem 1

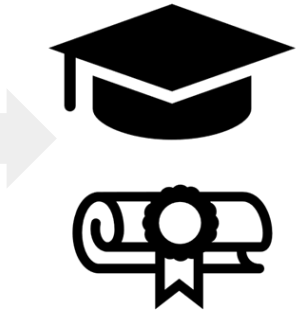
Upper Chem

Year 2
Sem 2

Upper Physics

Year 3
Sem 1

Year 3
Sem 2



Post-AB 705 and Research Questions

- ✓ 1-year Math Completion
- ✓ 1-year Eng Completion

Year 1
Sem 1

College Math

College Eng

Year 1
Sem 2

Upper Math

Upper Eng

Year 2
Sem 1

Upper Chem

Year 2
Sem 2

Upper Physics

Year 3
Sem 1

Year 3
Sem 2



3: Impact of
non-success
in 1st
attempt?

1: Impact on downstream math, English,
STEM, and related courses?
(Completions/Enrollment)

2: Impact on
Degrees /
Transfers?



Not a rigorous evaluation of AB
705 based on counterfactuals



Descriptives: Pre vs. Post AB 705

*Covid Pandemic Not Accounted For: Shift in Modality;
Shift in Student Demographics Resulting from Attrition*

Q0: 1-Year Math and English Completions, and Other Year 1 KPI's



KPI's: GP Early Momentum Metrics (CCRC)

Credit Momentum

- Completed 6 or more college-level credits in the first semester (6 credits S1)
- Completed 12 or more college-level credits in the first semester (12 credits S1)
- Completed 15 or more college-level credits in the first year (15 credits Y1)
- Completed 24 or more college-level credits in the first year (24 credits Y1)
- Completed 30 or more college-level credits in the first year (30 credits Y1)

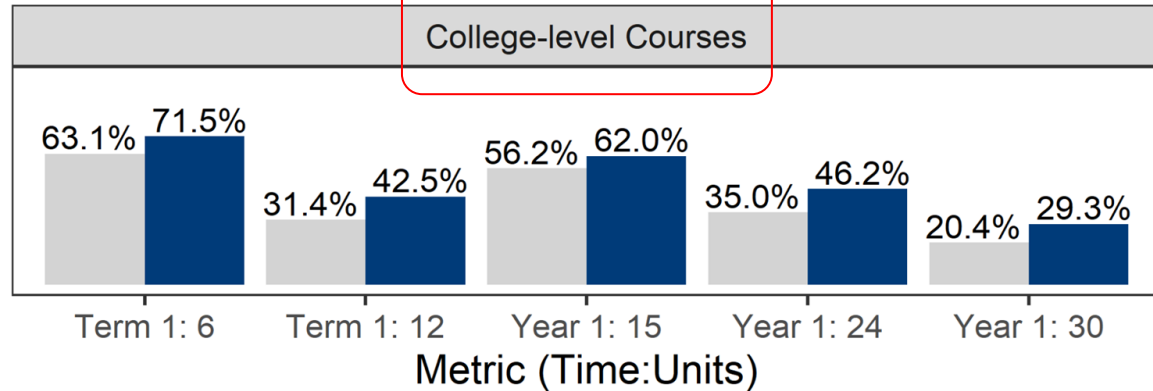
Gateway Course Momentum

- Completed college-level English in the first year (English Y1)
- Completed college-level math in the first year (Math Y1)
- Completed both college-level English and math in the first year (English & math Y1)

Persistence Momentum

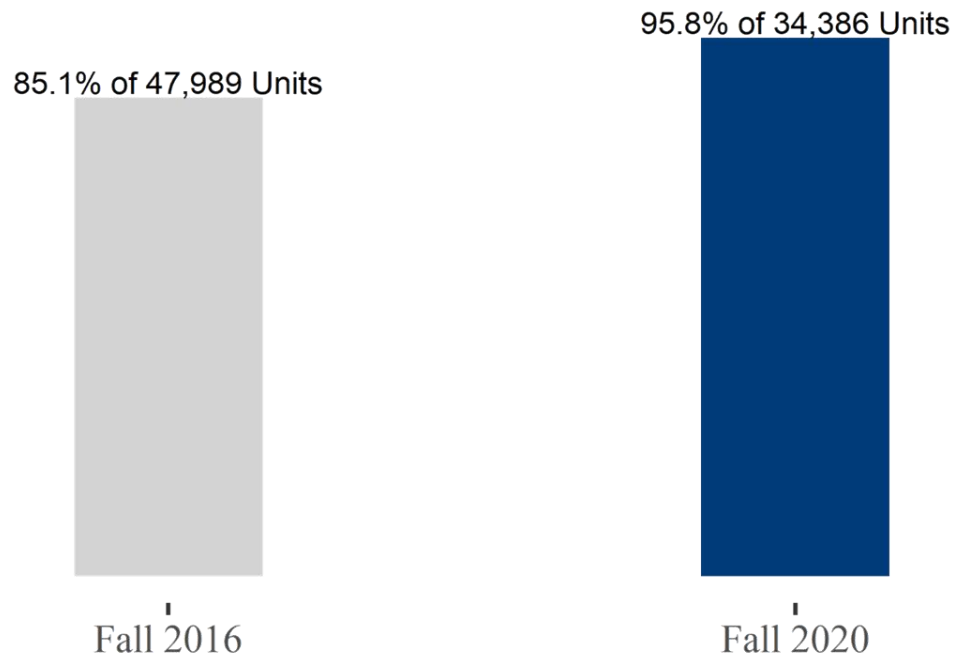
- Fall to spring persistence in the first year (Persist S1 S2)

Observation: Students are earning/completing more units in their first year.



Cohort 2016 2020

AB 705: Direct Access to Transfer Level Courses -> Less Remedial Enrollments



Increase in Proportion of College Level Units Among First Year Attempted Units

KPI's: GP Early Momentum Metrics (CCRC)

Credit Momentum

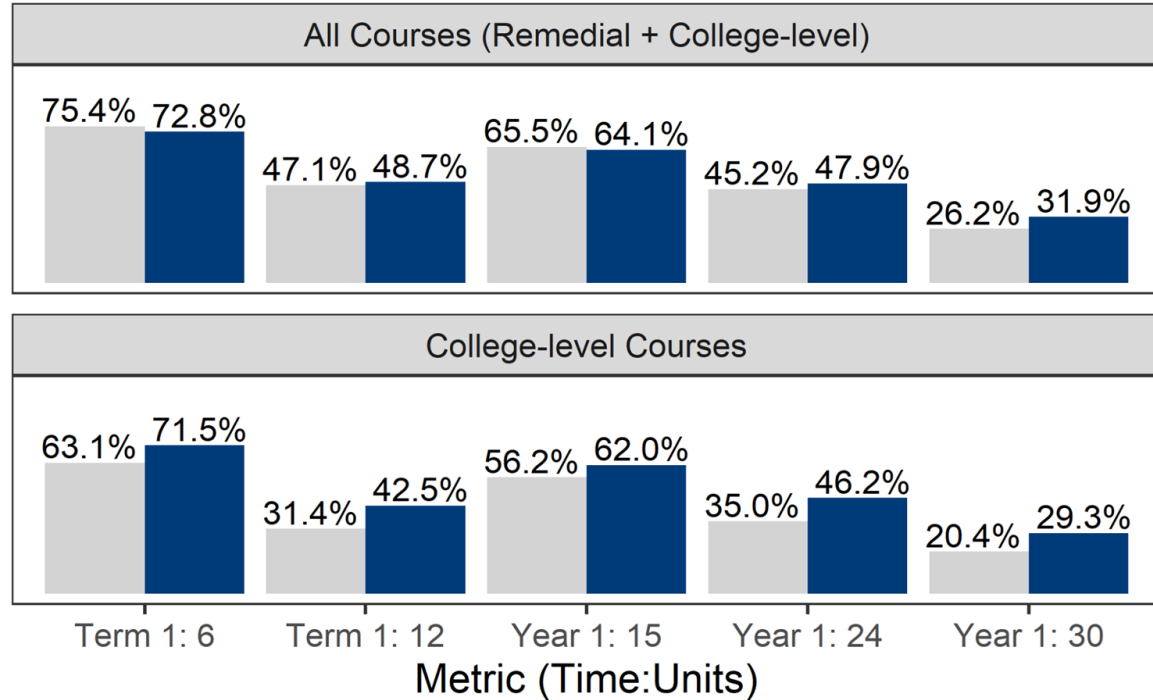
- Completed 6 or more college-level credits in the first semester (6 credits S1)
- Completed 12 or more college-level credits in the first semester (12 credits S1)
- Completed 15 or more college-level credits in the first year (15 credits Y1)
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Gateway Course Momentum

- Completed college-level English in the first year (English Y1)
- Completed college-level math in the first year (Math Y1)
- Completed both college-level English and math in the first year (English & math Y1)

Persistence Momentum

- Fall to spring persistence in the first year (Persist S1 S2)



Conclusion: Progress on 1st Year Metrics Driven by AB 705 / Remedial Education Reform

Cohort 2016 2020

Q1: Impact on downstream Math, English, STEM, and related courses? (Completions/Enrollment)



What do you think the impact of AB 705 is on math and English enrollment (butts-in-seat)?

Increase **A**

Neutral **B**

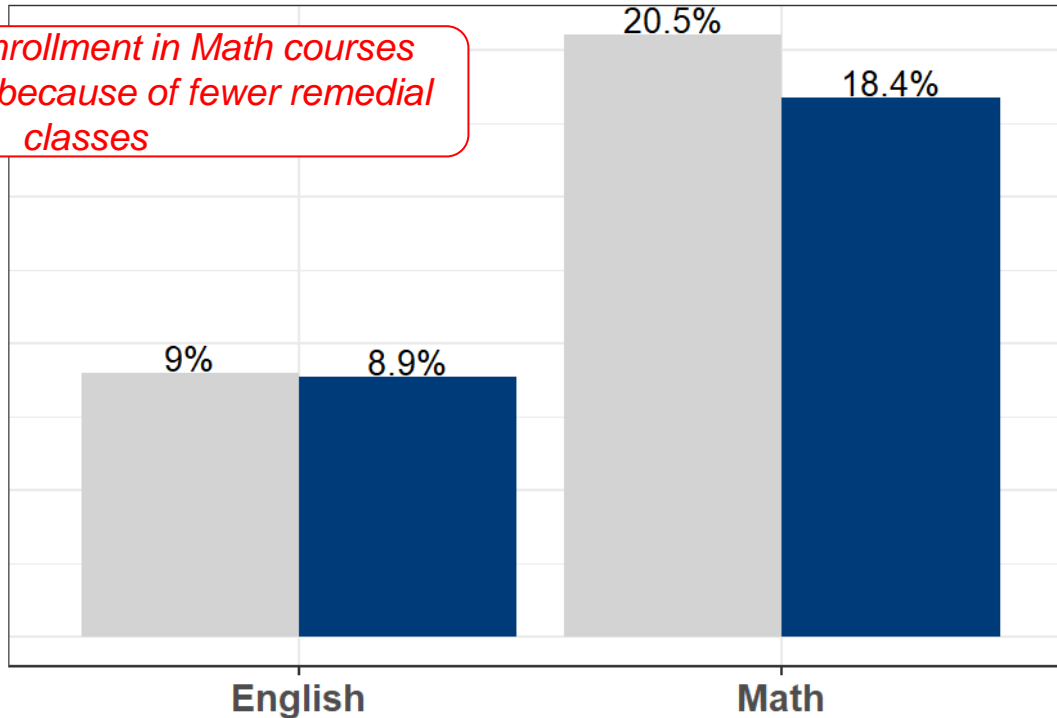
Decrease **C**



Enrollment in Math and English Courses

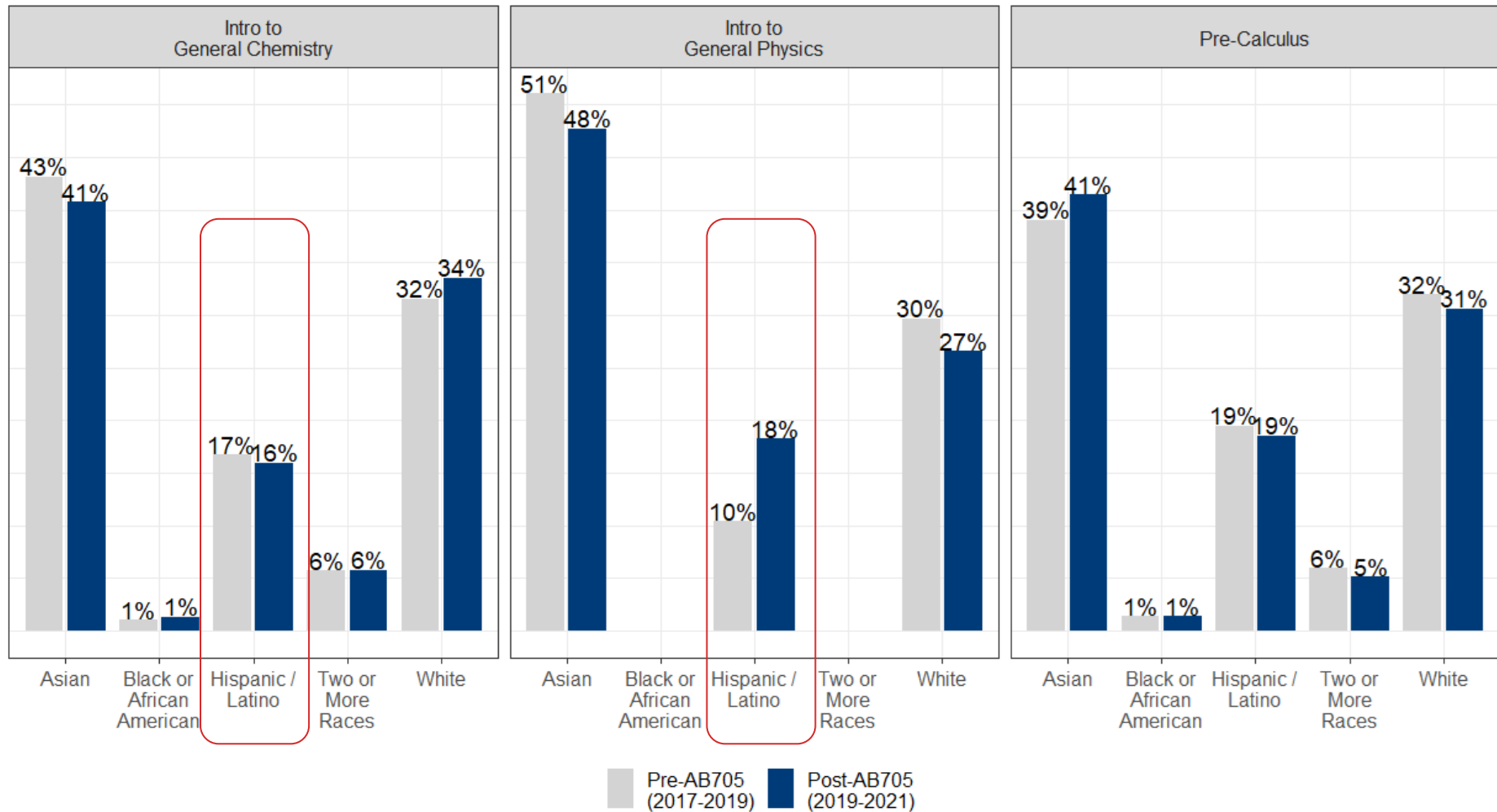
Percent of All Enrolled Units in Math/English

Pre-AB705 (2017-2019) Post-AB705 (2019-2021)



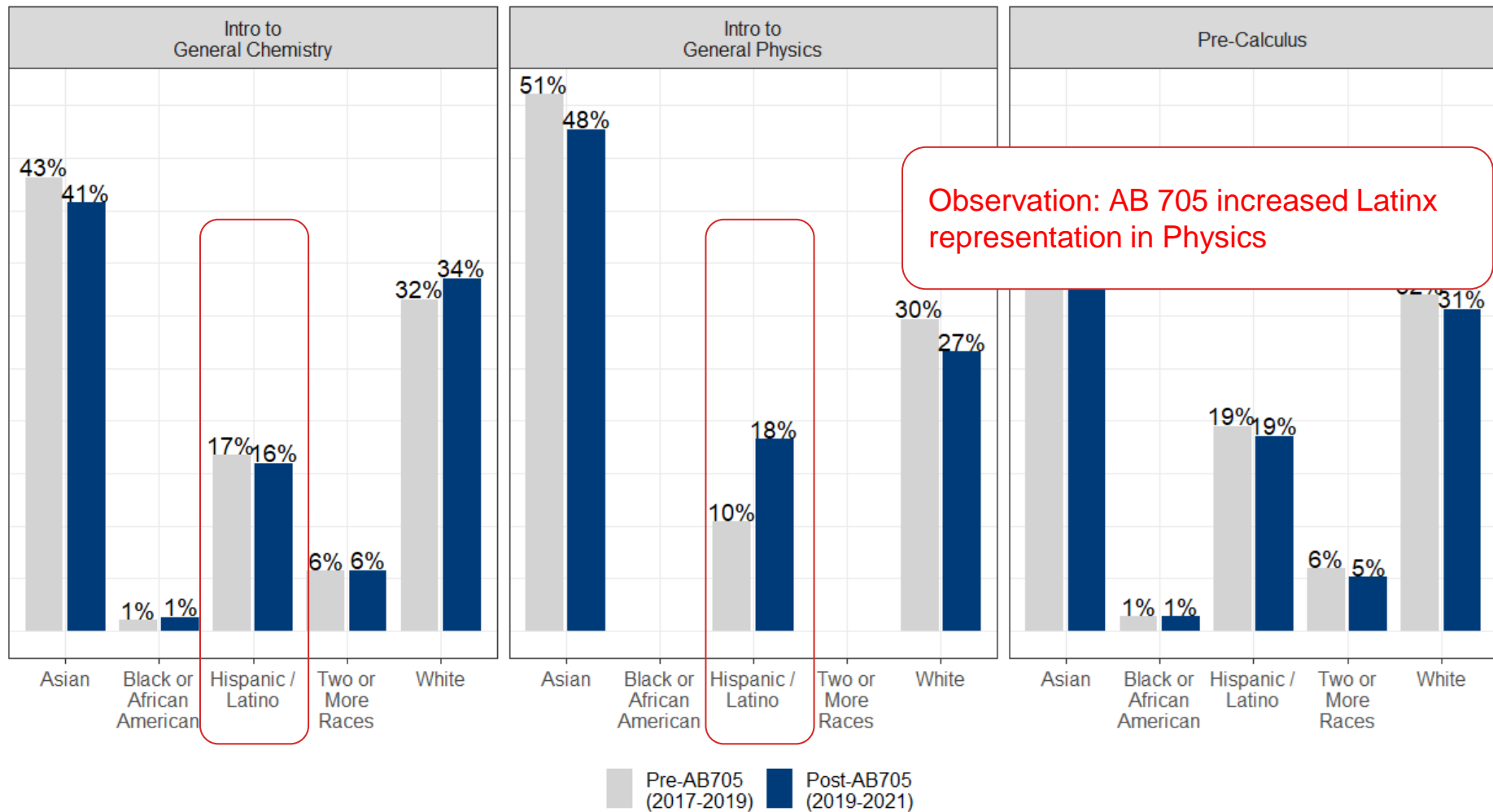
Conclusion: Enrollment in Math courses overall is down because of fewer remedial classes

Share of Enrollment by Ethnicity



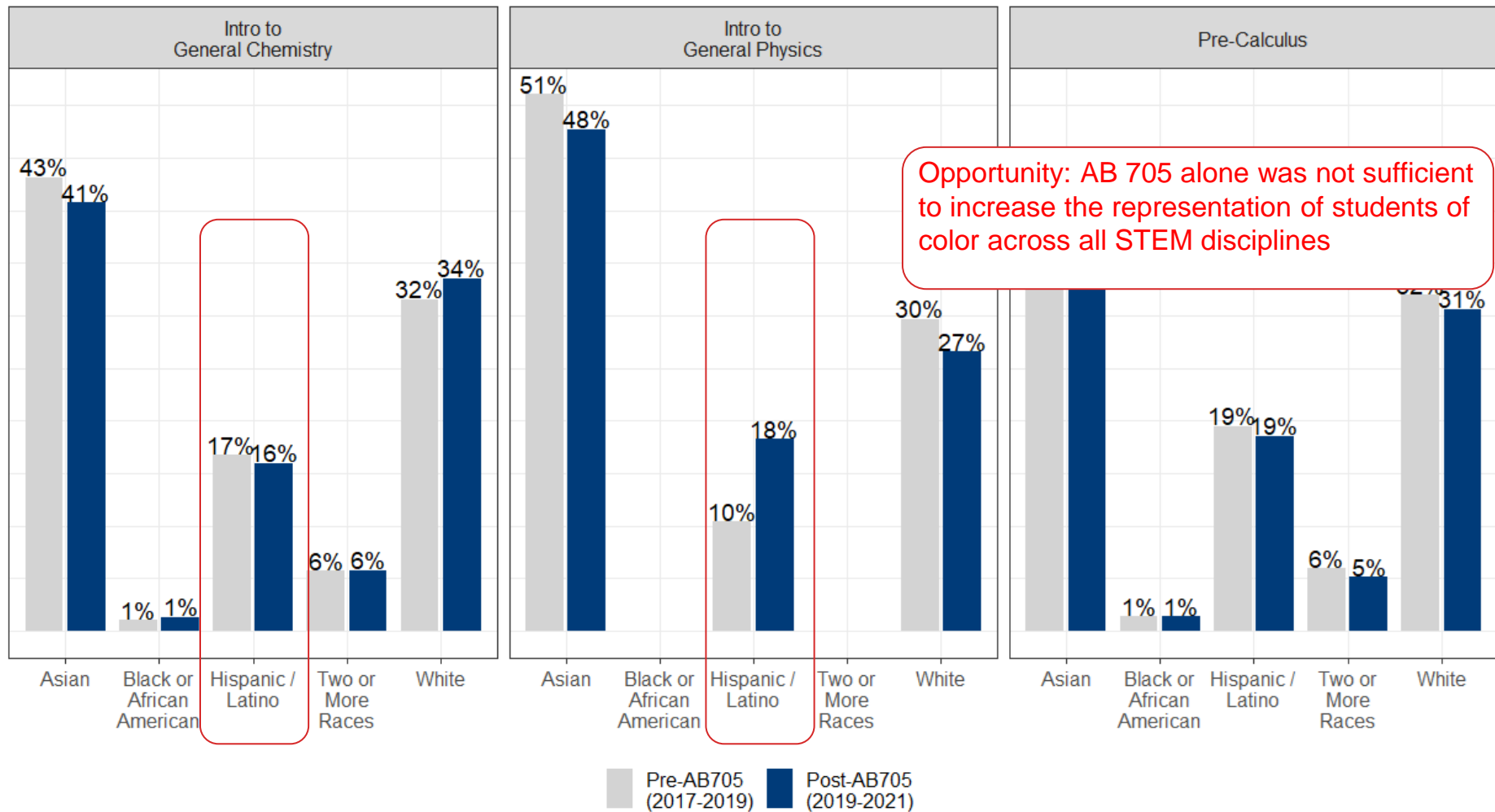
Groups with fewer than 10 students were excluded.

Share of Enrollment by Ethnicity




Groups with fewer than 10 students were excluded.

Share of Enrollment by Ethnicity



Groups with fewer than 10 students were excluded.

Q1: Impact on downstream Math, English, STEM, and related courses? (Completions/Enrollment)



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How do you think post-AB 705 students are faring in downstream courses compared to pre-AB 705?

Better

Same

Worse

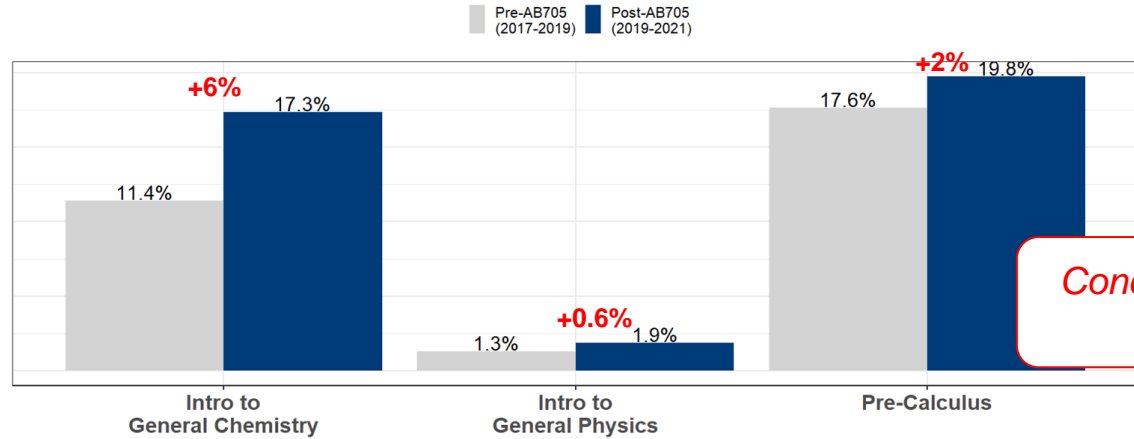


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Downstream STEM Throughput

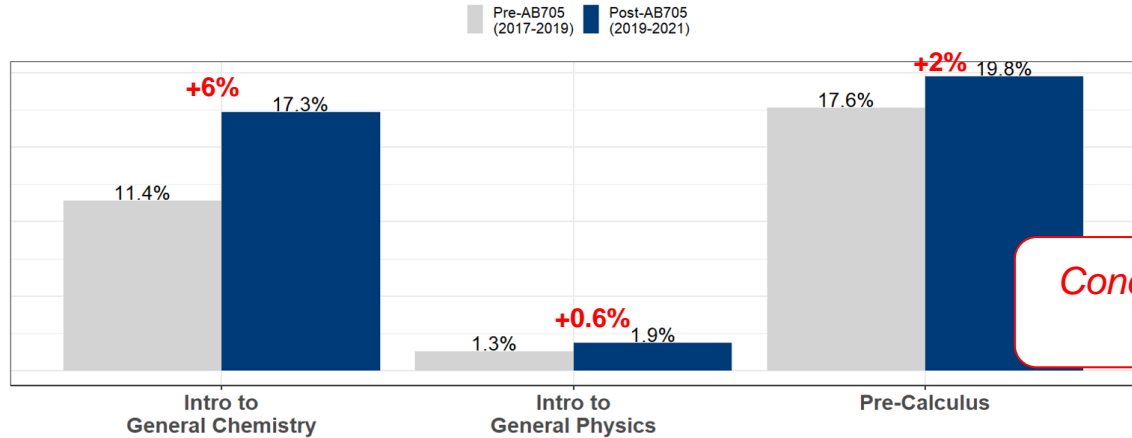
STEM 2-year Throughput from First Math Term



Conclusion: STEM Throughput increased for Post-AB705 Cohorts

Downstream STEM Throughput

STEM 2-year Throughput from First Math Term

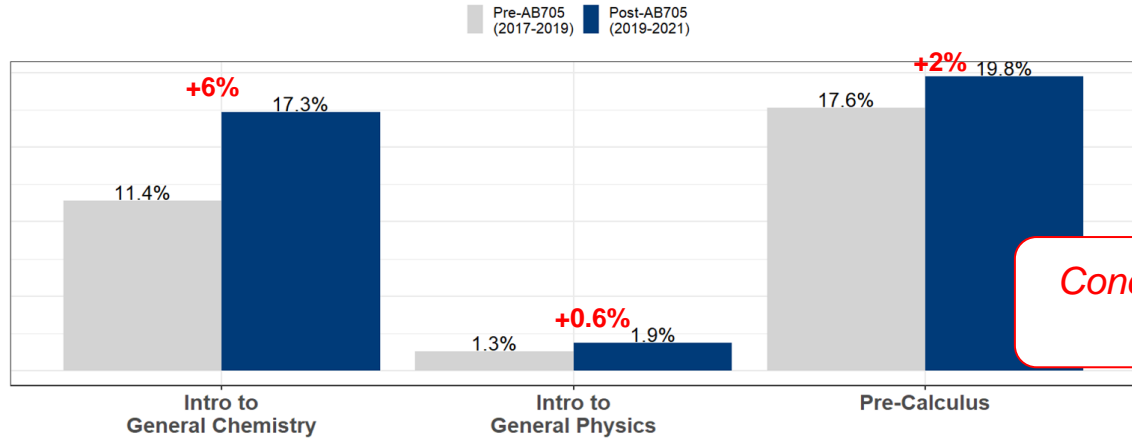


Conclusion: STEM Throughput increased for Post-AB705 Cohorts

But, are students faring worse in their first attempt in a downstream STEM course?

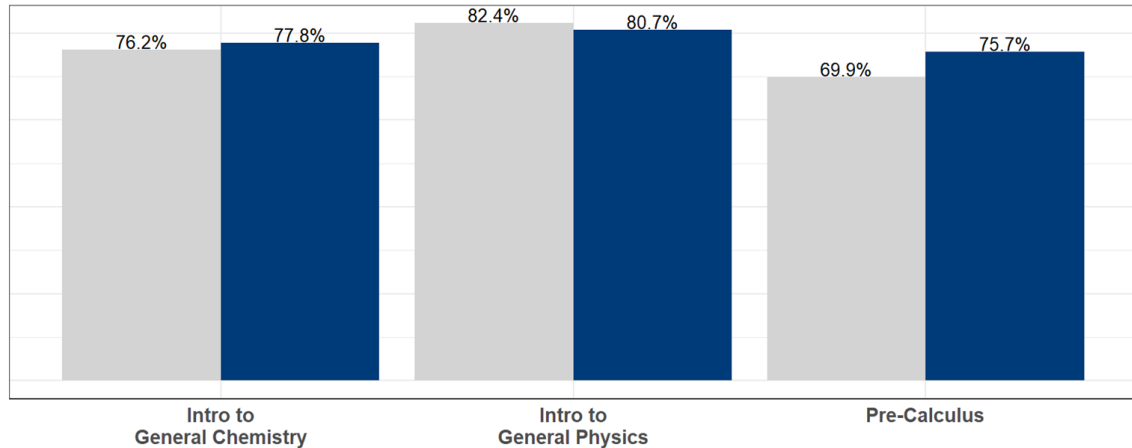
Downstream STEM Throughput

STEM 2-year Throughput from First Math Term



Conclusion: STEM Throughput increased for Post-AB705 Cohorts

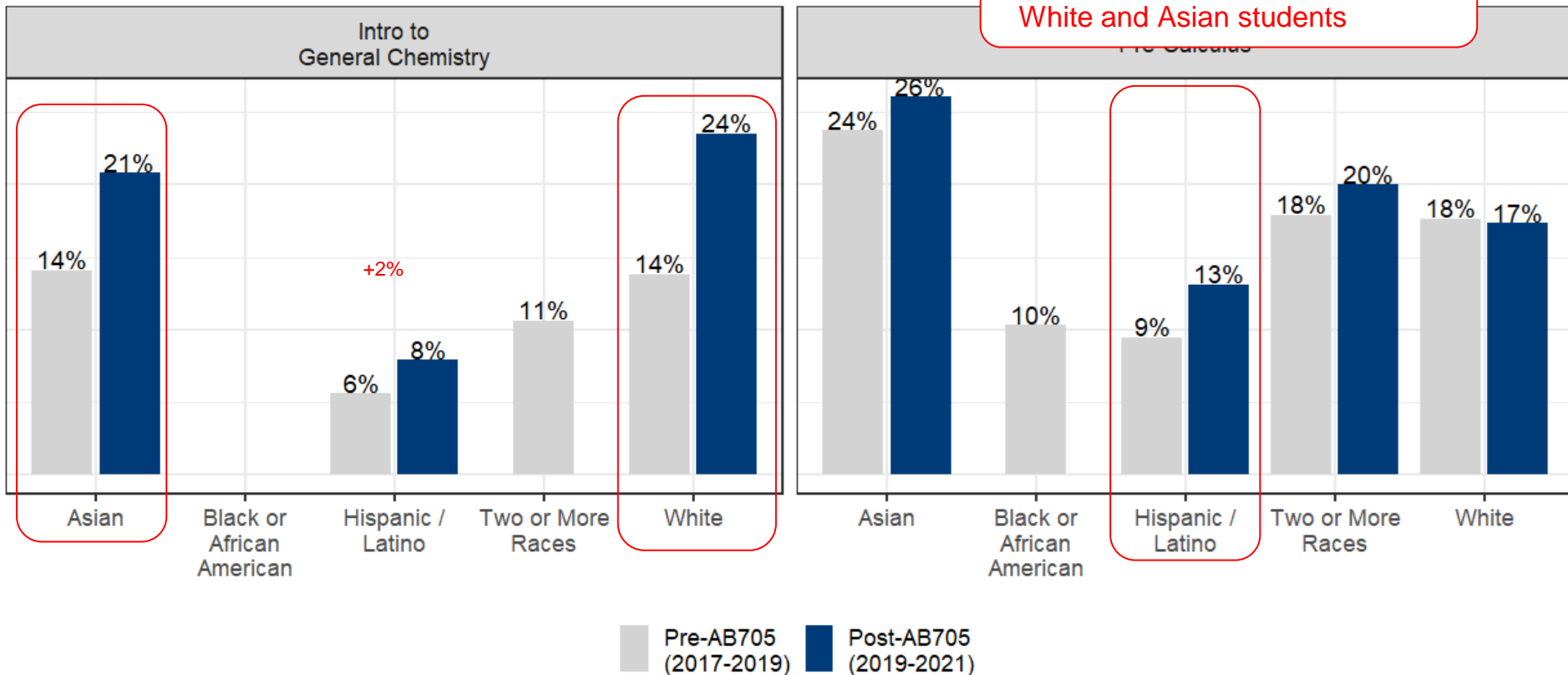
STEM Success in First Attempt



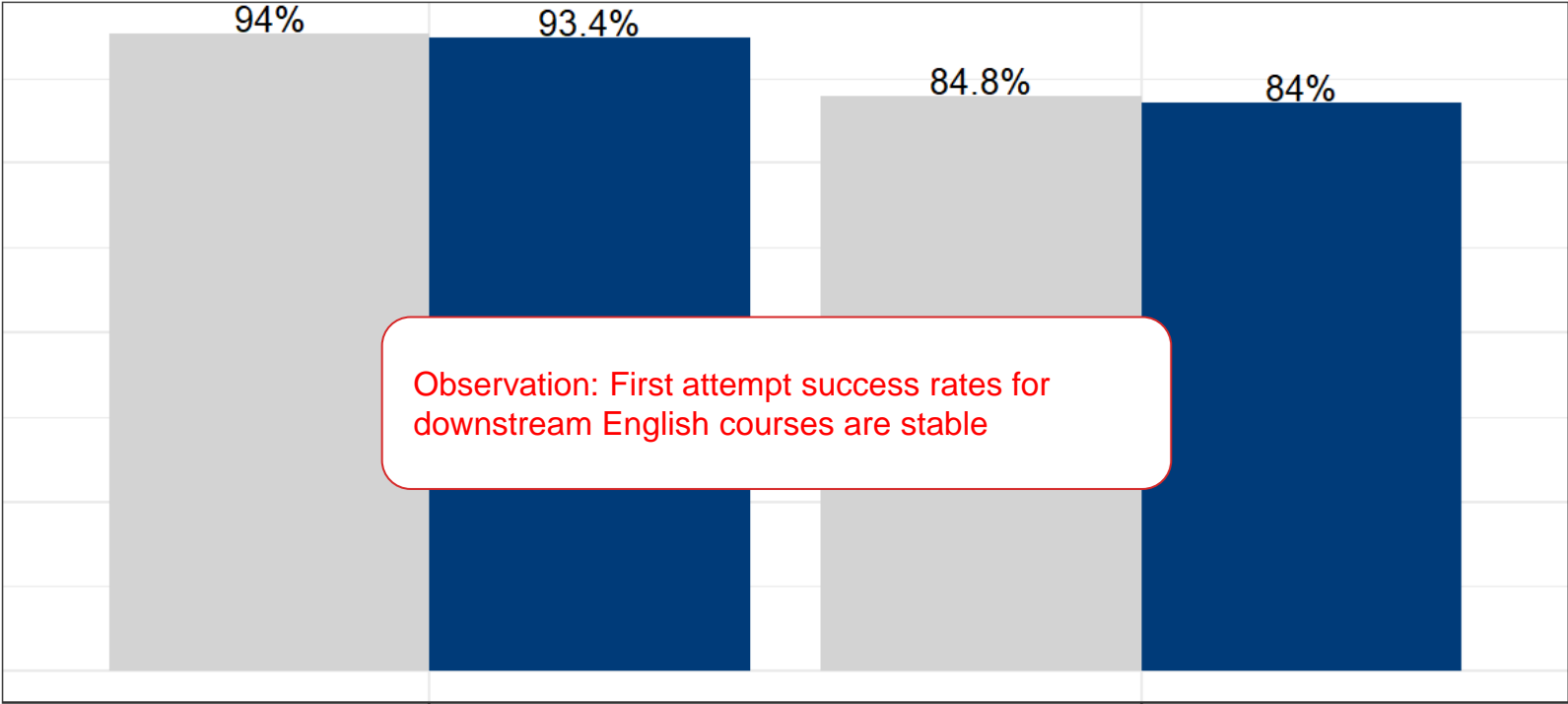
Groups with fewer than 10 students were excluded.

Equity Considerations: Throughput

STEM 2-year Throughput by Ethnicity



Downstream English Success in First Attempt



Observation: First attempt success rates for downstream English courses are stable

Intro to Literature

Writing 2

Pre-AB705 (2017-2019) Post-AB705 (2019-2021)

Q1: Impact on downstream Math, English, STEM, and related courses? (Completions/Enrollment)



Courses with Recommended Math/English Skills

Math

Financial Accounting (ACCT 1A)

The Life Sciences (BIO 1)

Statistics and Experimental Design
for the Biological and Health
Sciences (BIO 7)

Human Physiology (BIO 12)

Principles of Economics -
Micro/Macro (ECON 1 and 2)

Global Economics (ECON 13)

English

Report Writing for Administration of Justice (AJ 150)

Introduction to Art Theory (ARTH 4)

Art Appreciation (ARTH 20)

Human Anatomy (BIO 11)

Cellular Biology (BIO 16)

Environmental and Resource Economics (ECON 6)

Global Economics (ECON 13)

Introduction to Psychology (PSYC 1)

Most Political Science and Philosophy Courses (PS and PHIL)

Completed Transfer-Level Math Prior to Financial Accounting (ACCT 1 A)

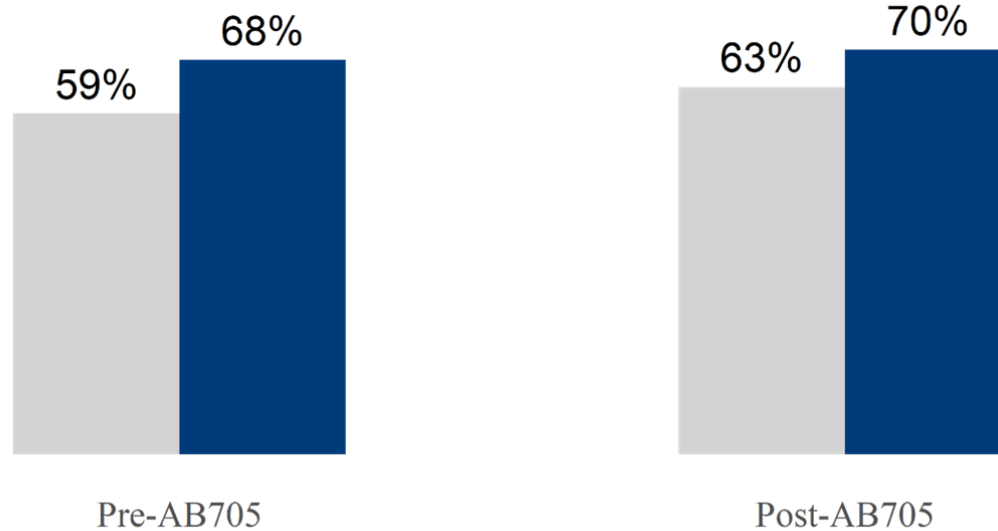
More students in ACCT 1A have transfer-level math skills Post-AB705



Success Rates in Financial Accounting (ACCT 1 A)

■ Not Yet Completed Transfer-Level Math ■ Completed Transfer-Level Math

Students who have transfer-level math skills are more successful



Not Yet Completed Transfer-Level Math Completed Transfer-Level Math

Success Rates Split by Transfer Level Completion

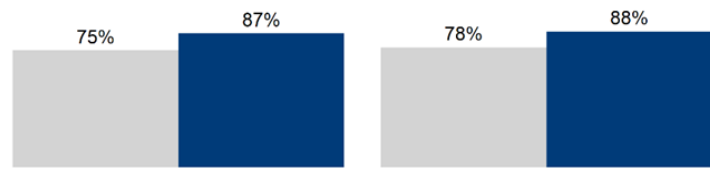


The Life Sciences (BIO 1)

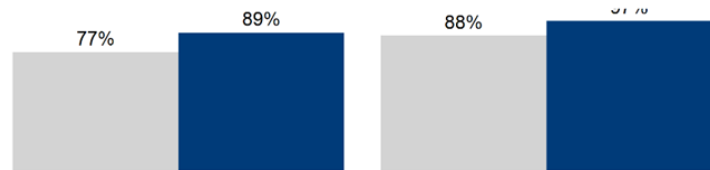
Percent Enrolled in Transfer-Level Math Prior to Course



Principles of Economics-Micro (ECON 1)



Principles of Economics-Macro (ECON 2)



Global Economics (ECON 13)



Completed Transfer-Level English Prior to Introduction to Philosophy (PHIL 1)

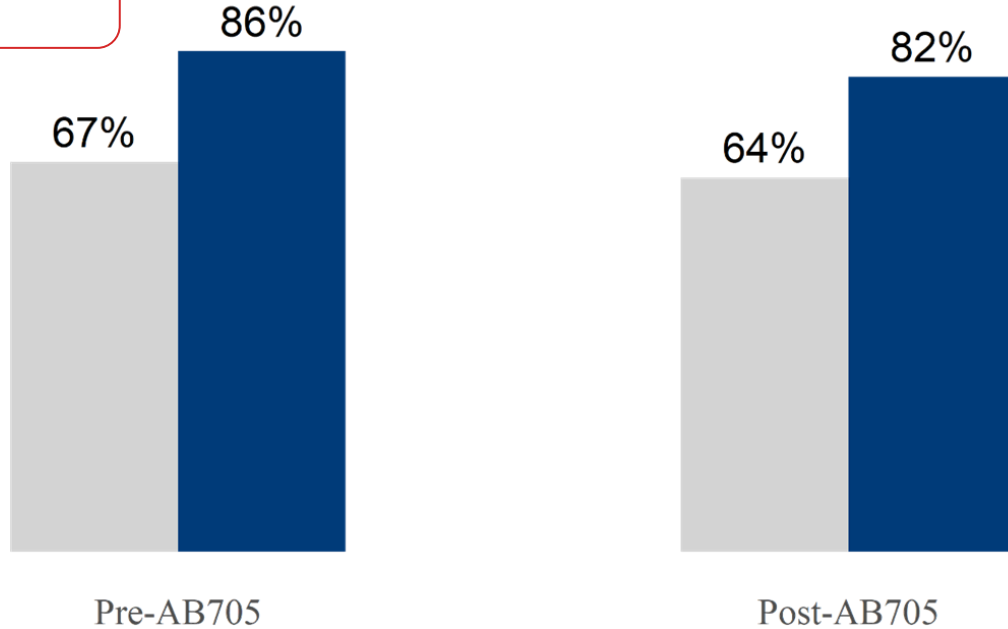
More students in PHIL 1 have transfer-level English skills Post-AB705



Success Rates in Introduction to Philosophy (PHIL 1)

■ Not Yet Completed Transfer-Level English ■ Completed Transfer-Level English

Students who have transfer-level English skills are more successful



Not Yet Completed Transfer-Level English
 Completed Transfer-Level English

Success Rates Split by Transfer Level Completion



American Government (PS 1)



California Government and Politics (PS 3)

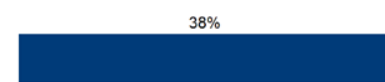
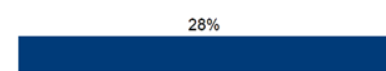
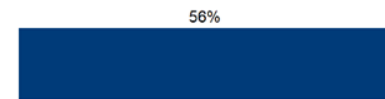
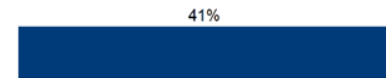
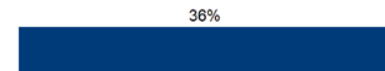
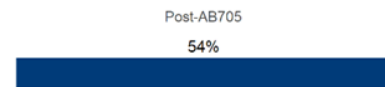
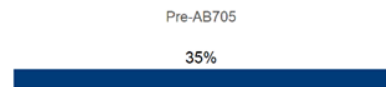


Introduction to Political Science (PS 4)



Introduction to Psychology (PSYC 1)

Percent Enrolled in Transfer-Level English Prior to Course



Not Yet Completed Transfer-Level English Completed Transfer-Level English

Success Rates Split by Transfer Level Completion



Percent Enrolled in Transfer-Level English Prior to Course



Environmental and Resource Economics (ECON 6)



Introduction to Art Theory (ARTH 4)



Art Appreciation (ARTH 20)



Introduction to Logic (PHIL 3)

Q2: Impact on Degrees / Transfers?



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Text **VINHNGUYEN321** to **37607** once to join

Do you believe AB 705 will lead to more degree completions / transfers?

Yes

No

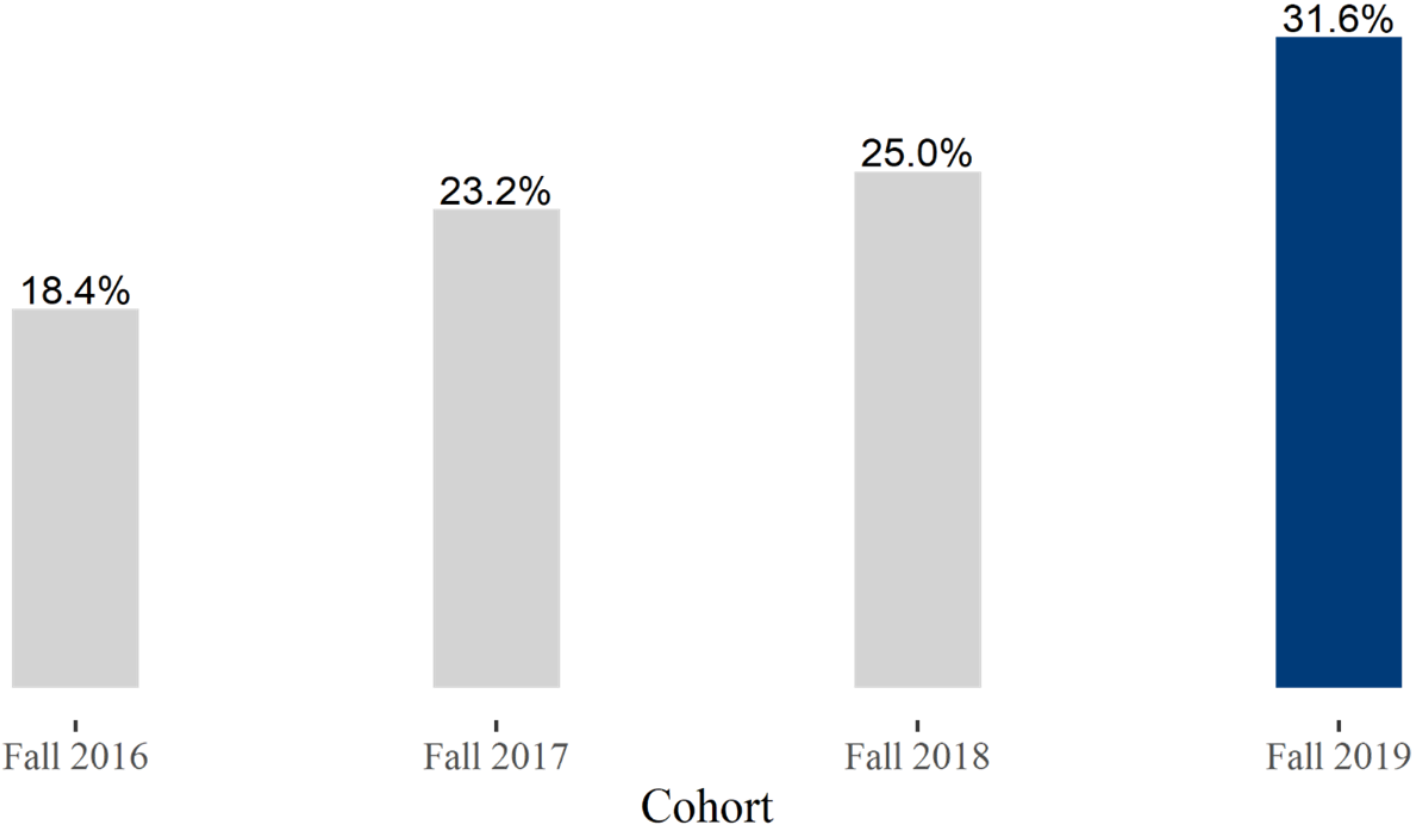


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Two-year completion: Earned Degree, Transferred, or is Transfer-Prepared

Among students with degree / transfer educational goal



Impact of AB 705 on Educational Goal Attainment

Increase in 2-year rates

6-year rates?

Did AB 705 increase total # of completers? Or did it just accelerate would-be completers (shorten time to complete)?



Q3: Impact of non-success in 1st attempt? (STEM Math)



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Text **VINHNGUYEN321** to **37607** once to join

Do you believe AB 705 has harmed students that weren't successful in their transfer-level math / English courses?

Yes

No



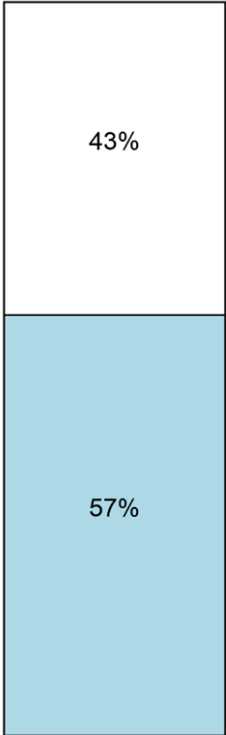
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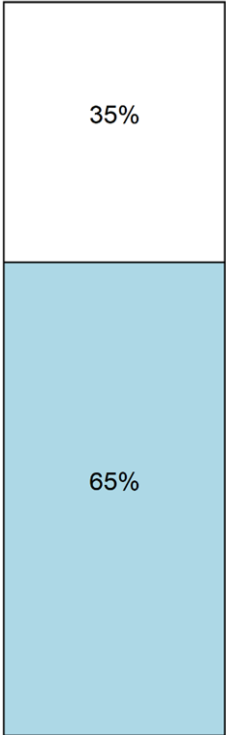
Math Success Rates (First Attempt)

Focus: STEM Math Pathway

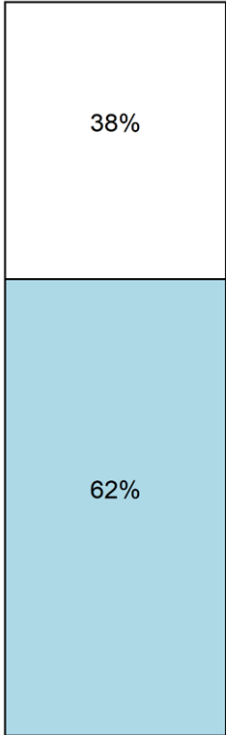
Success Non-Success



Pre-AB705 Remedial



Pre-AB705 Transfer Level

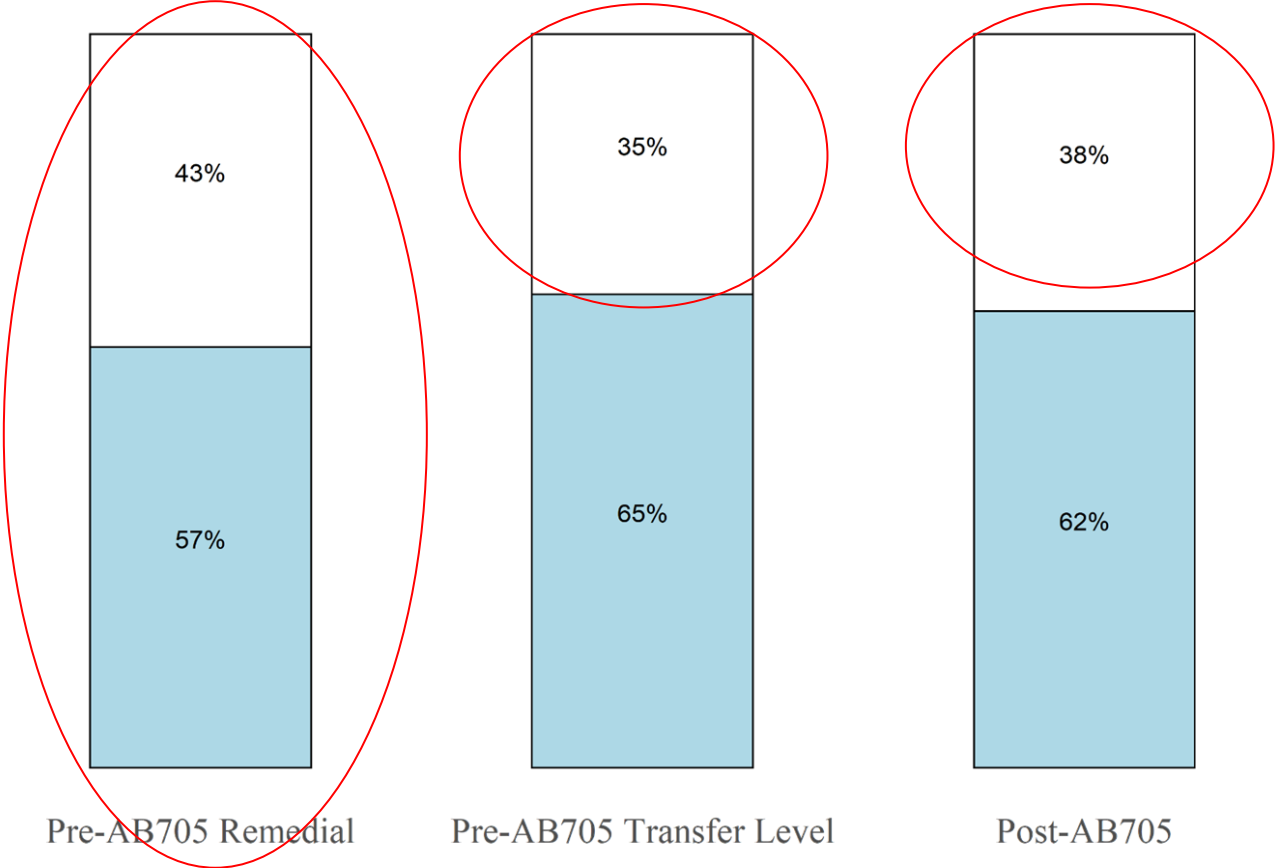


Post-AB705

Math Success Rates (First Attempt)

Focus: STEM Math Pathway

Success Non-Success



Those unsuccessful in 1st attempts

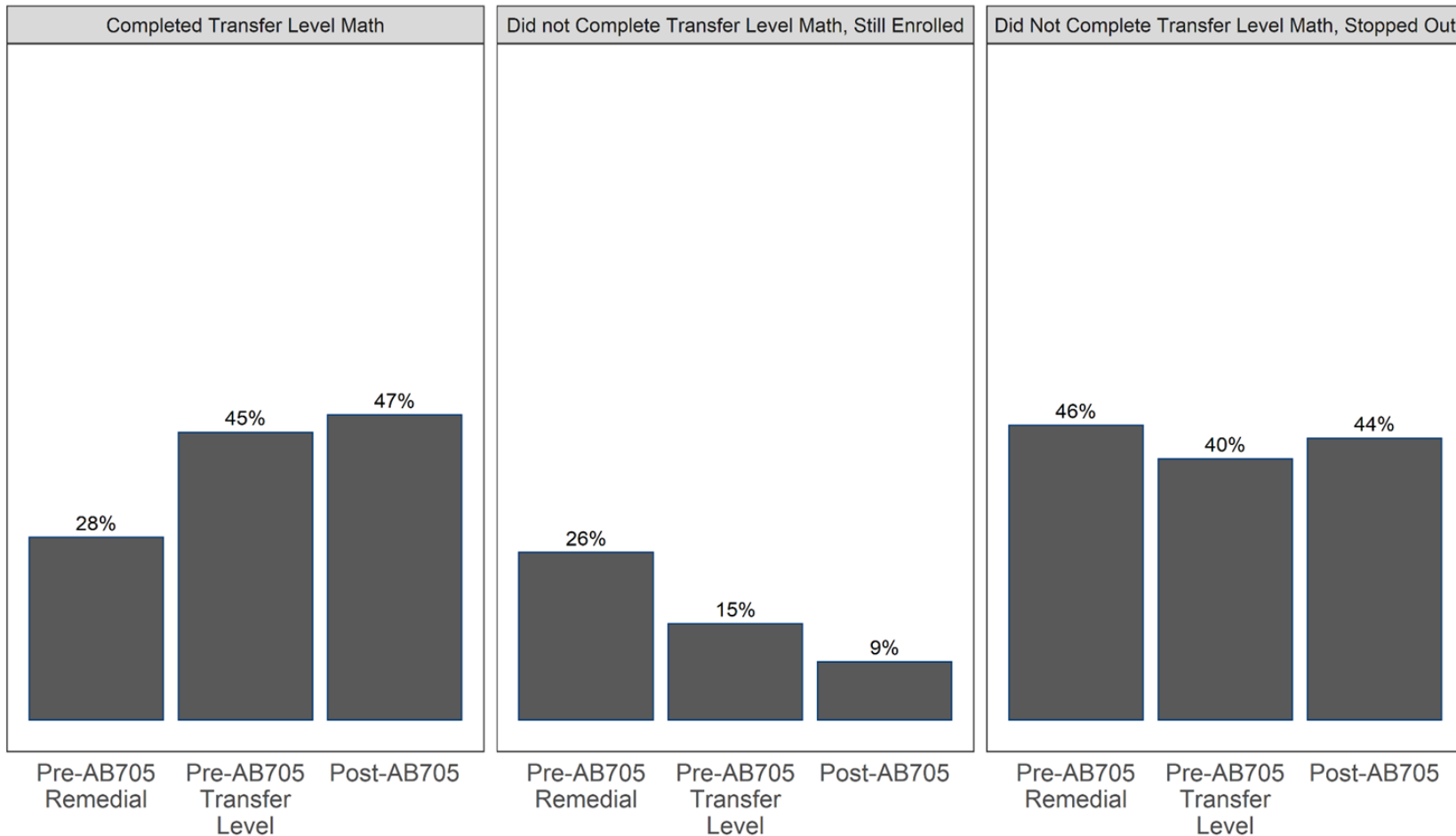
Do they eventually complete transfer-level math in 2 years?

Do they remain enrolled after 2 years, but don't complete transfer-level math?

Do they stop out altogether after 2 years?

How do they compare to comparable students pre-AB 705?

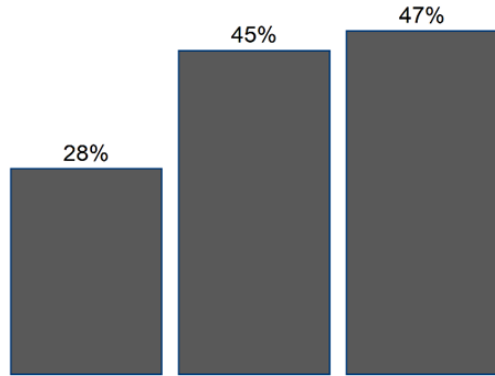
2 Year Completion Outcomes



2 Year Completion Outcomes

Completed Transfer Level Math

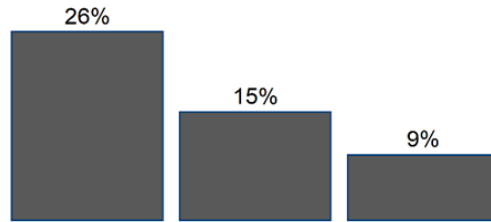
More likely to complete transfer level math within 2 years



Pre-AB705 Remedial Pre-AB705 Transfer Level Post-AB705

Did not Complete Transfer Level Math, Still Enrolled

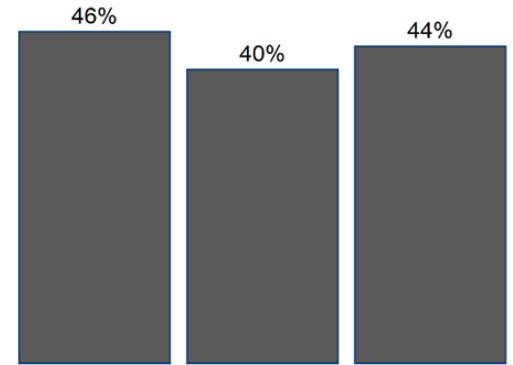
Less likely to still be around without completing transfer level math



Pre-AB705 Remedial Pre-AB705 Transfer Level Post-AB705

Did Not Complete Transfer Level Math, Stopped Out

Not any more likely to stop out than before



Pre-AB705 Remedial Pre-AB705 Transfer Level Post-AB705

Post-AB 705 and Research Questions

- ✓ 1-year Math Completion
- ✓ 1-year Eng Completion

Year 1
Sem 1

College Math

College Eng

Year 1
Sem 2

Upper Math

Upper Eng

Year 2
Sem 1

Upper Chem

Year 2
Sem 2

Upper Physics

Year 3
Sem 1

Year 3
Sem 2



3: Impact of
non-success
in 1st
attempt?

1: Impact on downstream math, English,
STEM, and related courses?
(Completions/Enrollment)

2: Impact on
Degrees /
Transfers?

Key Takeaways



Invitation: replicate and share at your college.

- ✓ 1-year Math Completion
- ✓ 1-year Eng Completion
- ✓ Progress in (college) units KPI

Year 1
Sem 1

College Math

College Eng

Year 1
Sem 2

Upper Math

Upper Eng

Year 2
Sem 1

Upper Chem

Year 2
Sem 2

Upper Physics

Year 3
Sem 1

Year 3
Sem 2



✓ Non-success trajectories not worse than before

- ✓ Downstream Math/English courses
- ✓ Downstream STEM courses
- ✓ Quantitative/writing-heavy courses
- ✗ STEM enrollment/throughput by URM's (additional work needed)

- ✓ 2-Year Degree/Transfer Rate
- ☐ 3-Year Degree/Transfer Rate
- ☐ 6-Year Degree/Transfer Rate



Thank you!
Discussion...

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