



DUAL ENROLLMENT EVALUATION: PARTNERSHIPS AND FINDINGS

NCSDAA-NCACCIA Joint Conference
March 21st, 2024

Emily Smail, Director of Research and Evaluation, North Carolina Community College System

AGENDA



Partnership Discussion



Background of Career and College Promise



Impacts on Credential Attainment



Breakdown of Participation



Conclusions and Next Steps

THIS PRESENTATION IS BROUGHT TO YOU BY THE “EVALUATION OF CCP” GRANT

Five-year study funded by Institute of Education Sciences, U.S. Dept. of Education

Study Goals: Examine the 1) Impact, 2) Implementation, and 3) Cost of Career and College Promise. 4) Develop partners' capacity to work with researchers and use data to improve CCP.

Partners:



BOLSTERING RESEARCH AT NCCCS

- Support for research positions at NCCCS
 - Planning and Research Associate
 - Director of Research and Evaluation
- Establishing Career and College Promise-focused dashboards
- Increased capacity to make data-informed decisions and prepare for long-term evaluation efforts
- Improving data quality and identity resolution at the state level (NC Longitudinal Data System)

BACKGROUND ON THE CAREER AND COLLEGE PROMISE (CCP) PROGRAM

- Established in 2012
- Purpose: to offer structured opportunities for qualified high school students to dually enroll in college courses that provide pathways to credentials
- Tuition is fully covered
- Includes three pathways
 - Career and Technical Education Pathway (CTE)
 - College Transfer Pathway (CTP)
 - Cooperative Innovative High School Pathway (CIHS)
- Each pathway has eligibility requirements for admission
 - E.g., 2.8 unweighted GPA; demonstration of college readiness via standardized testing

DUAL ENROLLMENT PATHWAYS

North Carolina's Career & College Promise Dual Enrollment Program

In North Carolina, eligible high school students can earn credentials and college credits tuition-free from North Carolina colleges and universities through **Career & College Promise**, a statewide dual enrollment program. Three pathways are available.



Career and Technical Education pathway

Take dual enrollment classes to earn college credits leading to technical credentials or workforce-based careers.

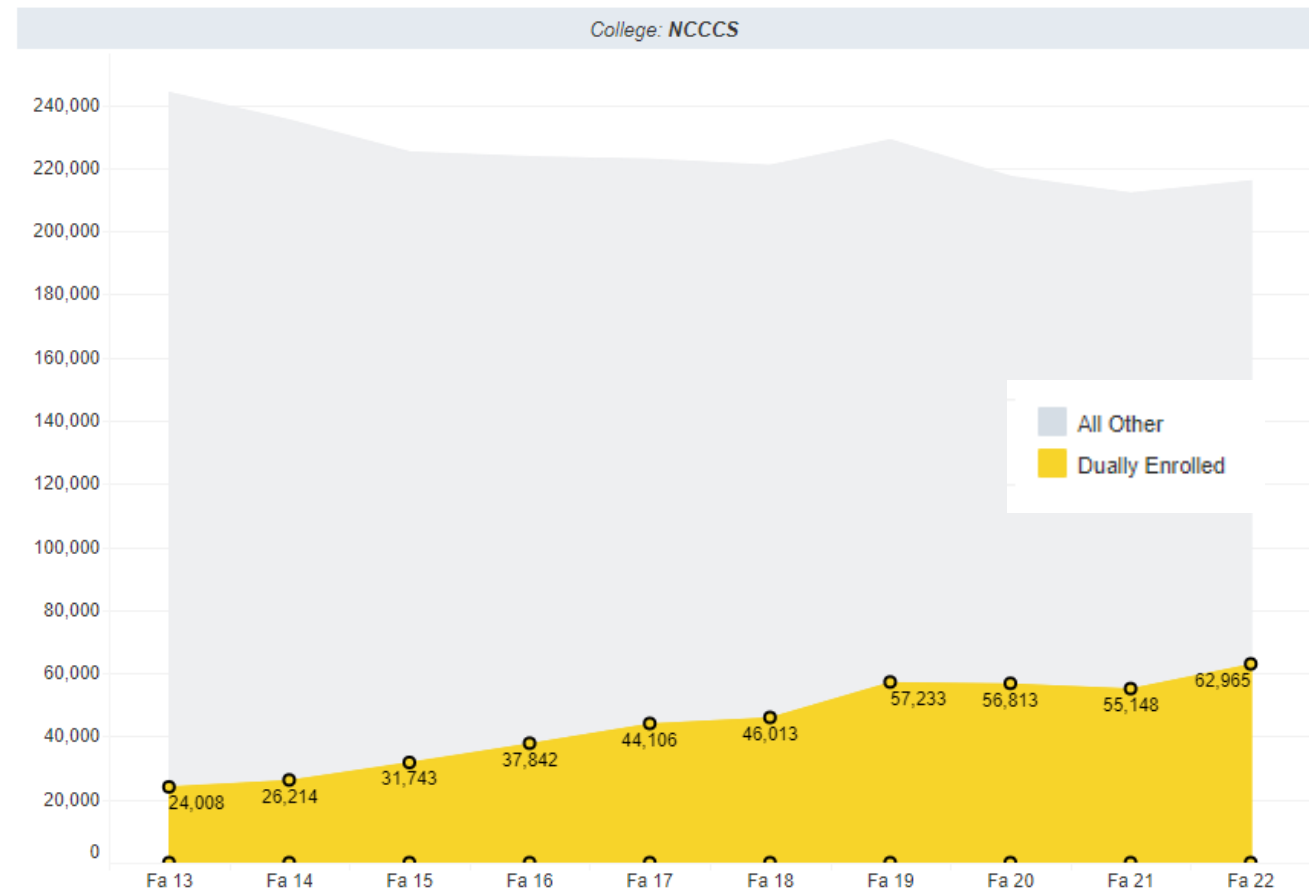
College Transfer pathway

Take dual enrollment classes that lead to an associate degree or to meet general education requirements at a 4-year college.

Cooperative Innovative High Schools pathway

Earn an associate degree or 2 years of college credit at an approved high school partnered with a college or university (e.g., an early college).

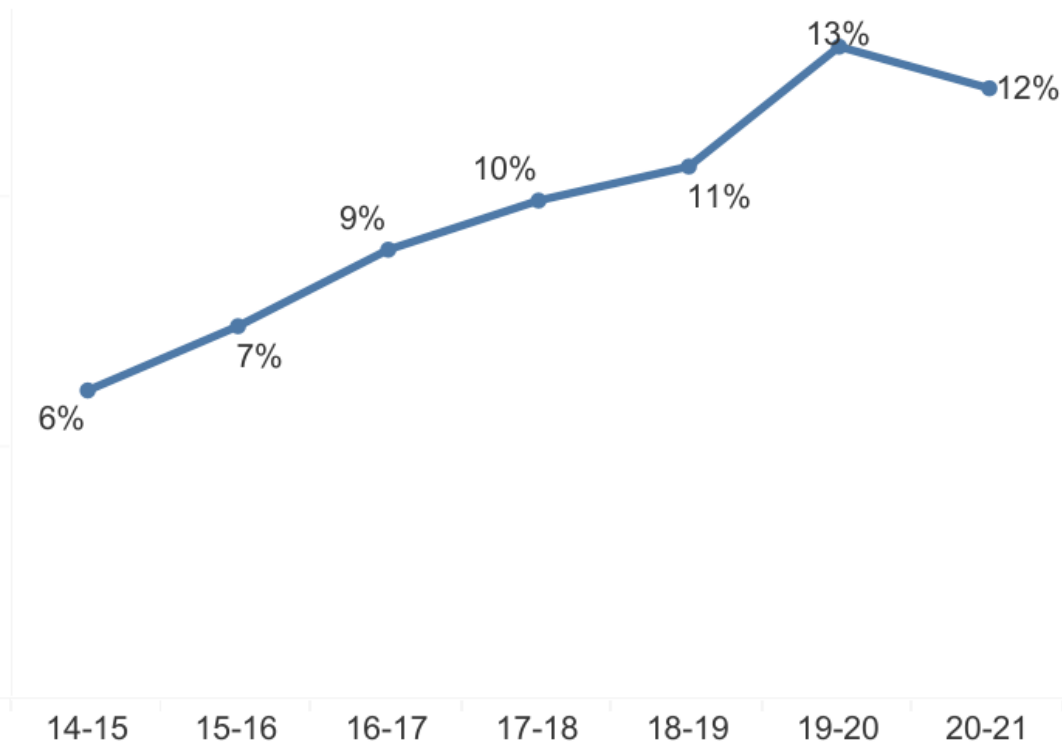
COMMUNITY COLLEGE CURRICULUM HEADCOUNT



The percentage of community college curriculum students who are dually enrolled has tripled from 10% in Fall 2013 to 31% in Fall 2022.

PUBLIC HIGH SCHOOL DUAL ENROLLMENT

Percentage of high school students dually enrolled in NCCCS

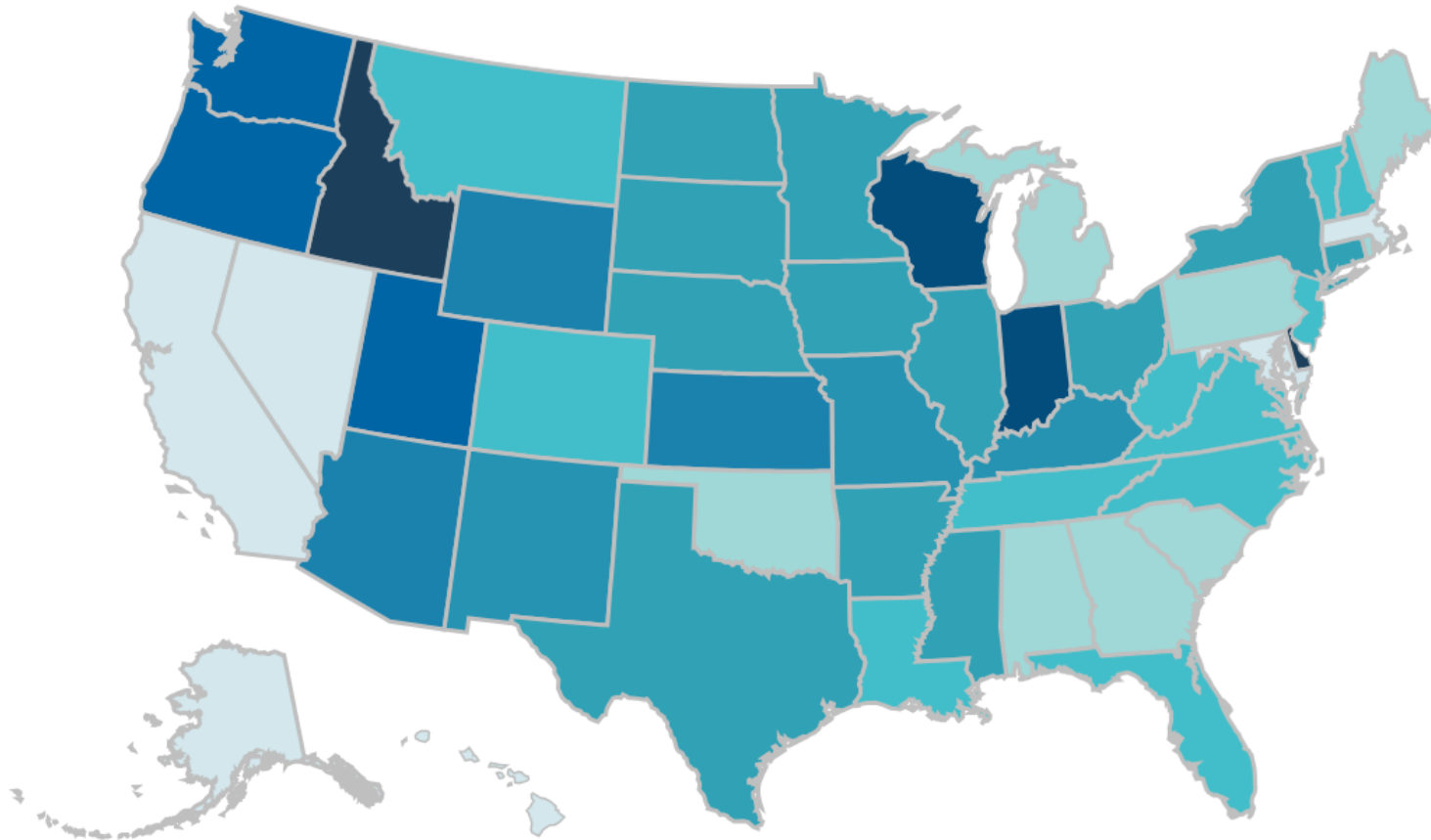


The percentage of high school students participating in dual enrollment has doubled from 6% in the 2014-2015 academic year to 12% in the 2020-2021 academic year.

Participation Rate



Dual Enrollment (DE)



BETWEEN STATE COMPARISON (2017-2018)

State	DE Rate
Nevada (lowest)	2.2%
South Carolina	7.1%
North Carolina	9.0%
Virginia	9.7%
Texas	10.6%
Idaho (highest)	26.9%



WHAT IS THE
IMPACT OF CCP?

METHODS

Impact of College Transfer and CTE Pathway

- Compares pathway participants with non-pathway participants (both groups may have taken AP courses, but no CIHS students are included in either group)
- Sample: Around 650,000 students in 11th and 12th grade
 - Graduates from 2013-2021

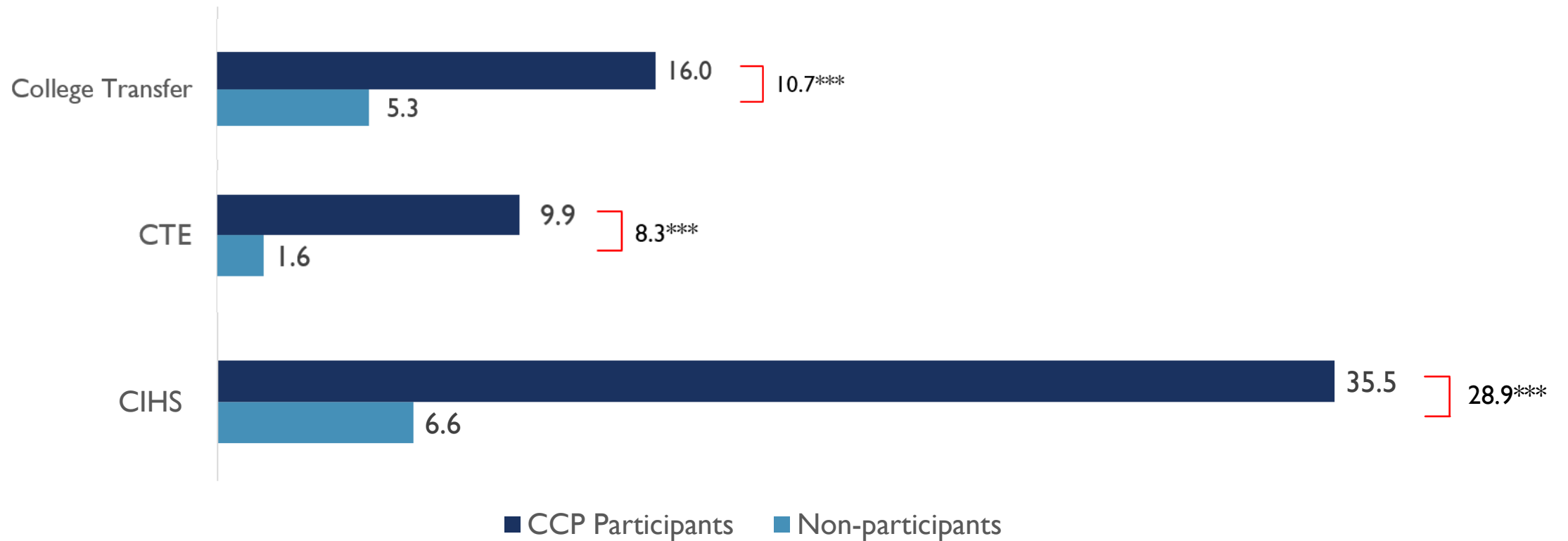
Impact of CIHS

- Compares students who started the CIHS pathway in 9th grade with similar non-participating students. Students in the comparison group may have taken AP or other CCP courses in a comprehensive high school.
- Sample: Around 850,000 students

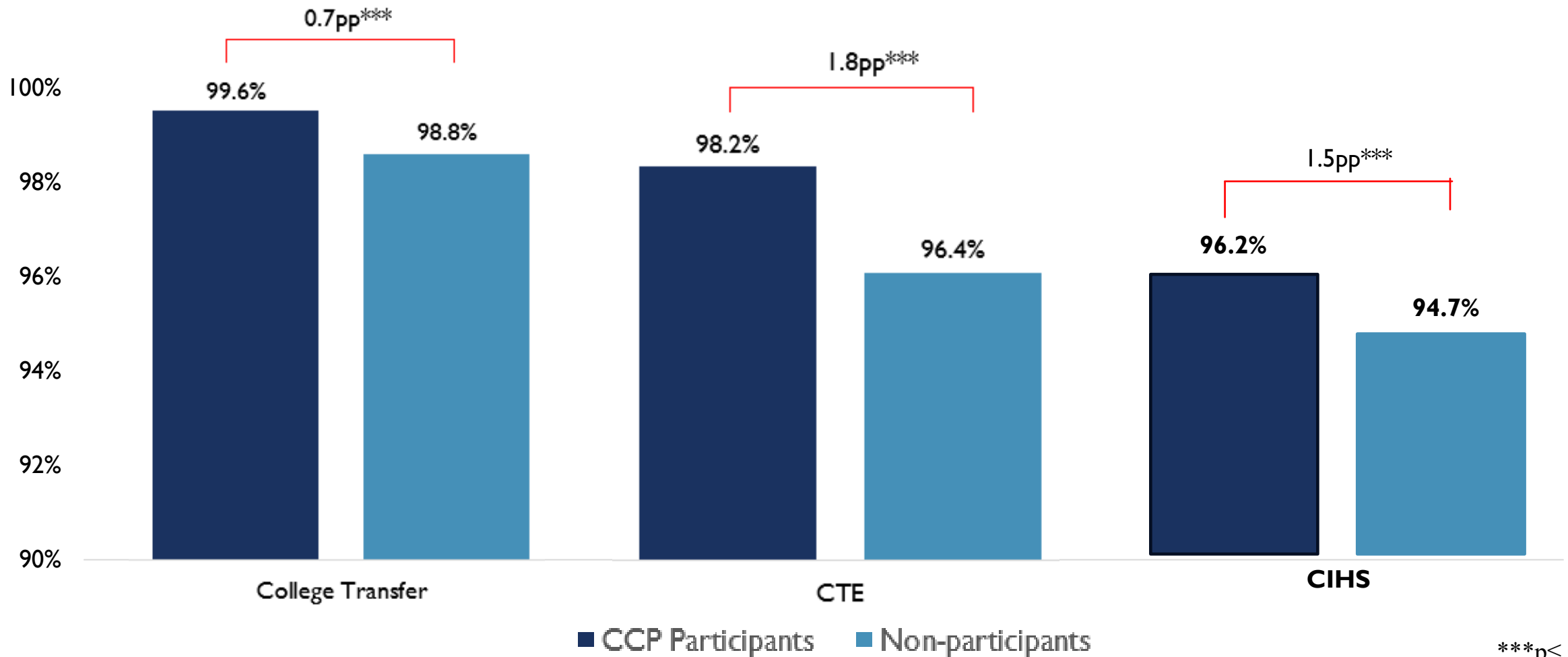
For both sets of analyses, comparison group was statistically “weighted,” so they looked more like the treatment group.

Data sources include: NCCCS, NCDPI, UNC System, National Student Clearinghouse (allows us to include private institutions)

COLLEGE-LEVEL CREDITS EARNED BY END OF 12TH GRADE



CCP STUDENTS HAD HIGHER HIGH SCHOOL GRADUATION RATES THAN COMPARISON STUDENTS.



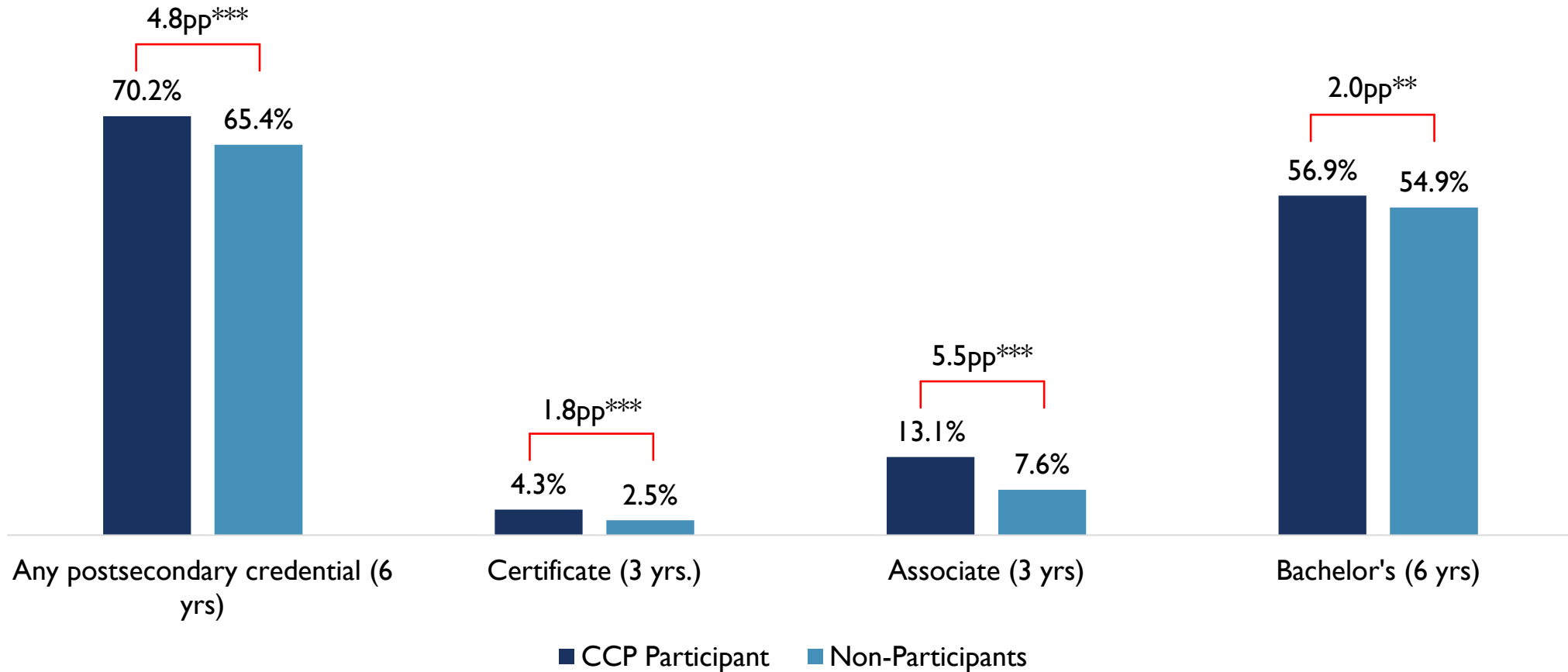
***p<=0.001



COLLEGE TRANSFER PATHWAY (CTP)



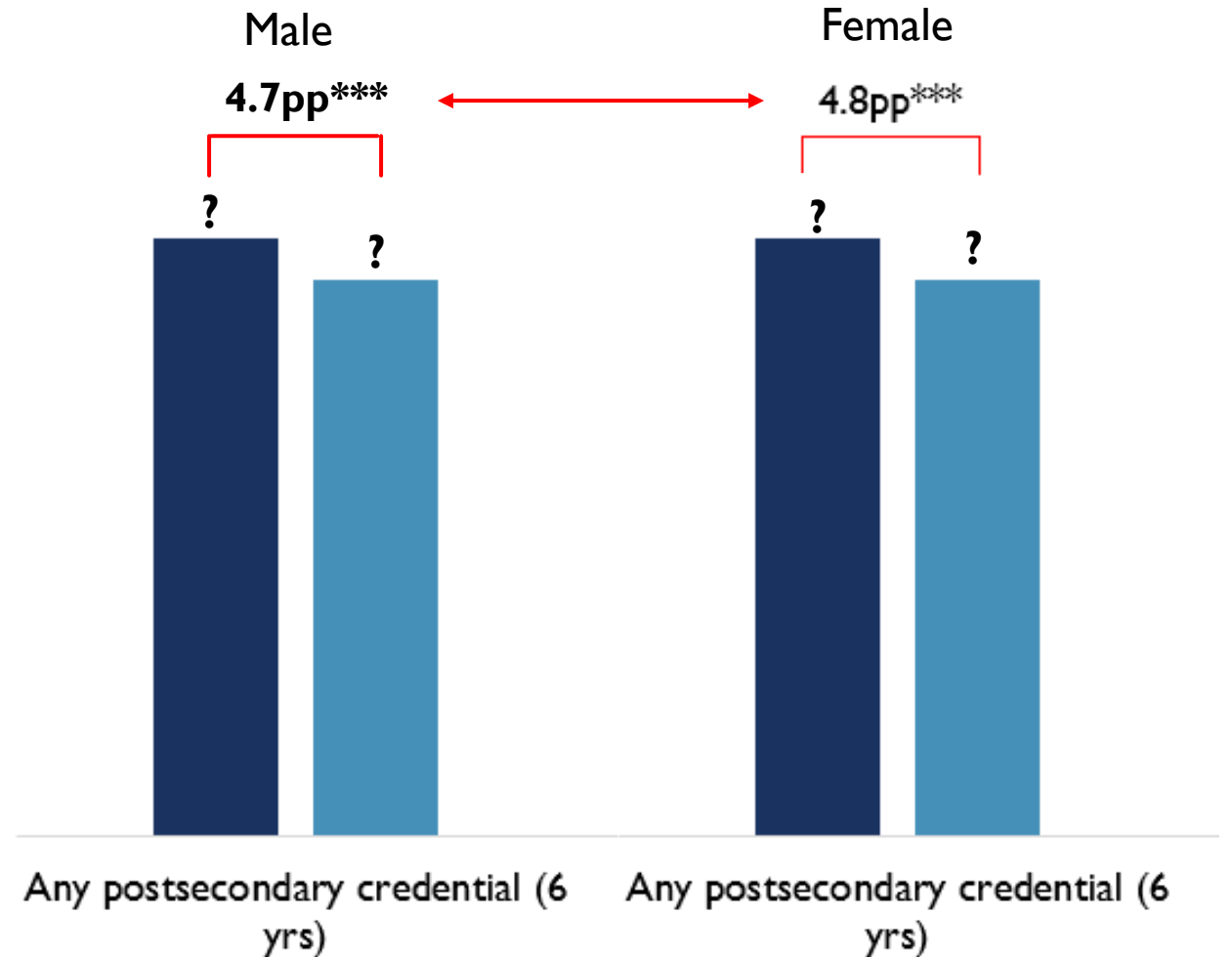
CREDENTIAL ATTAINMENT FOR COLLEGE TRANSFER PATHWAY PARTICIPANTS



Note: Credentials could be earned during or after high school. ** $p \leq .01$; *** $p \leq .001$

SUBGROUP IMPACTS – GENDER, UNDERREPRESENTED RACE/ETHNICITY, ECONOMICALLY DISADVANTAGED

Outcome	Gender	
	Male	Female
Any postsecondary credential within 6 years	4.7***	4.8pp***
Which group had higher impacts?	Both	



COLLEGE TRANSFER PATHWAY-IMPACT BY SUBGROUP

(NUMBERS REPRESENT DIFFERENCE BETWEEN CCP AND COMPARISON GROUP FOR THAT SUBGROUP)

Outcome	Gender		Underrepresented Race/Ethnicity		Economically-Disadvantaged	
	Male	Female	Underrep.	Not underrep.	EDS	Not EDS
Any postsecondary credential within 6 years	4.7***	4.8pp***	5.0pp***	4.7pp***	8.2pp***	3.7pp***
Which group had higher impacts?	Both		Both		EDS***	

COLLEGE TRANSFER PATHWAY-IMPACT BY SUBGROUP

(NUMBERS REPRESENT DIFFERENCE BETWEEN CCP AND COMPARISON GROUP FOR THAT SUBGROUP)

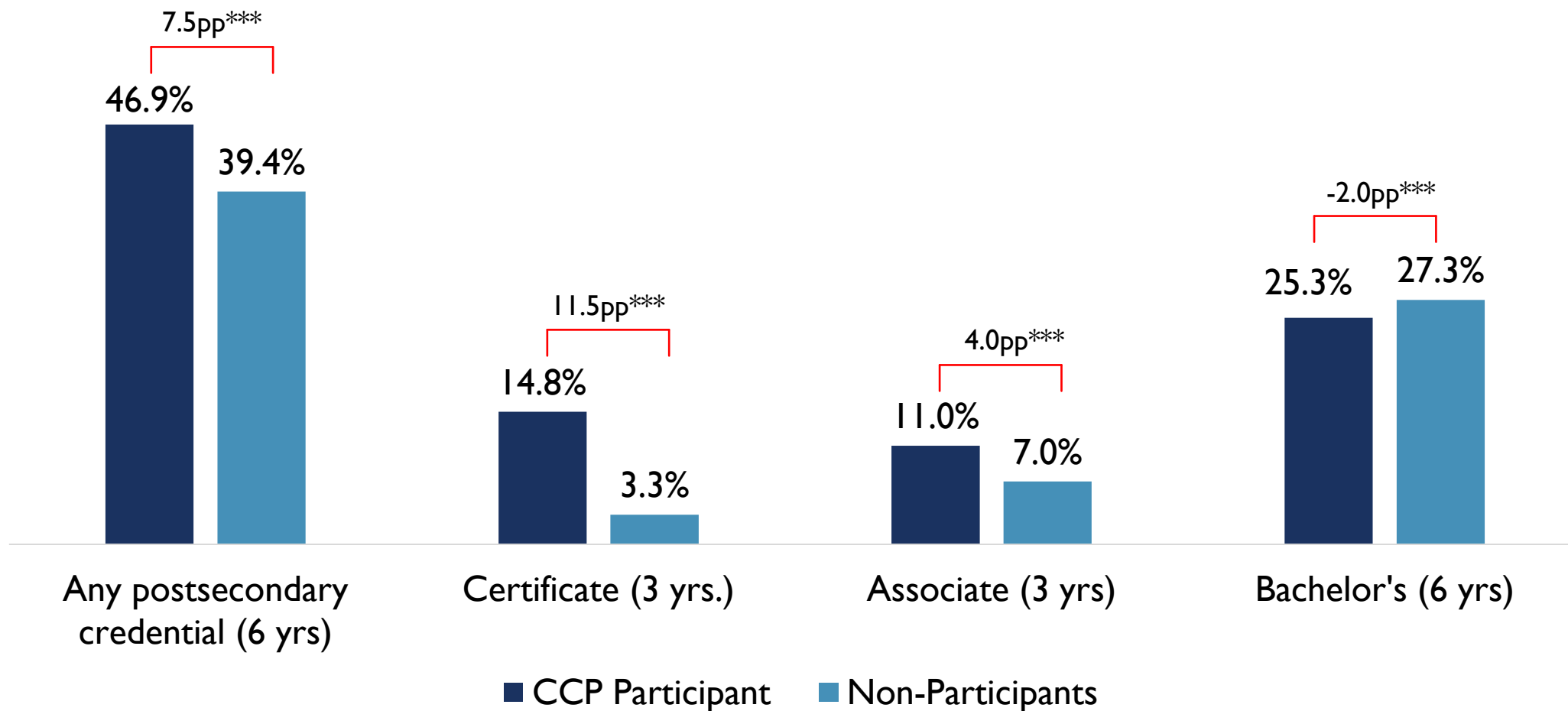
Outcome	Gender		Underrepresented Race/Ethnicity		Economically-Disadvantaged	
	Male	Female	Underrep.	Not underrep.	EDS	Not EDS
Any postsecondary credential within 6 years	4.7***	4.8pp***	5.0pp***	4.7pp***	8.2pp***	3.7pp***
Which group had higher impacts?	Both		Both		EDS***	
Technical credential within 3 years	1.7pp***	1.9pp***	2.0pp***	1.8pp***	2.5pp***	1.6pp***
Which group had higher impacts?	Both		Both		EDS**	
Associate degree within 3 years	5.2pp***	5.8pp***	4.6pp***	5.8pp***	5.1pp***	5.7pp***
Which group had higher impacts?	Both		Not underrepresented**		Both	
Bachelor's degree within six years	2.8pp*	1.7pp***	2.5pp*	2.0pp***	4.8pp***	1.2pp
Which group had higher impacts?	Both		Both		EDS**	



CAREER AND TECHNICAL PATHWAY (CTE)



CREDENTIAL ATTAINMENT FOR CTE PATHWAY PARTICIPANTS



Note: Credentials could be earned during or after high school. ***p ≤ .001

CTE PATHWAY--IMPACT BY SUBGROUP

(NUMBERS REPRESENT DIFFERENCE BETWEEN CCP AND COMPARISON GROUP FOR THAT SUBGROUP)

Outcome	Gender		Underrepresented Race/Ethnicity		Economically-Disadvantaged	
	Male	Female	Underrep.	Not underrep.	EDS	Not EDS
Any postsecondary credential within 6 years	9.9pp***	5.5pp***	7.8pp***	7.4pp***	9.7pp***	5.9pp***
Which group had higher impacts?	Male***		Both		EDS***	

CTE PATHWAY--IMPACT BY SUBGROUP

(NUMBERS REPRESENT DIFFERENCE BETWEEN CCP AND COMPARISON GROUP FOR THAT SUBGROUP)

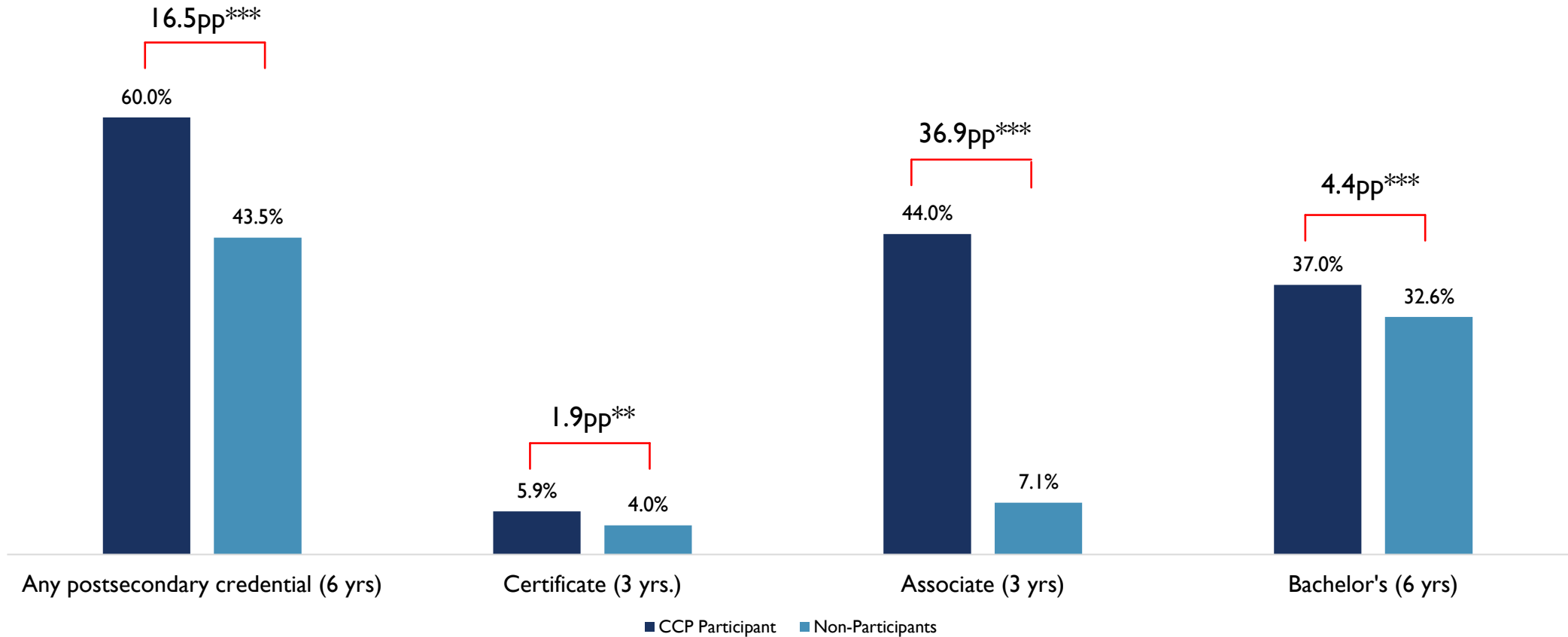
Outcome	Gender		Underrepresented Race/Ethnicity		Economically-Disadvantaged	
	Male	Female	Underrep.	Not underrep.	EDS	Not EDS
Any postsecondary credential within 6 years	9.9pp***	5.5pp***	7.8pp***	7.4pp***	9.7pp***	5.9pp***
Which group had higher impacts?	Male***		Both		EDS***	
Technical credential within 3 years	13.8pp***	9.4pp***	11.5pp***	11.4pp***	11.5pp***	11.4pp***
Which group had higher impacts?	Male***		Both		Both	
Associate degree within 3 years	4.2pp***	3.8pp***	2.8pp***	4.7pp***	2.9pp***	4.8pp***
Which group had higher impacts?	Both		Not underrepresented***		Not EDS***	
Bachelor's degree within six years	-1.9pp***	-2.1pp***	-0.7pp	-2.7pp***	-0.2pp	-3.4pp***
Which group had higher impacts?	Both		Underrepresented**		EDS***	



COOPERATIVE INNOVATIVE HIGH SCHOOL (CIHS)



CIHS PATHWAY PARTICIPANTS WERE MORE LIKELY TO EARN A CREDENTIAL



Note: Credentials could be earned during or after high school.

** $p \leq .01$; *** $p \leq .001$

CIHS PATHWAY-IMPACT BY SUBGROUP

(NUMBERS REPRESENT DIFFERENCE BETWEEN CCP AND COMPARISON GROUP FOR THAT SUBGROUP)

Outcome	Gender		Underrepresented Race/Ethnicity		Economically-Disadvantaged	
	Male	Female	Underrep.	Not underrep.	EDS	Not EDS
Any postsecondary credential within 6 years	15.9***	16.9pp***	17.9pp***	15.3pp***	20.4pp***	11.8pp***
Which group had higher impacts?	Both		Both		EDS***	

Note: Credentials could be earned during or after high school.

*p≤.05; **p≤.01; ***p≤.001

CIHS PATHWAY-IMPACT BY SUBGROUP

(NUMBERS REPRESENT DIFFERENCE BETWEEN CCP AND COMPARISON GROUP FOR THAT SUBGROUP)

Outcome	Gender		Underrepresented Race/Ethnicity		Economically-Disadvantaged	
	Male	Female	Underrep.	Not underrep.	EDS	Not EDS
Any postsecondary credential within 6 years	15.9***	16.9pp***	17.9pp***	15.3pp***	20.4pp***	11.8pp***
Which group had higher impacts?	Both		Both		EDS***	
Certificate/diploma within 3 years	2.7pp***	1.4pp*	1.2pp*	2.5pp**	1.6pp**	2.4pp**
Which group had higher impacts?	Male**		Both		Both	
Associate degree within 3 years	32.7pp***	39.6pp***	31.5pp***	41.5pp***	32.2pp***	42.3pp***
Which group had higher impacts?	Female***		Not underrepresented***		Not EDS**	
Bachelor's degree within six years	3.5pp***	5.1pp***	7.4pp***	1.9pp	8.3pp***	-0.2pp
Which group had higher impacts?	Both		Underrepresented***		EDS**	

Note: Credentials could be earned during or after high school.

*p≤.05; **p≤.01; ***p≤.001

SUBGROUP IMPACTS

Impact on sub-groups tended to mirror the overall impacts.

For all pathways, economically disadvantaged students benefitted more than non-economically disadvantaged students around postsecondary degree attainment.

PATHWAY: COLLEGE TRANSFER

COVID COHORTS VS. PRE-COVID COHORTS

	4-Year Graduation Rate (%)	Total # of College Credits Earned	Enrollment in any postsecondary institution (%)	Enrollment in 4-year (%)	Enrollment in 2-year (%)
COVID Cohorts Treatment	99.5%	17.1	82.4%	55.3%	31.2%
COVID Cohorts Comparison (weighted)	98.6%	4.9	72.0%	52.1%	22.3%
<i>Impact Estimate</i>	0.9pp***	12.2***	10.3pp***	3.2pp***	8.8pp***
Pre-COVID Cohorts Treatment	99.6%	15.2	87.9%	64.1%	28.5%
Pre-COVID Cohorts Comparison (weighted)	99.0%	5.6	82.3%	63.0%	22.7%
<i>Impact Estimate</i>	0.6pp***	9.6***	5.6pp***	1.1pp*	5.8pp***
Cohorts with more positive impacts	COVID*	COVID**	COVID***	COVID***	COVID***

*p ≤ 0.05; **p ≤ 0.01; ***p ≤ 0.001

Note: college credits were earned by passing a dual enrollment course or by passing an AP exam

PATHWAY: CTE

COVID COHORTS VS. PRE-COVID COHORTS

	4-Year Graduation Rate (%)	Total # of College Credits Earned	Enrollment in any postsecondary institution (%)	Enrollment in 4-year (%)	Enrollment in 2-year (%)
COVID Cohorts Treatment	98.7%	13.0	64.7%	31.9%	35.5%
COVID Cohorts Comparison (weighted)	97.0%	2.2	55.4%	32.8%	24.5%
<i>Impact Estimate</i>	1.6pp***	10.8***	9.3pp***	-0.8pp	11.0pp***
Pre-COVID Cohorts Treatment	98.2%	10.1	69.7%	34.0%	38.8%
Pre-COVID Cohorts Comparison (weighted)	96.5%	1.9	63.8%	36.1%	30.2%
<i>Impact Estimate</i>	1.7pp***	8.2***	5.9pp***	-2.1pp***	8.6pp***
Cohorts with more positive impacts	No difference	COVID***	COVID***	COVID*	COVID***

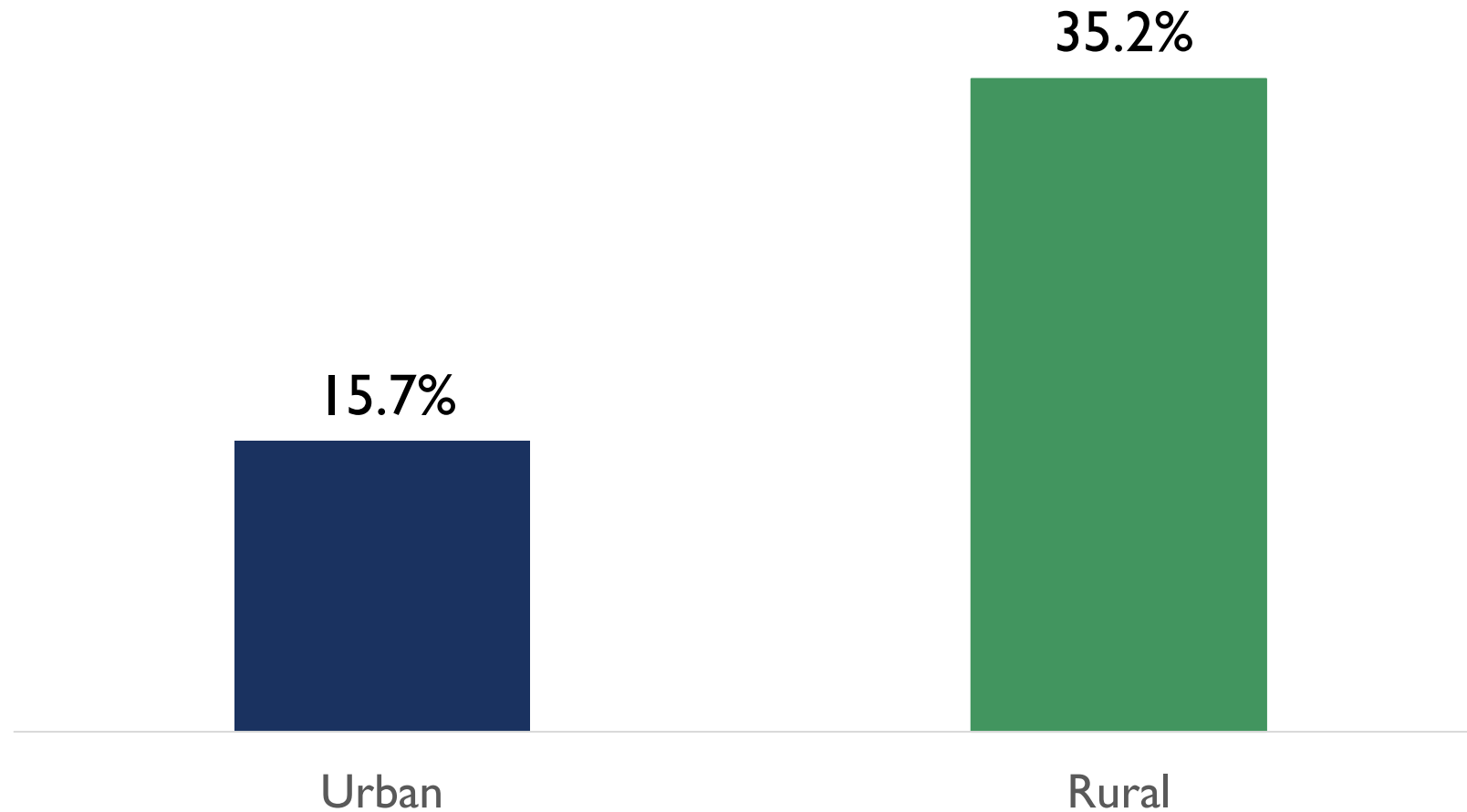
*p ≤ 0.05; **p ≤ 0.01; ***p ≤ 0.001

Note: college credits were earned by passing a dual enrollment course or by passing an AP exam



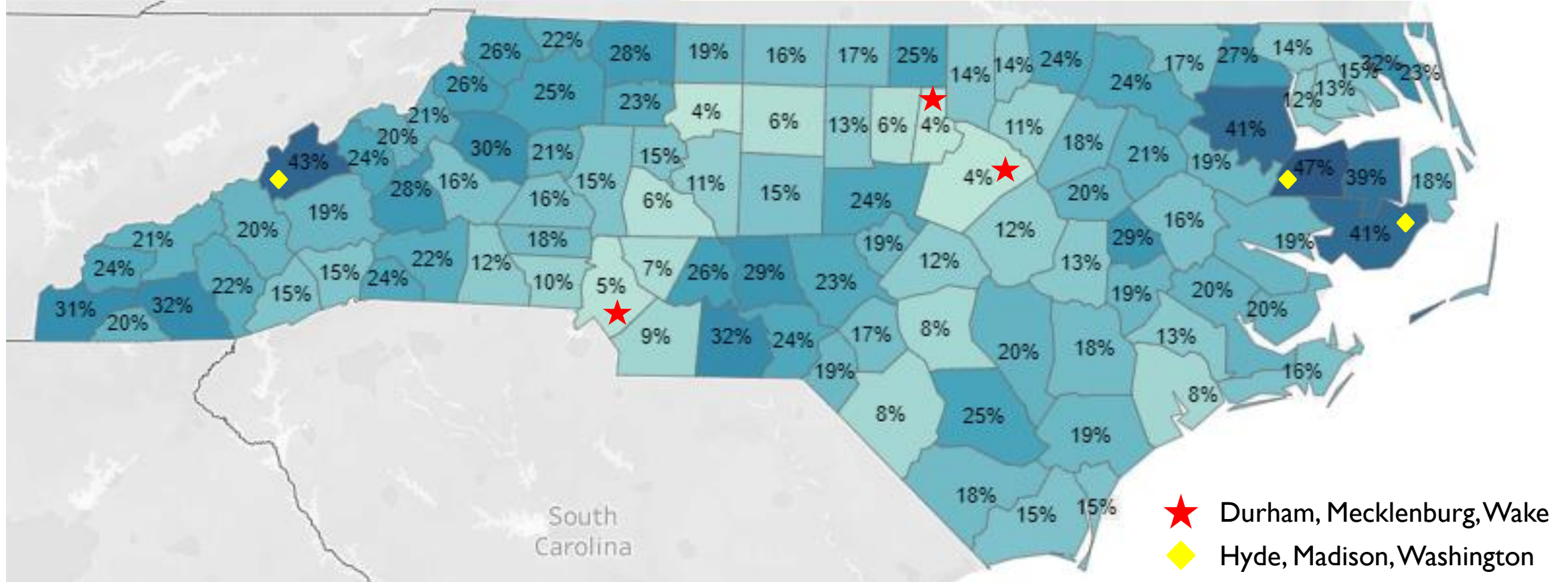
WE SEE POSITIVE
BENEFITS FOR DUAL
ENROLLMENT, BUT WE
ALSO KNOW ACCESS IS
NOT EQUITABLY
DISTRIBUTED

RURAL SCHOOLS HAVE HIGHER CTE & CTP PARTICIPATION RATES THAN URBAN SCHOOLS

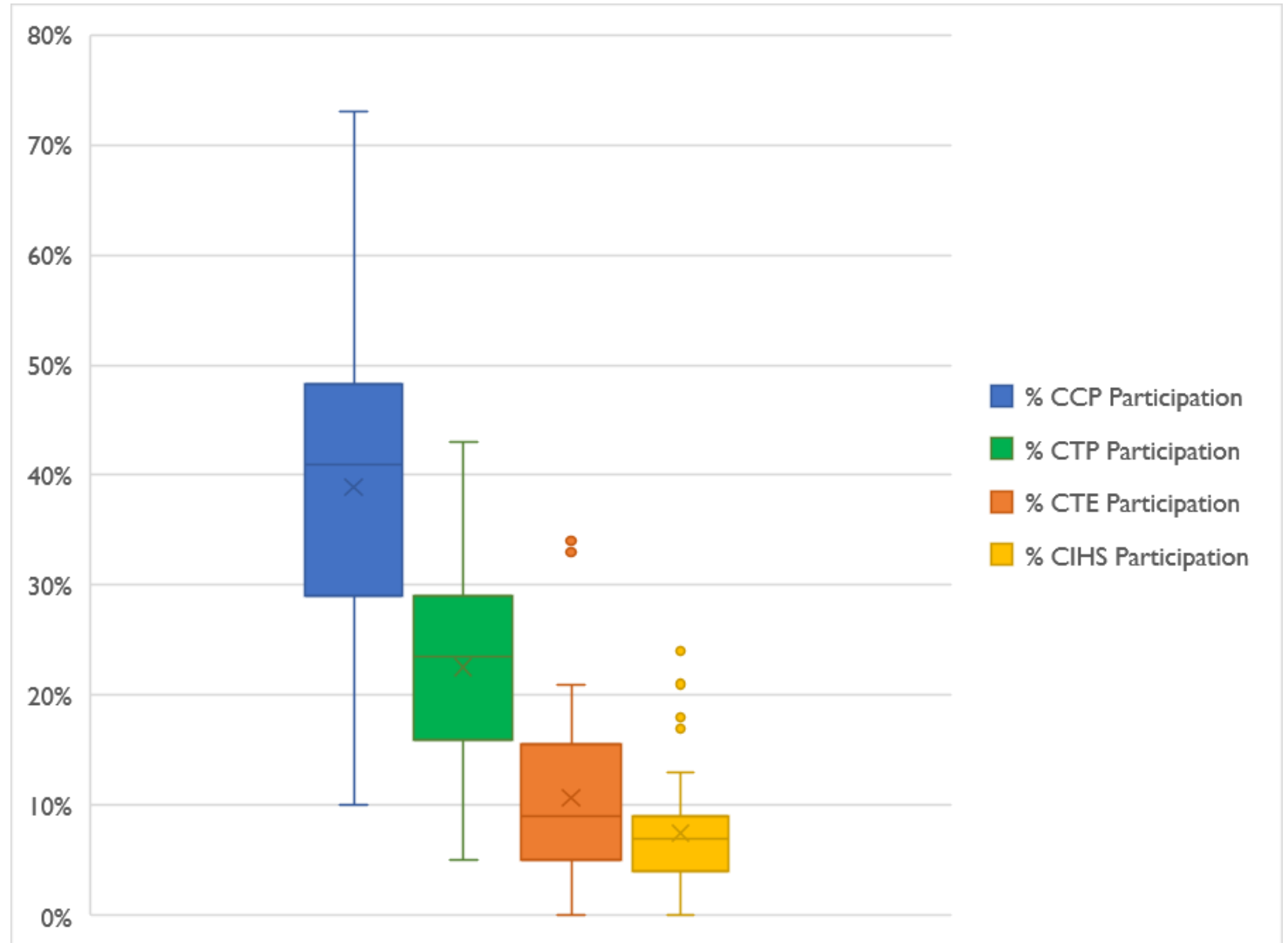


RURAL SCHOOLS HAVE HIGHER DE PARTICIPATION RATES THAN URBAN SCHOOLS

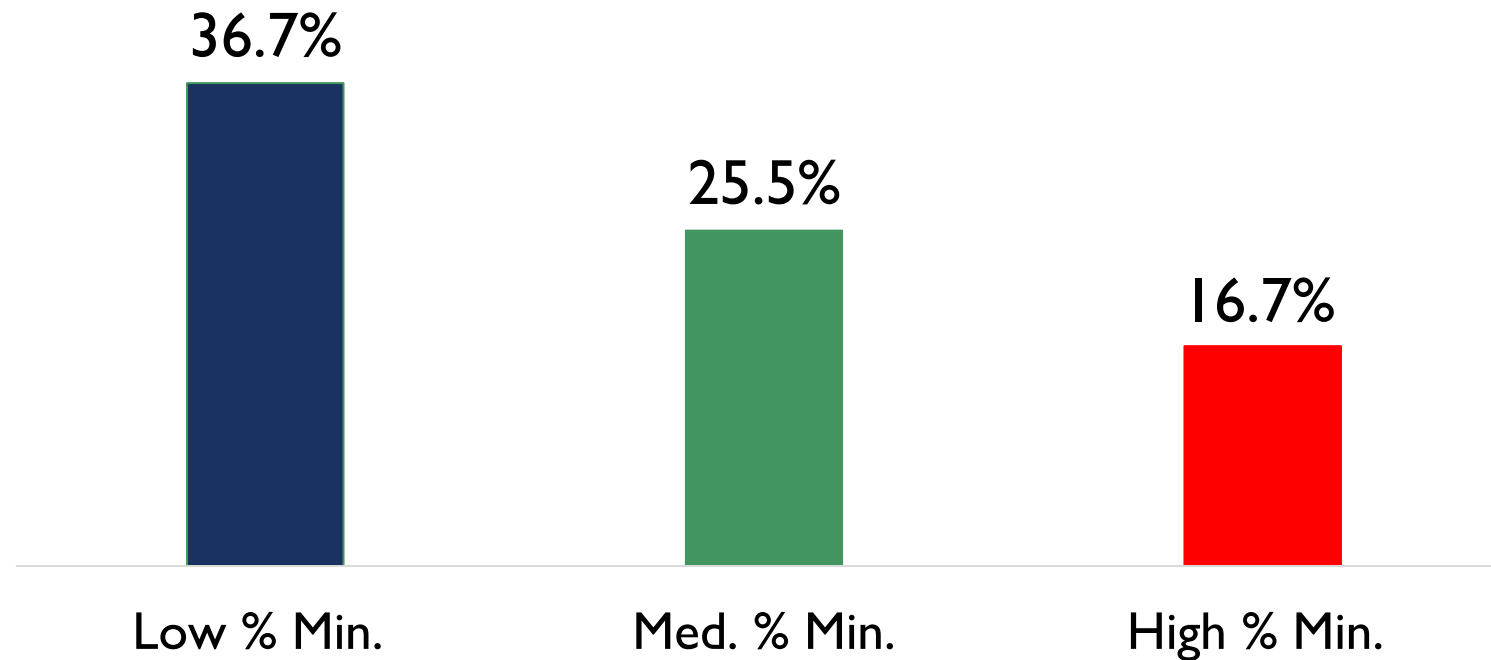
Percentage of high school students dually enrolled by county
All Dual Enrollment, 20-21



12TH GRADE PARTICIPATION VARIES SUBSTANTIALLY BY COLLEGE SERVICE AREA

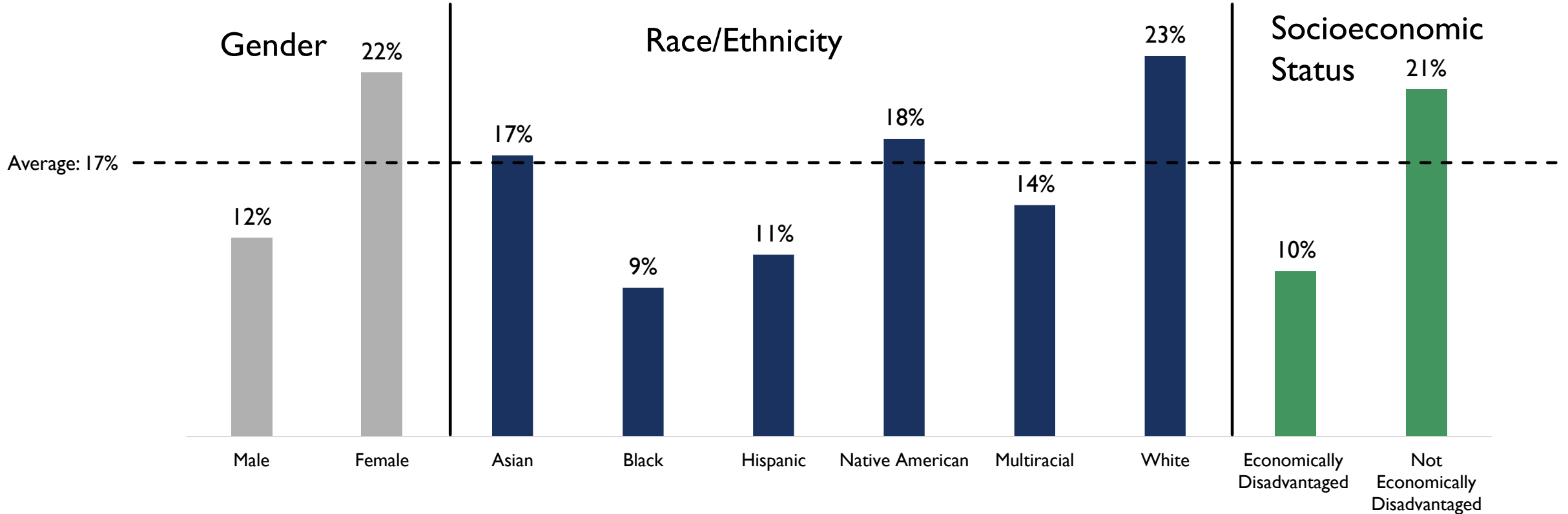


SCHOOLS WITH HIGHER PERCENTAGES OF MINORITY STUDENTS HAVE LOWER CCP PARTICIPATION RATES



Note: Does not include CIHS

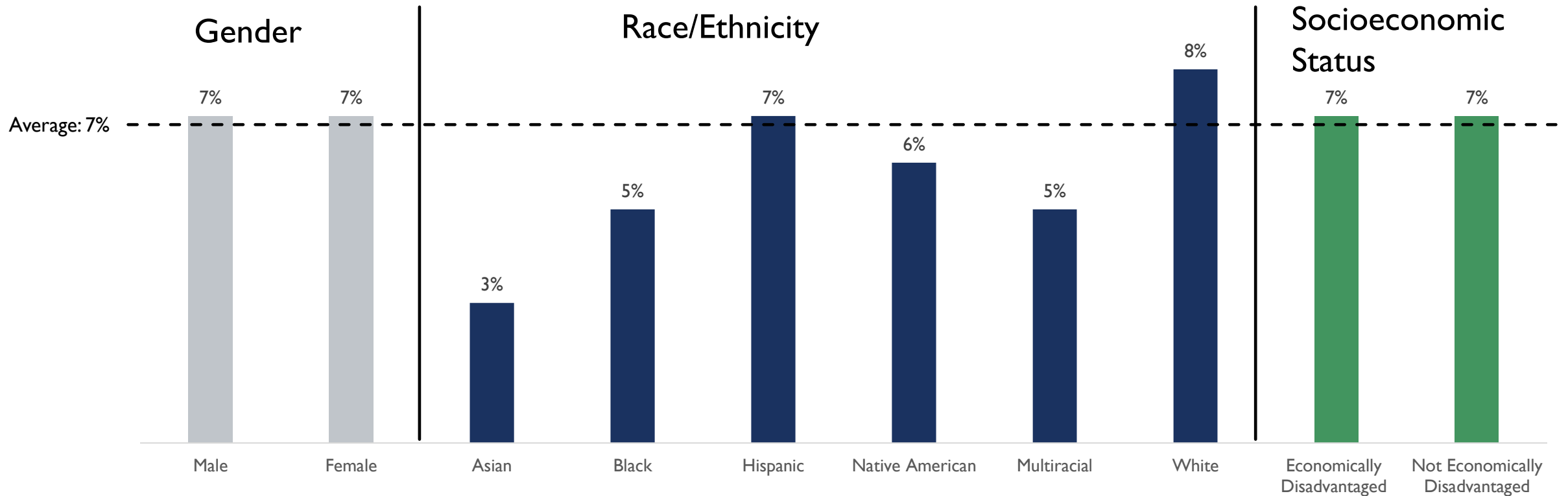
Participation in College Transfer Pathway—12th graders in 2019-20



Key Takeaways

- Gaps in this pathway are the largest with females participating at twice the rate as males
- Non-EDS students were participating at twice the rate as EDS students.
- White students participated at a rate 2.5 times higher than Black students.

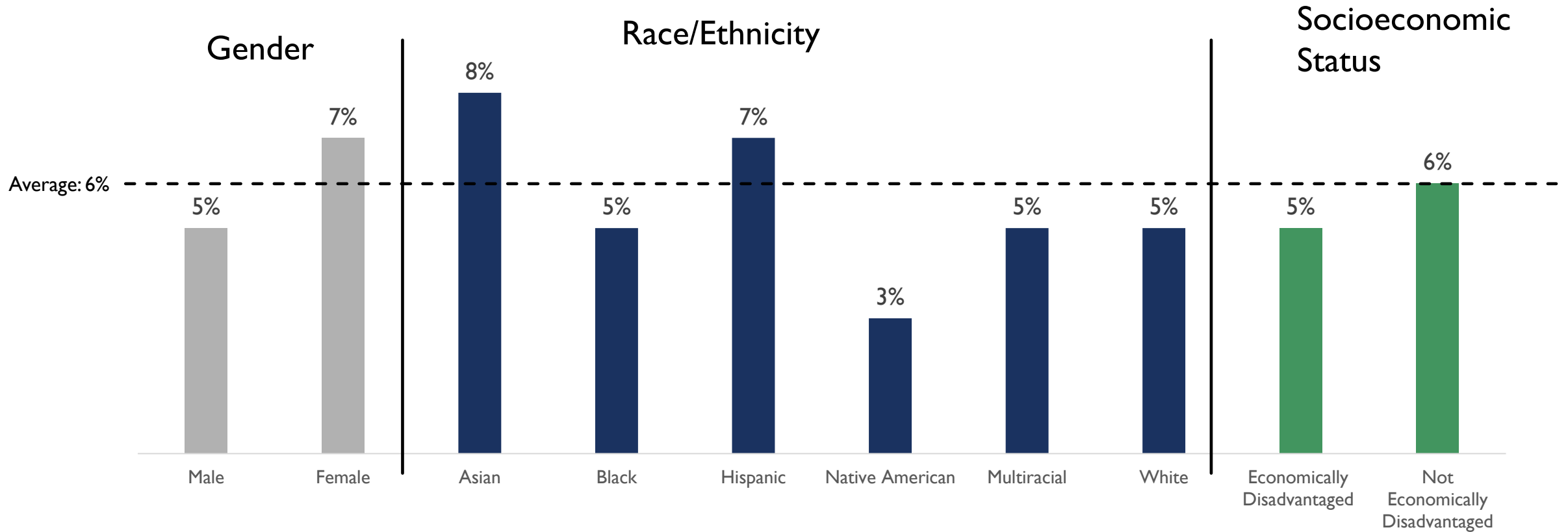
Participation in CTE Pathway—12th graders in 2019-20



Key Takeaways

- Good representation regarding males/females and socio-economic status.
- White students participate at a rate 1.6 times higher than Black students.
- Asian students participate at the lowest rate.

Participation in CIHS Pathway—12th graders in 2019-20



Key Takeaways

- There is good balance on economically disadvantaged status.
- Females participate at a higher rate than males.
- CIHSs serve a very diverse group of students, although Native American students are substantially underrepresented.

ONGOING CONVERSATION AROUND CCP ACCESS

Given that students have different levels of access depending on demographics, what strategies is your college using or considering to improve access?

Are there additional strategies that should be considered?

SOME IDEAS
FOR COLLEGES
AND HIGH
SCHOOLS TO
CONSIDER

- Educate students early on options
- Equip high school counselors with dual enrollment resources and training
- Build capacity for wide-spread implementation of supports (e.g., funding for textbooks, transportation)

NEXT STEPS/SPINOFF RESEARCH

- *College Transfer Project*: Understand extent to which college-level credits earned in high school (dual enrollment and AP) are earned, are transferred and are applied to students' postsecondary experiences.
- *Employment and Earnings*: Looking at how participation in CCP influences employment rate and wages.
- *Career Coaches Project*: Looking at implementation of the NCCCS Career Coaches, considering data limitations, and determining how to assess impact.

DASHBOARDS

▾ High School Dual Enrollment

High School Dual Enrollment Rate

Dual Enrollment Summary

Dual Enrollment Programs

Dual Enrollment Curriculum Course Outcomes

Dual Enrollment Cohort Outcomes Summary

Dual Enrollment Transfer Pathway Cohort Institutional Outcomes

Dual Enrollment Transfer Pathway Cohort Outcomes Peer Comparisons

Dual Enrollment CTE Pathway Cohort Institutional Outcomes

Dual Enrollment CTE Pathway Cohort Outcomes Peer Comparisons

Dual Enrollment CIHS Cohort Institutional Outcomes

Dual Enrollment CIHS Cohort Outcomes Peer Comparisons

SUMMARY

- CCP participants in all three pathways had:
 - Higher rates of high school graduation
 - Increased number of college credits earned in high school
 - Higher overall attainment of postsecondary credentials
 - Some evidence on the CTE pathway of shifting from four-year to two-years
- There are some disparities in access:
 - Urban students participate at much lower rates than rural students
 - Urban students have higher levels of access to other advanced coursetaking, like Advanced Placement
 - Some populations of students participate at lower rates in certain pathways:
 - Gaps are largest for the College Transfer Pathway with lower participation by males, Black and Hispanic students, and economically disadvantaged students
 - Participation is more equitable in the CTE and CIHS Pathways

CONTACT INFORMATION

Emily Smail: smaile@nccommunitycolleges.edu

Bill Schneider: schneiderb@nccommunitycolleges.edu

Julie Edmunds: jedmunds@serve.org