CCRC COMMUNITY COLLEGE RESEARCH CENTER

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

Rethinking Dual Enrollment as an Onramp to College & Career Pathways

Lessons from the *Dual Enrollment Equity Playbook*

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Teachers College, Columbia University

TPSE Math Webinar
November 17, 2021

About CCRC

CCRC has been a leader in the field of community college research and reform for over 20 years. Our work provides a foundation for innovations in policy and practice that help give every community college student the best chance of success.

Our areas of research include:

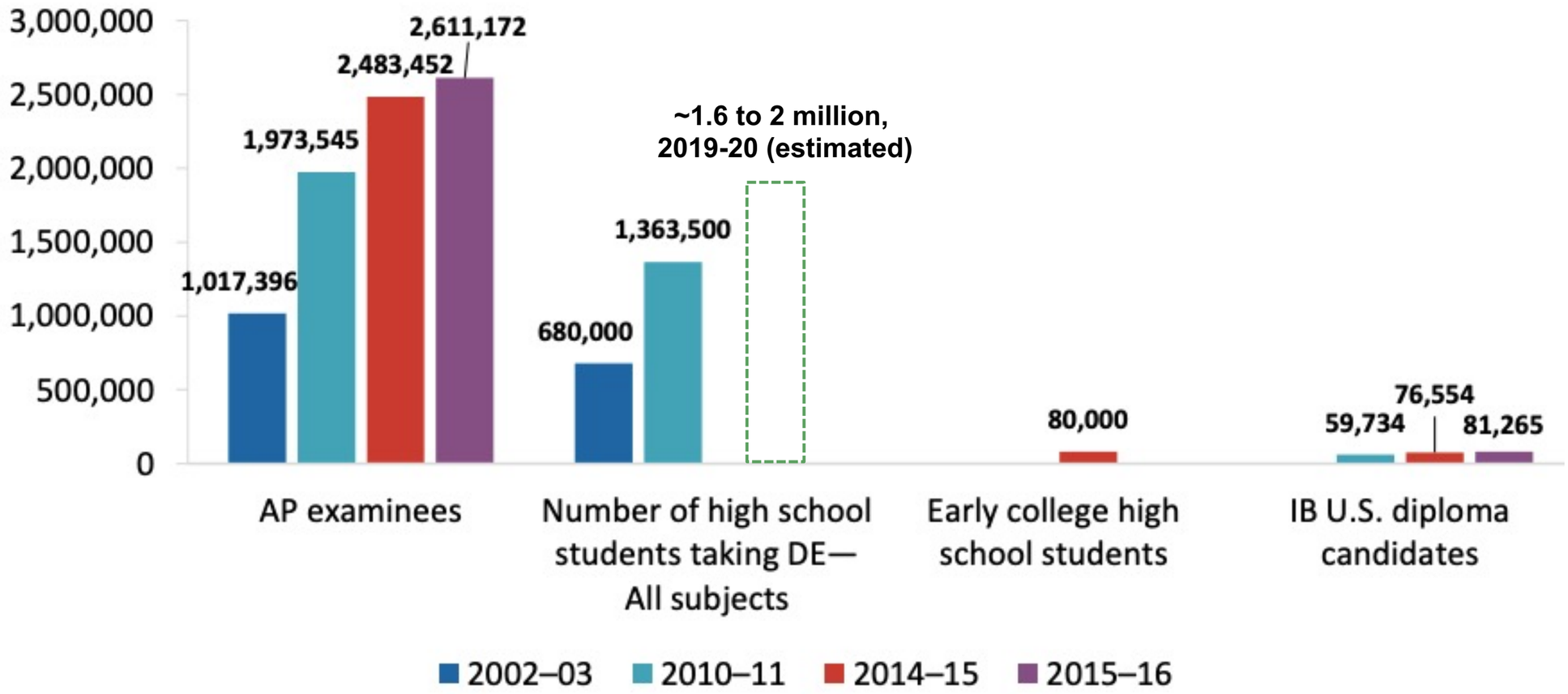
- College readiness and dual enrollment programs, and the transition from high school to college
- Developmental education and adult basic skills
- Non-academic support services, financial aid, and student engagement
- Online education and instructional technology
- Student persistence and completion, and transfer to four-year colleges
- Guided pathways, institutional reform, and performance funding
- Workforce education and training and the economic returns to higher education

Slides

Key Takeaways

1. Conventional approach to dual enrollment has resulted in inequitable access and earned the monikers of "**Programs of Privilege**" and "**Random Acts of DE**"
2. Dual enrollment has great potential but is **currently underutilized** as strategy to expand access to high-opportunity postsecondary pathways
3. Exclusionary policies, practices, and mindsets have resulted in **inequitable access** to dual enrollment courses
4. **Improvement is possible** – and essential to further expanding opportunity for students and building back enrollments for colleges

AP and Dual Enrollment/Credit dominate college acceleration opportunities for high school students



Note (from original figure): National enrollment data do not exist for DE and CTE beyond 2010–11.

Source: College Board, 2017, p. 9, Figure 1. (Figure A1 reproduces all data from the original figure.)

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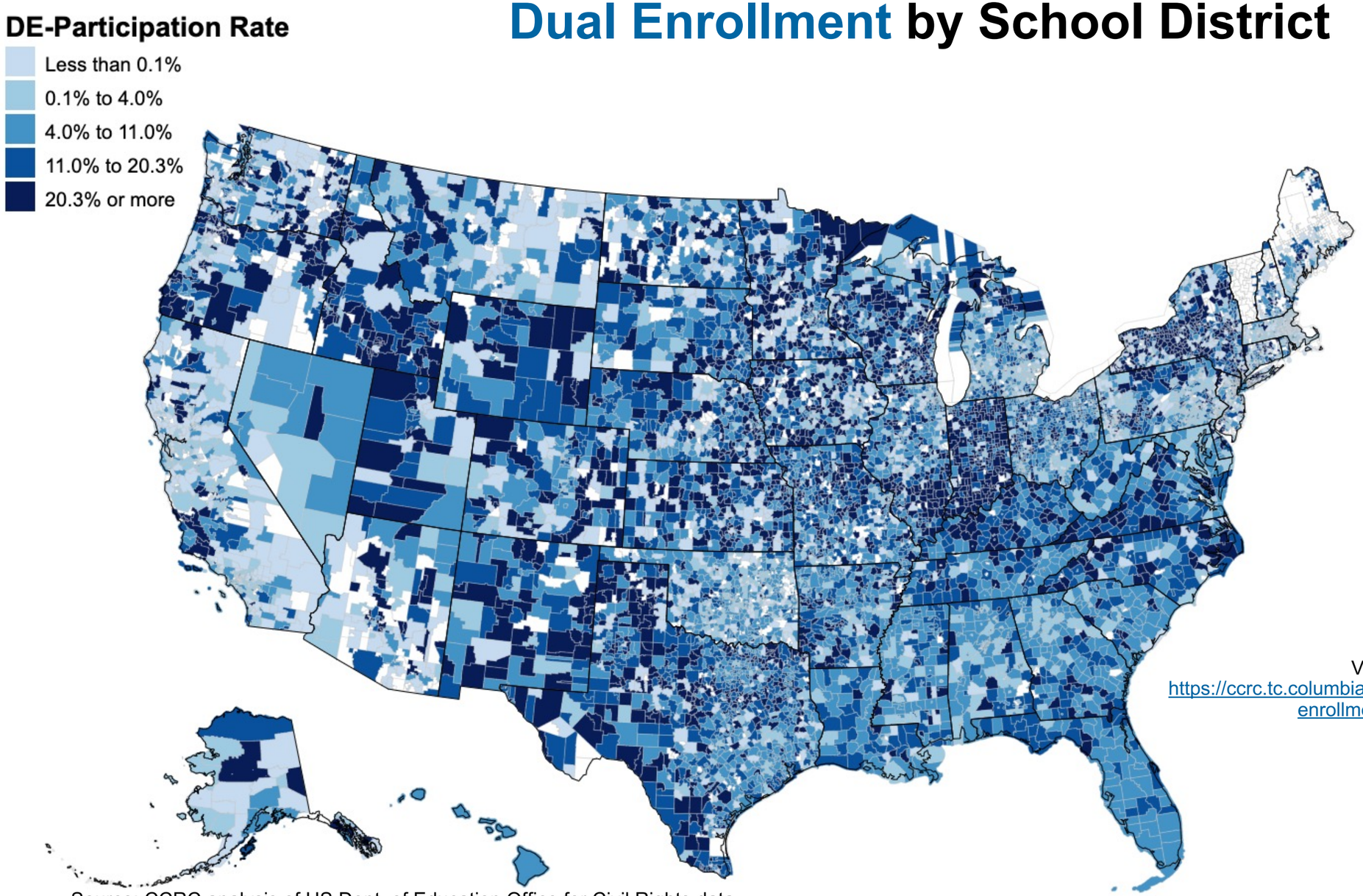
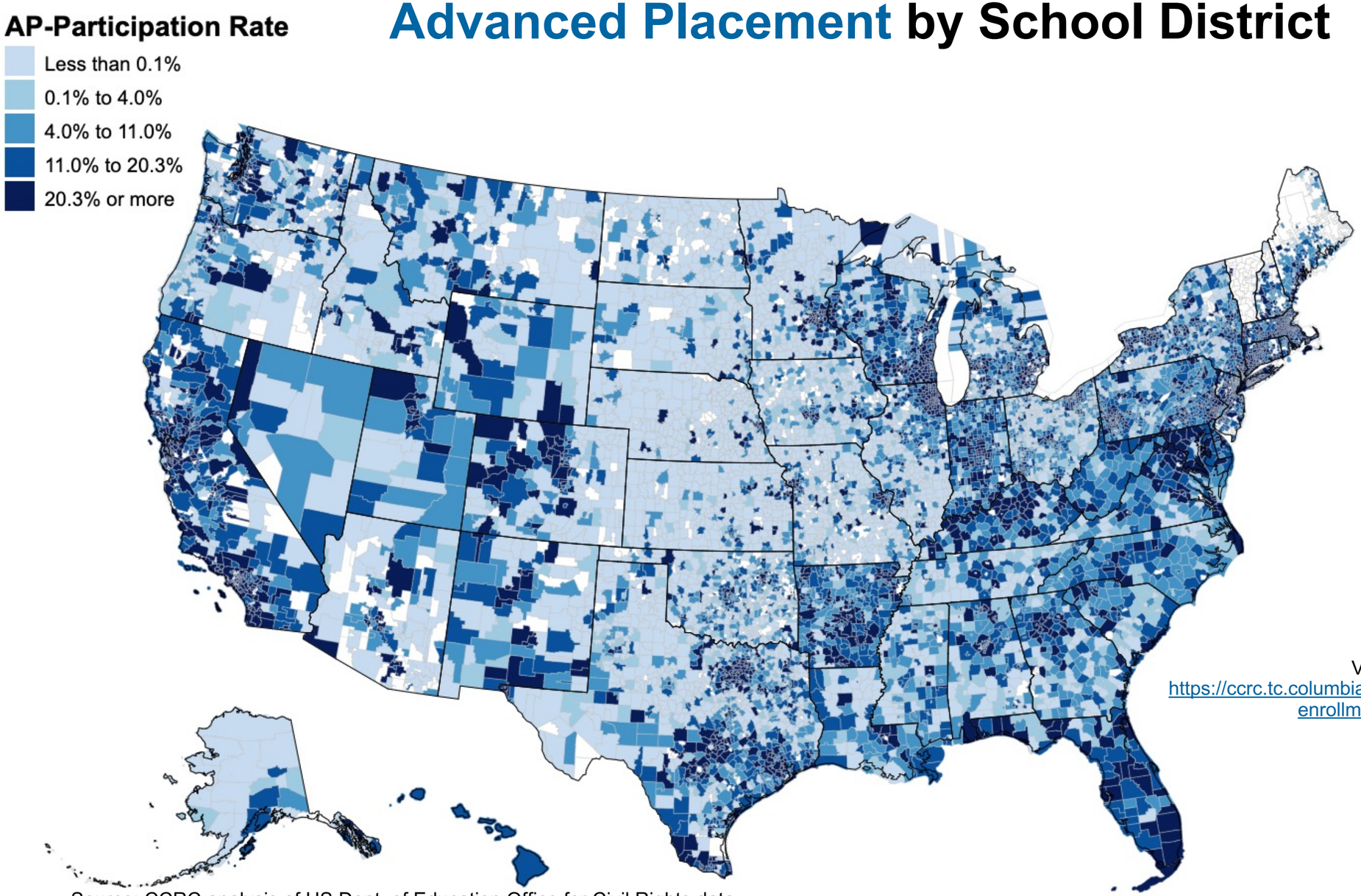
2017-18 High School Student Participation in Dual Enrollment by School District



View an interactive map:
https://ccrc.tc.columbia.edu/easyblog/ap-dual-enrollment-access-update.html

Source: CCRC analysis of US Dept. of Education Office for Civil Rights data

2017-18 High School Student Participation in Advanced Placement by School District



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Source: CCRC analysis of US Dept. of Education Office for Civil Rights data

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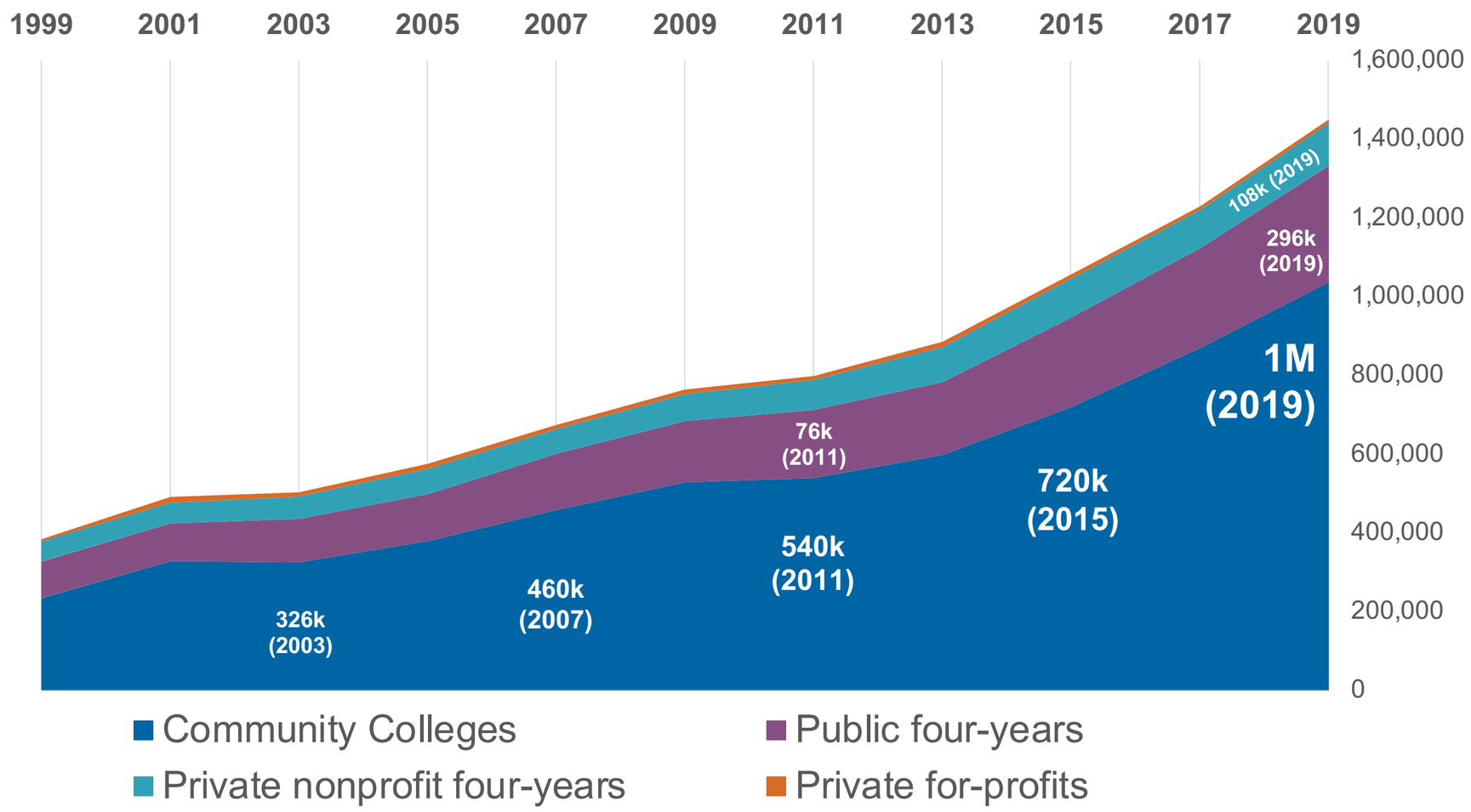
Growth of Dual Enrollment

1999-2019

IPEDS Fall Enrollments

Fall Undergraduate Enrollments among Students Aged 17 or Younger



Expansion of Dual Enrollment Concentrated at Community Colleges

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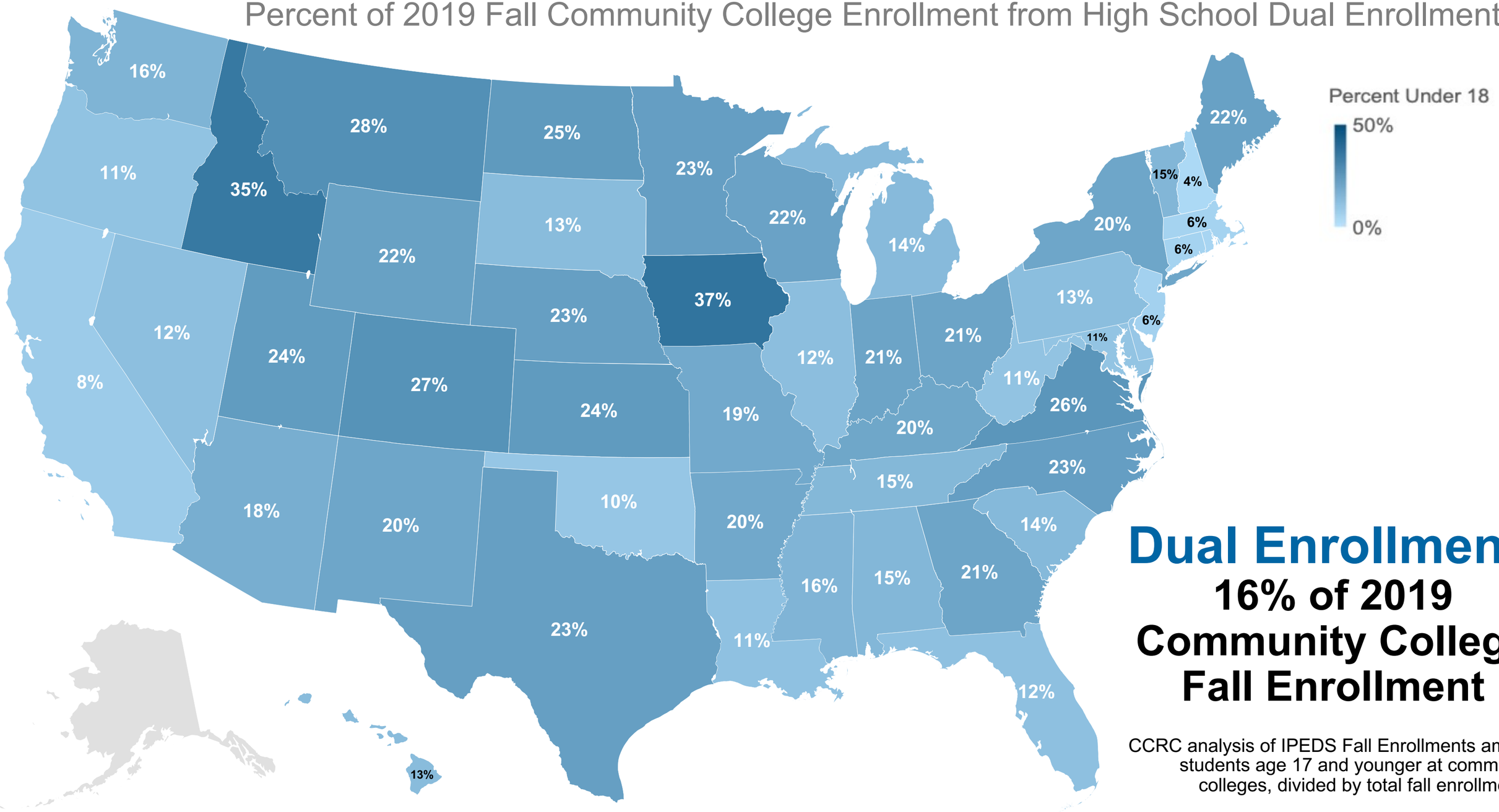
Percent of 2019 Fall Community College Enrollment from High School Dual Enrollment



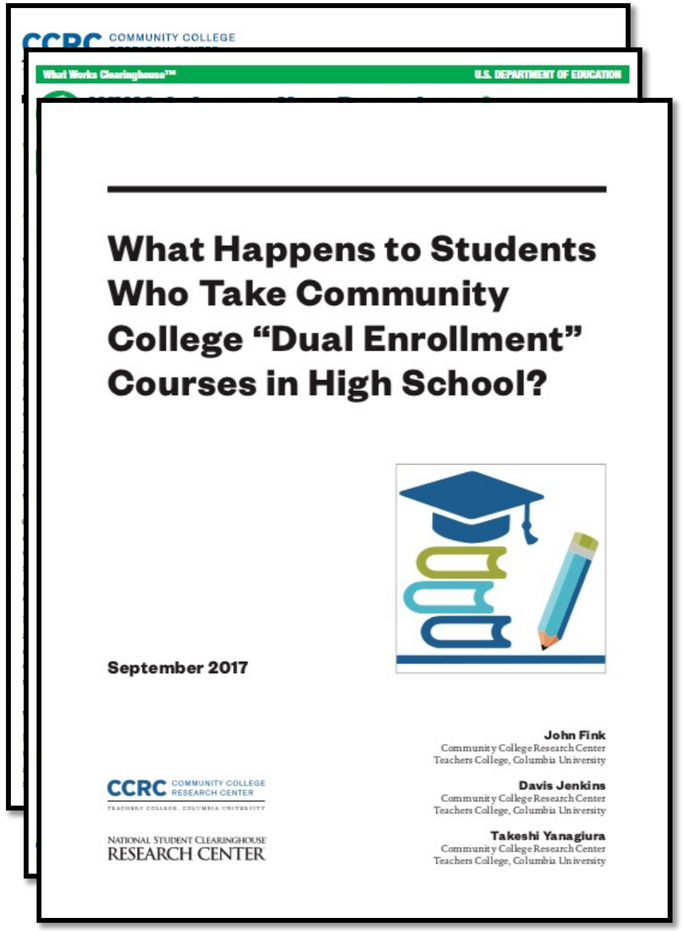
Dual Enrollment:

16% of 2019 Community College Fall Enrollment

CCRC analysis of IPEDS Fall Enrollments among students age 17 and younger at community colleges, divided by total fall enrollments.

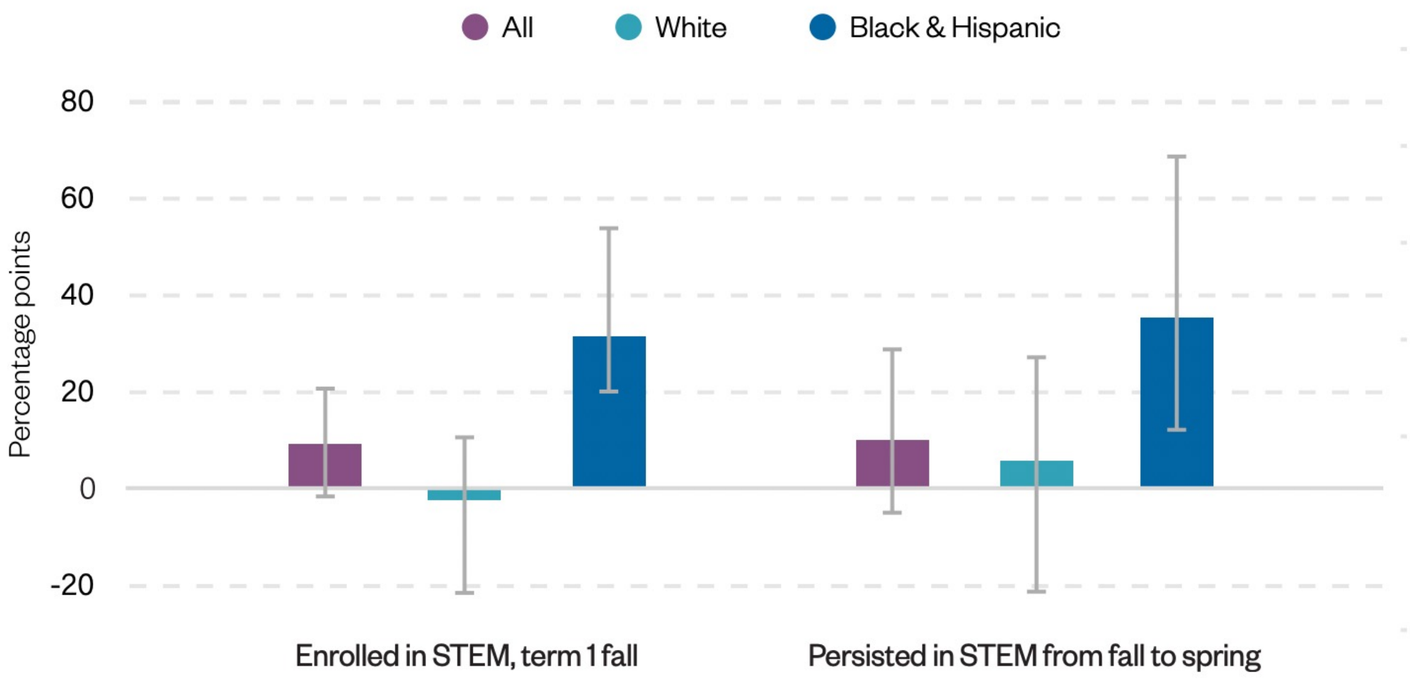
Findings on the Effects of HS Dual Enrollment

- Accumulation of descriptive and quasi-experimental evidence for dual enrollment, stronger experimental evidence on effects of ECHS
- *WWC* Report: Positive effects of taking college courses in HS include stronger HS grades, more HS completion, more college enrollment, more credit accumulation, more degree completion.
- Substantial state and institutional variation in post-HS college outcomes among former DE students



Dual Enrollment Math Can Help Black & Hispanic Students Enter and Persist in STEM

Percentage Point Difference in Early STEM Outcomes Between Dual Enrollment Algebra Participants and Similar Non-Participants on the Margin of Eligibility, by Race/Ethnicity



Minaya, V. (2021). *Can dual enrollment algebra reduce racial/ethnic gaps in early stem outcomes? Evidence from Florida*. Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/dual-enrollment-algebra-stem-outcomes.html

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- Accumulation of descriptive and quasi-experimental evidence for dual enrollment, stronger experimental evidence on effects of ECHS
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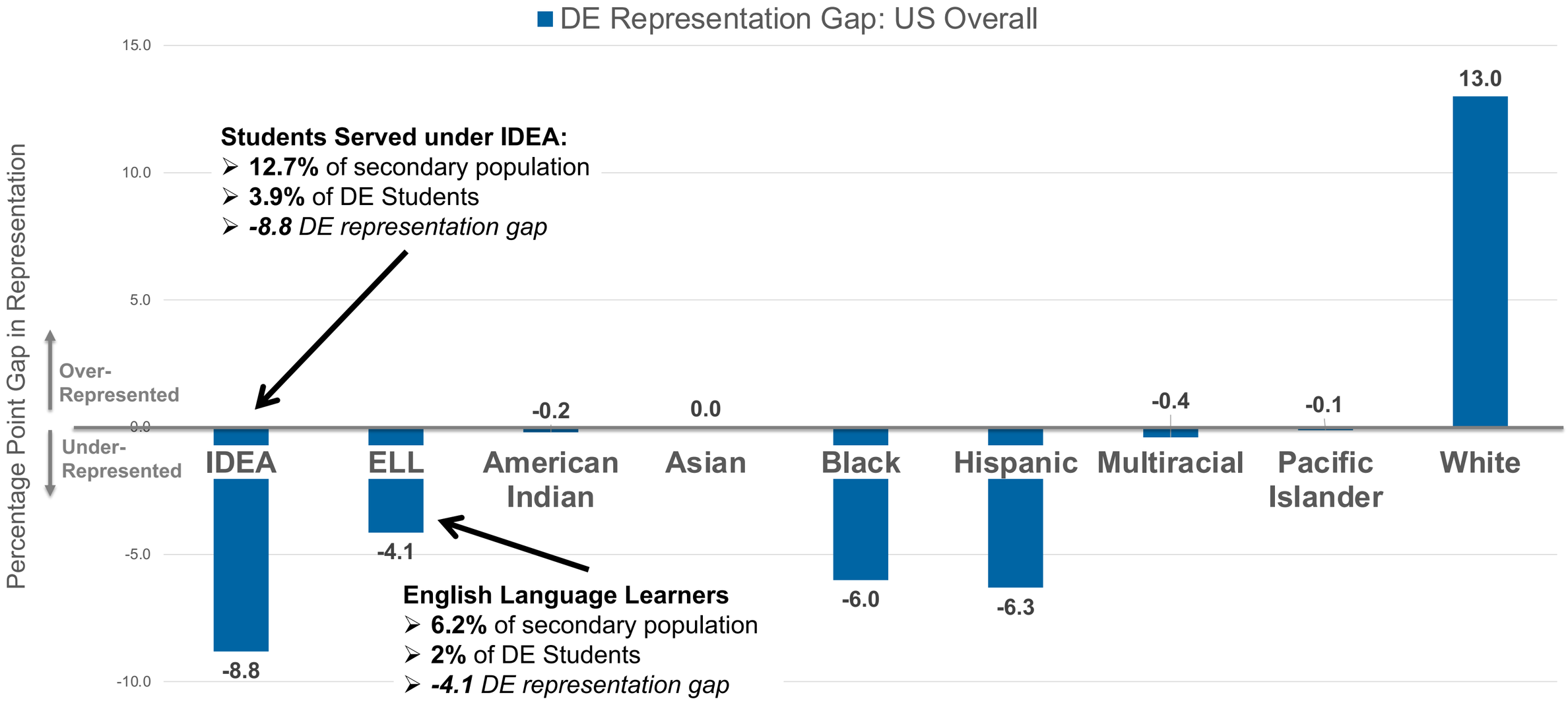
- Substantial state and institutional variation in post-HS college outcomes among former DE students (Fink, Jenkins, & Yanagiura, 2017)
- Equitable access to and benefits from dual enrollment? Mixed findings.

Underrepresented Nationally in Dual Enrollment: Black, Hispanic, Students with Disabilities, and English Learners



CCRC Analysis of 2017-18 CRDC Data, N=21,936 public secondary schools in 50 states + DC. https://ccrc.tc.columbia.edu/easyblog/schools-dual-enrollment-ap.html

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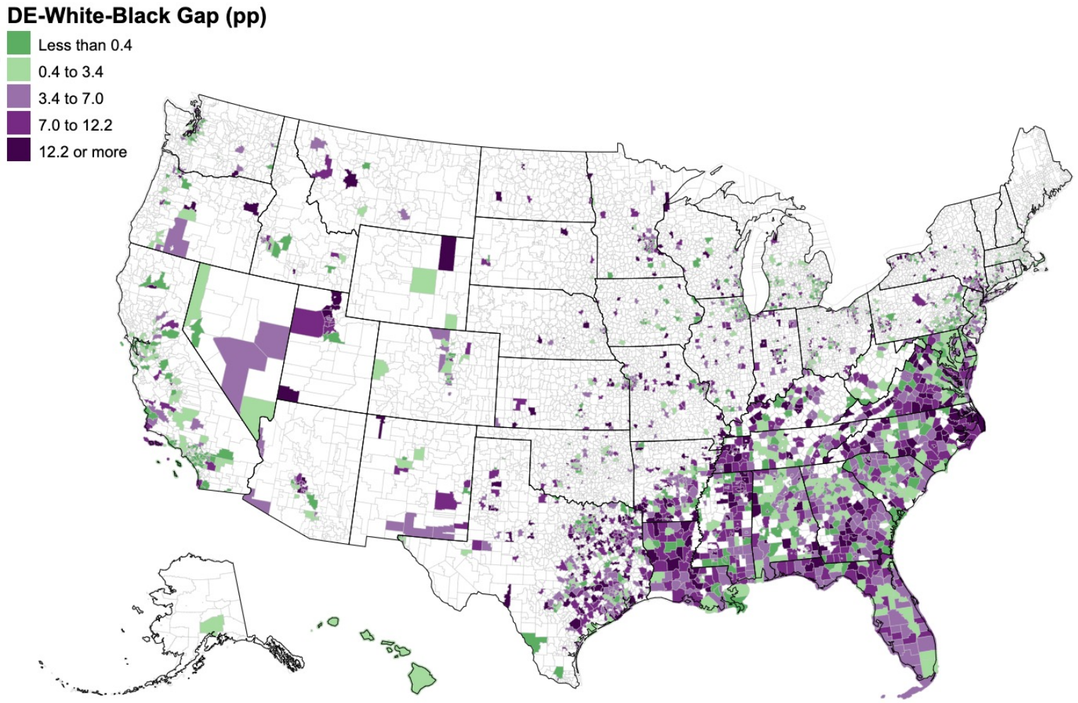
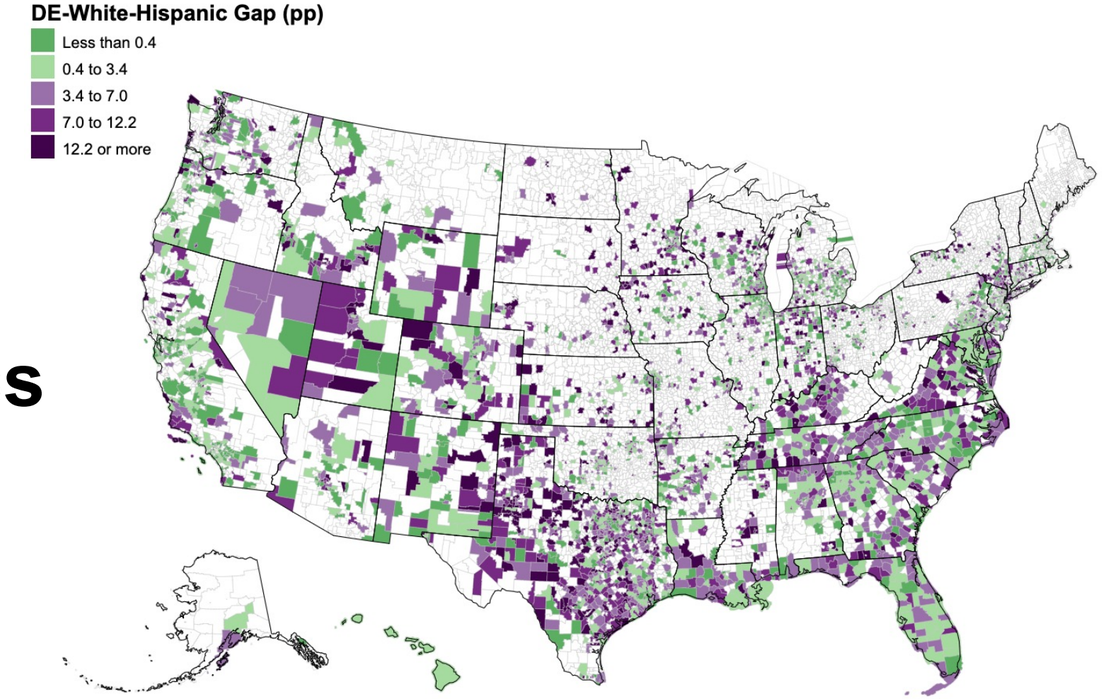
Substantial national variation in racial equity gaps in DE participation among US school districts…



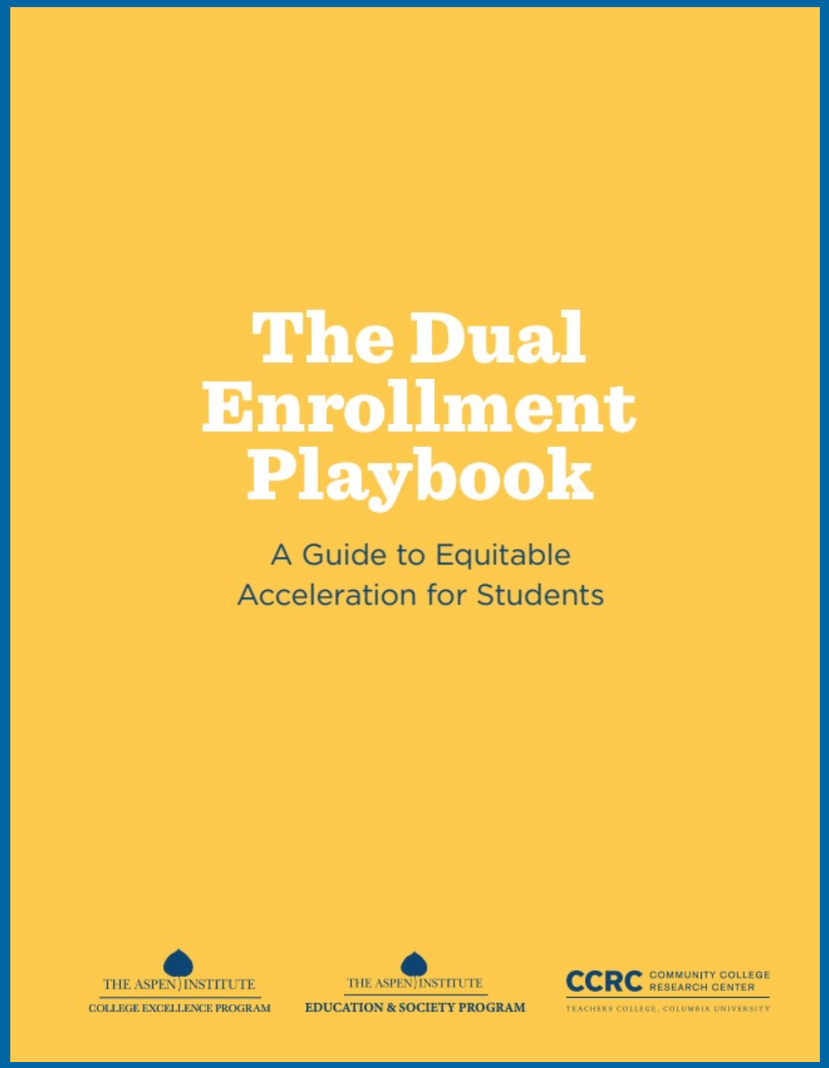
…but one in five school districts across the country have closed racial equity gaps in access to dual enrollment courses



Source: CCRC analysis of US Dept. of Education Office for Civil Rights data. See https://ccrc.tc.columbia.edu/easyblog/ap-dual-enrollment-access-update.html

Given the substantial variation nationally in access to and success in dual enrollment,

What can be learned from high schools and colleges that are more effective in serving students of color through dual enrollment?



Playbook Overview

Fieldwork: 9 site visits to community colleges and high schools in 3 states

- Sites selected based on strong access and outcomes for Black, Latinx, Native DE students

SITE	KEY PARTNERS	PRIMARY DUAL ENROLLMENT MODEL
Miami-Dade County, FL	Miami Dade College Barbara Goleman Senior High School Ronald W. Reagan/Doral Senior High School	At the college
Okeechobee County and St. Lucie County, FL	Indian River State College Okeechobee High School Treasure Coast High School	At the college and high school
Osceola County, FL	Valencia College Liberty High School	At the college
West Palm Beach, FL	Palm Beach State College Palm Beach Lakes Community High School	At the college and high school
Lorain County, OH	Lorain County Community College Lorain High School Clearview High School	At the high school
Steubenville, OH	Eastern Gateway Community College Steubenville High School	At the high school
Puyallup, WA	Pierce College Emerald Ridge High School Puyallup High School	Primarily at the college, some at the high school
Tri-Cities, WA	Columbia Basin College Tri-Tech Skills Center Wahluke High School	At the college, CTE at the skills center
Wenatchee Valley, WA	Wenatchee Valley College Bridgeport High School Eastmont High School Wenatchee High School	At the college in urban and suburban areas, at the high school in rural areas

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The Dual Enrollment Playbook: A Guide to Equitable Acceleration for Students

Five Principles to Advance Equity in High-Quality Dual Enrollment

Principle I
SET A SHARED VISION AND GOALS THAT PRIORITIZE EQUITY

Principle II
EXPAND EQUITABLE ACCESS

Principle III
CONNECT STUDENTS TO ADVISING AND SUPPORTS THAT ENSURE EQUITABLE OUTCOMES

Principle IV
PROVIDE HIGH-QUALITY INSTRUCTION THAT BUILDS STUDENTS' COMPETENCE AND CONFIDENCE

Principle V
ORGANIZE TEAMS AND DEVELOP RELATIONSHIPS TO MAXIMIZE POTENTIAL

Slides

Aligning high school career clusters with meta-majors to create on-ramps into advanced workforce credentials for CTE dual credit students at Indian River State College

Get Started on Your Pathway

1 Explore Career Clusters

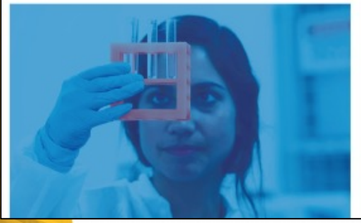
Career Clusters are groups of similar occupations and industries. They were developed by the U.S. Department of Education as a way to organize career planning. The sixteen Career Clusters are explained on the pages that follow.

Once you have identified the Career Clusters that interest you, review the offerings at your high school to determine the Career Pathways Academy to pursue.

2 Enter a Career Pathways Academy

Career Pathways students benefit from a clear path to their future and are able to meet graduation requirements, earn college credits and industry certifications, and gain valuable knowledge—making them college and career ready before they leave high school.

To get started in a Career Pathways Academy, high school students should contact the counselor at their school.



3 Advance Your Education and Earnings Potential at IRSC

Every student who successfully completes a Career Pathways Academy will earn college or clock-hour credit at Indian River State College. Follow these steps:

1. Contact your high school counselor to enroll in your Career Pathways Academy of interest.

2. Complete your high school Career Pathways Academy.

3. Complete all IRSC Admission requirements.
   a. Complete an Application for Admission.
   b. Request your transcripts from your high school, and have them sent to the IRSC Office of Student Records.
   c. Apply for financial aid.
   d. Complete New Student Orientation.

4. Meet with your IRSC advisor to indicate completion of a Career Pathways Academy.

5. If courses align with your program objective goal, credit will be verified and applied to your degree or certificate based on your IRSC Academic Plan/Guided Pathway.

Your eligibility for Career Pathways credit is valid for 36 months following your high school graduation date.

Quad County

Career Pathways
Okeechobee County

Career Cluster 8

Health Science

Planning, managing and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Pathways:

- Therapeutic Services
- Diagnostic Services
- Health Informatics
- Support Services
- Biotechnology Research & Development

Career Pathways Academies

Okeechobee County High School

Nursing Assistant Academy
(Completers earn up to 307 Career Pathways clock hours at IRSC, plus up to 12 additional IRSC General Education credits.)

Electrocardiography (EKG) Technician Academy
(Completers earn up to 182 Career Pathways clock hours at IRSC, plus up to 12 additional IRSC General Education credits.)

Health Science

IRSC

You've Earned College Credit—Now Get Your Degree!

Academy completers have a head start in completing their college studies—**100% will receive IRSC credit.** If you have interest in the Health Science Career Cluster, consider IRSC programs in the Health Science Meta Major.

Associate in Arts (A.A.) Tracks

- Biology (General)
- Biology Preprofessional
- Biotechnology
- Chemistry
- Health Science

Associate in Science (A.S.) Programs

- Dental Assisting Technology and Management
- Dental Hygiene
- Emergency Medical Services
- Health Information Technology
- Health Services Management
- Medical Laboratory Technology
- Nursing—R.N.
- Physical Therapist Assistant
- Radiography
- Respiratory Care

Bachelor of Science (B.S.) Programs

- Biology
- Healthcare Management
- Nursing

Certificate and Career Training Programs

- Emergency Medical Technician — Applied Technology Diploma
- Medical Administrative Specialist—Quick Job Training
- Medical Assisting—Quick Job Training
- Nursing Assistant—Quick Job Training
- Paramedic
- Pharmacy Technician—Quick Job Training
- Phlebotomy—Quick Job Training
- Practical Nursing—Quick Job Training
- Surgical Technology—Quick Job Training

IRSC graduates get great jobs! *What they say:*

"I love caring for critically ill patients and their families in their time of need. I feel honored with the trust my patients place in me to care for them at their most vulnerable time. I also was attracted to the career because of the stability and ability to move anywhere and still be employable."

— Ayla Messier, B.S.N., R.N.
Cleveland Clinic Martin Health
B.S. Degree in Nursing

See more examples here: https://www.irsc.edu/community/quad-county-career-pathways-consortium.html

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Mapping transfer pathways for DE students at Lorain County Community College

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Here. Now. Guaranteed.

10th Grade

HS Periods	HS Credit	HS Course	LCCC Course	College Credit
1	1	English II		
2	1	Geometry or Alg. II		
	1	Biology	BIOG 151: General Biology	4
	1	Chemistry	CHMY 161: General, Organic & Biochemistry I	4
4	1	United States History	HSTR 162: US History	3
	1	Humanities Elective	HUMS 151: Introduction to Humanities *	3
5	5	Personal Finance		

12th Grade

HS Periods	HS Credit	HS Course	LCCC Course	College Credit
6	1	Humanities/Cultural Diversity	ENGL 266: African American Literature *	3
	1	Humanities Elective	HUMS 281: Introduction to American Cinema *	3
	1	College Level Math	MTHM 181: Calculus I	5
Yr. Tot	1	Advanced Science	PHYC 150: General Physics I	4
Cum. To	1	Advanced Science	CHMY 171: General Chemistry I	5

Year 14

Fall Semester	Credit Hours	Spring Semester	Credit Hours
4 BIOG 252: Microbiology	5	BGSU required course: BIOL 3510: Evolution	3
5 red course must be	3	BGSU required course: BIOL 4400: Molecular Neurobiology	3
Yr. Tot BGSU 3000/4000 elective course	3	BGSU 3000/4000 elective course	3
Cum. To BGSU 3000/4000 elective course	3	BGSU 3000/4000 elective course	3
Semester Total	14		12
Cumulative Total	38		50
Grand Total			122

COLLEGE / UNIVERSITY	UNIVERSITY COSTS 4 YEARS WITH ROOM & BOARD	BACHELOR'S DEGREE COMPLETION COSTS	SAVINGS
ASHLAND UNIVERSITY B.S. IN EDUCATION	$125,136	$32, 798	74%
BOWLING GREEN STATE UNIVERSITY B.S. IN BIOLOGY	$73,792	$11,745	84%
CLEVELAND STATE UNIVERSITY B.A. IN PSYCHOLOGY	$95,784	$12,525	87%
HIRAM COLLEGE B.A IN ACCOUNTING & FINANCIAL MGMT	$186,592	$24,554	87%
KENT STATE UNIVERSITY BACHELOR OF BUSINESS ADMINISTRATION	$88,472	$12,893	83%
UNIVERSITY OF AKRON B.S. IN SPORT STUDIES	$92,264	$16,586	82%
UNIVERSITY OF TOLEDO B.S. IN COMPUTER SCIENCE & ENGINEERING**	$84,916	$15,726	81%
YOUNGSTOWN STATE UNIVERSITY B.S. IN APPLIED SCIENCE, ALLIED HEALTH	$73,197	$13,660	81%

www.lorainccc.edu/MyUniversity

ASK: Ask every student about their interests, strengths, and aspirations and help them explore relevant programs.

CONNECT: Help all students connect with faculty, students, alumni, others and coursework in a field of interest from the start.

INSPIRE: Ensure every student has light-the-fire learning experience in term 1 and active and experiential learning opportunities throughout.

PLAN: Help every student develop an individualized educational plan by the end of term 1.

Research-Based Design Principles for Reimagining Program Onboarding

Are DE students taking courses that will "light the fire" for learning?

What support are provided to instructors to formally and informally introduce students to related opportunity for further education and careers?

Dual Enrollment

(*N* = 605 students)

Rank	Course Title	Course ID	# of program students who took the course	% of program students who took the course
1	FRESHMAN ENGLISH I	1101	223	37%
2	COLLEGE ALGEBRA	1105	186	31%
3	INTRO TO MICROCOMP/WINDOWS	1100C	117	19%
4	FUND OF SPEECH COMMUNICATION	2608	111	18%
5	INTRODUCTION TO PSYCHOLOGY	2012	87	14%
6	AMERICAN GOVERNMENT	1041	68	11%
7	SURVEY OF ECONOMICS	1000	60	10%
8	FRESHMAN ENGLISH II	1102	42	7%
9	INTRODUCTORY SURVEY TO 1877	1010	40	7%
10	PRECALCULUS ALGEBRA	1140	38	6%
>10	**2** other different courses attempted by at least 1 student from this program			

From 'Programs of Privilege' or 'Random Acts' to Dual Enrollment Equity Pathways: Guiding Questions

1. How can we broaden access to dual enrollment?
   - How can we work with our primary high school partners to further increase participation by closing gaps in representation within their schools?
   - Which high schools in our service area do we not partner with as much? Do they serve large numbers of underrepresented students? What's the potential for further outreach in partnership with those schools?

2. What's the potential for recruiting dual enrollment students into our programs after high school?
   - What do we know about the goals and aspirations of our DE students? How familiar are they with our college's programs?
   - How are we helping DE students explore, enter, and succeed in program foundation courses (in addition to math and English or other gen eds)?

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COLLEGE EXCELLENCE PROGRAM
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EDUCATION & SOCIETY PROGRAM

Thank you!

Access the *Dual Enrollment Playbook* and other resources at

Aspen: https://highered.aspeninstitute.org/dual-enrollment

CCRC: https://ccrc.tc.columbia.edu/publications/dual-enrollment-playbook-equitable-acceleration.html

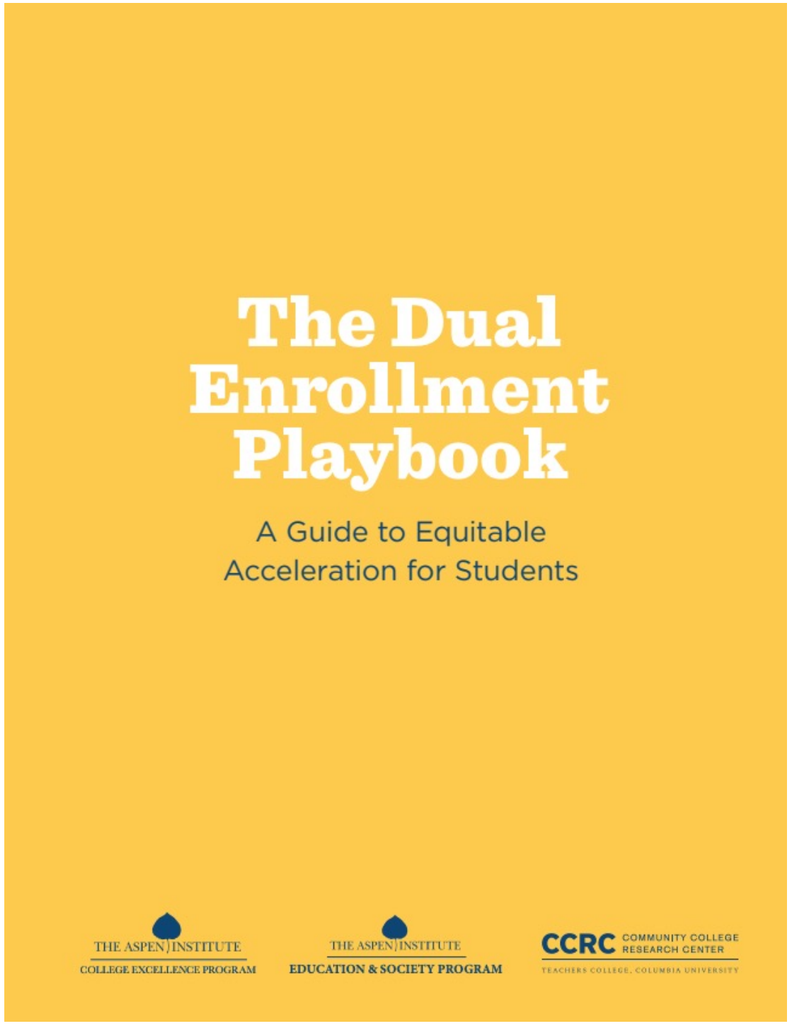
Scan for Slides

Or contact us at:

john.fink@tc.edu

Additional Resources

Playbook Resources



- Highlights from the Dual Enrollment Playbook: A Guide to Equitable Acceleration for Students
- A Guide to Getting Started for Institutional Leaders
- Tool for Evaluating Equitable Practices at Community Colleges
- Tool for Evaluating Equitable Practices at High Schools

https://highered.aspeninstitute.org/dual-enrollment/

https://ccrc.tc.columbia.edu/publications/dual-enrollment-playbook-equitable-acceleration.html

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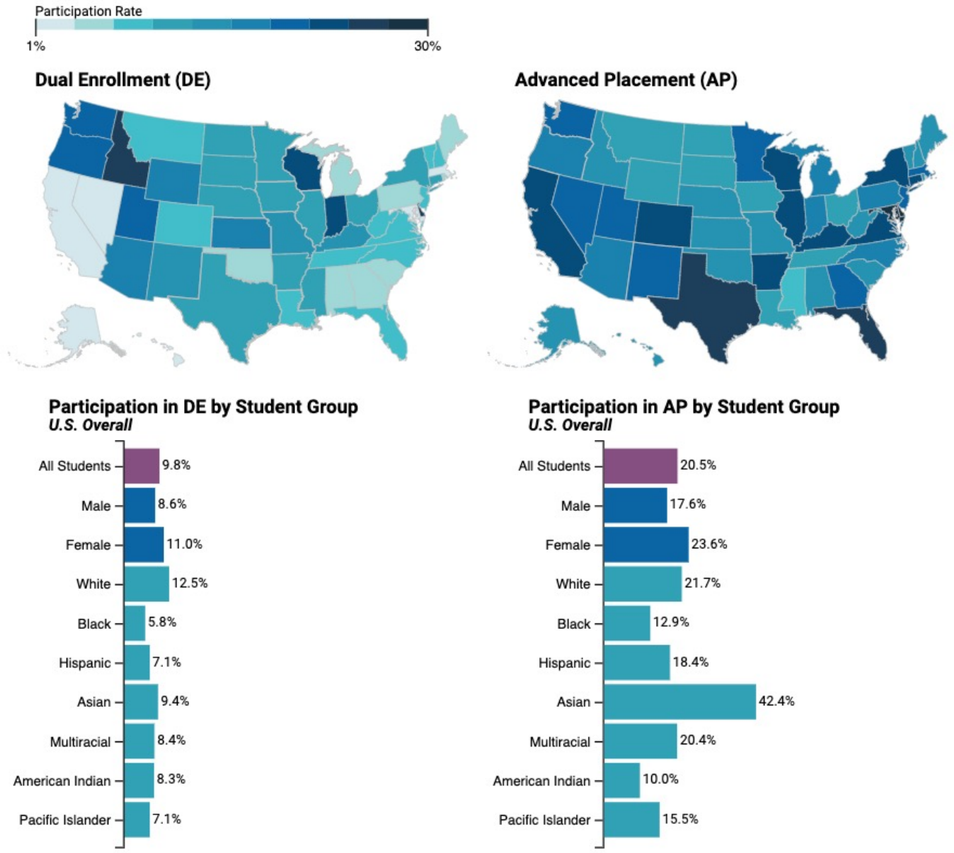
CCRC Web Tool: Access to AP and Dual Enrollment Among States and Districts

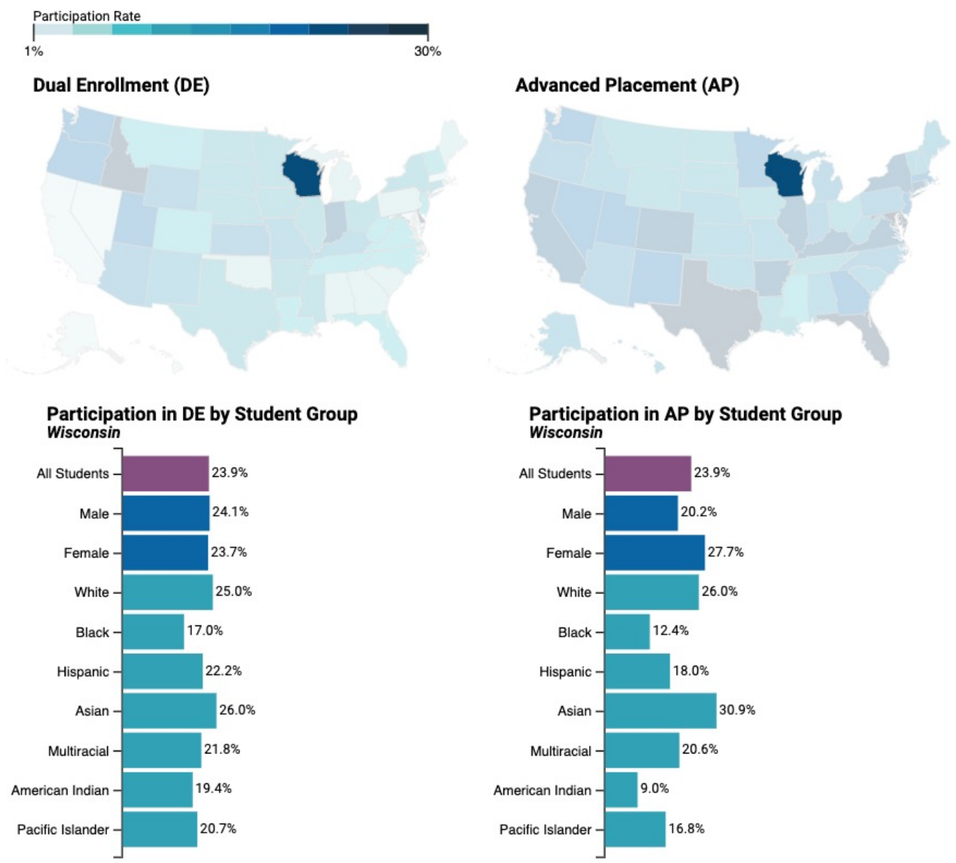
Participation in AP and Dual Enrollment by State, 2017–18

Click on a state for state-specific subgroup detail



Participation in AP and Dual Enrollment by State, 2017–18

Click here to reset to national results



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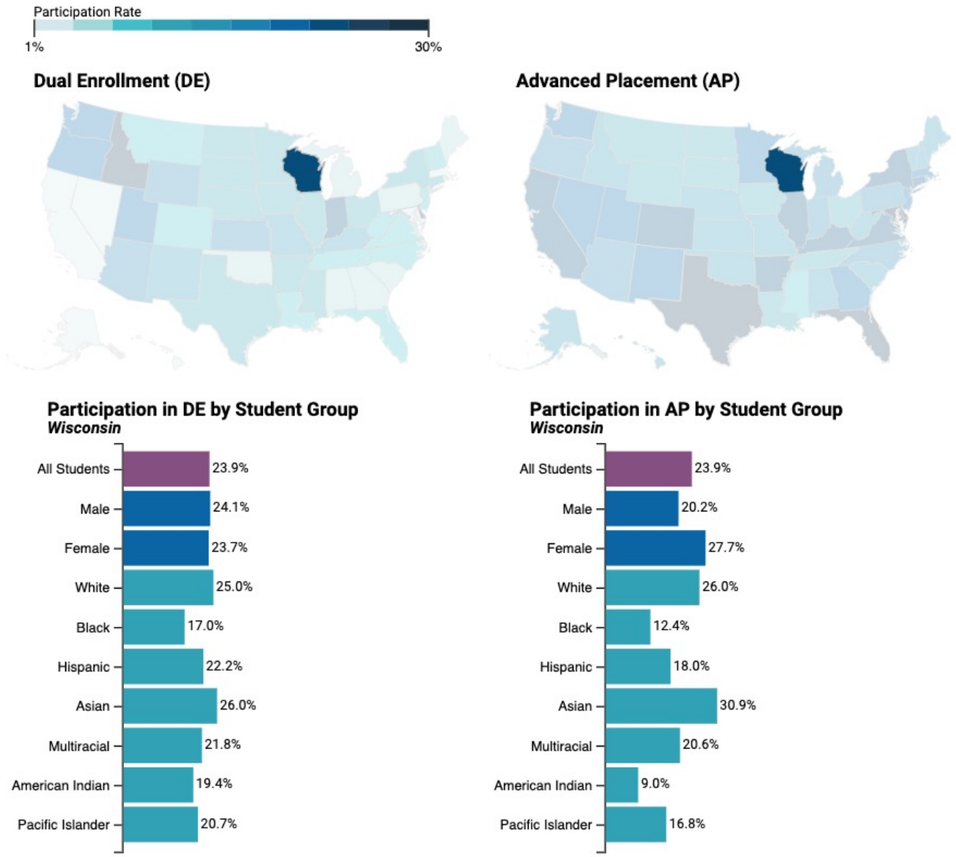
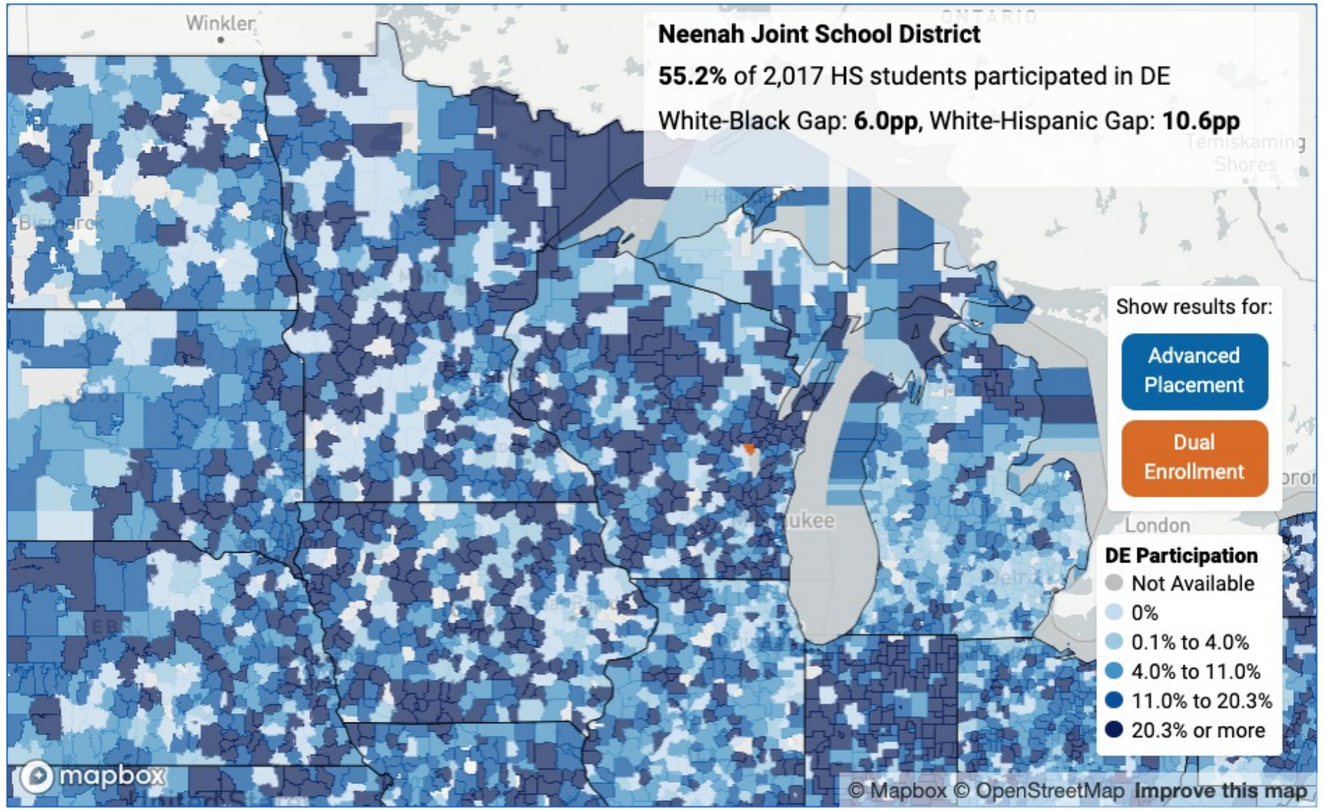


Participation in AP and Dual Enrollment by School District, 2017–18



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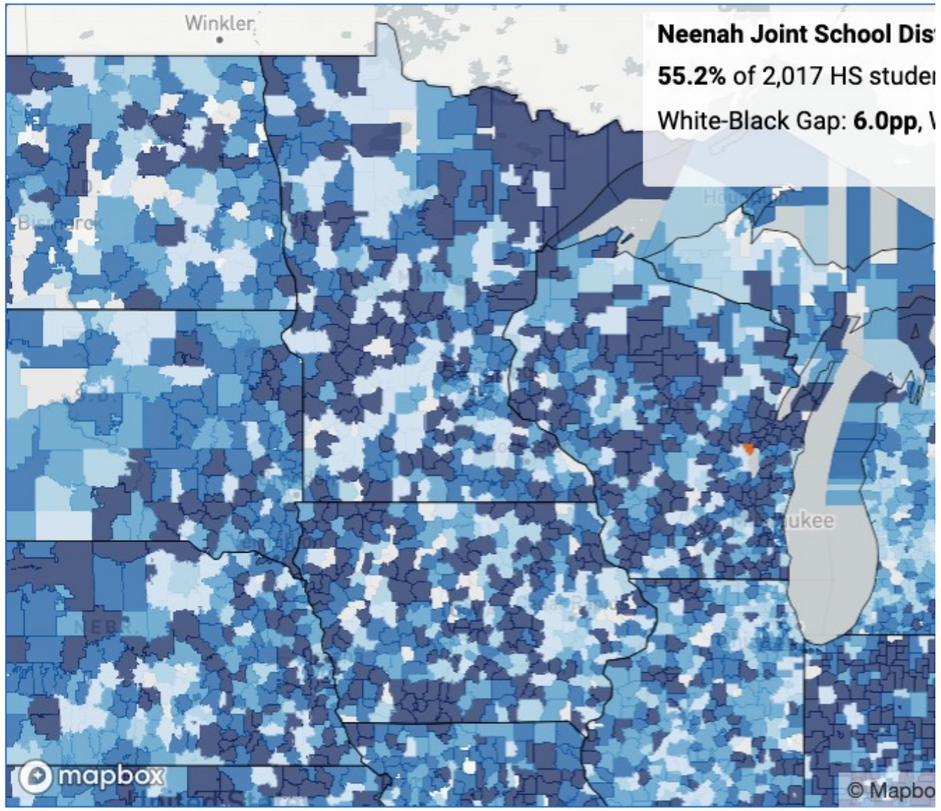

https://ccrc.tc.columbia.edu/easyblog/ap-dual-enrollment-access-update.html

A Detailed Look at AP and Dual Enrollment Participation by School and District

Lookup a District | Schools in a District | Districts within States

Equity in Access to College Acceleration
Civil Rights Data Collection School Search

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Examine High School DE/AP Participation and Racial Equity Gaps within a District (2017-18 School Year)

Select a District: Appleton Area School District, WI

Show results for:
- Advanced Placement
- Dual Enrollment

Dual Enrollment Participation and Gaps

Appleton Area School District, WI High Schools

High School	HS Enrollment	All Students Partic.	Black Partic.	Hispanic Partic.	White Partic.	White-Black Gap	White-Hispanic Gap
North High	1,661	28%	28%	31%	29%	0.2pp	-2.3pp
East High	1,408	40%	40%	36%	42%	1.6pp	5.3pp
West High	1,154	25%	17%	26%	26%	8.9pp	0.3pp
Wisconsin Connections Academy	289	1%			1%		
Renaissance School	161	9%			8%		
Tesla Engineering Charter School	131	85%			85%		
Fox Cities Leadership Academy	96	28%			27%		
Appleton Technical Academy	77	69%			78%		
Valley New School	51	12%			10%		
Appleton eSchool	23	0%					

To build back enrollments lost to pandemic, colleges are rethinking dual enrollment to expand access to high-opportunity postsecondary pathways

Programs of Privilege, Random Acts		Dual Enrollment Equity Pathways (DEEP)
DE courses ***made available*** to students who are already "college-bound"	✓ →	***Active outreach and support*** for underrepresented students and families starting in middle school
Focus is mainly on strengthening students' ***academic preparedness for college***	✓ →	Focus also on building ***motivation for college*** by helping students explore interests and begin to develop a plan tied to college programs and careers in a field of interest
Colleges and schools mainly emphasize ***general education courses***	✓ →	Colleges and schools introduce students to high-opportunity postsecondary pathways through ***program foundation courses***
Focus on achievement of ***academic content standards***	✓ →	Added focus on helping students become ***confident college learners*** through active teaching/learning
High school career technical education focused mainly on ***immediate post-HS employment***	✓ →	High school career technical education students readily able to ***apply HS CTE credits toward college degree programs*** in high-opportunity fields

Further Resources: Dual Enrollment Equity Pathways

Expanding Access to Dual Enrollment

- Chapter 2 of the ***Dual Enrollment Playbook*** (pages 20–29)
- Pages 4–5 of the accompanying **institutional self-assessment rubric** from the *Dual Enrollment Playbook*
- A **Tableau tool** and accompanying **blog post** to help you examine access to dual enrollment by race/ethnicity and gender among your local school districts and high schools
- We recommend that college leaders meet with their local K-12 district and school leaders to find common ground and make joint commitments to expanding access. As a part of the *Dual Enrollment Playbook* research, we developed a "**getting started guide**" that presents ideas for engaging your K-12 partners (e.g., who to invite, materials to prepare, questions to discuss).

Recruiting DE Students Into Your College's Programs After HS

- Chapter 3 of the ***Dual Enrollment Playbook*** (specifically Strategy 1, pages 32–35)
- Examples of how colleges are aligning dual enrollment course offerings to community college programs:
  - Northeast Iowa Community College's **guided career pathways**
  - Lorain County Community College's **dual enrollment pathways** aligned to their top transfer partners
  - Indian River State College's **Career Pathways Initiative** aligning the college's meta-majors with local high schools' career-technical education academies