

Dual Credit Academic and Workforce Education

Pathways Research Agenda
Strand 2

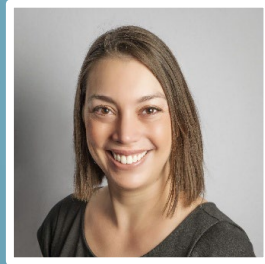


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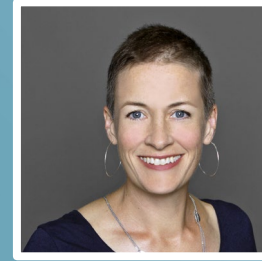
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Research Questions

What characteristics of dual credit programs for academic and workforce education propel students into degrees or work?

Specifically:

- a. What factors influence students' enrollment in dual credit?
- b. How does access to and participation in dual credit differ among student groups, school types, and geographies?
- c. What are the backgrounds and qualifications of those who teach dual credit, and are they adequately qualified and distributed across different subjects, schools, and geographies?

Why these Research Questions?

- A **limited body of research** has examined the accessibility and equity dimensions of dual credit programs in Texas.
- **Access to dual credit courses varies significantly** across contexts, influenced by factors such as the **availability of nearby higher education** institutions (HEIs), the **strength and scope of partnerships** between school districts and HEIs, **geographic proximity, instructional delivery modes**, and the presence of **qualified high school instructors**.
- Dual credit participation should be understood in relation to **early college credit options like AP and IB programs**, which students choose to support their educational and career goals.



Literature Review/Background



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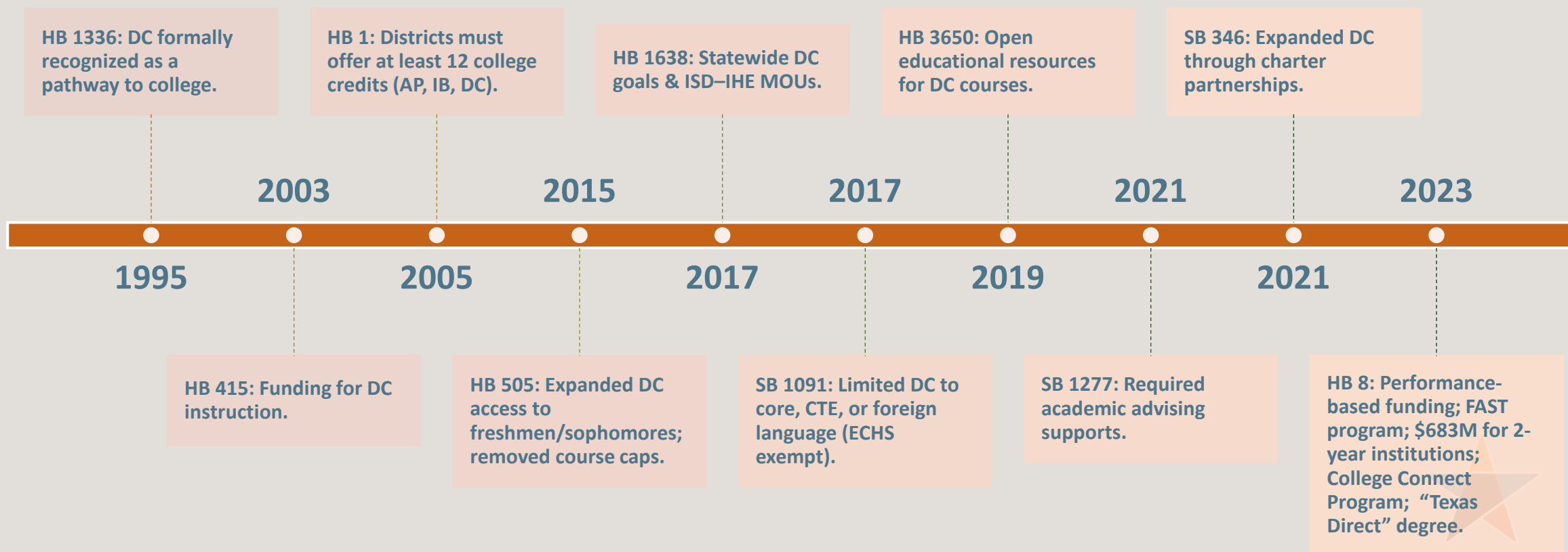
Definitions

- **Dual Credit (DC):** Refers to courses high school students take where a single course fulfills both high school and college requirements simultaneously. Unlike AP or IB, students do not need to pass a standardized end-of-course exam to receive credit (Tobolowsky & Allen, 2016).
- **Dual Enrollment (DE):** The broader umbrella term for high school students enrolling in college-level courses, regardless of whether those courses also count toward high school credit (An, 2013; Taylor, 2015) (more common outside of Texas). With dual enrollment in Texas, students have the option of declining or accepting the college credit in addition to the high school credit.
- **Early College High Schools (ECHS):** Specialized high schools designed so that most or all of a student's coursework is dual credit, paired with strong support services like counseling and mentorship. These schools target middle- to low-achieving students and traditionally underrepresented groups, aiming to help them graduate high school with significant college credit – often up to an associate's degree (Tobolowsky & Allen, 2016).
- **Career and Technical Education (CTE):** A sequence of courses that combine academic knowledge with technical and occupational skills, preparing students for careers and/or further education (*Texas Education Agency*).
- **P-TECH (Pathways in Technology Early College High Schools):** Innovative open-enrollment high schools that allow students least likely to attend college an opportunity to receive both a high school diploma and a credential and/or an associate degree. The hallmark of the P-TECH model is its career focus and the provision of work-based education (*Texas Education Agency*).



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Key Dual Credit Legislation in Texas



Access and Equity in Dual Credit

- Expansion of dual credit (DC) and dual enrollment (DE) has increased opportunities but not equitable participation (Hemelt et al., 2019; Blankenberger et al., 2017; Ryu et al., 2024).
- Participation remains lower for low-income, first-generation, and racially minoritized students (Blankenberger et al., 2017; Hemelt et al., 2019; Ryu et al., 2024).
- Institutional partnerships, advising quality, and transparent communication shape who participates more than student motivation alone (Hutchins et al., 2024; Lee et al., 2022).
- Local context and implementation determine impact. Policy expansion alone does not ensure equity in practice (Lee et al., 2022; Jagesic et al., 2022; Ryu et al., 2024).



Outcomes and Program Design

- DC and DE participation are consistently linked to higher high school graduation, postsecondary enrollment, and persistence (Lee et al., 2022; Ross & Helmelt, 2024; Ryu et al., 2024).
- Benefits vary by state policy, institutional structure, and the presence of academic supports (Ryu et al., 2024; Hemelt et al., 2019).
- CTE and P-TECH pathways expand access for students pursuing workforce-aligned or technical credentials (Heavin & Ma, 2022; Ross & Helmelt, 2024; Chen et al., 2024).
- The effectiveness of DC programs depends on thoughtful program design, advising infrastructure, and equitable implementation rather than scale alone (Hutchins et al., 2024; Lee et al., 2022; Jagesic et al., 2022).



Gaps and Future Directions

- Few studies examine how DC programs actively disrupt systemic inequities rather than reproduce them (Taylor, 2015; Duncheon, 2020).
- Long-term outcomes such as bachelor's degree completion and labor market participation remain underexplored (Moreno et al., 2021; Song et al., 2024).
- Research on teacher preparation, credentialing, and workload structures is limited (Duncheon & Relles, 2020; Draper et al., 2023).
- Student perspectives are often missing—few participatory or youth-led studies exist (Allen et al., 2025; Duncheon et al., 2025).
- Future research should prioritize sustained equity, student experiences, and cross-institutional accountability (Taylor, 2015; Song et al., 2024).



Early Insights (Quantitative Analyses)

- The number of Texas public high school students participating in dual credit (DC) programs through the state's community colleges has grown by approximately **114%** over the past decade, increasing from **121,447 in 2015** to **259,418 in 2024**.
- Participation patterns have also shifted significantly since the COVID-19 pandemic. A growing share of students now take DC courses in **non-face-to-face** formats, particularly for students taking them through community colleges.



Early Insights (Quantitative Analyses)

- Rural and town high schools have increasingly positioned DC as a primary early college pathway. By 2023, schools offering only DC outnumbered those offering both AP/IB and DC.
- DC and AP participation rates are negatively associated for about 75% of public high schools, whereas schools with higher AP participation tend to show a positive relationship between the two programs.



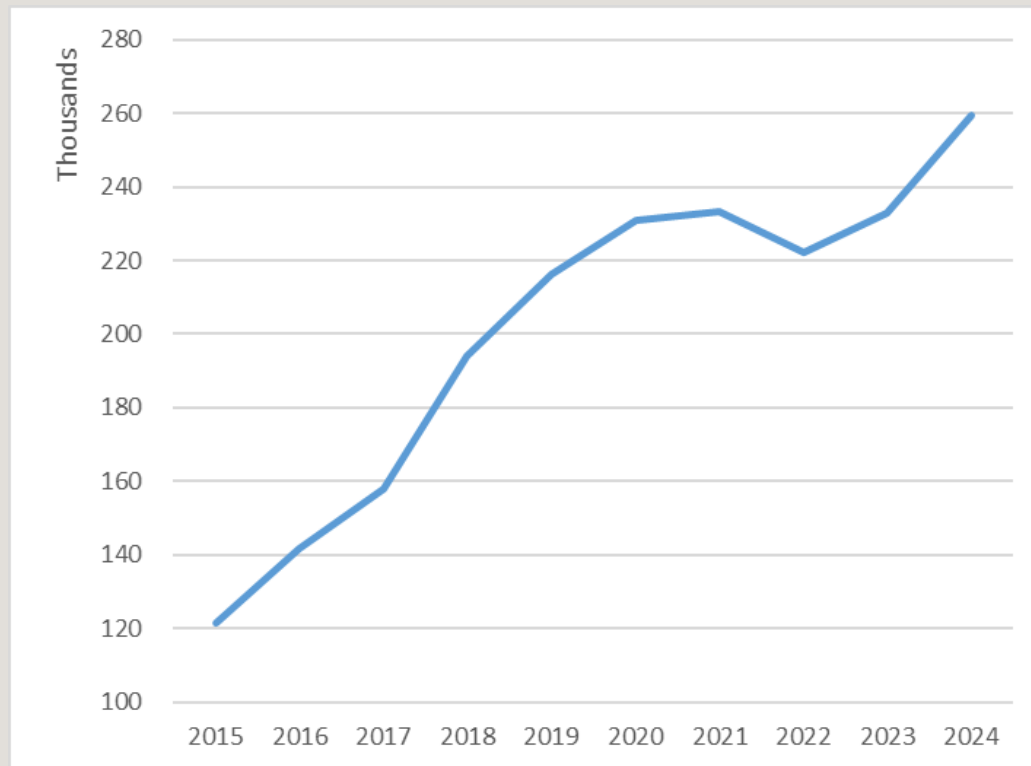
Community College Data Analysis Findings



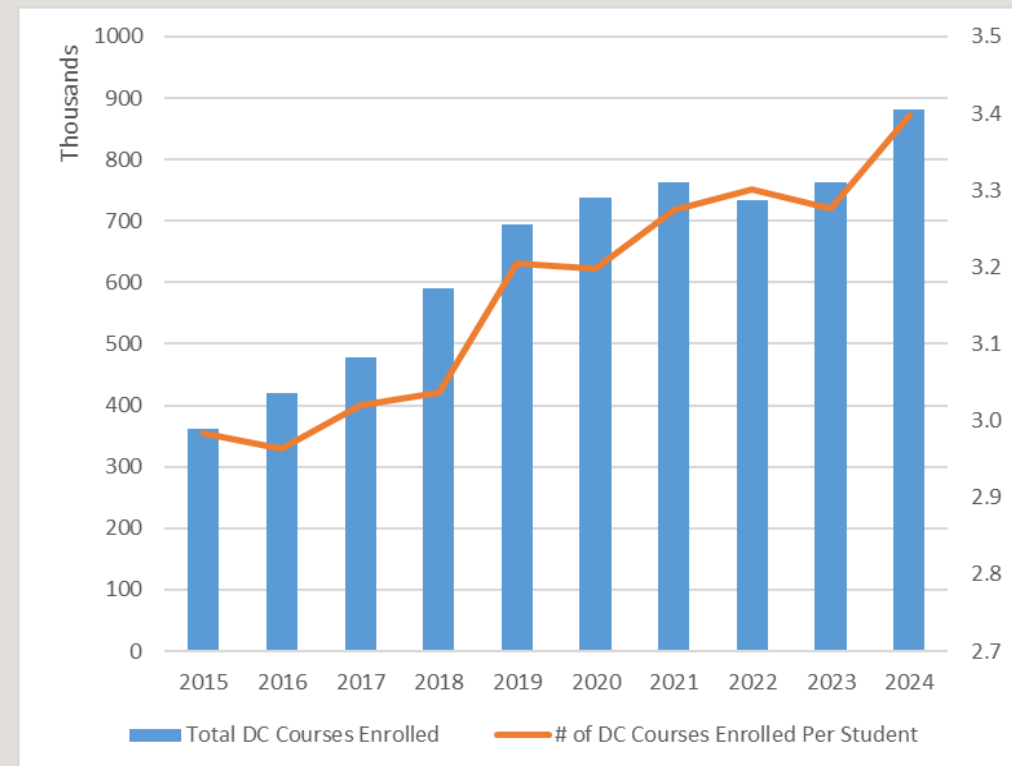
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Dual Credit Participation Has Soared in the Last Ten Years

Number of DC Students

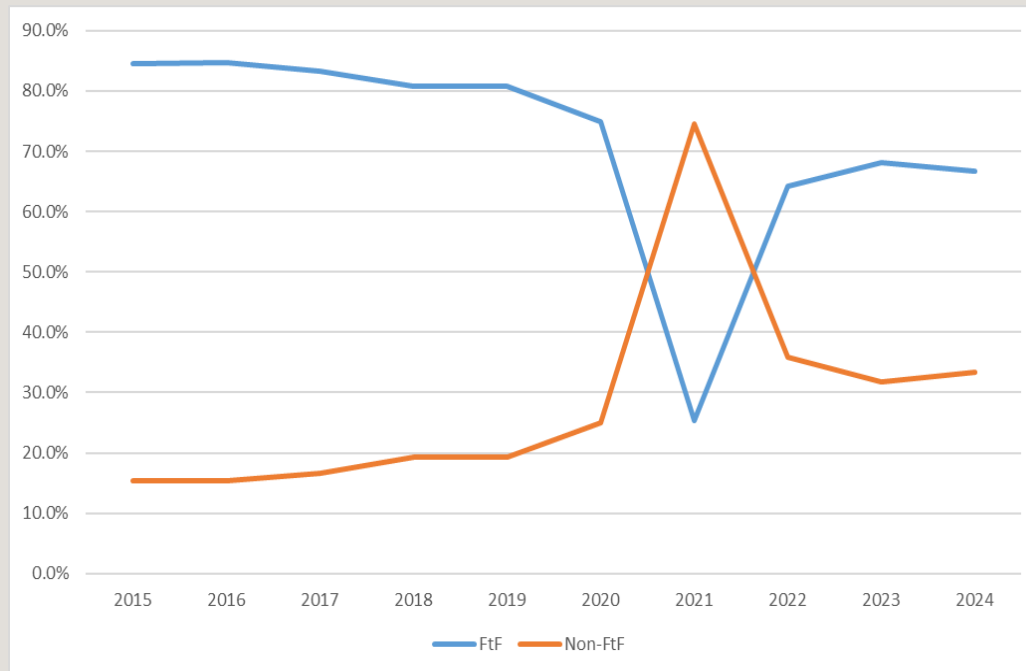


DC Courses and Per Student Average

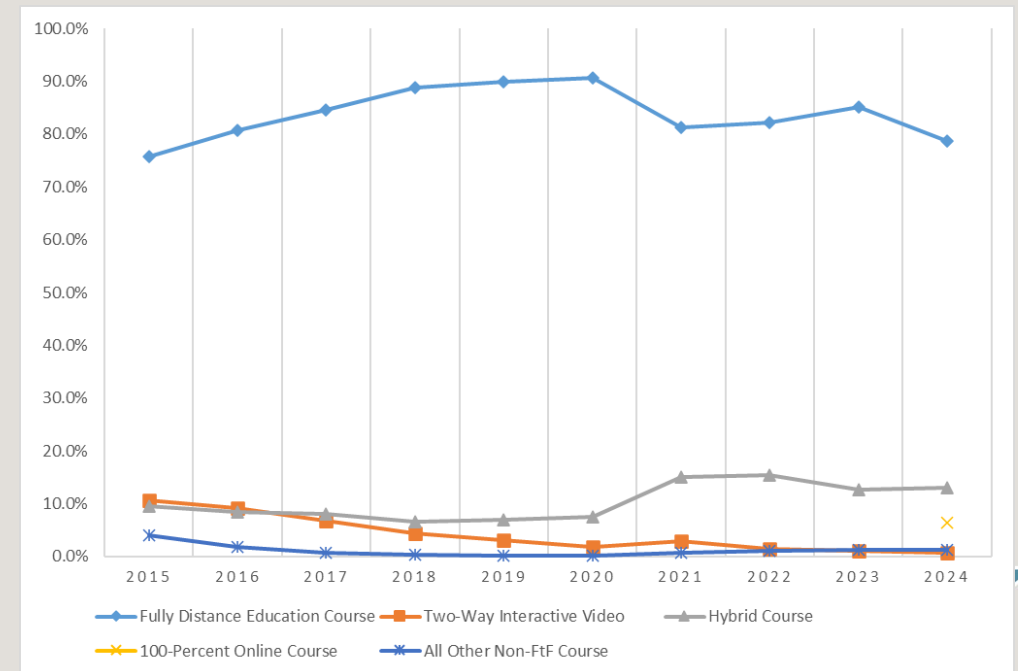


DC Courses Experienced a Dramatic Transition in Modality Around COVID

Face-to-Face (FtF) vs. Non-FtF

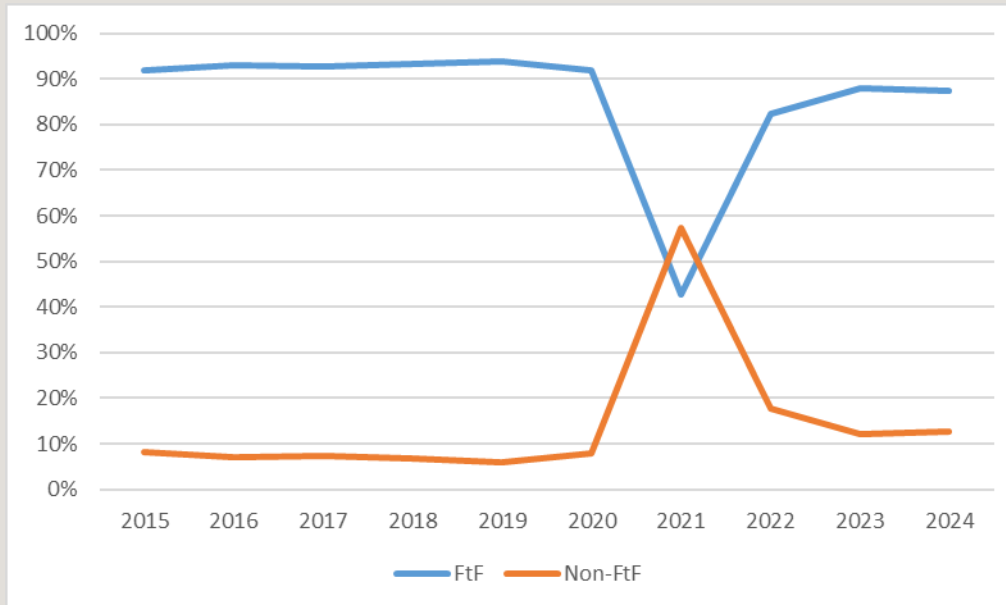


Non-FtF Modality (Rescaled to 100%)

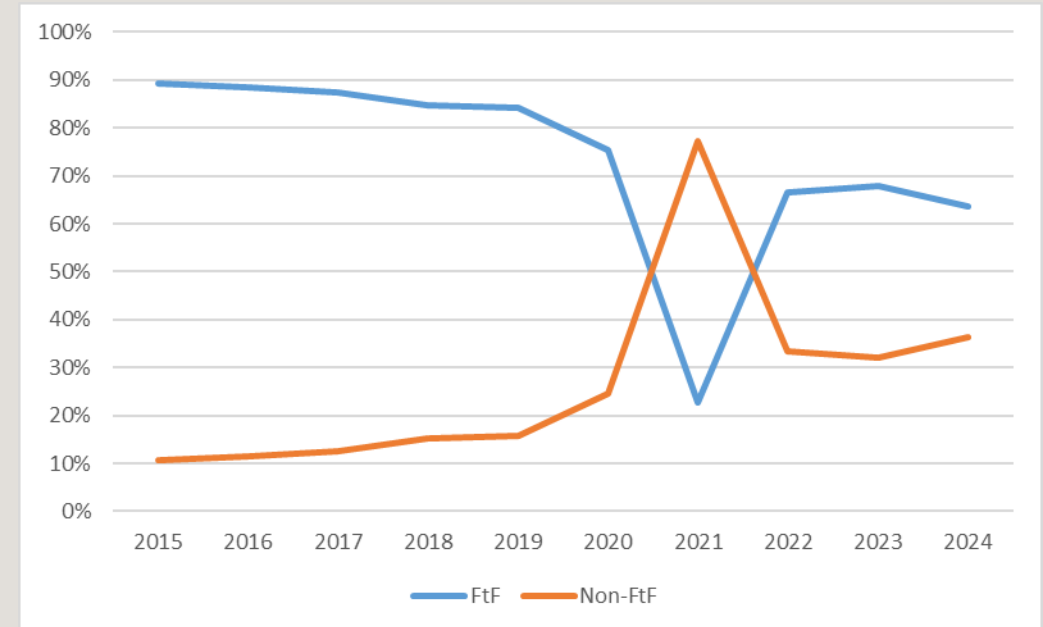


The Impact of COVID Differed by DC Location

High School



Community College





High School Data Analysis Findings

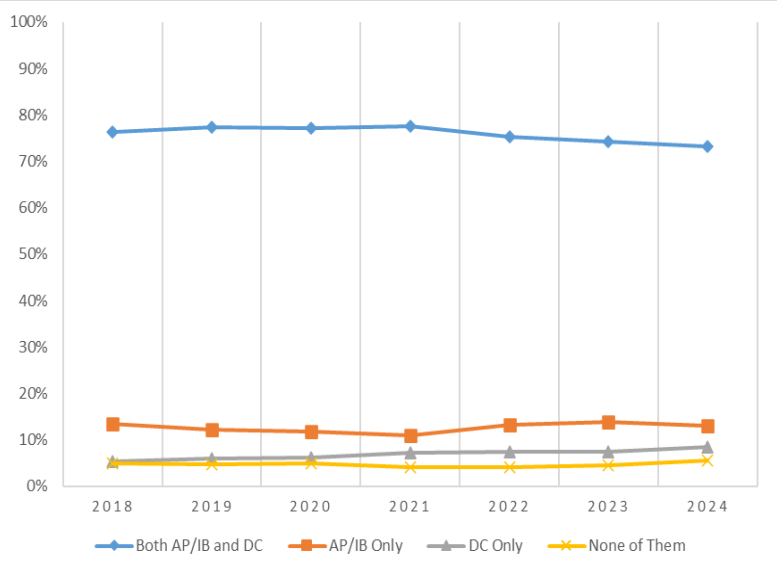


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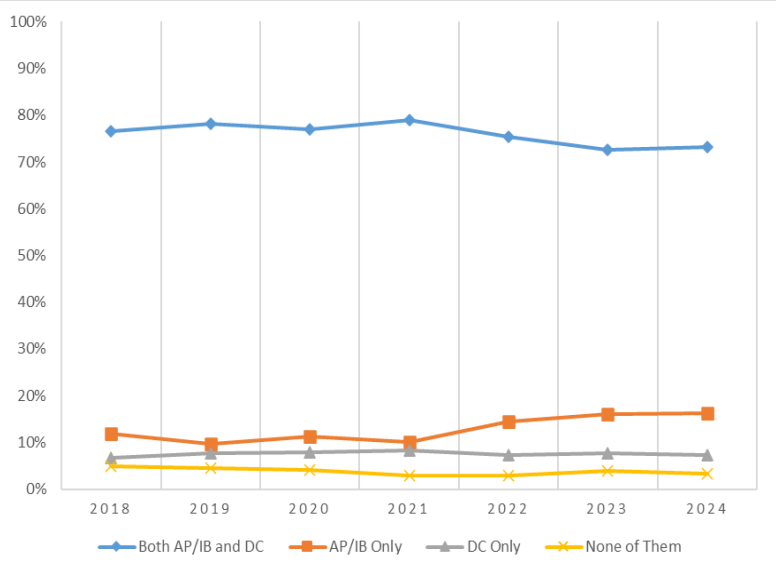


Distribution of Public High Schools by Type of Early College Courses Offered Across Regions

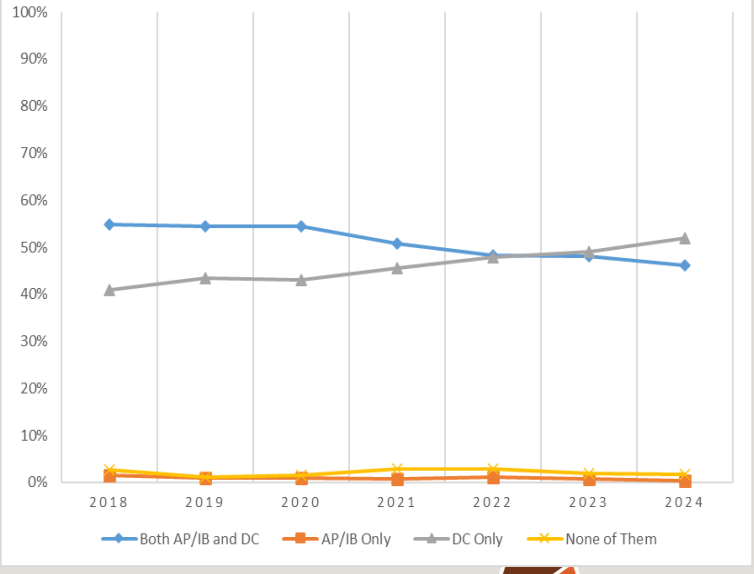
Urban



Suburban

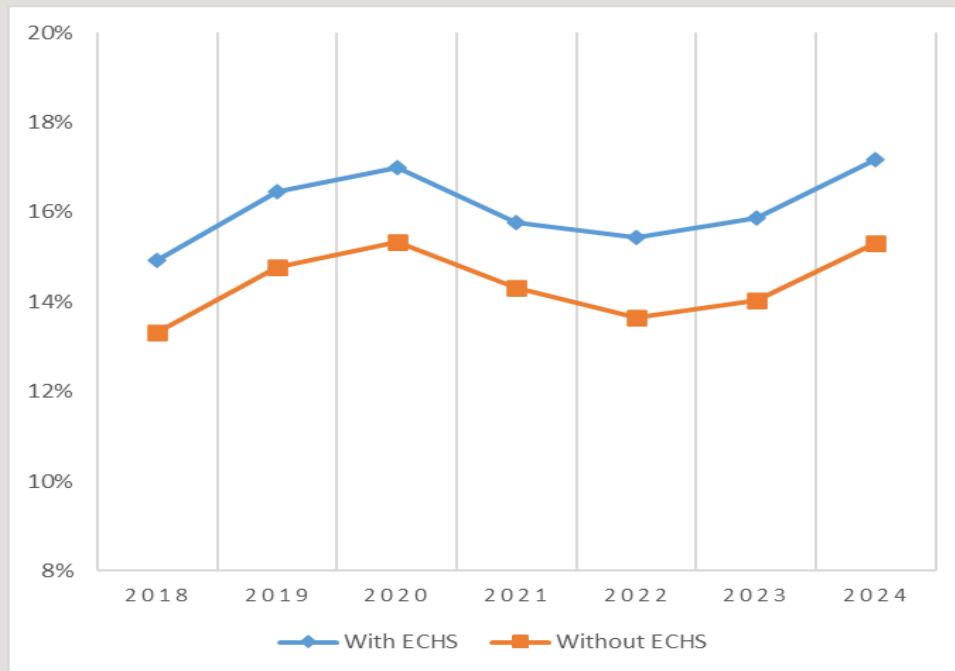


Rural/Town

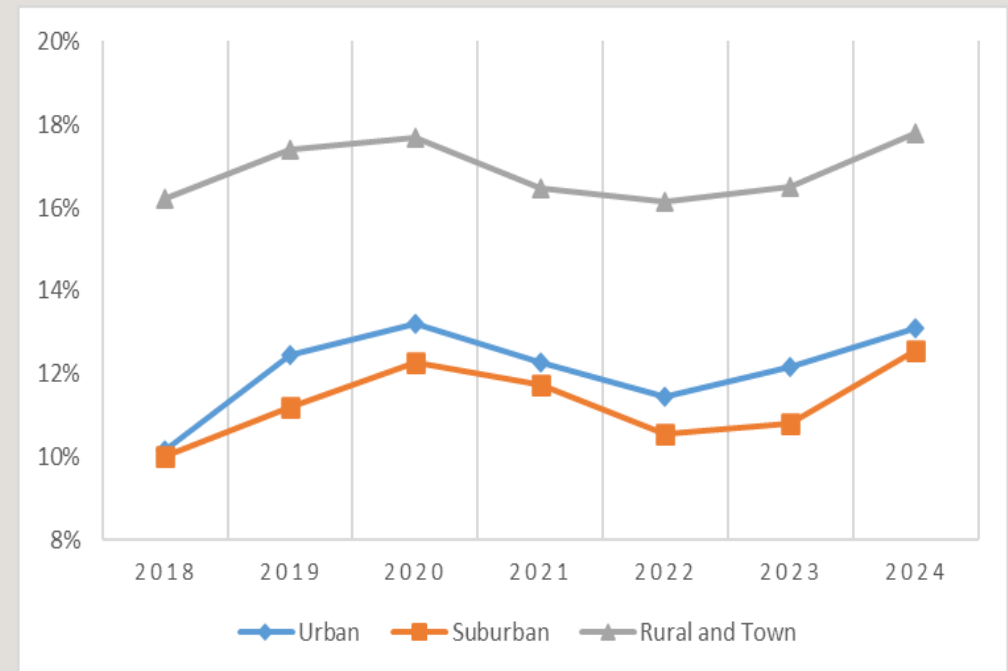


DC-A Participation Rates: Pre-COVID Growth, Pandemic Dip, and Steady Recovery

All High Schools

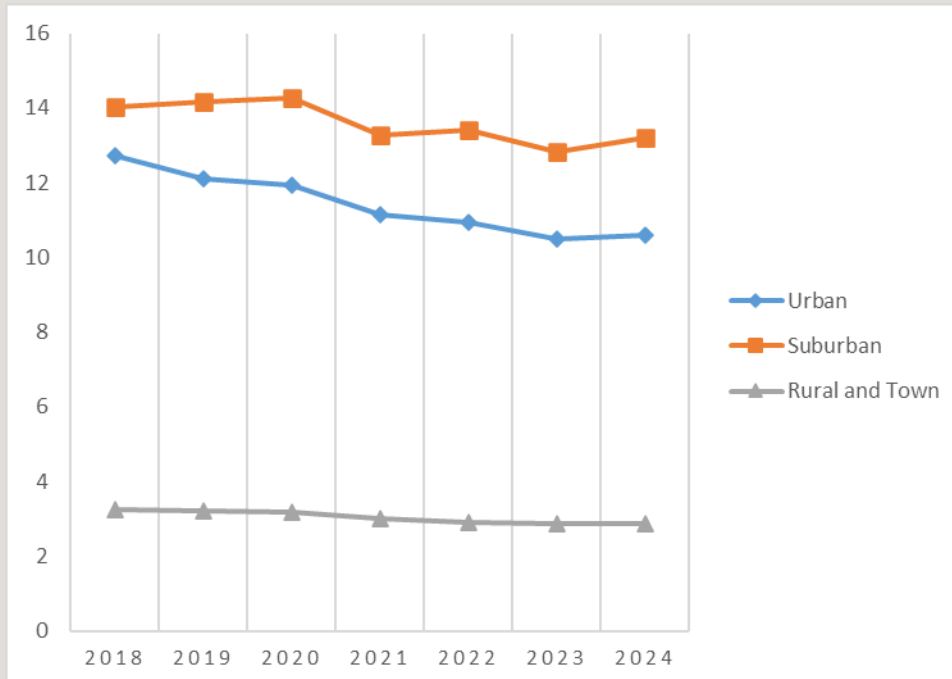


By Region (Without ECHS)

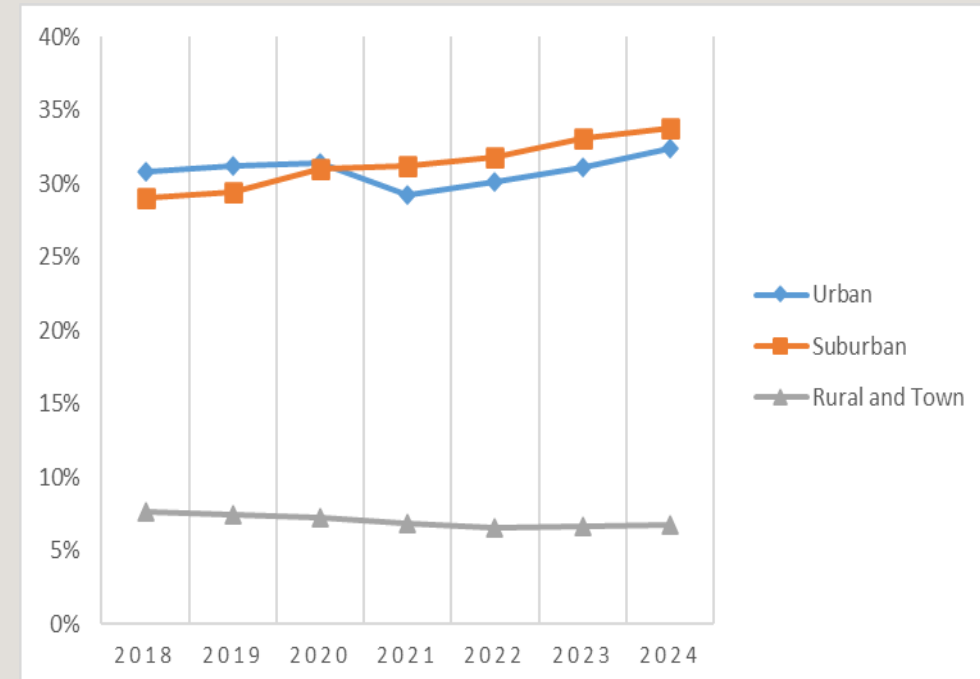


AP Availability and Participation Strongest in Urban/Suburban Regions

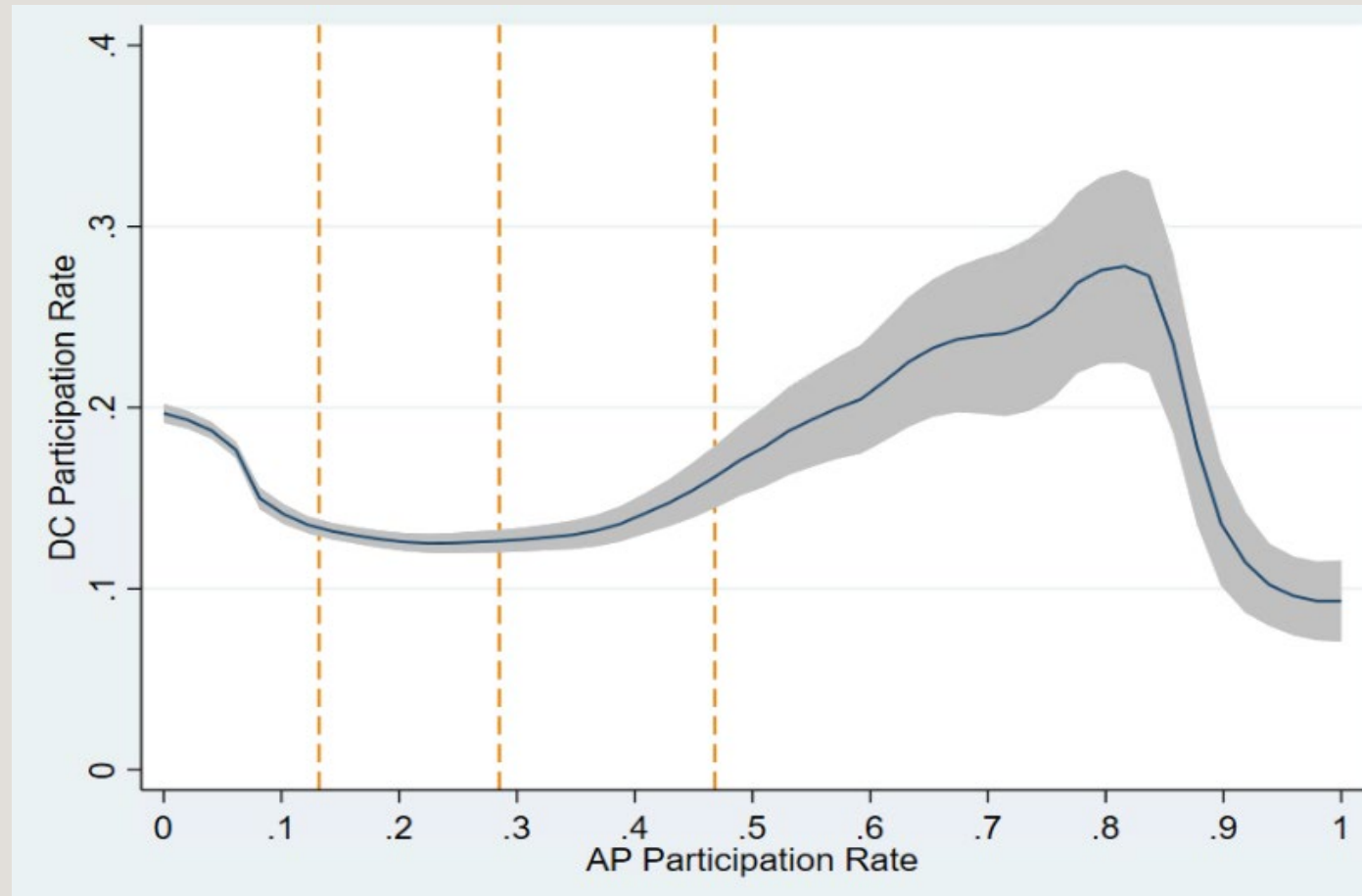
Variety of AP Courses Offered



AP Participation Rates by Region



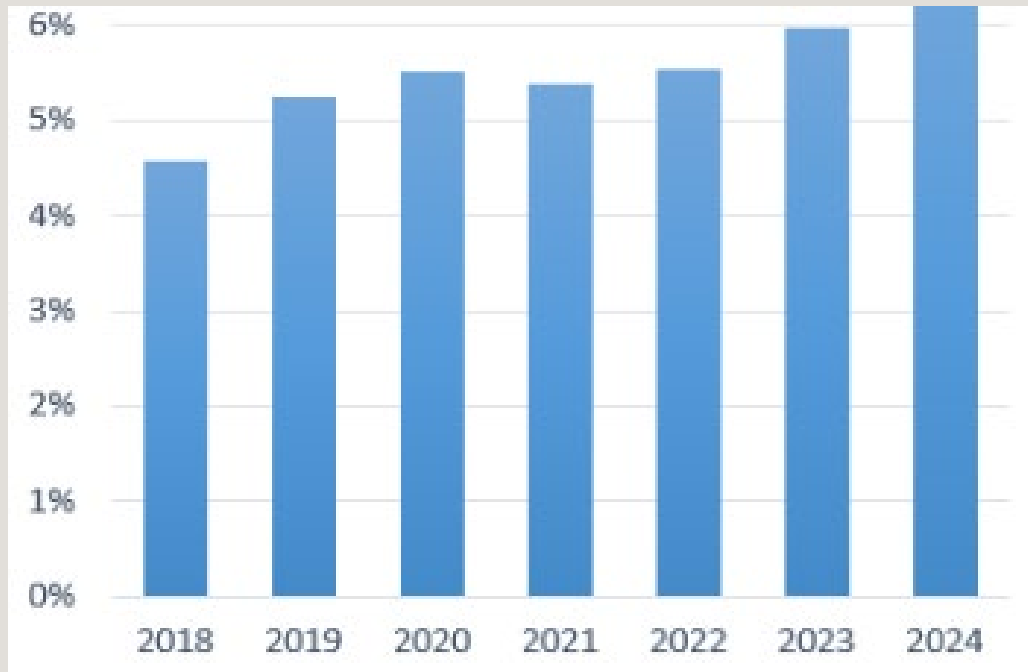
Relationship Between DC-A and AP Participation Rates



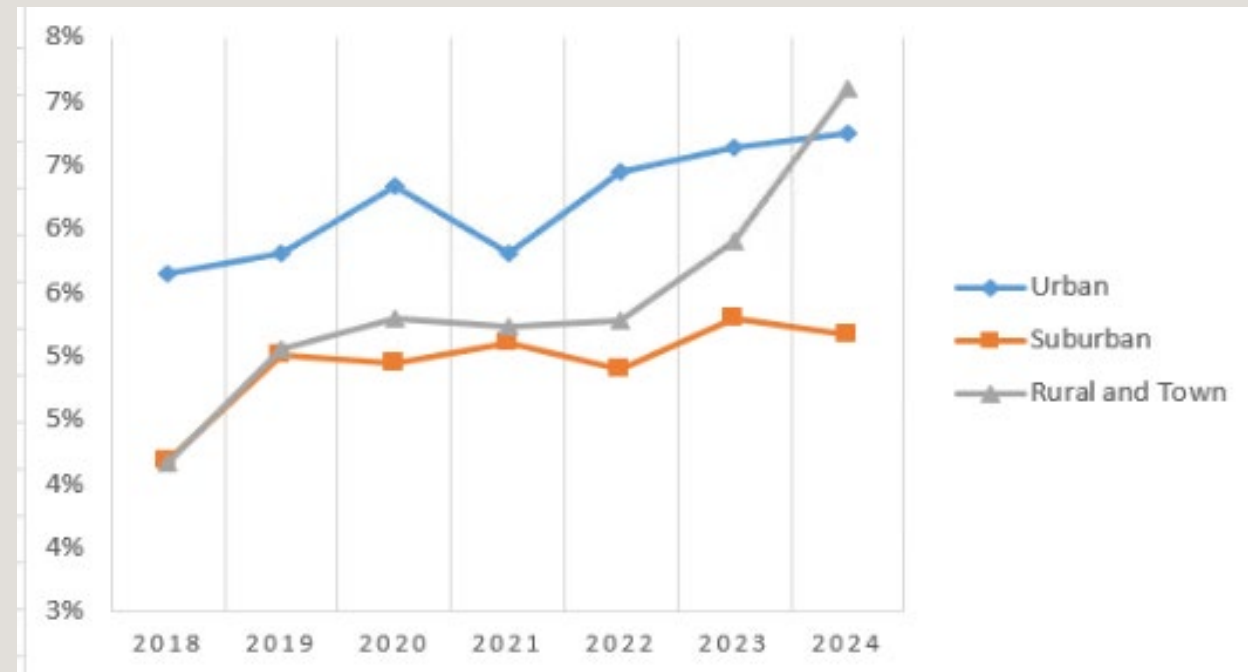
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DC-C Participation Rates: Pre-COVID Growth, Pandemic Dip, and Steady Recovery

All High Schools



By Region



Early Insights: Qualitative Findings



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Interviewed Participants

School District Administrators (1)

- College, Career, and Military Readiness Coordinator of a rural ISD

Community College Administrators (3)

- Chief High School Programs Officer – Community College District
- District Director of Early College High Schools – Community College District
- Director of High School Programs – Community College



The Dual Credit Landscape

- Access to dual credit opportunities varies widely across regions.
- The CC admin from an urban area talked about offering access to dual credit courses in multiple modalities (in-person, hybrid, online), while the district admin from a rural district talked about facing barriers like distance and transportation, limiting them to asynchronous dual credit courses when dual credit teachers are not available to teach at the high school campus.
- The district admin from the rural district mentioned that she perceives online learning to be less effective for adolescents; she mentions that in-person support is needed to improve outcomes.
- According to folks at the CC district, growth is both a **moral mission** (expanding opportunity, decreasing poverty) and a **logistical challenge** (building the systems and people to sustain it)



People and Partnerships

- Credentialing bottlenecks limit program growth; folks at the CC district are expanding teacher pipeline initiatives, but the underserved rural district has yet to see the benefits
- The district admin at the rural district is working to credential and retain their own teachers after mixed experiences with college faculty unfamiliar with their students.
- The Director of HS Programs talked about investing in PD around adolescent pedagogy and instructional technology.



Supporting Students Beyond Access

- All four interviewees mentioned that students need scaffolds beyond academics: embedded advisors, tutoring (in-person & online), and mentoring build persistence.
- For the rural district: Confidence-building (“you can do hard things”) and early experiences like P-TECH help students see themselves as college-ready.
- Coordination across institutions is uneven: each layer (districts, colleges, campuses) works to address student persistence/success, but communication is often reactive rather than proactive.
- The mix of top-down reforms (credentialing, ECHS expansion) and local fixes (advising, course pacing) reflects both creativity and fragmentation.



Takeaways from Initial Interviews

- **Modality and Access**

Online learning remains the primary option in many areas, especially rural contexts, but it may not always be ideal for adolescent learners. There's a clear need to explore how students can be better supported when virtual instruction is the only available pathway.

- **Teacher Credentialing and Availability**

The shortage of credentialed dual credit teachers continues to limit access. Expansion efforts are promising, but the key challenge is ensuring that qualified teachers reach the districts and campuses that need them most.

- **Collaboration and Communication**

While partnerships between colleges, districts, and high schools exist, coordination often happens reactively rather than proactively. Stronger communication and shared planning across all levels could make programs more equitable and sustainable.



Timeline

ACTIVITY	2025									
	3	4	5	6	7	8	9	10	11	12
IRB for ERC proposal (and any needed modifications) ☒										
ERC proposal preparation ☒										
AP/IB course data collection ☒										
ERC data analysis ☒										
Survey preparation + collection										
Survey data analysis										
Interview preparation + process ☒										
Interview data analysis ☒										
Project team meetings (**in person) ☒										
ACTIVITY	2026									
	1	2	3	4	5	6	7	8	9	10
ERC data analysis										
Survey data analysis										
Interview process + data analysis										
Project team meetings										
Report production										



Questions, Comments, or Feedback?



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Thank You

Our next update will be May 21, 2026.
See **LONESTAR^{RP3}** Events Page to register.



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