



Research Collaboratives

Purpose

Collectively investigate questions captured in our shared research agendas

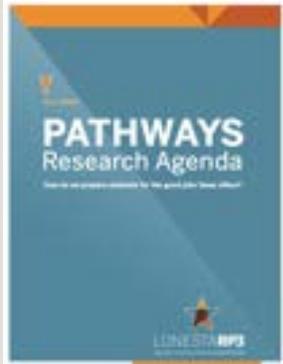
Structure

Small research teams, lead by at least two LONESTARP3 Members

Prerequisites

- Local communities have expressed interest in the problem of practice being investigated
- Access to a population with representative demographics to surface findings with implications beyond a single site
- Include expertise on the topic and necessary research methods
- Capacity to complete agile investigations that surface meaningful insights within 12-18 months.

Pathways Research Collaboratives



Academic and Career Advising

Dual Credit Academic and Workforce Education

Workforce-Aligned Instruction

Postsecondary Pursuits

1

2

3

4

College and Career Advising Program (CAP) Directory and Portal

Student Selection of Early College Programs

Industry-based Certifications (IBCs)

College, Career, Military Readiness (CCRM) Indicators



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Engagement and Feedback

Presentations

INSIGHTS

Design, methodology, data collection, data analysis

ENGAGEMENT

Stakeholder interest and opportunities to engage with findings

COLLABORATION

Similarities and differences from traditional research

Structured Feedback

PROMPTS

What is **relevant or actionable** for your organization, your partners, or your constituents

What **stakeholders are interested** and in a decision-making role

How to **package or present insights** for interested stakeholders

What opportunities are there to **engage stakeholders**

Any additional **insights or questions**



Structured Feedback

Structured Feedback Form

bit.ly/4qKEbUz

CIRCLE, at Texas Tech

Pathways Research Collaborative Presentations <small>INSIGHTS: Early work on design, methodology, data collection, or data analysis ENGAGEMENT: Anticipating stakeholder interest and opportunities to engage with findings COLLABORATION: Similarities and difference to traditional research</small>	ACADEMIC AND CAREER ADVISING <small>College and Career Advising Program Director and Portal</small>	DUAL CREDIT ACADEMIC EDUCATION <small>Student Selection of Early</small>
Q1 What did you find most relevant or actionable for your organization, your partners, or your constituents?		
Q2 What stakeholders within your partnership are interested AND in a position to influence decisions if equipped with findings produced?		
Q3 How would you like to see findings shared for interested stakeholders to make findings more actionable?		
Q4 Are there opportunities to share findings in Fall 2026, Winter 2027 that Collaboratives should anticipate?		
Q5 What additional insights or questions would you like to offer?		

CIRCLE Commit E3 Alliance Educate Texas HERC UT Au

COLLABORATIVES

PROMPTS

MEMBER TABS

Feedback Form

- One tab per Core Member
 - Include everyone at your table!
- One row per prompt
 - Record your table feedback
- One column per Collaborative
 - Collaboratives will access and review your insights

Session Structure

- 15 min Presentations
- 10 min Table Talk
- 5 min Q/A



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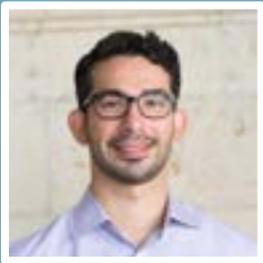
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Academic and Career Advising



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Research Collaborative



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Research Questions

What are the academic and career advising practices used by schools and advisors?

Specific Interests:

- a. Third-party college access/advising programs (CAPs)
- b. Model features and advising practices





Why these Research Questions?

- Precursor to Pathways Research Agenda
- Interactive Statewide CAP Registry
- Facilitating Better Research on CAPs

3-2-1 Presentation

3 early insights

2 observations on engagement

1 observation on collaboration



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3 Early Insights

- There are 100+ CAPs and YSOs that provide some college and/or career advising services across Texas
- There are some regional efforts to “map” CAP-school partnerships, but no statewide effort
- At the state level, we have data on CAP-school partnerships for state-supported programs (Advise Texas, Communities in Schools, etc.) but not other programs



2 Observations on Engagement

- **State agency and ESC engagement has been critical**

- TEA connected us with Communities in Schools (CIS) reps
- THECB connected us with Advise Texas reps
- ESC representatives have provided critical feedback through focus groups

- **CAP leaders have been cautiously supportive**

- See value in tool for themselves and district leaders
- However, questions remain regarding CAP “buy-in” and return-on-effort
- Key question: How do we provide value back to CAPs to increase buy-in?



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1 Observation on Collaboration

- The “Texas CAP Map” will be a “community-maintained directory of CAPs/YSOs serving Texas schools”
 - Broad collaboration with diverse stakeholders has been, and will continue to be, critical to project success
 - The next phase of the project will require extensive outreach, technical assistance, and generation of buy-in
 - Once the data is collected, both the tool and the data will be public resources designed to foster further collaboration



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Dual Credit Academic and Workforce Education

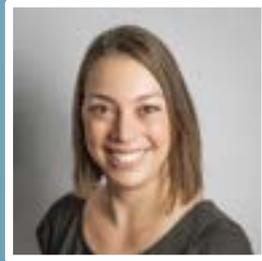


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Research Collaborative



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Research Goals

Our research goals are to explore:

- The availability and utilization of Dual Credit (DC);
- The availability and utilization of AP and IB; and
- The factors affecting students' DC participation.



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Why these Research Goals?

- Research on why and how students participate in DC remains limited.
- DC implementation varies substantially across schools and local contexts (e.g., partnerships, course availability, eligibility, and supports).
- DC and AP/IB are all early college options, but prior research rarely examines how their different program features shape participation.



3-2-1 Presentation

3 early insights

2 observations on engagement

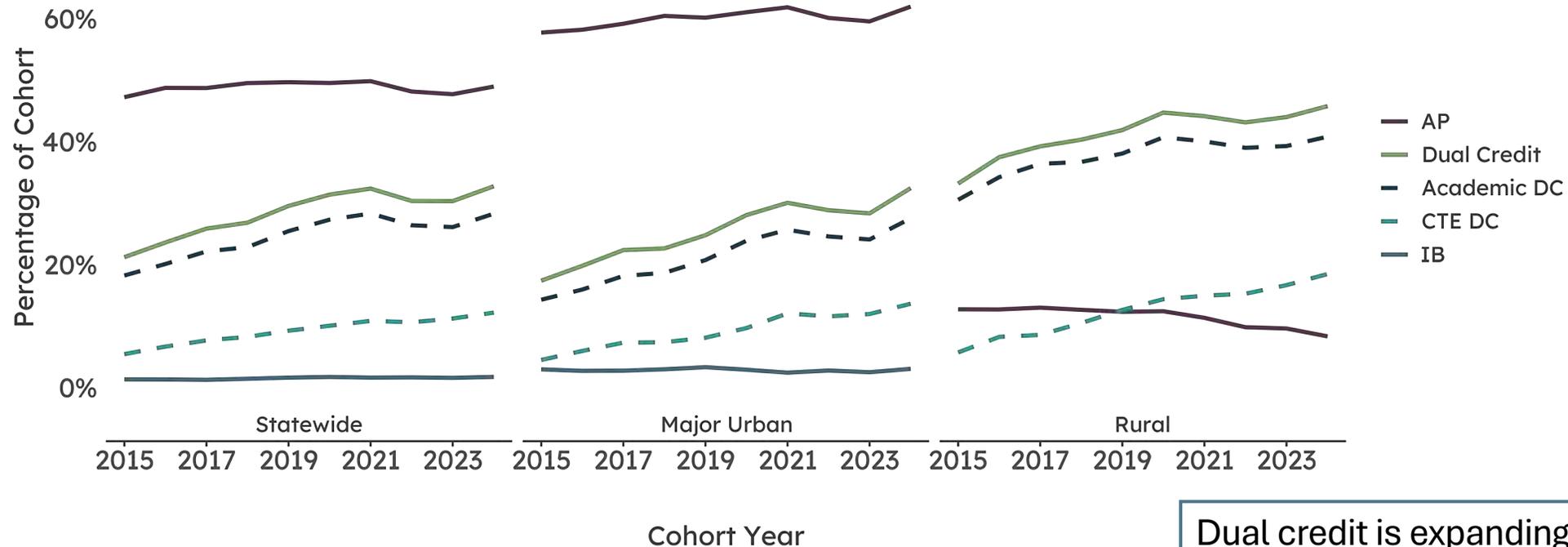
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More Students Are Completing 1+ DC Course

Completion of 1+ College Credit-Bearing Course,
Texas High School Graduating Cohorts, 2015-2024



Dual credit is expanding over time, especially in rural areas, while AP remains stable overall and concentrated in major urban settings. (Figure 1, Handout)

Note: IB not shown for rural due to masking. Academic DC refers to dual credit courses in English language arts and reading (ELAR), mathematics, science, and social studies.

Other Early Insights – Quantitative Strand

- Relative to urban schools, remote rural students are substantially less likely to take AP/IB (along or with DC) and more likely to take DC only, making DC the primary early college option in remote rural settings (Table 1, Handout).
- Overall, DC Participation has shifted toward higher course loads (Figure 2, Handout)
- Emergent bilingual (EB) students complete AP and DC courses at lower rates than non-EB students (Figure 3, Handout), while DC hours have increased over time for both EB and non-EB students (Figure 4, Handout).



Early Insights – Qualitative Strand

- To date, we have interviewed
 - 18 participants from institutions of higher education (IHEs);
 - 7 participants from independent school districts (ISDs).
- Three early insights observed across interviews
 - Teacher credentialing and campus-level course assignment constrains DC expansion.
 - Geographic context influences delivery models and student support.
 - Advising capacity shapes student access and experience.



2 Observations on Engagement

- We aim to share our findings and meaningfully engage with stakeholders who not only want to expand DC access and utilization across the state but are also committed to improving DC programs.
- We hope to engage with our partners to learn more about their needs around the DC programming, instruction, and access (community colleges, school districts, and nonprofits).



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1 Observation on Collaboration

- We have been able to share our knowledge from various educational backgrounds and capitalize on our respective networks to expand our reach and data collection, as well as increase the work's relevance and impact across different regions in the state.



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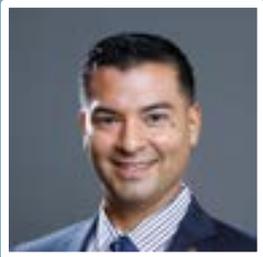
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Workforce-Aligned Instruction



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Research Collaborative



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Research Questions

How well do Texas Industry-Based Certifications prepare students to enter the workforce?

Specific Interests:

- a. ISD IBCs decisions
- b. Employer hiring practices
- c. IBCs alignment with: CTE, labor market needs, living wage



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Why these Research Questions?

- Grounded in Local Decision-Making
- Responsive to Workforce Needs
- Regional Relevance
- Linking Education to Outcomes



3-2-1 Presentation

3 early insights

2 observations on engagement

1 observation on collaboration



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3 Early Insights

Qualitative Early Insight

- Participant engagement is high from EDCs, Employers, Service Centers, ISDs, Regional Interest Groups!
- Student advising, soft skills, financial literacy, IBC awareness/options, attention to bilingualism as a workforce asset needs to occur earlier in student life (some degree of parallel finding in both regions), CTE counseling is a challenge
- More industry needed in RGV to keep workers from leaving; Relationships and Collaboration/Innovation/Leadership is what Hidalgo is leveraging (i.e., Pipeline to Aerospace is focused in Cameron County, Pipeline to Semiconductors, chips, robotics is focus in Hidalgo County)

Quantitative Early Insight

- Throughout most of the state, IBCs aligned with CTE coursework appear to be increasing. Rising from 66.3% in 2020 to 83.4% in 2024. Broken down, by region, nearly half have shown alignment rate increases over 12%.
- Using the TEA Ethnicity Code, students identifying as Black and Pacific Islander had the largest gains in alignment rates between the 2020 and 2024.
- Across the 4 year period, IBCs corresponding to Transportation, Distribution and Logistics have the highest rates of aligned IBCs.
- Next Steps: Loading occupational demand crosswalks into ERC Dallas that match up the labor demand of different workforce board regions with their relevant CTE and IBC codes. Deeper dive into RGV and El Paso.



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2 Observations on Engagement

- Research Consultants have been amazing in providing support, outreach, recruitment, and data analysis.
- Constituents are open about the RP3. Many have attended the larger meetings to learn about what we are doing across the state!
- What we have done that is working includes reviewing social media accounts for corporations, employers, and support groups to follow the momentum of work/posts and see where there is overlap/no overlap. We invite participants based on where we still need data.
- The strand hopes to engage TWIC and School districts from the quantitative analysis on IBC/CTE Alignment, Labor Market relevance, and Living wages.
 - TWIC has questions on the relevance/redundancy of Texas Skills Standards and IBCs
 - Education Service Centers.
 - Ray Marshall Center and LBJ School promotion of findings and potential seminars/presentations (across other universities like UTRGV and UTEP?)
- List of other relevant stakeholders (particularly from the areas of qualitative study)
- TEA (are there specific names/groups within TEA)



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1 Observation on Collaboration

- Attending the breakout of other Collaboratives where we know there is overlap has helped us confirm what we are finding.
- Last breakout with Matt and hearing findings from the IBC study he did was very insightful and helped us make sense of what we were hearing.



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Postsecondary Pursuits



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Research Collaborative



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Research Questions

- What patterns of readiness emerge when we look across students' academic and career preparation experiences?
- How well do different readiness signals (CCR indicators and beyond) predict students' paths after high school?

Specific Interests:

- a. Student CCR profiles
- b. Identifying key readiness signals
- c. Predicting postsecondary success



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Why these Research Questions?

Motivation

- Large disparities persist in college enrollment, credential attainment, and workforce outcomes
- Growing disconnect educational attainment and workforce demands

Policy Context

- Ongoing discussions about whether CCMR indicators accurately reflect readiness & whether some should be disaggregated or weighted differently
- Clear calls for more research on how different indicators signal readiness to inform future accountability decisions



3-2-1 Presentation

3 early insights

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Early Insight 1: Defining Readiness

Understanding readiness requires looking at variation within CCMR indicators and the experiences leading up to them

- **Current indicators** (TSI pathways, dual credit thresholds, OnRamps, HS credentials, aligned IBCs, AP/IB proxies)
- **Variation within CCMR indicators** (how readiness is met, subject mix and intensity)
- **Other high school experiences** (e.g., CTE engagement, endorsements, STEM coursetaking, FAFSA completion)
- **Earlier preparation** (e.g., middle school achievement, course placement)
- **Additional signals** (e.g., attendance, discipline history, grade repetition, mobility)
- **Student and school context** (e.g., demographic and school characteristics)



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Early Insight 2: Student Readiness Profiles

Technical Challenges

- There were delays and issues in the ERC with the statistical software

Profile Identification

- Latent Class Analysis (LCA) identifies unobserved or “latent” subgroups within a population by using chosen indicators
- **Models are in progress for each graduating cohort (2016–2023)**
- **This takes multiple iterations** to determine the most appropriate number of profiles and likelihood of students being categorized into profiles for each cohort



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Early Insight 3: Random Forest Modeling

- Preliminary models looking at Texas graduating classes 2021–2023 (~940,000 students)
- Included 33 measures of preparation, school context, and CCMR indicators
- **Outcomes:** Direct-to-College Enrollment, Enrollment in Remedial Coursework

What Random Forest Models Help Us Understand

- How combinations of readiness indicators work together (not just the effect of one indicator at a time)
- Which CCMR signals are most predictive of early college outcomes
- How school context and student preparation interact. RF models capture nonlinear patterns and interactions across many indicators in ways linear models miss.

These are early descriptive results, not causal, but they help us understand how different indicators signal early college outcomes.



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Predictors of Direct-to-College Enrollment

Top 10 Predictors of College Enrollment

Rank	Direct-to-College Enrollment
1	Met TSI criteria (+)
2	8th grade Mathematics STAAR score (+)
3	8th grade Reading STAAR score (+)
4	% of classmates who met TSI (+)
5	Met Dual Credit threshold (+)
6	% of students in graduating class who completed Algebra I by 8th grade (+)
7	% of classmates meeting Dual Credit threshold (+)
8	% of classmates completing Algebra II or higher in high school (+)
9	% of classmates economically disadvantaged (-)
10	% of classmates Emergent Bilingual (-)

Ranking of CCMR Indicators

Rank (out of 33)	CCMR Indicator
1	Met TSI criteria (+)
5	Met Dual Credit threshold (+)
14	AP/IB: ever passed (+)
25	Earn IBC aligned with POS (+)
30	Earn Associate Degree (-)
31	Earn Level I or II Certificate (-)
32	Complete OnRamps course (-)

Predictors of Remedial Coursetaking

Top 10 Predictors of Remedial Coursetaking

Rank	Direct-to-College Enrollment
1	8th grade Mathematics STAAR score (+)
2	8th grade Reading STAAR score (+)
3	% of students in graduating class who completed Algebra I by 8th grade (+)
4	% of classmates completing Algebra II or higher in high school (+)
5	% of classmates earning an IBC aligned with POS (+)
6	Met Dual Credit threshold (+)
7	Met TSI criteria (+)
8	% of classmates Emergent Bilingual (-)
9	% of classmates Black/African American (-)
10	% of classmates economically disadvantaged (-)

Ranking of CCMR Indicators

Rank (out of 33)	CCMR Indicator
6	Met Dual Credit threshold (+)
7	Met TSI criteria (+)
13	Earn Associate Degree (+)
21	AP/IB: ever passed (+)
22	Earn IBC aligned with POS (+)
28	Complete OnRamps course (+)
29	Earn Level I or II Certificate (+)

Early Insight 3: Random Forest Modeling

- **Combinations matter:** TSI status, math preparation, and dual credit consistently appear together as strong predictors across both outcomes.
- **School context matters:** The academic and demographic profile of a student's high school is repeatedly among the most predictive factors.
- **Early Insight:** Early college outcomes reflect preparation before high school, experiences during high school, and the high schools students attend.
 - These patterns likely reflect differences in school quality, resources, and course pathways- some factors schools can influence, and others they cannot.
- **Next step:** further examine malleable factors that schools can provide and that still meaningfully shape students' pathways.



Next Steps

- **Disaggregate CCMR indicators** to understand which combinations are most informative.
- **Strengthen school-context analysis:** Look more closely at how school-level patterns relate to course availability, counselor ratios, and readiness pathways.
- **Expand the models:** Run analyses across additional graduating cohorts and outcomes.
- **Stepwise modeling of readiness indicators:** Estimate models in stages to understand how each set of factors contributes to prediction.



2 Observations on Engagement

Observation 1: *Partner input shaped the study design*

- District and agency partners refined our focus to CCMR indicators most relevant for local decision-making
- Partners prioritized indicators (e.g., dual credit thresholds, IBC alignment) and flagged subgroup and regional differences to examine
- We are planning district share-outs in early 2026 to interpret findings and shape recommendations

Question: *How have others built sustained engagement with districts while analyses are still underway?*



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2 Observations on Engagement

Observation 2: *Early planning is critical for policy-relevant dissemination*

- With a CCMR accountability refresh under discussion, timely dissemination to stakeholders who are shaping these decisions is essential
- We are strategically considering timing, audience, and format so results are useful

Question: *How can we ensure our research reaches the right audiences at the right time, especially during active policy revisions?*



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1 Observation on Collaboration

- TTU and HERC brought complementary expertise in policy context, CCMR measurement, and ERC data systems
- Having two teams build and check code improved consistency in constructing CCMR indicators and analytic samples
- Working across ERC environments required extra coordination on definitions, documentation, and version control; yet helped us identify common CCR data challenges earlier

Lesson: Collaborative research works best with diverse expertise, shared timelines, clear protocols, and frequent check-ins



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What's Next

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CONNECT
VIRTUAL

Updates and Insights from the Pathways Research Collaboratives

May 21, 2:00-3:00

<https://lonestarp3.org/events/#virtual>



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