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# Permian Strategic Partnership CTE Landscape Scan

March 2022

Analysis and Recommendations

# Permian Strategic Partnership CTE Landscape Scan Objectives

ESG was pleased to partner with the Permian Strategic Partnership to conduct a landscape scan of career pathways and CTE offerings in the Permian Basin and provide strategic investment recommendations to the Permian Strategic Partnership (PSP) to support them in attaining their goal to “help accelerate improvements to deliver the best public schools in Texas and Southeast New Mexico.” The objectives of the project were:

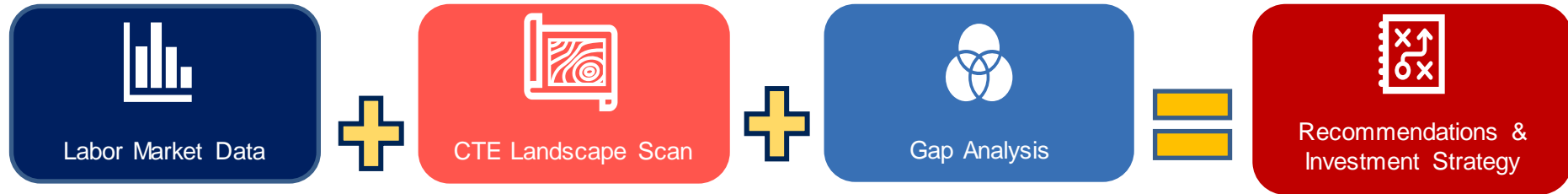
**Objective 1:** Identify high-priority labor market needs across the Permian Basin in Texas and New Mexico and determine the extent to which school districts’ career pathways are aligned with those high-skill, high-demand, high-wage opportunities.

**Objective 2:** Determine what initiatives and programming are taking place to advance CTE offerings at the secondary level within those districts across the Permian Basin in Texas and New Mexico.

**Objective 3:** Make recommendations to PSP, based on the above analyses, on investment priorities to support CTE programming and career pathways so as to maximize employment and earnings outcomes for students in the Permian Basin and respond to labor market needs.

# CTE Landscape Scan Project Process

ESG brought several different strategies to bear to develop a set of recommendations and investment strategies for the Permian Basin region.



These steps helped us identify areas where PSP may strategically invest to grow capacity and scale in the region to deliver high-quality CTE pathways - that include quality advising, work-based learning, early postsecondary experiences, and credentials with labor market currency - that ultimately grow the talent pipeline in response to labor market opportunity while preparing young people for economic and career success.

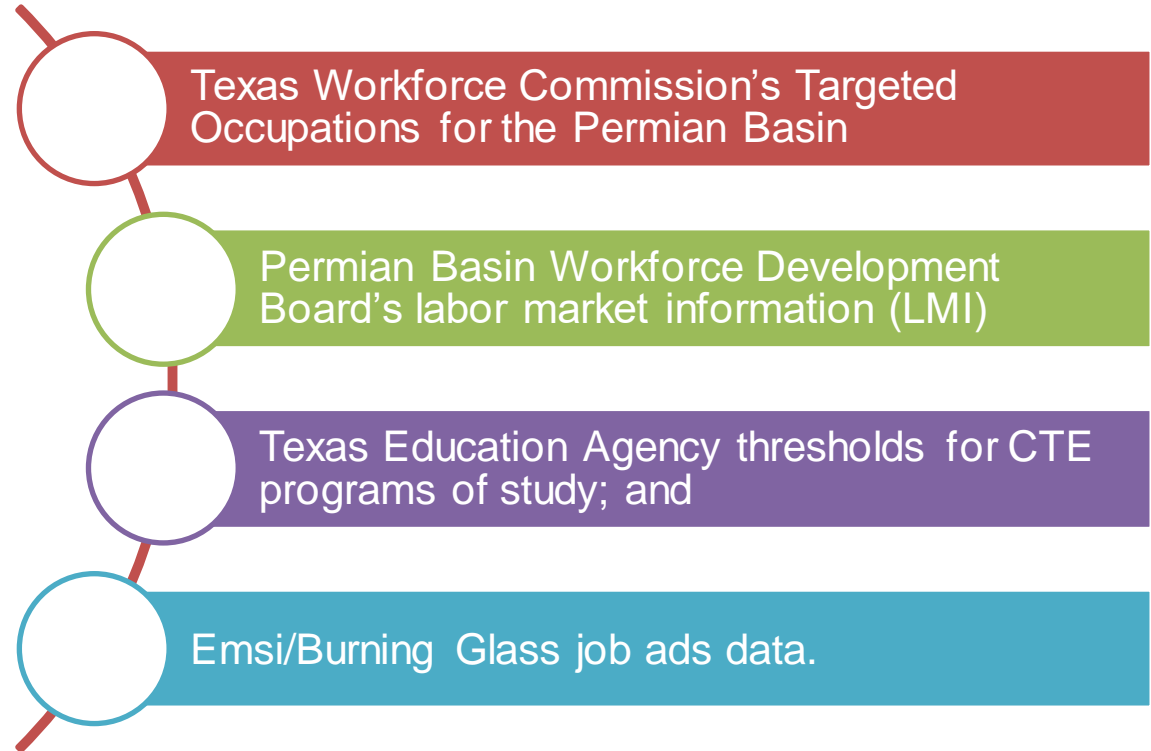


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# Overview of Labor Market Data

# ESG combined counties in NM and TX to create a Permian Basin Region

As a first step in our work, ESG sought to understand the in-demand, high-wage occupations in the Permian Basin region. ESG reviewed four different sources of labor market information.



# Determined Demand Thresholds

ESG considered sources in the region to determine the in-demand threshold.

Permian Basin  
Workforce Board

established a demand threshold as “any positive growth” and greater than 100 annual job openings for their region

Texas Education  
Agency Statewide

established a demand threshold of 17% growth and greater than 500 annual job openings *for the state*

Emsi Combined NM &  
TX Region

Emsi reported a demand threshold of 2% average growth and 56 average annual job openings in the region

Because of the variance, lack of NM data, and lack of methodology behind some of the sources, ESG used Emsi averages for demand and growth thresholds.

# Determined Wage Thresholds

Ultimately, ESG selected a wage threshold of \$39,911 to apply to the occupational analysis. Not only was this wage threshold used by the Permian Basin Workforce Development Board in their prior analyses, but also, when converted to an hourly wage equivalent of \$19.19/hour, this threshold was well above the MIT calculator's living wage of one working adult with no children.

County	State	Living Wage Calculation - 1 Adult, No children	Living Wage Calculation - 2 Adults, 1 working, 2 Children	Living Wage Calculation - 2 Adults, Both working, 2 Children
Odessa	TX	\$14.03	\$31.40	\$19.35
Midland	TX	\$15.88	\$32.50	\$19.90
San Angelo	TX	\$12.95	\$29.99	\$18.01
Lea County	NM	\$14.91	\$32.46	\$20.12
Eddy County	NM	\$14.77	\$32.27	\$20.02
		Avg: \$14.50	Avg: \$31.72	Avg: \$19.48

*MIT Living Wage Thresholds for Region*

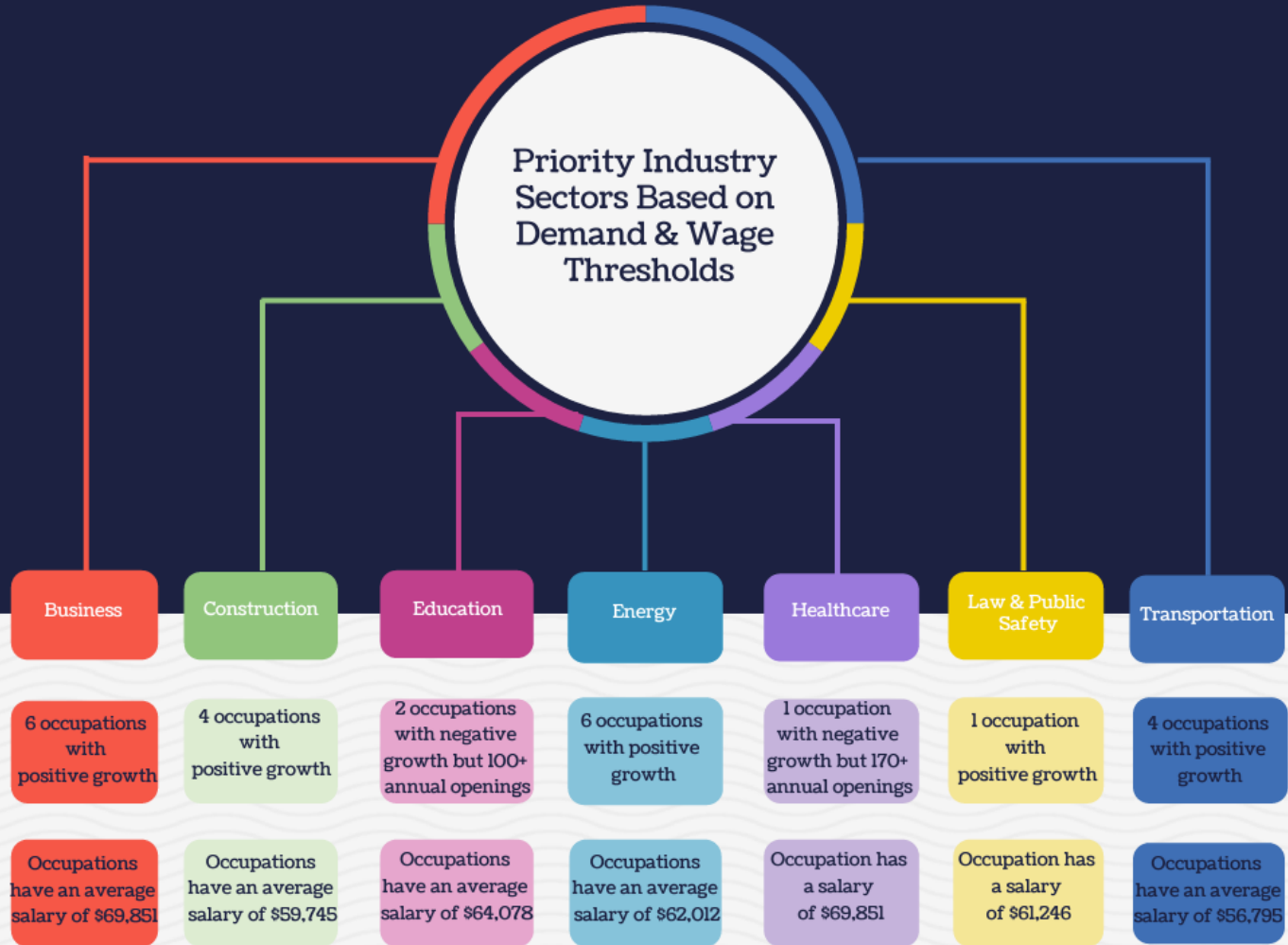
# Determined Occupations Meeting Demand & Wage Thresholds

ESG used LMI to identify occupations meeting both demand and wage thresholds, grouped them into industry sectors, and aligned them with the corresponding career clusters and programs of study. Career clusters and programs of study are the organizing frameworks for Career and Technical Education (CTE) programs in the United States.

ESG then determined seven priority industry sectors for the Permian Basin region. ***These seven priority industry sectors represent the high-value labor market opportunities with which career pathways should be aligned in Permian Basin school districts.*** As such, they serve as the foundation for the gap analysis.



# Priority Industry Sectors Meeting Demand & Wage Thresholds





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# CTE Landscape Scan

# Process for Identifying CTE Programs and Career Pathways Offered in the Region

Armed with a clear understanding of the seven priority sectors that offer both plentiful job opportunities and wages to support a family, ESG sought to examine current CTE programming in Permian Basin school districts to get a clearer picture of alignment with those sectors. ESG embarked on three main strategies within this landscape scan.

1

Examine publicly available information to identify, catalog, and analyze a broad range of current CTE career pathway offerings

2

Interview key program and organizational leaders to better understand and assess their current work in designing, building, supporting, and implementing CTE career pathways

3

Collect and analyze publicly available data from education service centers and state agencies to determine where there are ecosystems in which CTE career pathways could be modified, implemented, and scaled

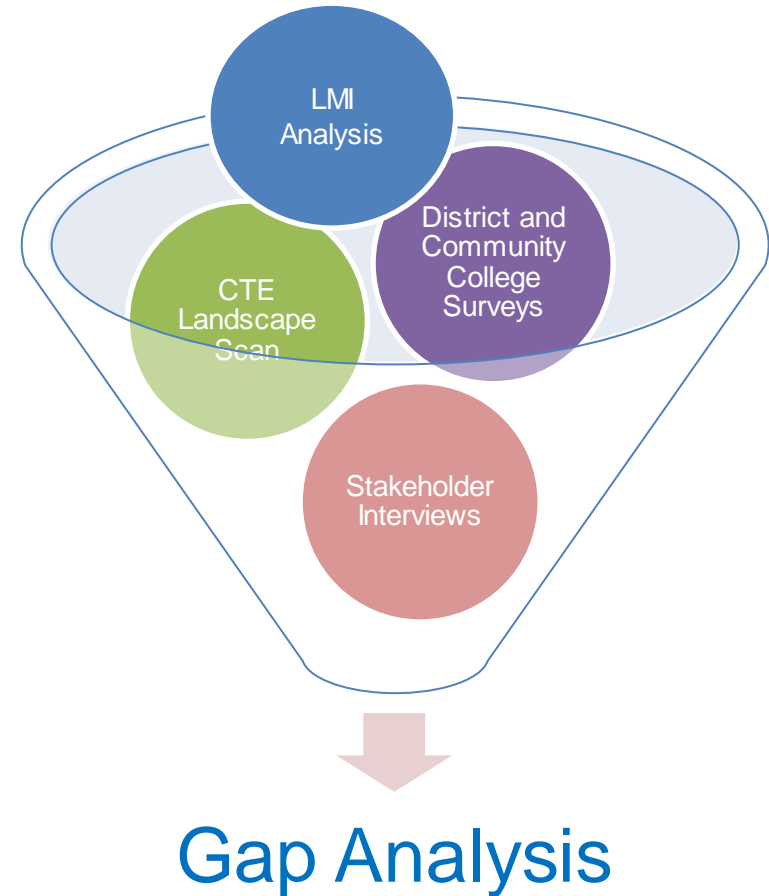


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# Permian Basin Gap Analysis

# Process to Complete the Gap Analysis

ESG used understandings we gleaned from the LMI analysis, CTE landscape scan, district surveys, community college surveys, and interviews to conduct a gap analysis to determine the extent to which current career pathways across the Permian Basin region are aligned with priority industry sectors and meet a high bar for programmatic quality.



# Strengths in the Permian Basin: Every Postsecondary Institution in NM has an Energy Pathway

The combination of results from the LMI analysis with the CTE landscape scan brought into focus the degree of current pathways alignment in the Permian Basin to priority industry sectors. The table demonstrates the percentage of districts and postsecondary institutions that currently offer CTE career pathways in priority industry sectors.

Priority Industry Sector	% of K12 Districts	% of Higher Ed	NM K12 district	TX K12 district	NM Higher Ed	TX Higher Ed
Business	53.5%	83.3%	57%	52%	100%	75%
Construction	25%	33.3%	42.8%	19%	0%	50%
Energy	14.3%	66.7%	14.2%	14.2%	100%	50%
Law	21.4%	100%	0%	28.6%	100%	100%
Transportation	42.8%	50%	57%	38%	50%	50%

# Strengths in the Permian Basin: District Surveys & Interviews

The district survey revealed that district leaders are especially focused on CTE program of study offerings and postsecondary connections as key priorities. Districts understand the value of high-quality CTE and, more importantly, understand that it takes building partnerships with postsecondary institutions and employers to implement high-quality career pathways. Three key themes emerged when asked what district leaders want to focus on to strengthen and scale CTE offerings in the future:

Improving the coherence and alignment of CTE programs to postsecondary readiness and industry demand

Increasing emphasis on CTE program completion and earning high-value industry-based credentials

Strengthening partnerships with local business, industry, and community members

# Strengths in the Permian Basin: District Surveys & Interviews

Districts signaled that they understand the need to expand student access to career pathways that are aligned with the largest priority industry sectors in the region.

When asked about the past of CTE program offerings, more than half of districts responded that they have expanded CTE offerings in the last five years.

When asked about programs they want to expand in the next five years, **75 percent of districts cited the oil and gas career pathway**



# Strengths in the Permian Basin: District Surveys & Interviews


Additionally, districts understand the importance of having postsecondary partners and embedding early postsecondary opportunities (dual credit, advanced placement, etc.) within their career pathways.

More than 67 percent of districts have agreements in place with local postsecondary institutions to award early postsecondary credit within career pathways

More than 50 percent of districts require or routinely offer early postsecondary technical courses within specific career pathways.

# Strengths in the Permian Basin: Community College Surveys & Interviews

The community college responses were similar to district themes. It is important to note that while the response rate was 50 percent, given the small sample size, ESG would not make assumptions about responses being representative of all community colleges in the region. However, responses corresponded to strengths mentioned by districts.



Strength in CTE Dual Credit  
Agreements Within Career  
Pathways



Strong Partnerships  
With Districts in the  
Region

# Areas of Opportunity in the Permian Basin

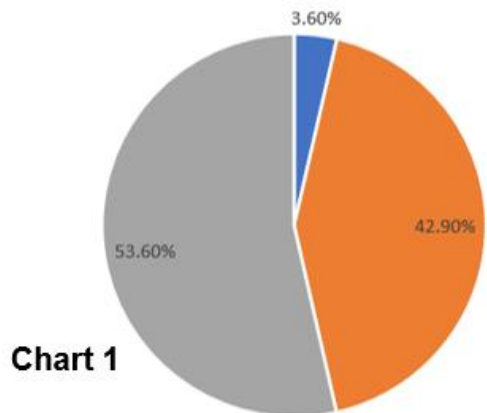
Though we highlighted the number of districts and postsecondary institutions offering career pathways in priority industry sectors, it is also important to look at the alignment of all career pathways offered compared to priority industry sectors as well as occupations. This analysis only looked at district offerings; given the complexity of degree programs and the alignment of postsecondary program codes to occupation codes, we did not provide an overall alignment analysis of postsecondary institutions.

# Areas of Opportunity: Alignment of Pathways to LMI

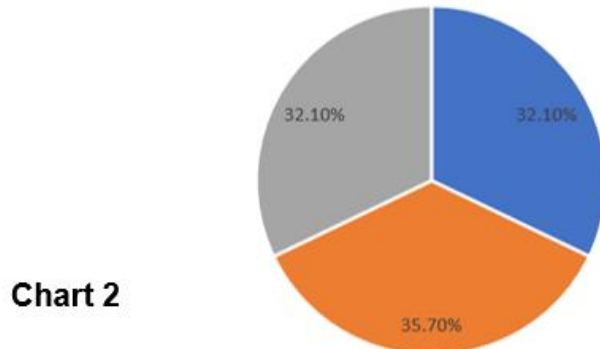
Charts 1 and 2 demonstrate the percentage of districts with alignment across three categories:

1. **Blue:** districts with 75% or more of their career pathway offerings aligning with priority sectors
2. **Orange:** districts with 50% or more of their career pathway offerings aligning with priority sectors
3. **Gray:** districts with less than 50% of their career pathway offerings aligning with priority sectors

District Career Pathways Offering Aligning with Priority Industry Sectors

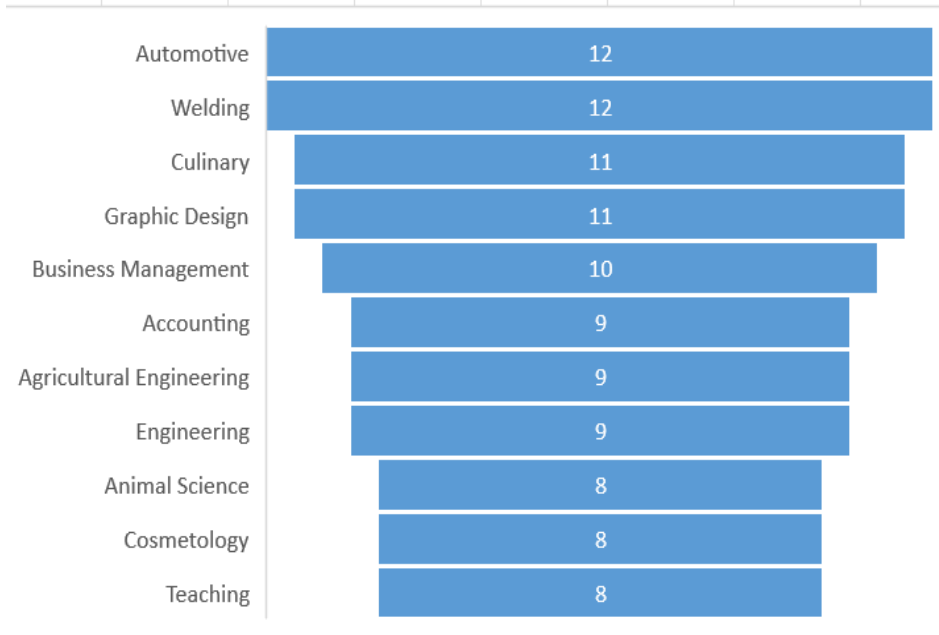


District Career Pathway Offerings Aligning with Industry Sectors (including education, healthcare and manufacturing)



# The 11 most frequently offered programs of study make up 50% of all programs offered in region

While the industry sector is a good proxy for alignment, a more direct approach is to look at CTE programs of study offered in contrast to in-demand and high-wage occupations.



This demonstrates misalignment. For example, transportation is a high priority industry sector but the occupations in the transportation sector in highest demand and associated with the highest wages are in the diesel program of study. However, automotive is the highest offered program of study. Only two districts in the region provide a diesel program. Of the 11 most frequently offered programs of study, only two - accounting and business - are in alignment with high demand and high wage occupations in the region

# Areas of Opportunity: District Survey Results

The results of the district survey identified three clear areas of focus for districts

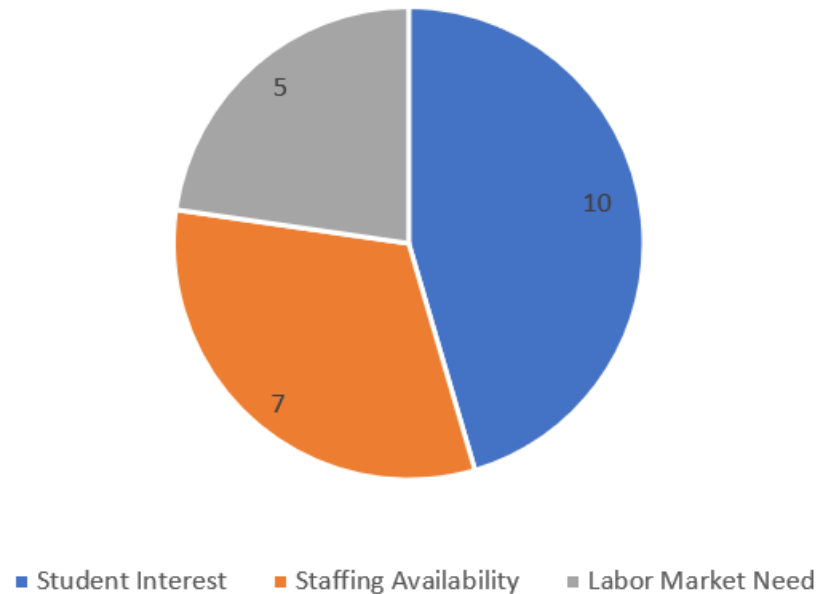
CTE program of  
study offerings

Work-based  
learning

Identifying and  
incentivizing  
credentials that  
lead to good jobs

# Programs of Study Selection is Driven by Student Interest and Staffing Availability

When asked how districts determine which career pathways are offered, districts were most likely to indicate that program offerings are driven by **student interest** and **staffing availability**. Some respondents identified the need to determine this through LMI and industry advisory councils, but this was not the most common decision-making method.



# Areas of Opportunity: Barriers to Building and Expanding Career Pathways

ESG also examined barriers to building and expanding career pathways in the Permian Basin. 75 percent of districts indicated that the biggest barriers are **staffing** -- citing teacher certification and finding qualified teachers as key challenges -- followed by **funding and facilities**.

Strengthening connections was a key theme here as well. Seven districts stated that **business and industry partners were not involved** in the development of career pathways but cited that they recognized the need to build these partnerships.



# Areas of Opportunity: Access to Work-Based Learning in Districts and Community Colleges

Coinciding with issues in connecting programs to business and industry, work-based learning showed up as a critical need.

Fewer than half of district respondents reported that students have access to rigorous work-based learning experiences, and six districts cited no access for students at all.

More than half of respondents stated that the work-based learning experiences they currently have are not aligned to what students are studying in their career pathways.

Half of districts surveyed said that transportation to a job site prevents students from participating in WBL. Other factors included lack of employer partnerships

More than half of districts responded that WBL is not well organized or coordinated at their school.

Community college respondents said there are too few internship opportunities available to students and that students have too little time to participate in experiences outside of the school day



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# Recommendations



# Recommendations

Based on the strengths and gaps in the region that emerged through our research, ESG has developed a series of recommendations for the consideration of PSP that encompass research and investments as well as programmatic implementation and scale opportunities.



## Recommendation 1

Undertake a more detailed analysis by district of pathway offerings and related student achievement to understand and address student barriers to pathways access and success.



## Recommendation 2

Provide access to credentials of value in pathways within the Permian Basin that are aligned with priority industries and are relied upon by employers in their talent sourcing processes.



## Recommendation 3

Create accelerated career pathways via regional middle colleges in high-priority industry sectors that allow high school students to earn high-priority associate degrees by their 13th year of school.



## Recommendation 4

Establish a regional WBL intermediary to build WBL capacity in the Permian Basin to help source, coordinate, and scale experiences for students and employers.