



Career Cluster Advisories

Division of College, Career, and Military Preparation
(CCMP)



Project Overview

- **Goals of the current programs of study initiative**
 - Prepare students for in-demand, high skill, and high wage careers
 - Engage members of the workforce, secondary education, and higher education in the process
 - Develop new statewide programs of study to include coherent sequences of courses, industry-based certification, and work-based learning
 - Better align Texas's educational goals with its diverse industry needs and opportunities



Orientation Overview

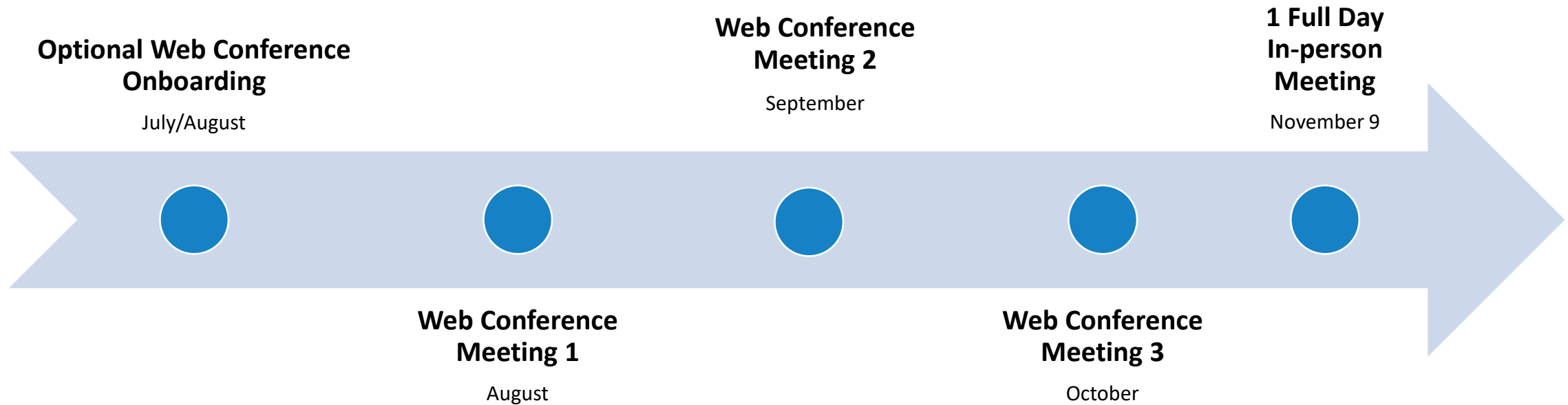
- **Advisory responsibilities and meeting timeline**
- **Connecting high school to career and college**
- **Current misalignments between education and labor demands**
- **Programs of study and timeline for development**



Advisory Responsibilities

- Review occupational skills identified within each industry and provide feedback ranking importance of skills (up to 4 hours)
- Industry partners - provide input and data regarding industry/organizational training, hiring and talent partnership practices
- K-12 partners - provide input regarding course sequencing and certification opportunity alignment
- Higher education partners - provide examples of postsecondary programs that align to proposed Programs of Study

Advisory Timeline



Aligning Texas's Educational Goals with Its Diverse Industry Needs and Opportunities



Current Misalignment Issues

Students graduate with high debt and mismatched preparation for the current job market

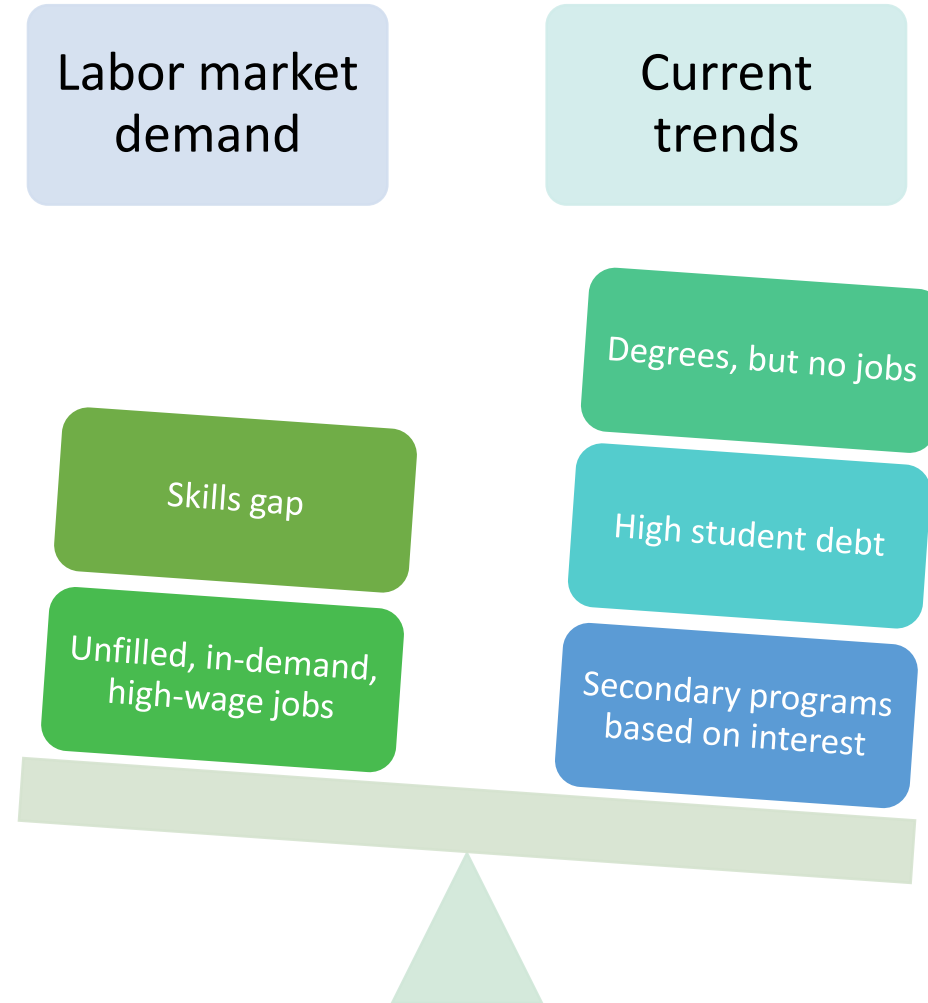
Many students and parents are unaware that there are good jobs that pay without a Bachelor's Degree

Misalignment

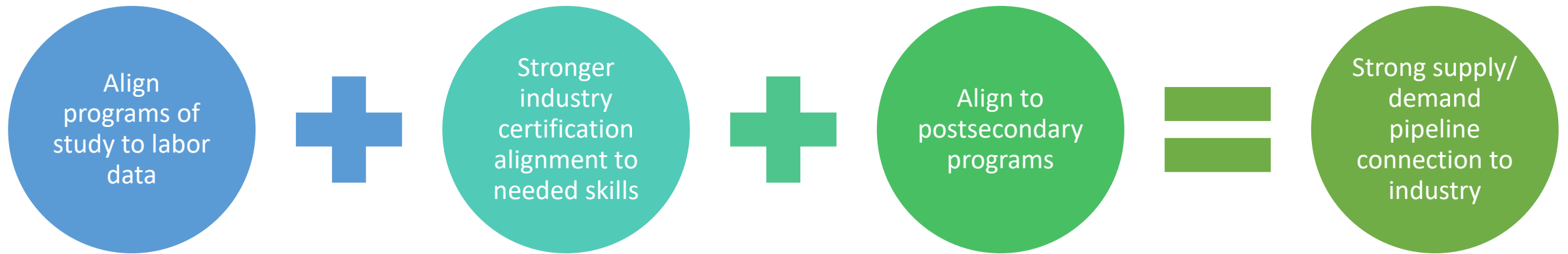
Jobs essential for a strong economy remain unfilled, hurting the economy

Industry certifications need to be updated to match industry demand

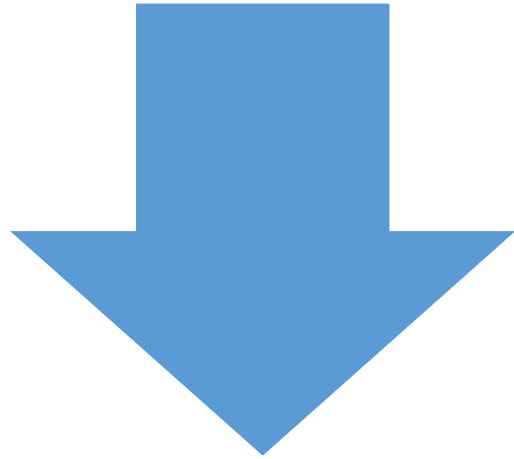
Mismatch Between Labor Supply Pipeline and Demand



What can we do as a state to address the gap?



Current CTE Landscape



What Districts Do

- Programs of Study are largely decided by student interest and teacher certification, not labor market data.



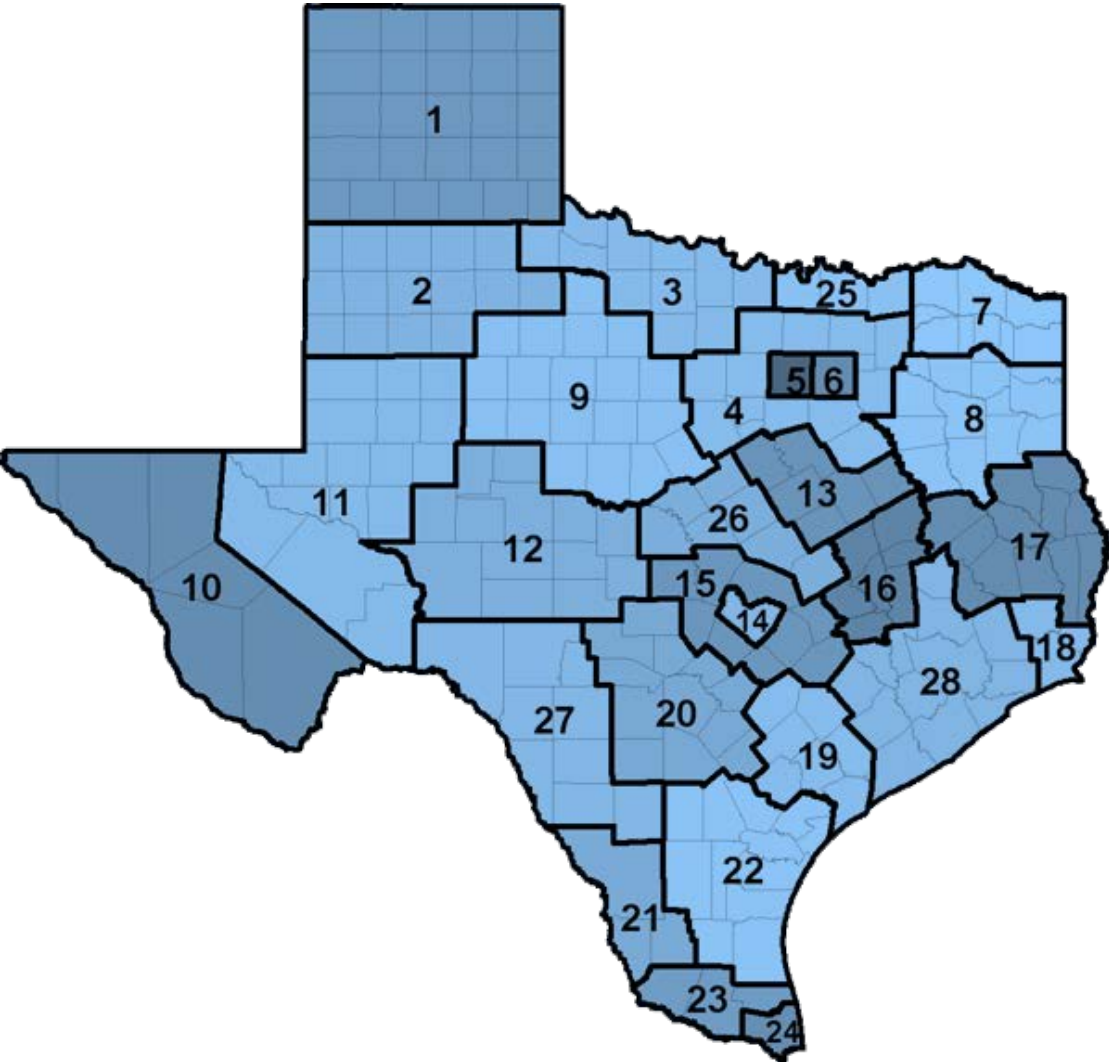
What the Labor Market Needs

- Alignment between programs of study and local market demand is a key component of student success.



Goal: Informed student interest and marketing of high wage, high demand occupations

High Wage, High Demand Occupations in Texas

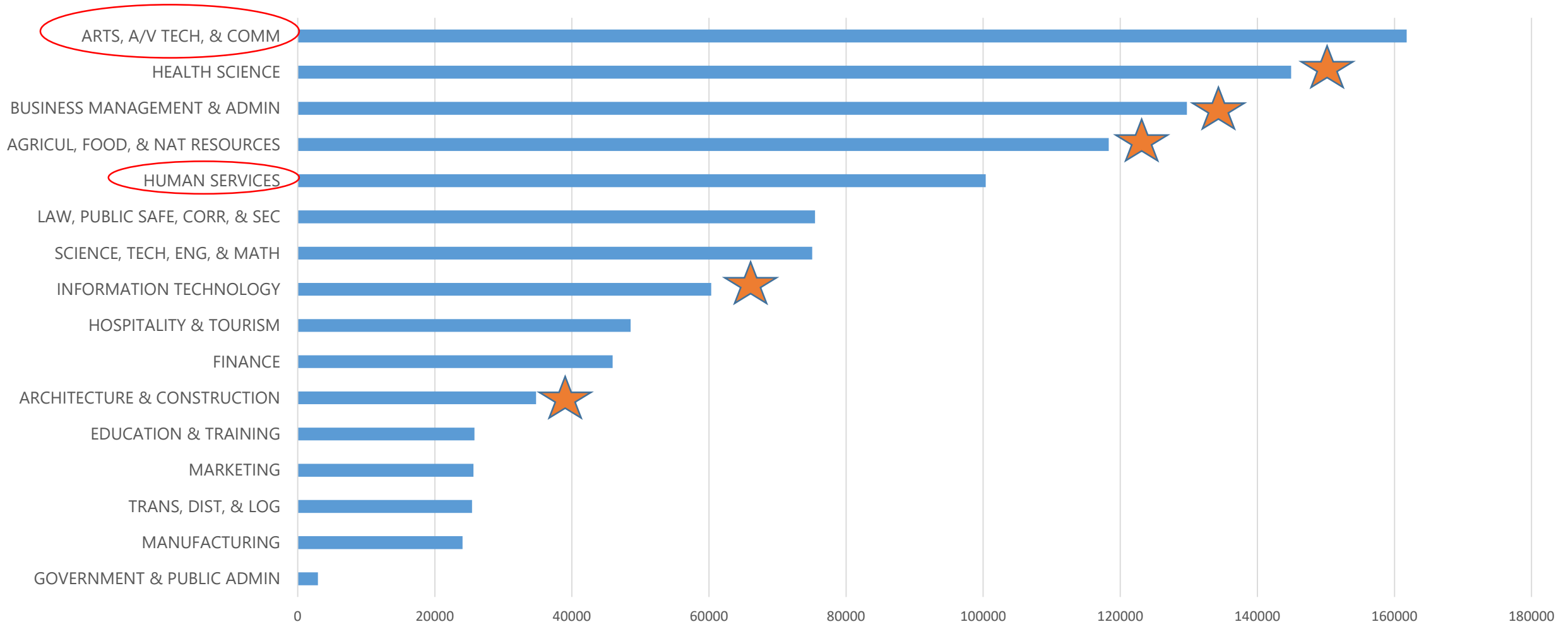


| Career Cluster | Number of High Wage (> \$37,000) & High Demand (>17%) Occupations | Median Wage Range |
|--|---|--------------------|
| Business, Finance, & Marketing | 32 | \$37,190-\$201,177 |
| Health Science | 22 | \$37,391-\$90,397 |
| Architecture & Construction | 19 | \$37,149-\$73,091 |
| Agriculture, Food, & Natural Resources | 16 | \$37,045-\$110,661 |
| Energy | 12 | \$41,558-\$64,377 |

Labor Market Information pulled from Texas Workforce Commission Projections and triangulated by regional WDA and real time labor data (EMSI)

Current CTE Landscape

Enrollment by Career Cluster



What is a Program of Study?

A Program of Study should include:

- A sequence of non-duplicative secondary courses supporting a defined area of careers and embedding academic and technical content
- High-school work-based learning
- Industry Based Certifications that are needed to obtain careers
- Postsecondary education and training opportunities tied to career entry points
 - Multiple education and training exit points along the career progression

New programs of study are essential for meeting federal requirements for Perkins and ensuring CTE concentrators are prepared to earn a valued credential.

Program of Study: Methodology & Timeline



- Vet through industry advisory councils and industry associations
- Backwards-map from job knowledge and skill demand, through postsecondary preparation (college, trade schools, certifications, etc.), to secondary education and experience
- Triangulate LMI:
 - TWC projections, EMSI data, Local Workforce Boards Targeted Occupations
 - High demand (> 17% annual growth) and High Wage (> \$35.339 median salary) jobs
 - Ensure methodology is defensible and replicable at region and district level

1. All occupations considered
2. Occupations reviewed for minimum growth rate of 17%
3. Occupations reviewed for minimum median salary of \$35,339
4. Occupations with “all other” in their title removed
5. Occupations with competitive education requirement of higher than a bachelor’s degree, no formal education, or high school removed
6. Occupations reviewed for minimum of 500 annual openings; lower minimum floors were reviewed for career clusters with less than three occupations remaining
7. Occupations with “supervisor” or “manager” in their title removed
8. Occupations within their respective career clusters were reviewed and those very close in job duties were consolidated.

Determine In-demand
High-wage Jobs

Group Related
Jobs Based on
Knowledge and
Skills

Validate Job
Profiles with
Industry

Develop
Sequence of
Aligned Courses

Convene regional
stakeholders from
industry and
education

Publish Final
Programs of Study

Health Science

Dental Hygienists
Diagnostic Medical Sonographers
Licensed Practical and Licensed Vocational Nurses
Magnetic Resonance Imaging Technologists
Medical and Clinical Laboratory Technicians
Medical and Clinical Laboratory Technologists
Medical Records and Health Information Technicians
Mental Health and Substance Abuse Social Workers
Occupational Therapy Assistants
Physical Therapist Assistants
Radiologic Technologists
Registered Nurses
Respiratory Therapists
Surgical Technologists

Information Technology

Computer Network Architects
Computer Network Support Specialists
Computer Systems Analysts
Computer User Support Specialists
Database Administrators
Information Security Analysts
Network and Computer Systems Administrators
Software Developers, Applications
Software Developers, Systems Software
Web Developers

Architecture & Construction

Brickmasons and Blockmasons
Carpenters
Construction and Building Inspectors
Cost Estimators
Electrical Power-Line Installers and Repairers
Electricians
Heating, Air Conditioning, and Refrigeration Mechanics and Installers
Plumbers, Pipefitters, and Steamfitters
Sheet Metal Workers

Program of Study: Template



| COURSE NAME | SERVICE ID | PRE REQS CO REQS REC REQS | GRADE |
|-------------|------------|---------------------------------|-------|
| Name | ## | Name | #-# |
| Name | ## | Name | #-# |
| Name | ## | Name | #-# |
| Name | ## | Name | #-# |

| OCCUPATIONS BY MEDIAN WAGE | |
|----------------------------|----|
| Occupation 1 | \$ |
| Occupation 2 | \$ |
| Occupation 3 | \$ |
| Occupation 4 | \$ |
| Occupation 5 | \$ |
| Occupation 6 | \$ |

| WBL/ELO | |
|---------------|----------------|
| Opportunity 1 | Opportunity 6 |
| Opportunity 2 | Opportunity 7 |
| Opportunity 3 | Opportunity 8 |
| Opportunity 4 | Opportunity 9 |
| Opportunity 5 | Opportunity 10 |

THE PROGRAM OF STUDY can be described as a comprehensive, structured approach for delivering academic and career and technical education (CTE) to prepare students for postsecondary education and career success. A program of study consists of developmentally appropriate courses preparing for a given career objective or goal. This plan includes two or more CTE courses and builds upon the academic core components to build both academic and technical competencies. Definition from the Texas Education Agency.

THE CAREER CLUSTER is a group of occupations in the same field of work that require similar skills and knowledge. Definition from OMNet.

Every Program of Study:

- Will meet an endorsement
- Will have demonstrated CCRM measure
- Will include Work-Based Learning Opportunities
- Will align to related postsecondary programs with multiple entrance and exit points

Template will Include:

- Courses within the sequence to choose from
- Information on course pre-requisites
- Information on related occupations with Texas median wage data
- Names of related postsecondary programs by level of institution: Technical College, Level 1 and 2 Certificates, Associate Degree Programs at Community College, Bachelor Degree Programs at Four Year Institutions and Advanced Degrees at Four Year Institutions where appropriate.



Program of Study Implementation

- Program of Study Templates
- Perkins Reserve Grants for \$ Support
- PD for districts opting-in establishing a network
- Additional Resources for Program of Study Implementation
- Perkins Reserve Grants for \$ Support (January/February 2020)
- Regional Program of Study Application (locally developed programs of study)
- Transition Plan for retired courses/programs of study
 - PD



- Seek Innovative Course Applications to fill course gaps
- TX Regional Pathways Network Pilot through Perkins Reserve Grants
- Case Studies of districts in Opt-in, collection of promising practices
- Dissemination of Case Studies and promising practices

Questions?

Contact

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