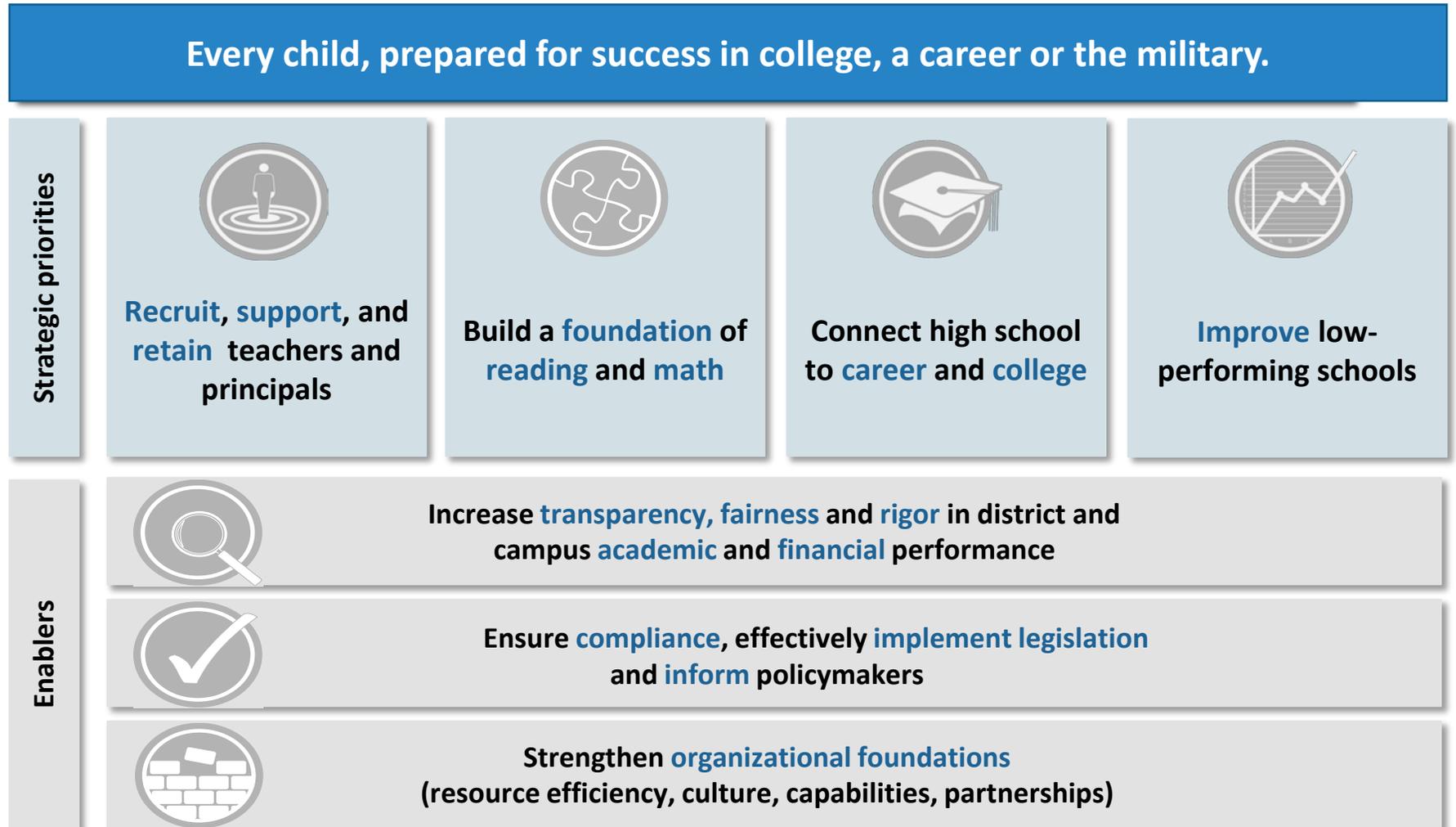
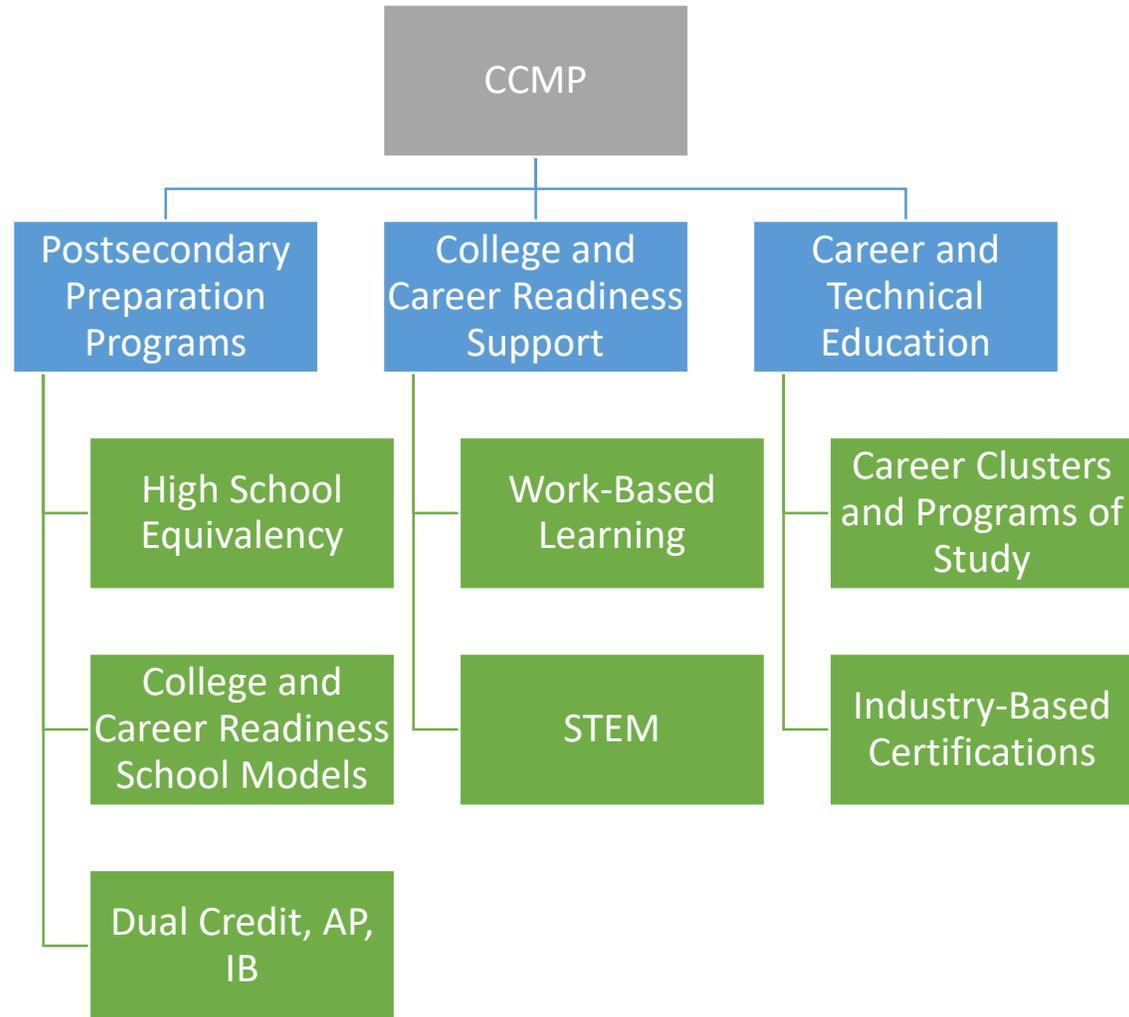
A wide-angle, slightly faded photograph of the Texas State Capitol building in Austin, Texas. The building is a grand, classical-style structure with a prominent central dome and multiple wings. The sky is overcast with soft, grey clouds. The text "Division of College, Career, and Military Preparation (CCMP)" is overlaid in the center of the image in a large, black, sans-serif font.

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

TEA Strategic Priorities

One Mission. One Strategy.



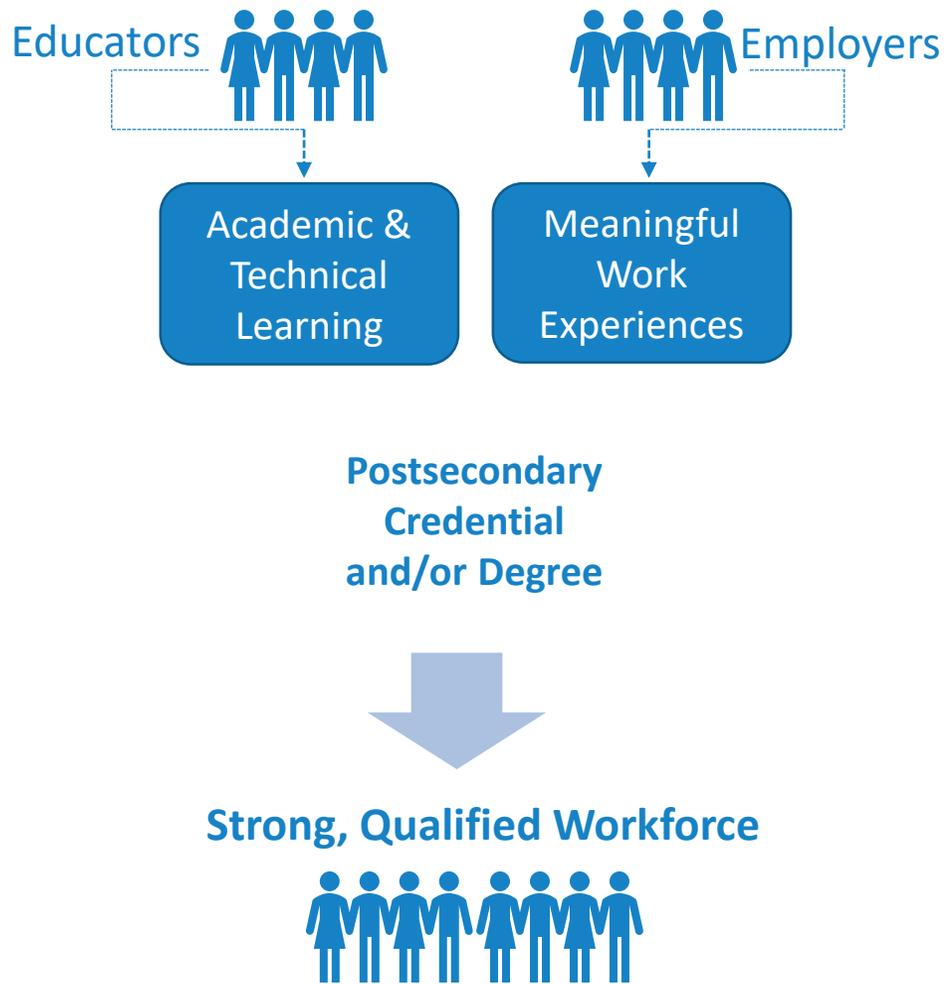


Aligning Texas's Educational Goals with Its Diverse Industry Needs and Opportunities



Category	Initiative	Description
Identify 	1 Identify & Verify Industry-Based Certifications (IBCs)	<ul style="list-style-type: none"> • Create process for identification and verification of IBCs to include employer input • Align IBCs to high wage and high demand occupations and vertically aligned postsecondary programs in Texas • Establish revised list of IBCs for implementation in 2019-2020
	2 Identify & Refine Pathways	<ul style="list-style-type: none"> • Conduct research on Texas Labor Market Information (LMI) to identify high wage and high demand occupations • Cultivate external stakeholders and leverage existing Tri-Agency efforts to form Texas Regional Pathways Advisory/Steering Committee • Refine components of effective P-20 student pathways
	3 CTE Programs	<ul style="list-style-type: none"> • Conduct CTE statewide evaluation • Align CTE programs of study (coherent sequences of courses) with Texas high wage, high demand occupations and postsecondary programs. Embed IBCs, postsecondary programs, and work-based learning in CTE programs of study • Create new statewide industry advisory councils for each career cluster to assist in program of study revisions
Models & Courses 	4 College and Career Readiness School Models (CCRSM)	<ul style="list-style-type: none"> • Revise blueprints and Outcome Based Measures for Early College High Schools, Pathways in Technology Early College High Schools, Texas-STEM Academies, and Industry Cluster Innovative Academies • Provide technical assistance to districts to implement CCRSM • Expand and create advanced course offerings (AP, IB, dual credit, other opportunities) • Provide expanded access for students to demonstrate college and career readiness (ACT, SAT, TSIA)
	5 Work-Based Learning (WBL)	<ul style="list-style-type: none"> • Conduct research on existing best practices in WBL models across Texas and United States • Establish a flexible statewide K-12 WBL framework from career awareness and exploration through career preparation, inclusive of externships, internships, and apprenticeships • Establish a statewide plan for increasing access to STEM subjects and methodology

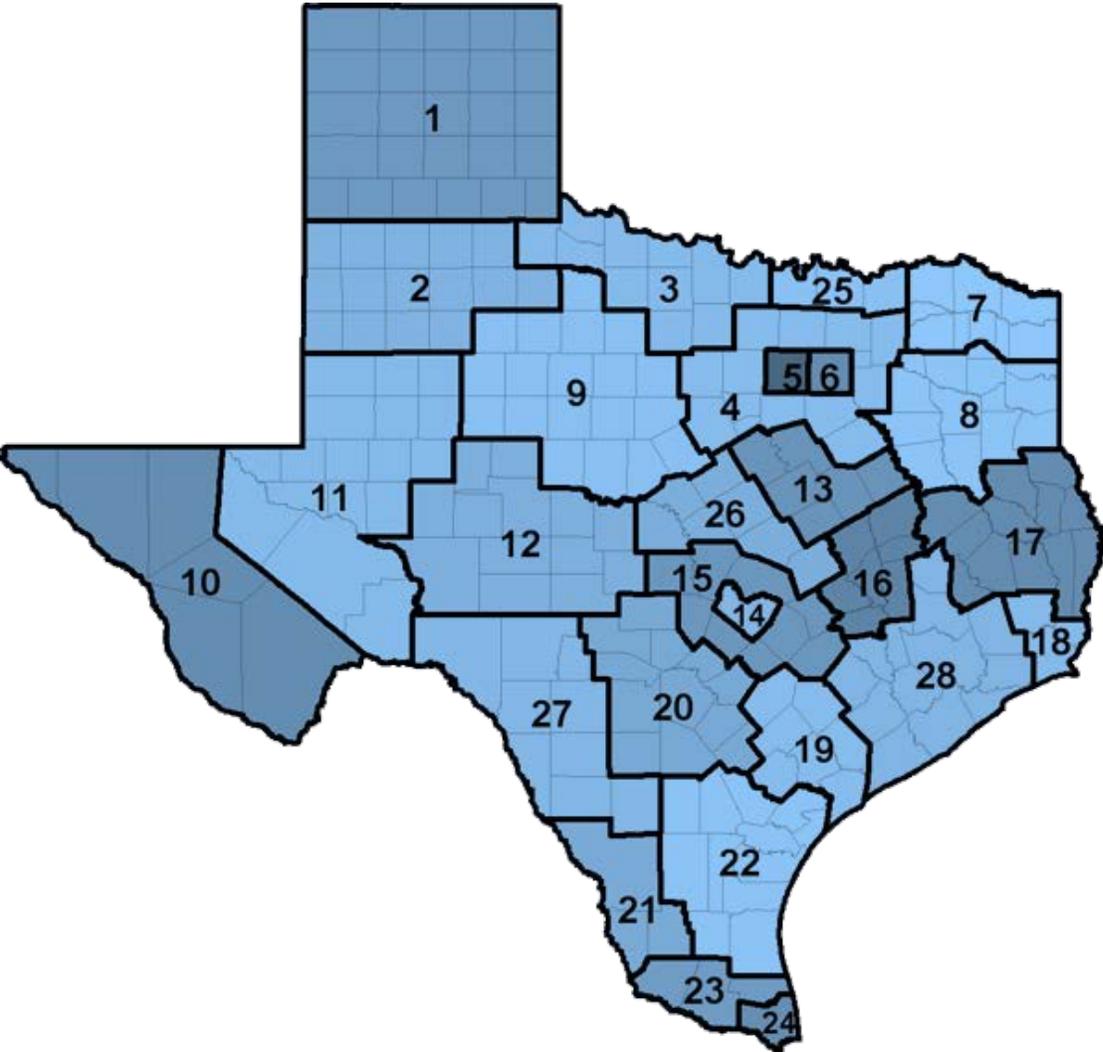
Identify & Refine Pathways



Components of K-16 Pathways

- Alignment with high wage, high demand labor market information
- Links between secondary and postsecondary education with multiple exit and entrance points
- Credentials and degrees with value in the labor market
- Integration of rigorous academics and career-focused learning
- Strong college and career advising and counseling supports
- Continuum of work-based learning experiences
- Cross-sector partnerships

High Wage, High Demand Occupations in Texas



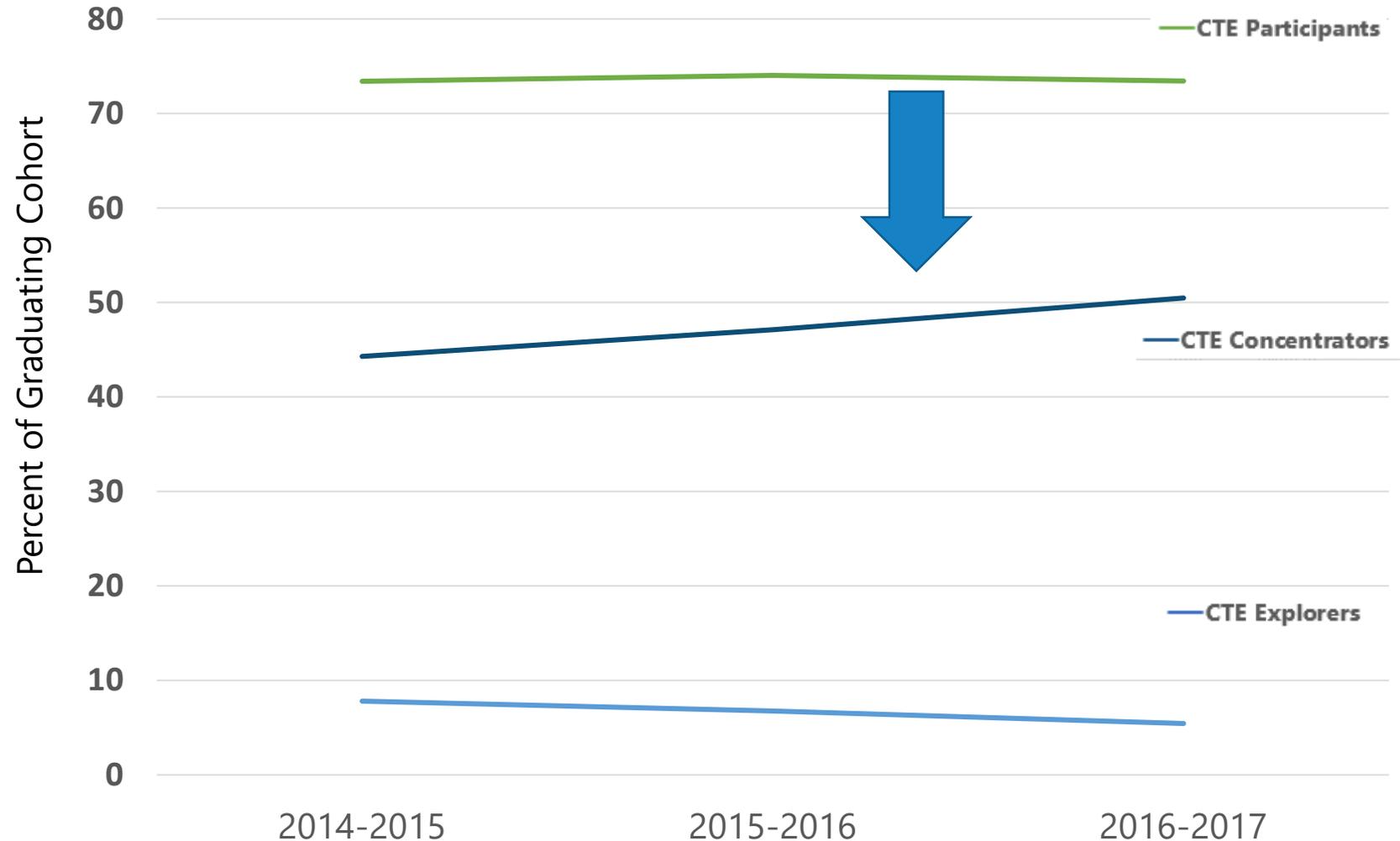
Career Cluster	Number of High Wage (> \$35,339) & High Demand (>17%) Occupations	Median Wage Range
Business, Finance, & Marketing	32	\$37,190-\$201,177
Health Science	22	\$37,391-\$90,397
Architecture & Construction	19	\$37,149-\$73,091
Agriculture, Food, & Natural Resources	16	\$37,045-\$110,661
Energy	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)

CTE Programs

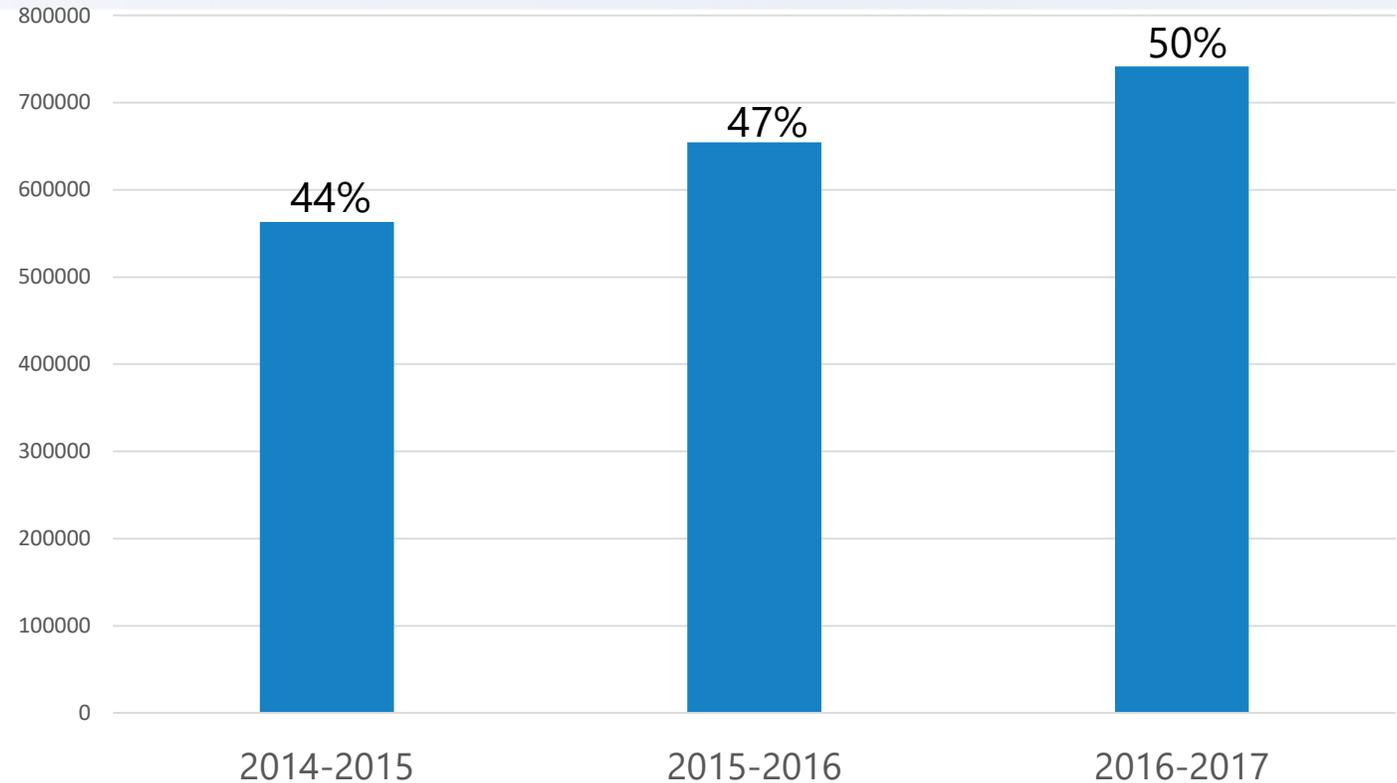
Current CTE Landscape

- CTE Explorers:** Number of graduates who took (enrolled) three or more CTE courses who are NOT CTE concentrators
- CTE Participants:** Number of graduates who took 1 or more CTE courses and received credit
- CTE Concentrators:** Number of graduates who are PEIMS "2" for the CTE indicator: Participant in a coherent sequence of courses



Current CTE Landscape

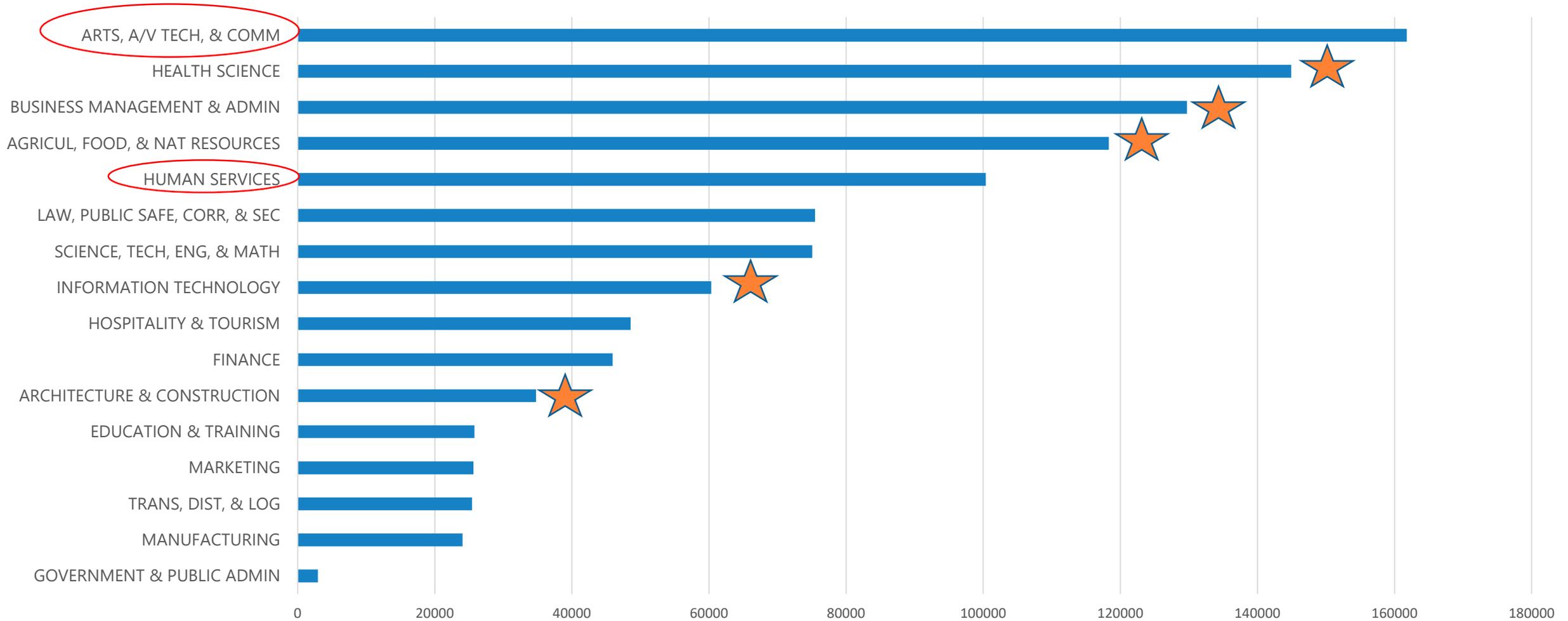
- Number of CTE concentrators continues to rise
- Increase in the percentage of the graduating cohort concentrating in CTE



Important to Note: Current definition of a CTE concentrator allows a student to be marked as a concentrator without taking more than 2 courses. This would not meet an endorsement and would not prepare students for IBCs and postsecondary credentials. Concentrators are also identified by students who “intend” to concentrate.

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
- IBCs 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



- 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
- Vet through industry advisory councils and industry associations

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: Methodology & Timeline



- Spring 2018 (TEA) Phase II
 - Develop new statewide industry advisory councils
 - Apply business rules and refine the interim list
- Summer 2018 (TEA) (current status)
 - Create coherent sequence of courses and perform TEKS gap analysis
- Fall 2018 (TEA, Districts and Industry Experts)
 - Bring education and workforce stakeholders together (regional visits)
 - Evaluate opportunities for improvement
 - Develop agreed-upon conclusions and recommendations

Program of Study: Methodology & Timeline



- Fall/Winter 2018 (TEA)
 - Adjust final programs of study based on convening and recommendations
 - Finalize and Publish Programs of Study
 - Provide districts with resources and support to understand the process and implement data-driven, industry validated programs of study that lead to in-demand, high-wage careers
 - **Districts Opt-In to offer CTE programs of study in 2019-20 school year**

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:

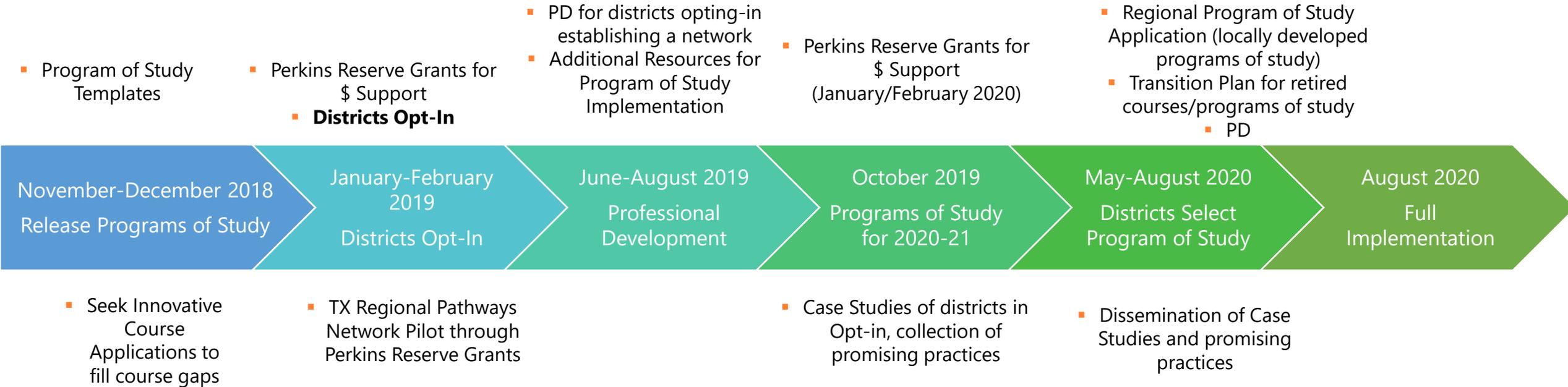
- Will meet an endorsement
- Will have demonstrated CCRM measure
- Will include Work-Based Learning Opportunities
- Will align to related postsecondary programs with multiple entrance and exit points

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 Timeline



Identify & Verify Industry-Based Certifications

Industry-Based Certifications Criteria



Industry Recognized

- National or international businesses, industries, professional organizations, state agencies, government entities, or state-based industry associations are familiar with the certification and know of it.



Capstone

- Certification is offered at the conclusion of an aligned course, and/or at the conclusion of a student's successful completion of a program of study in a secondary career and technical education program.



Industry Valued

- Employers within an industry sector signal the value of the occupation-specific certification by: (a) including the certification in job postings as required or highly recommended; (b) using the certification as a factor in selecting candidates for an interview and/or hire; and/or (c) offering higher pay for those who possess the certification.



Attainable by HS students

- All eligibility requirements (e.g., age and experience) are met and the certification is awarded before or within the summer after a student's high school graduation.



Third-party provider

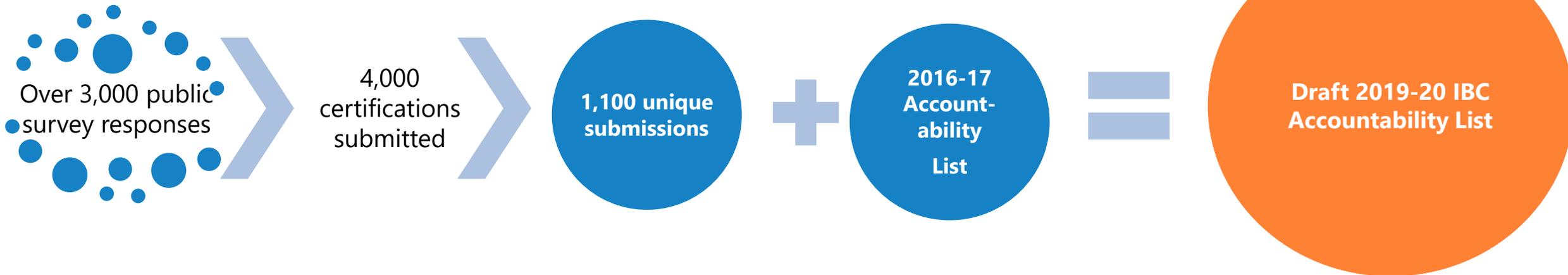
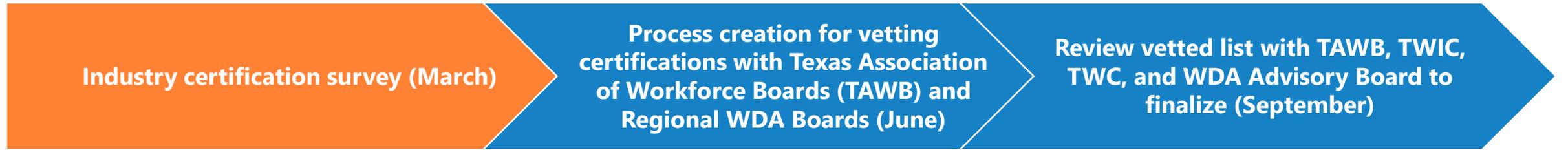
- The assessment of the certification is provided by/signed off by an independent, third-party certifying entity using predetermined standards for knowledge, skills, and competencies.



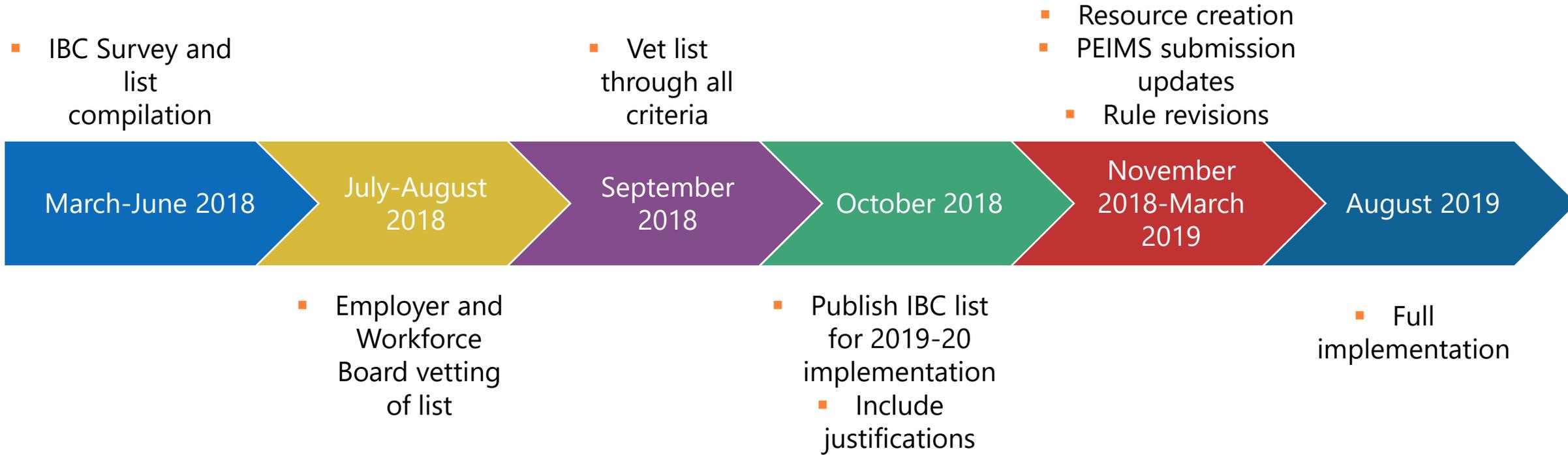
Transferable

- Stackable and portable as evidenced by: (a) transferring seamlessly to postsecondary work through acceptance for credit or hours in core program courses at an institution of higher education; (b) counting toward hours in an aligned apprenticeship program; (c) being a part of a prescribed coherent sequence of industry recognized credentials to show progressive skills development and/or (d) fostering mobility across employers within the same industry.

Identify & Verify IBCs: Timeline



Identify & Verify IBCs: Timeline



Important to Note: Not all programs of study/career clusters will include IBC. There is no need for IBCs where industry does not recognize and value them and there is no need for IBCs in programs that lead directly into postsecondary degrees (e.g., Marketing, Education & Training).