Data Collection – Education and Training through Workforce Participation and Experience

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AGENCY: Employment and Training Administration (ETA), U.S. Department of Labor (DOL)
Title of Collection: Data Collections from Industry-Recognized Programs Accreditors – Request for Comment

The author appreciates efforts to expand apprenticeship, and the opportunity to offer comments. Comments herein are informed by the author's experience in career training, industry, working with high schools, community colleges, workforce preparation, apprenticeship programs, and state government. His knowledge and expertise were gained serving an apprenticeship, working and supervising construction projects, teaching and administering apprenticeship programs, training displaced and incumbent workers, operating a community college construction program, and servicing/supporting multi-industry industrial technology programs while working for a state department of education.

INTRODUCTION

The author has separated comments into two sections, as follows:
SECTION I is a discussion of the four, specific bullets that DOL-ETA requests comments on in the 9/20/2018 Federal Register Notice (Pg. 47644). These four bullets relate to details of the proposed data system.
- **(1)** Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- **(2)** Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- **(3)** Enhance the quality, utility, and clarity of the information to be collected; and
- **(4)** Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

SECTION II – is a discussion of the 11 apprenticeship program quality certification requirements within TEN No. 3-18 that will enable ETA to collect essential data under Training and Employment Notice (TEN) No. 3–18 concerning the operational characteristics of certain industry-recognized apprenticeship programs that are being established under the statutory authority of the Act (located at 29 U.S.C. 50).These 11 topics represent the framework that DOL-ETA proposes be used to measure apprenticeship program quality.
1) Validity in Setting Sector Standards, **2)** Clear Policies and Procedures for Certifying IRAPs,
3) Transparency and Accountability, **4)** Impartiality, Confidentiality, Objectivity, and Independence; High Quality:
5) Paid Work Component, **6)** Work-Based Learning, **7)** Mentorship, **8)** Educational and Instructional Component
9) Industry Credentials Earned, **10)** Safety and Supervision, and **11)** Equal Employment Opportunity.
This author's recommendations within each apprenticeship program quality certification requirement will affect what data is collected and how it affects whether an apprenticeship program is meeting quality standards.

SECTION I

Recommendations and narrative within this section focus on the following goals:
– Unify data systems within the United States Departments of Labor, Education, and Workforce Development System offices and participants, so that education and training data reporting is consistent and easily reported, and that quality, utility, and clarity utilized is assured.
– Establish national requirements that states follow to report data on students and workers using a Unique Student-Worker Identification Number (US-WI).
– Establish national requirements that states follow to document and provide an employee-controlled record Work Passport Training information record.

- **(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility.**

Recommendation

> **1a.** Adopt a data system that is capable of collecting/reporting data information from pre-secondary education through postsecondary education and training through to an individual's workforce employment.
> - Require all states to operationalize a [Statewide Longitudinal Data System](#) (SLDS) within three years.
>   - (47 states have already received federal grants for SLDS at this point in time).

Comment: In answer to this bullet stated by ETA, this author supports the position that robust collection of information is necessary for the proper performance of the functions of the agency. It's important to recognize that education and

THE NATION'S CAREER & TECHNICAL EDUCATION (CTE) SYSTEM
An Integration of Academic and Technical Education
Career Awareness, Guidance, Exploration, and Training

Figure 1: The Nation's Career & Technical Education System

workforce training have undergone an evolution. This evolution has resulted in a unified Career and Technical Education (CTE) training system that includes both education and workforce training. Silos between academics and workforce training have dissolved over time. As a result, apprenticeship is no longer only a stand-alone training program solution - no workforce development training program should be. Apprenticeship is now a part of secondary and postsecondary CTE, as well as within other programs in the Nation's Workforce Development System. This has change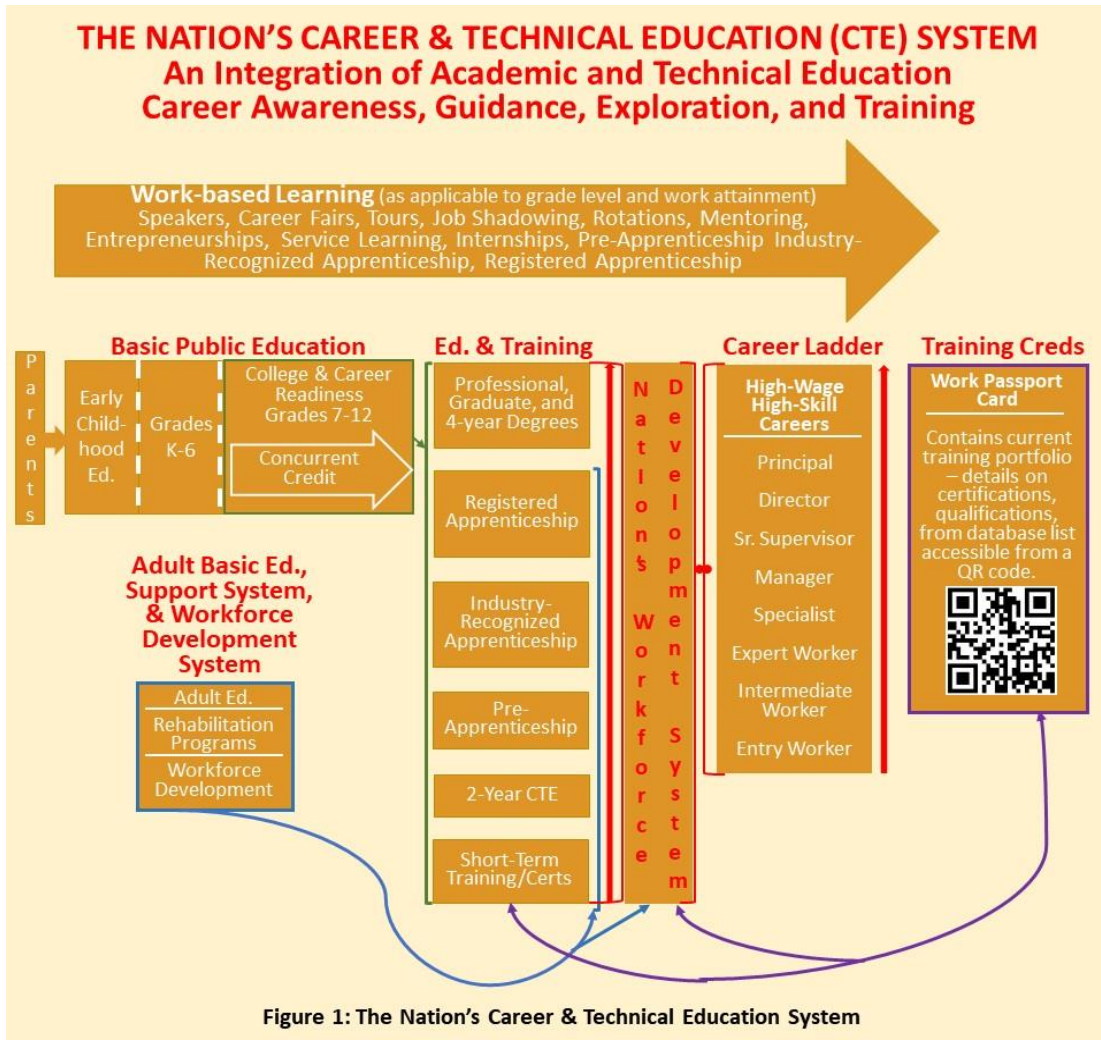d the way we should utilize data systems to collect and use data today, and into the future. In order for the data system and data collected to have practical utility, our data system needs to be longitudinally-capable. States need to adopt an SLDS capable of collecting information from education and training experiences throughout the entire CTE system (Figure 1, above), and the Nation's Workforce Development System (Figure 2, following page).
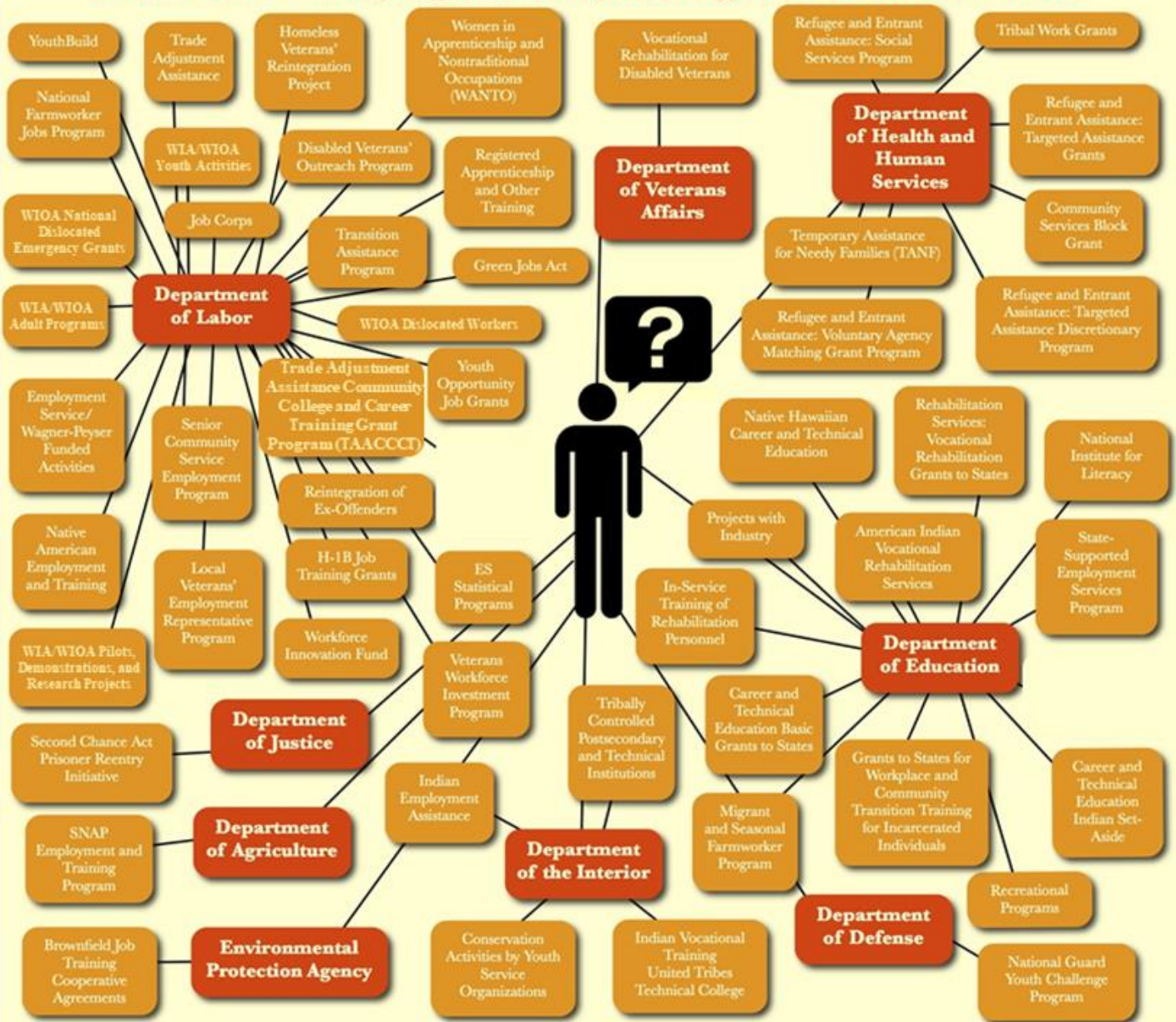
Figure 2: The Nation's Workforce Development System

Figure 2 (above) is an updated modification of the Nation's Workforce Development System (Original Image Credit: Henry Ryder; The Noun Project, 2013). It depicts the many agencies involved and numerous training programs that have been established within the national workforce development system. There is a need to evolve from how we currently collect data at the program level, because of changes that have occurred in our education and training system over the years. This author advocates the adoption of one unified, common education-workforce data solution, so our data system will be continuously linked with the programs throughout our national education-workforce system.

Prior to the 1960's, there was distinct separation (silos) between academic and technical subjects, and between those students who went to college and those students who chose vocational training. Vocational training coursework was narrowly job-specific. Over the last several decades, Vocational Education in the United States has evolved into a Career and Technical Education (CTE) system in response to developments and advancements in technology, specialization, etc., and the demands those changes placed on educating and training the workforce. The result is that academic and technical silos have dissolved. But our data collection and reporting hasn't kept pace with this evolution.

Figure 2 (previous page) shows that our career and technical education system includes multiple connections to the range of programs within today's national workforce development system. While comments herein address DOL-ETA's request for comments in the 9/20/2018 Federal Register Notice, the need for participants to be prepared to enter and succeed in all workforce preparation programs is really the same as for apprenticeship. Therefore, a common longitudinal-capable data system makes sense.

- **(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used.**

Recommendation

> **2a.** No change to Total Annual Respondents, Estimated Number of Respondents, Frequency, or additional burdens are recommended or anticipated.

Comment: The author accepts the agency's federal estimate as accurate regarding federal burden because public education, CTE data, and other data is already being collected by states, and reported to federal offices as required by ESSA, Perkins, and other education/training requirements. States will continue to perform those general education and CTE data collection functions. All data will be included in a unified, robust, common data collection system.

- **(3) Enhance the quality, utility, and clarity of the information to be collected.**

Recommendation

> **3a.** Unify data systems within the United States Departments of Labor, Education, and Workforce Development System offices and among participants so that reporting of education, training, and workforce data is consistent and easily reported, valid, quality, and clarity assured, and has utility for supporting workforce preparation, development, and advancement.
> - Require all states to adopt the Common Education Data Standards (CEDS) as the standard framework for collecting, reporting, and sharing education data (Ref: CEDS Model Guide).

Comment: The recommended shared data systems and collection will result in a unified, common, more effective and usable data format. Within today's educational system, CTE is best characterized through the U.S. Department of Education's definition of a CTE Program of Study (POS) as "a comprehensive, structured approach for delivering academic and career and technical education to prepare students for postsecondary education and career success." (Ref: https://cte.ed.gov/initiatives/programs-of-study). Secondary through postsecondary Programs of Study are currently offered in a wide range of career fields, in the skilled trades, manufacturing, health sciences, agriculture, etc. POS course sequences blend academic and technical coursework and include dual enrollment, so that students learn to function as workers do, utilizing academic and technical skills together in solving problems and carrying out their work assignments. Our data system must be capable of providing the coherent reporting and use of data to ensure the quality, efficiency and success of these wide-ranging programs, and the students/workers they prepare for careers.

To meet this goal, our students need to be college and career ready. "College and career ready means that students graduate from high school prepared to enter and succeed in postsecondary opportunities—whether college or career—without the need for remediation. ... To be college and career ready, students must graduate with the knowledge, skills, and dispositions necessary to succeed." This definition is derived from a listing of states' definitions of college and career readiness, found in the American Institute of Research's report: *Overview: State Definitions of College and Career Readiness*; September 2014 (Ref: https://ccrscenter.org/sites/default/files/CCRS%20Defintions%20Brief_REV_1.pdf).

To have practical utility, data collection must be consistent across our education-workforce system. The most fundamental need is to drill down to the student level. Public schools, and programs throughout the national workforce development system need to be able to collect, report, and utilize valid data. Public school students must be prepared to enter and succeed in apprenticeship programs whether they are considering programs that are non-traditional for their gender, whether they are handicapped, or from any recognized special population. The effort to recruit, educate, and prepare all students for apprenticeship opportunities doesn't begin at a postsecondary level; it begins and continues throughout pre-elementary through secondary education into postsecondary. We need to expect that our schools utilize a robust data system to collect, review, and report data in order to evaluate and improve programs, to prepare all students for success in all career preparation programs, including apprenticeship.

The responsibility for data related to education and training efforts at the national level resides with the National Center for Education Statistics (NCES). NCES is the primary federal entity for collecting and analyzing data related to education in the U.S. and other nations. NCES is located within the U.S. Department of Education and Institute of Education Sciences. NCES fulfills a Congressional mandate to collect, collate, analyze, and report complete statistics on the condition of American education; conduct and publish reports; and review and report on education activities internationally (Ref: https://nces.ed.gov/about/). NCES manages the Statewide Longitudinal Data Systems (SLDS) Grant Program, that enables States to draw knowledge from data. In conjunction with SLDS, NCES assists state and local education agencies in improving and using their data systems, and facilitates the exchange of ideas among states through sponsorship of the National Forum on Education Statistics (Ref: https://nces.ed.gov/Pressrelease/usefedstats.asp). NCES worked to develop the Common Education Data Standards (CEDS), a common consistent set of national data standards. This author supports that efforts to prepare students with industry-wide certifications and portable credentials require a consistent longitudinal-capable national data system.

The Common Education Data Standards (CEDS) is a specified set of the most commonly used education data elements to support the effective exchange of data within and across states, as students transition between educational sectors and levels, and for federal reporting. This common vocabulary enables consistent and comparable data to be used throughout all education levels and sectors necessary to support improved student achievement and career preparation. The standards are developed by NCES with the assistance of a CEDS Stakeholder Group that includes representatives from states, districts, institutions of higher education, state higher education agencies, early childhood organizations, federal program offices, interoperability standards organizations, and key education associations and non-profit organizations. CEDS is a national system framework that increases data interoperability, portability, and comparability across states, districts, and higher education organizations. (Ref: https://ceds.ed.gov/).

The strength of the CEDS system framework is evident on their *Domain Entity Schema* webpage (Ref: https://ceds.ed.gov/domainEntitySchema.aspx). The hierarchy of domains, entities, categories, and elements cover:

Early Learning	Workforce	Facilities
K12	Assessments	Implementation Variables
Postsecondary	Credential	Authentication and Authorization
Career and Technical	Competencies	
Adult Education	Learning Resources	

The CEDS framework covers P-20, including CTE, Adult Education, and Workforce Programs. Click and drill down on the links in the table below to see that apprenticeship is already within the framework, within the following areas:

K12 -> K12 Student -> Program	Work-based Learning Opportunity Type
K12 -> K12 Course	Work-based Learning Opportunity Type
Postsecondary -> PS Student -> Program Participation	Work-based Learning Opportunity Type
Postsecondary -> Course Section	Work-based Learning Opportunity Type
Career and Technical -> CTE Student -> Program Participation	Work-based Learning Opportunity Type
Career and Technical -> Course Section	Work-based Learning Opportunity Type
Adult Education -> Course Section	Work-based Learning Opportunity Type

Integrating Adult Education CTE and Workforce Data into CEDS provides an example of how Adult Education, CTE, and Workforce Data is an effective component within three states' SLDSs. Utilizing the CEDS framework will enable consistent and robust education-workforce data connections at the local, regional, state, multi-state, and national levels that is valid and consistent. CEDS can also provide coherent data reports on individually controlled student-worker education, training, and credentials which could play a key role in the portability requirements that both workers and industry must rely on now and in the future. CEDS should be adopted as the framework for reporting and utilizing apprenticeship data, and the Departments of Labor and Education should work together on the implementation of CEDS into all Workforce and Education programs. This effort in IRAP data reporting should be the beginning of adopting a longitudinally-capable data system.

- **(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.**

Recommendation

4a. No change to Total Annual Respondents, Estimated Number of Respondents, Frequency, or additional federal burdens recommended or anticipated. CTE data is already being collected by states, and reported to federal offices under ESSA, Perkins, etc. requirements. States will continue to perform general education and CTE data collection.

Comment: Common, shared data collection through CEDS will result in robust, unified education-workforce data connections at the local, regional, state, multi-state, and national levels that is valid and consistent.

SECTION II

Discussion of the 11 apprenticeship program quality certification requirements within TEN No. 3-18 that will enable ETA to collect essential data under TEN No. 3–18 concerning the operational characteristics of certain industry-recognized apprenticeship programs that are being established under the statutory authority of the Act (located at 29 U.S.C. 50).

1) Validity in Setting Sector Standards - Specific data should be collected on the following:

1a. The validity of setting standards must be a hierarchical process.
  1a1. If industry standards exist, then they must be adopted.
  1a2. If industry standards do not exist, standards must be developed by qualified subject matter experts.
1b. Adopt process and personnel requirements for utilizing subject matter experts.
1c. Curriculum and training must be based on valid industry skill standards, while third-party assessments (including industry credentials) must authentically measure and acknowledge individual proficiency.

Comments – **1a.** Hierarchical process: The author agrees with the TEN 3-18 statement: "*the certifier must show that it is qualified to establish, through a consensus-based process involving industry experts, the classroom and workplace education requirements, structure, and curricula for an apprenticeship program in a given industrial sector*." (TEN 3-18 Pg. 4; ¶4). This must be based on valid industry standards. Adopting or setting apprenticeship program standards establishes the framework for the Skills, Knowledge, and Abilities (SKAs) that apprentices will learn, and the credentials and certifications that they will achieve to validate their SKAs. Setting broad-based standards that result in industry-recognized certification(s) and a portable credential is foundational to apprenticeship, and must be required. Processes exist for adopting/establishing valid industry standards for apprenticeship programs.

1a1. If industry standards exist: If apprenticeship programs are established in occupations identified within the Registered Apprenticeship Partners Information Data System (RAPIDS), then industry-recognized apprenticeship standards have previously been approved by the USDOL; ETA; Office of Apprenticeship (OA). (Ref: https://www.doleta.gov/OA/bul16/Bulletin_2016-28_Attachment1.pdf). Each approved apprenticeable occupation in the RAPIDS listing has a RAPIDS Code and an O*NET-SOC Code. O*NET maintains a *Crosswalk Search* where RAPIDS codes can be cross-walked to Standard Occupational Classification (SOC) Codes, and also the US Department of Education's Classification of Instructional Programs (CIP) codes (Ref: https://www.onetonline.org/crosswalk/). These resources are important because apprenticeship programs that are registered under an existing approved RAPIDS code are broad industry-wide programs and also have cross-walked SOC codes and CIP codes. The crosswalks link apprenticeship programs/standards, industry occupational titles/descriptions, and education program titles/descriptions.

The Occupational Information Network (O*NET) is a Standard Occupational Classification (SOC) based system. Businesses, training and educational institutions, labor and occupational organizations, and professional associations can use the OCA process to determine if a job title or occupational specialty is recognized within the O*NET-SOC system and the U.S. labor market. O*NET Code Connector's Coding Assistance is formatted into a three-step process:
 – Step 1: Understanding the Occupational Code Assignment (OCA) Process –
      (Ref: https://www.onetcodeconnector.org/oca/step1);
  – Step 2: Understanding the Standard Occupational Classification (SOC) Guidelines –
      Ref: https://www.onetcodeconnector.org/oca/step2); and
  – Step 3: Submit OCA Form - Part A – (Ref: https://www.onetcodeconnector.org/oca/form).

The key to portability of industry credentials and certifications is utilizing broad, sector-wide, industry-recognized standards – as opposed to establishing standards that are specific to a specialty part of a sector or industry. If an employer wishes to become involved in apprenticeship, but cannot provide broad-based education and training, it may take more than one employer to offer apprentices the broad-based education and training that will result in a portable credential and certification(s).   Multi-employer programs must be required where a single employer cannot provide the broad-based on-the-job (OJT) essential for apprentices to learn, practice, and attain all competencies. Credentials associated with progression through an apprenticeship program for an apprenticeable occupation must be portable and have meaning to employers nationwide.

1a2. Industry standards do not currently exist. In occupations where industry standards do not currently exist, an industry-recognized sponsor, industry association, national labor organization, federal agency or private agency recognized by the federal/state agency, etc. must be required to bring together a nationally recognized group of industry experts to develop apprenticeship standards. Current lack of requirements for establishing IRAP apprenticeship standards could result in an employer and/or provider of RTI (usually a community college) deciding what standards, curriculum, credential(s), certification(s) they choose to offer. That could result in confounding issues. A few examples:
  – Employers' input on program standards could tend to be limited in scope to their individual company operations,
  – One or a few employers could focus on the skillset that's specific to what they need their workers to know and do.
  – Community colleges may provide training courses and/or modules from programs that are already in place, where possible. However, most community college programs are not currently structured to allow apprentices (current students) to advance through coursework at different paces, or through different order.
  – Instructor qualifications may not align with the industry standards for the program being offered.

The key to ensuring that the standards are on target is to establish a process and personnel requirements for utilizing industry experts. This author believes that it's imperative to define what an industry expert is in terms of establishing: *"the classroom and workplace education requirements, structure, and curricula for an apprenticeship program in a given industrial sector"* (TEN No. 3-18; Pg. 4; ¶4). An industry expert must meet established qualifications to be a Subject Matter Expert (SME). An SME is an individual who has the academic and technical knowledge, and job-specific skills grounded in industry-recognized occupational experience that qualifies an individual at a high level of expertise and excellence in performing work in an occupation, specialized job, task, or skill. The following graphic illustrates the SME connection to program alignment with industry standards and assessments.

Figure 3 - SME Connection to Program Alignment with Industry Standards & Assessments
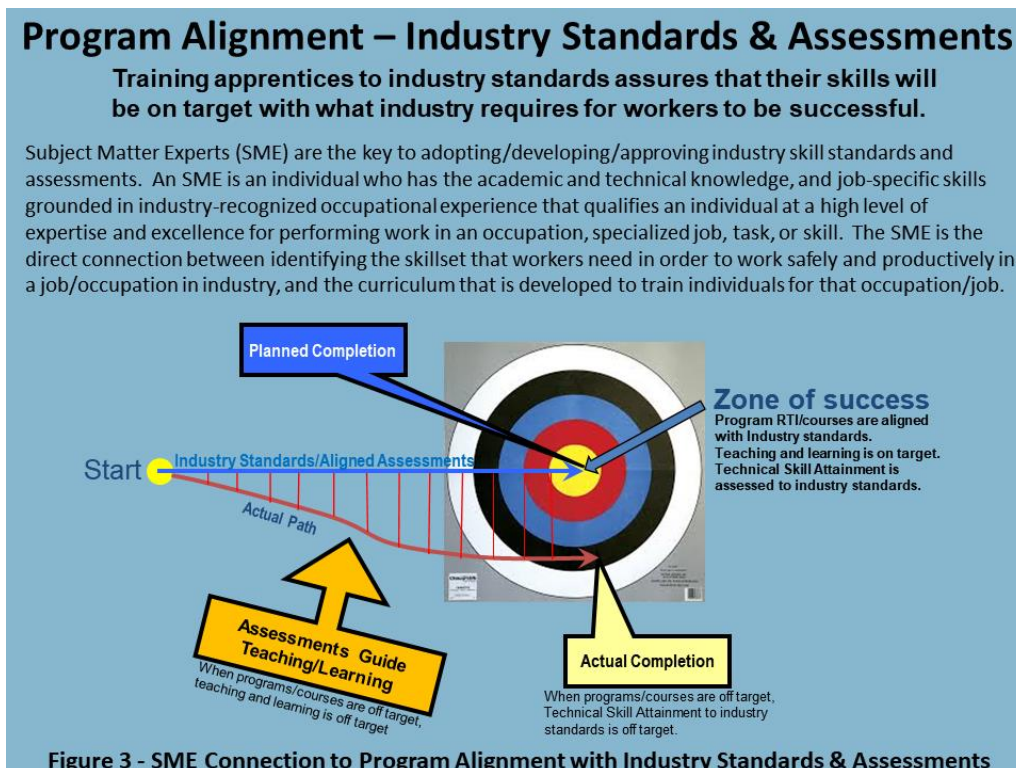
The SME is the direct connection between identifying the skillset that workers need in order to work safely and productively in a job/occupation in industry, and the curriculum that is developed to train individuals for that job/occupation. Whether developed by a technical publishing company, industry association, research organization, community college or other educational entity, technical school, or apprenticeship program, the validity and authenticity of resulting curriculum will not be adequate if not developed through the use of competent, qualified subject matter experts. SMEs provide the relevant, accurate, and up-to-date information that matches education, training, and workforce needs with industry standards and requirements, and what workers should be able to know and do. Established and accepted instructional design processes (examples include: Job Task Analysis or Task Analysis, and the Developing A CUrriculuM process - DACUM) are dependent upon identifying and employing qualified SMEs.

It's also important to define how SME's should be recruited, and their skillset matched to the project. The industry-recognized sponsor, industry association, national labor organization, federal agency or private agency recognized by the federal agency, etc. should be required to draft a general project description that would explain the initiative and context, goals and objectives, and people and organizations involved, and the overall outcomes of the project. A SME statement of work should describe SME duties and responsibilities, explain specific work an SME must be qualified to perform, describe the outcomes that SME's will produce, and estimate the time involved. Given the specialization that is inherent in today's industries, it's sometimes a challenge to identify and recruit qualified SMEs. So, developing a general project description identifying the project specific SME qualifications must be a required first step.

Recruiting an SME requires utilizing sound methodology to identify the occupational focus. Several linked federal systems within the U.S. Departments of Labor (USDOL) and Education (USDOE) can be used to identify the occupational focus for the project. The USDOL Bureau of Labor Statistics (BLS) maintains the Standard Occupational Classification System (SOC). BLS states: "The 2018 Standard Occupational Classification (SOC) system is a federal statistical standard used by federal agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 867 detailed occupations according to their occupational definition. To facilitate classification, detailed occupations are combined to form 459 broad occupations, 98 minor groups, and 23 major groups." (Ref: https://www.bls.gov/soc/). The 23 major occupational groups contain a listing of all occupations within each of the major groups. (Ref: https://www.bls.gov/soc/2018/major_groups.htm). SOC numbers can be used to locate specific occupational information through the USDOL Employment and Training Administration (ETA) Occupational Information Network (O*Net). Using a selected SOC, O*Net's occupational search engine leads to an information structure that defines the key features of the selected occupation through a standardized, measurable set of variables, called "descriptors." (Ref: https://www.onetonline.org/find/). O*Net also maintains crosswalks that can be used to locate Classifications of Instructional Programs (USDOE), RAPIDS codes - Registered Apprenticeship Partners Information Data System (USDOL; ETA; Office of Apprenticeship), (Ref: https://www.onetonline.org/crosswalk/). IRAP applicants should report data related to occupational focus within this existing national SOC system structure.

1b. Adopt process and personnel requirements for utilizing subject matter experts: With a general description explaining the initiative and context, goals and objectives, and people and organizations involved in the project, an SME applicant must agree to perform according to the statement of work describing SME duties and responsibilities, work that the SME must be qualified to perform, outcomes that the SME will produce, and commit to the estimated time involved. Given the specialization that is inherent in today's industries, it's sometimes a challenge to identify and recruit qualified SMEs, but this must be required to be done according to a formal process. Recruiting and vetting qualified subject matter experts is key to the integrity of the resulting standards, assessments and resulting curriculum, so reporting valid data on this important quality component must be required.

A project description similar to the following should be required. This author supports the following application process, or equal, for recruiting and vetting SMEs:

Project

General Information

Project Name	Entity in Charge	Contact Person

Author	Date	Organization Name

Phone Number	E-Mail

General Project Description

Occupational Classification System(s) numbers: SOC; RAIPS; CIP.

SME Statement of Work - duties and responsibilities, specific work, deliverables, and estimate of time involved.

Products-Deliverables (To be listed and numbered as project framework requires)	Work Breakdown Structure (WBS) (Activities, Task, or Sub-Task)	Start Date	End Date
1.1	1.1.1		
	1.1.2		
	1.1.3		
1.2	1.2.1		
	1.2.2		
2.1	2.1.1		
	2.1.2		

Business Terms / Conditions

This author maintains that DOL-ETA must adopt a required process for vetting SMEs, and supports that the following qualifications could be used to vet an SME:

– Education and training appropriate for SME to be considered at a high level of expertise for the job or task.
– Possess competent interpersonal skills, and be a capable team member.
– Hold industry-recognized degrees, credentials, and certification(s) in the area of expertise.
– Have a minimum 8 years industry experience at a journeyworker level.
– Have a minimum 5 years industry experience at a journeyworker level, directly related to the subject-matter being developed.
– Have a minimum 5 years recency of experience directly related to the subject-matter being developed.
– Be capable of contributing core content and material for item writing.
– Be able to review and utilize source materials, standards, reference items, and supplemental resources.
– Be capable of contributing core content, material, and/or assessments for industry standards.
– Be capable of effectively communicating and helping organize academic and technical knowledge in a format that is conducive to curriculum production and training.
– Have the time necessary to meet the commitment required. Meet all agreed-upon turnaround times for deliverables and deliverable reviews.

SMEs should complete an approved application that should be part of the data system. Following is an example:

SUBJECT MATTER EXPERT (SME) QUALIFICATION APPLICATION

Name:	**Work #**:
Email:	**Subject(s) of Interest**:
Employer:	**Classification**:

SME, Representing: ☐ **Apprenticeship** ☐ **Education** ☐ **Industry Association** ☐ **Apprenticeship** ☐ **Employer** ☐ **Other**	**Please identify the entity**:

INDUSTRY EXPERIENCE

Please explain how you have used your education, training, knowledge, skills, abilities in applications similar to what is of an SME in this project.

Please provide detailed information concerning your experience, which directly relates to the subject matter of the course being developed or modified. Please attach additional sheets, if necessary.

EDUCATION/TRAINING EXPERIENCE

Please explain how you have used your education, training, knowledge, skills, abilities in any education and training applications similar to what is of an SME in this project.

Please list industry-recognized degrees, credentials, and certification(s) in the area of expertise:

ADDITIONAL QUALIFYING EXPERIENCE

Specialized Training	

PLEASE ATTACH RESUME AND ANY SUPERVISORY REFERENCES ALONG WITH YOUR APPLICATION.

Signature:_____ **Date**:_____

1c. Curriculum and training must be based on valid industry standards, while third-party assessments (including industry credentials) must authentically measure and acknowledge individual proficiency. Once valid industry standards have been adopted/developed, competency-based training requires that proof of competence be gathered through multiple assessments that challenge learners to perform authentic tasks under various industry-authentic conditions at regular intervals. SMEs must play a key role in identifying/developing/approving assessments that align to industry standards.

2) Clear Policies and Procedures for Certifying IRAPs,

Recommendation

> **2a.** Use the author's comments herein to add or change language within ETA's *Accrediting Entity Information Form*; ETA-2018-0001-0003 (Ref: https://www.regulations.gov/document?D=ETA-2018-0001-0003).
> **2b.** Construct a data reporting framework that includes the quality and accountability components within TEN N0. 3-18 and ETA's *Accrediting Entity Information Form*.

Comments: **2a.** Comments within Sections I and II of this document should be utilized to add or delete language from ETA's *Accrediting Entity Information Form*, so that certifier's policy and procedures for certifying high-quality apprenticeship programs will include examination and verification of the data for quality and accountability components within TEN N0. 3-18 and ETA's *Accrediting Entity Information Form*.

2b. In order to approve and review IRAP applications and existing IRAP programs, a data framework must include the initial and annual reporting on the quality and accountability components noted in 2a, above.

3) Transparency and Accountability

Recommendation

> **3a.** None.

Comment: **3a.** The author agrees with this apprenticeship program quality certification requirement.

4) Impartiality, Confidentiality, Objectivity, and Independence

Recommendation

> **4a.** None.

Comment: 4**a.** The author agrees with this apprenticeship program quality certification requirement.

High Quality
5) Paid Work Component

Recommendation

> **5a.** Require Industry-Recognized Apprenticeship Programs (IRAP) to include, as a component of their IRAP application, a written established wage progression that spells out the progressively increasing schedule of wages and any fringe benefits during their apprenticeship based on the acquisition of increased skill and competence on the job and in related instruction. Whenever the employer makes any changes to the written wage progression, the employer will file an addendum to the IRAP application with their IRAP certifier.

Comment: **5a.** The author believes that the second part of the statement in Task Force Recommendation 18 needs clarification: *"Industry-recognized apprenticeship programs are not required to follow specific wage progression rules but should make clear to apprentices what wages they will be paid and under what circumstances wages will increase."* (Task Force on Apprenticeship Expansion Pg. 35; ¶7). While this statement does not require the employer to follow specific wage progression rules, the employer should, in the interest of the welfare of the apprentice, provide a written established wage progression that spells out the progressively increasing schedule of wages and any fringe benefits during their apprenticeship based on the acquisition of increased skill and competence on the job and in related instruction. This *Paid Work Component* data is an important component of IRAP data reporting.

6) Work-Based Learning

Recommendation

> **6a.** Ensure that Work-based Learning participants have proper safety instruction prior to performing work.

Comment: **6a.** See comments in apprenticeship program quality certification requirement #10, below.

7) Mentorship

Recommendation

> **7a.** Mentors must ensure that Work-based Learning participants have proper safety instruction prior to performing work.

Comment: **7a.** See comments in apprenticeship program quality certification requirement #10, below.

8) Educational and Instructional Component

Recommendations

> **8a.** Require that instructional design directly ties the competency-based apprenticeship curriculum to valid industry-recognized standards. Subject Matter Experts must approve the competency-based assessments and the cut score for apprentices to achieve technical skill attainment for each competency.
>
> **8b.** Instructors must be qualified. Instructors must hold the credential(s) and certification(s) being taught and attained by apprentices, or a higher level directly related to that being taught to apprentices in the program.

Comments – Task Force Recommendation three states that ETA believes *"that the criteria set forth herein that require apprenticeship credentials to be industry-recognized, competency-based, and nationally portable sufficiently protect the quality of programs and do not unnecessarily restrict access to apprenticeship programs."*

8a. In order to achieve the attainment of competency-based apprenticeship credentials, there must be direct tie between the curriculum, valid industry standards, and the technical skill attainment assessments that will assure that apprentices have the SKAs required. 29 CFR §29.5(b)(2) states: "*A competency-based approach, involving successful demonstration of acquired skills and knowledge by an apprentice, as verified by the program sponsor, with an on-the-job learning component and related technical instruction (RTI)."* Certifiers must require that IRAP applicants submit proof that verifies a competency-based framework is in place. IRAPs must provide proof that the crosswalk of competencies to industry-recognized standards and assessments have been reviewed and approved by SMEs. The Urban Institute has established a process for achieving this, through its [National Occupational Frameworks – A Technical Guide to Structure and Content](#). IRAP applicants can choose to complete the processes within Urban Institute's technical guide, or utilize a process that the certifier approves as also satisfying this requirement. The author supports that data on these important competency-based components must be submitted by IRAP applicants, verified, and reported annually thereafter.

8b: Instructor qualification is key to preparing apprentices to be competent and to attain the credentials and industry certification(s) required in the apprenticeship program. A teacher must have the requisite education, training and experience, and must possess the credential(s) and certification(s) being taught and attained by apprentices, or a higher level directly related to that being taught to apprentices in the program. Building a quality program requires competent instructors. Teachers must be qualified to facilitate the teaching and learning that apprentices need in order to develop the skills, knowledge and abilities to attain the industry-recognized competencies and certifications. Data on instructor qualification must be submitted by IRAP applicants, verified, and reported annually thereafter.

9) Industry Credentials Earned

Recommendation

> **9a.** None.

Comments – **9a:** The author agrees with Task Force Recommendation 2, requiring that *core elements of work-based learning and performance assessments assure practice and attainment of education credentials, and assurance of Skills, Knowledge, and Abilities (SKAs);* and Task Force Recommendation 3, that "*Where there are standards-based, nationally portable, industry-recognized credentials in the field of new Industry-Recognized Apprenticeships, the Industry-Recognized Apprenticeship program should ensure integration of the opportunity to earn the credential[s] and evidence that related technical instruction is aligned to both the theory and performance-based learning outcomes required for the credentials."* IRAP data reporting must identify Industry Credentials required and include apprentice performance on credentials attained. Further discussion on competency-based requirements and industry credentials is covered within apprenticeship program quality certification requirement #8, above.

10) Safety and Supervision

Recommendation

> **10a**. Apprentices involved in work-based learning must receive relevant foundational safety instruction before serving a work-based learning experience.
>
> **10b**. Providers of Related Technical Instruction must have a Safety and Health Management System (SHMS) in place.

Comments – This apprenticeship program quality certification requirement states that certifiers must describe the policies and procedures in place to ensure that "*sponsors provide a safe working environment that adheres to all applicable Federal, state and local safety laws and regulations… including those outside the traditional trades, should be prepared to address the unique safety issues that arise in their industry."*

10a: While this Safety and Supervision apprenticeship program quality certification requirement directs certifiers to describe the policies and procedures in place to ensure that sponsors provide a safe working environment that adheres to all applicable Federal, state and local safety laws and regulations, it falls short by not including specifics that would provide both a safe learning and working environment for apprentices, and the data reporting that would establish initial and annual review of required safety training components.

The National Institute of Occupational Safety and Health (NIOSH) states in its report presenting statistics for young workers (those under the age of 24): *"In 2014, the rate of work-related injuries treated in emergency departments for workers, ages 15–19, was 2.18 times greater than the rate for workers 25 years of age and older. In the same year, the rate of work-related injuries treated in emergency departments for workers, ages 20–24, was 1.76 times greater than the rate for workers 25 years of age and older."* (Ref: https://www.cdc.gov/niosh/topics/youth/default.html). This is particularly relevant because this age span is the main focus of apprenticeship expansions efforts.

The Occupational Safety and Health Administration (OSHA) maintains a *Safe Work for Young Workers* webpage, with much information and many resources (Ref: https://www.osha.gov/youngworkers/workers.html). At a minimum, DOL-ETA should require that apprentices must have the appropriate OSHA 10-hour Outreach Training Program before serving any work-based learning experience. The OSHA 10-hour Outreach Training was developed for entry-level workers, to provide foundational training in recognition, avoidance, abatement, and prevention of workplace hazards. OSHA 10-hour Outreach classes also provide overview information regarding OSHA, including workers' rights, employer responsibilities, and how to file a complaint (Ref: https://www.osha.gov/dte/outreach/programoverview.html). Data collection on apprentice's completion of an OSHA 10-hour Outreach Training Program must be mandatory.

10b: OSHA states: *"While OSHA does not require employers to develop comprehensive safety and health programs, development and implementation of these programs is an effective way to comply with OSHA standards and prevent workplace injuries and illnesses."*   TEN No. 3-18 states that certifiers of IRAPs will be focusing on approving high-quality apprenticeship programs. Because IRAPs will be populated by apprentices in an age group that is experiencing a higher rate of work-related injuries, and based upon OSHA's recommendation that employer health and safety programs are effective in complying with OSHA standards and preventing workplace injuries and illnesses, this author believes that IRAPs must be required to educate and train apprentices to this recommended industry standard. It's essential that IRAPs play a leading role in such an important industry quality training initiative.

Safety plays an integral role throughout the RTI process because apprentices first learn foundational safety, apply appropriate safety within the work processes they're learning, and continue to add learning and practice of additional work-process specific safety throughout their training. It's mandatory that RTI take place in an industry-authentic environment, so apprentices learn, practice, and prove attainment of SKA competencies in industry-relevant conditions. The RTI provider must verify that all facilities and equipment provide a safe, authentic learning environment for apprentices, throughout the teaching and learning process that prepares them for their careers. Data verifying a SHMS in place must be submitted by IRAP applicants, verified, and reported annually thereafter.

Through its SHMS, every apprenticeship program must ensure facilities and equipment used in the program:

1. Reflects current workplace, industry and/or occupational practices and requirements;
2. Meets appropriate federal, state and local standards for occupational safety and health, as applied in the related industry;
3. Enables students to demonstrate safe and appropriate use and maintenance of facilities and equipment within the program;
4. Provides a safe environment for teaching and learning safety processes that are defined; and
5. Are regularly inspected and resourced with updates that include replacing facilities and equipment, as necessary.

This author supports a best practice that would require RTI providers to have a Safety and Health Management System in place – just as employers should. OSHA's [Recommended Practices for Safety and Health Programs](#), or an approved equal, should serve as guidelines for implementing a safety and health program built around the seven core elements of successful safety and health programs. This SHMS will work well as a framework when resourced with program components that apprenticeship programs could use in the teaching, learning, and operation of their programs. Programs could implement the SHMS within their program, and have an operationalized safety plan that apprentices would be using – with the same SHMS components that apprentices need to learn and be able to use in order to work safely in industry.

OSHA's [Recommended Practices for Safety and Health Programs](#) provides the framework for developing a Safety and Health Management System (SHMS). This overall SHMS contains the following seven Core Elements:

1. Management Leadership
2. Worker Participation
3. Hazard Identification and Assessment
4. Hazard Prevention and Control
5. Education and Training
6. Program Evaluation and Improvement, and
7. Communication and Coordination for Employers on Multiemployer Worksites

Following describes the rationale and an application of OSHA's SHMS to CTE.

Teaching and learning Safety Knowledge Skills and Abilities (SKAs) requires that an apprenticeship program operationalize those processes within an industry-authentic, well-structured safety culture, and Safety & Health Management System. The document on the four following pages adapts the *[Recommended Practices for Safety and Health Programs](#)* (the core elements OSHA's model SHMS) for use by Career and Technical Education (CTE) Programs. Reference: *Guidance on Safety and Health Management System (SHMS) - Best practices from OSHA's Recommended Practices for Safety and Health Programs Core Elements of the Safety and Health Program Recommended Practices; Pg. 7; Adapted for use by Career and Technical Education (CTE) Programs*.

As apprentices learn and practice applying these core elements during their RTI, they will become proficient in the SKAs they need to have in order to work safely, and mitigate potential safety hazards – for a safe training and worksite environment. The following two pages contain the guidance for OSHA's Recommended Practices for Safety and Health Programs, along with Recommendations for Operationalizing the OSHA 10-Hour Safety Outreach Training for the Construction and General Industries. This author supports the requirement that IRAPs implement the OSHA 10-hour outreach training, as well as a safety and health management system (SHMS), as presented here, or equal. IRAP applicants and IRAPs must be required to submit data to support implementation, and annual review and improvement of safety and health efforts.

11) Equal Employment Opportunity (EEO)

Recommendation

11a: Industry-Recognized Apprenticeship Programs should obey specific language stated within USDOL-ETA 29 CFR Parts 29 and 30; *Apprenticeship Programs; Equal Employment Opportunity*; as published in Federal Register/Vol. 81, No. 243; December 19, 2016; Pp. 92026 – 92119; and FactSheets: *Access to Registered Apprenticeship – A Proven Path to In-Demand Skills and the Middle Class*, and *Equal Opportunity in Apprenticeship for People with Disabilities*.
11b. Data should be collected on requirements specifically outlined in DOL-ETA's *Crosswalk of Significant Changes to the Apprenticeship EEO Regulations (29CFR part 30)*.

Comment: **11a.** While this author agrees with the language included in this EEO apprenticeship program quality certification requirement, he notes that it falls short by not specifically stating that multiple-focused efforts must also include strategies and support for retention of apprentices. Language must be added requiring activities and support for the retention of non-traditional and under-represented populations, handicapped persons, and all individuals of special populations in IRAPs.

11b. This author maintains that the issues and challenges that we face in preparation, recruitment, support, and retention of individuals to become applicants to apprenticeship has always been challenging. Recruitment and support of non-traditional and under-represented populations, handicapped persons, and all individuals of special populations can present unique and challenging issues to surmount while also striving to provide and ensure equal employment opportunity, and meet affirmative action goals and objectives. It's important to note that Registered Apprenticeship programs have worked hard for years to eliminate barriers and support affirmative action policies and objectives.

EEO-related issues and challenges don't start at the age when individuals become eligible to make application to apprenticeship programs. By then, individuals are products of the experiences they've had or not had throughout school. That's why it's important that accurate data must be reported into a longitudinally-capable data system. If that's done, then at a point in the not-too-distant future, longitudinal data will be able to have impact on identifying what our schools are doing that is working, and what they can do better in order to prepare and support all students and populations for Equal Employment Opportunity.