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EDUCATION AND EMPLOYMENT
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Building the Non-Credit College Data Infrastructure: The Intersection of Policy & Data

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Rising Interest in NDCs and Noncredit Education

- Individual preference
 - Over 2/3 of adults considering education prefer nondegree, up from 1/2 pre-pandemic (Strada, 2020).
 - Among “great resigners”, 72% are enrolling in programs that are 6 months or shorter (Cengage, 2022).
- State funding investments
 - Examples: Get There FL, IN Next Level Jobs, NJ Pay It Forward, LA MJ Foster, VA Fast Forward, and others.
- Estimated over 500,000 non-degree credentials offerings according to Credential Engine 2022 estimates

Steps in Building Data and Quality Systems for Non-Degree Credentials and Noncredit....

- Define Non-degree Credentials and Noncredit Education
- Define Quality
- Build the Data Infrastructure
- Build the Quality Ecosystem

Defining Non-degree Credentials and Noncredit Education

Many Types of NDCs

- For-credit certificates
- Noncredit certificates
- Certifications
- License
- Apprenticeship
- Badges/microcredentials

For-credit Certificates

- Credential awarded by an educational institution for completion of a credit educational program, usually less than one year in length (short-term and long-term credit)
- Key providers are post-secondary educational institutions
- Vary a lot in duration and intensity, also educational level
- Over 50,000 certificates (Credential Engine, 2022)

Noncredit Certificates

- Credential awarded for completion of an educational program that does not count towards academic credit
- Key providers include post-secondary educational institutions, training providers, employers, labor unions, industry associations
- Vary a lot in duration and intensity, also educational level
- Estimated over 58,000 noncredit certificates from postsecondary institutions (Credential Engine, 2022)

Certifications

- Credential awarded by an industry body or governmental agency for demonstration of skills typically via examination based on industry or occupational standards.
- Key providers are industry certification bodies
- Can be earned in combination with a degree, and can be associated with programs/degrees
- Estimated over 7,000 certifications (Credential Engine, 2022)

Licenses

- Credential awarded by a governmental agency for demonstration of skills in a specific occupation and sometimes also completion of an educational program; often required to work in an occupation.
- Key providers include government agencies
- Can be earned in combination with a degree, and can be associated with programs/degrees
- Estimated over 12,000 licenses (Credential Engine, 2022)

Apprenticeship

- Credential awarded after completion of structured educational and workplace program based on industry and occupational standards.
- Key providers include government agencies
- Can sometimes be earned at the same time as a degree
- Registered apprenticeship process sets standards
- Estimated over 27,000 apprenticeships (Credential Engine, 2022)

Badges/Microcredentials

- Credential awarded for completion of a short program of study or demonstration of a targeted set of skills; these are newly emerging and are still being developed.
- Key providers include post-secondary educational institutions, training providers, employers, labor unions, industry associations
- Include a digital component
- A great of variation in these awards
- Colleges/universities are developing policies, standards are under development, very similar to certificates
- Estimated over 430,000 digital badges (Credential Engine, 2022)

Types of Noncredit Education

- Four broad types of noncredit education (D'Amico et al., 2014)
 - Occupational Training
 - Sponsored Occupational (Contract) Training
 - Personal Interest
 - Pre-College Remediation
- NDCs are often part of occupational training and contract training. Certificates, badges, and microcredentials can be awarded; certifications and licenses can be earned after.

Link Between Noncredit Occupational Education & Outcomes

Education Levels of Occupations



Sub-Baccalaureate occupations



Bachelor's degree occupations

Scope of Skills



A **full set of skills** needed to work in an occupation



A **targeted set of skills** to enhance entry or advancement within an occupation or set of occupations.

Labor Market Outcomes

Direct Link to well-paying jobs



Low-paying jobs with pathways to well-paying jobs



Low-paying jobs with limited or no pathways to well-paying jobs



The occupational goals of **either entering or advancing** in an occupation.

Trends in Noncredit Education

Focus of Noncredit Education

- Shift to prioritize workforce > comprehensive approach
- Reconsideration of target student population

Organization of Noncredit Education

- Dramatic variation and shifts in organizational location
- Increased partnerships to increase capacity and reach

Structure of Noncredit Education

- Decision to offer in noncredit driven by speed and flexibility, also skill and credential needs in the labor market
- Interest in developing pathways to credit, variability in progress
- Few supports for noncredit students

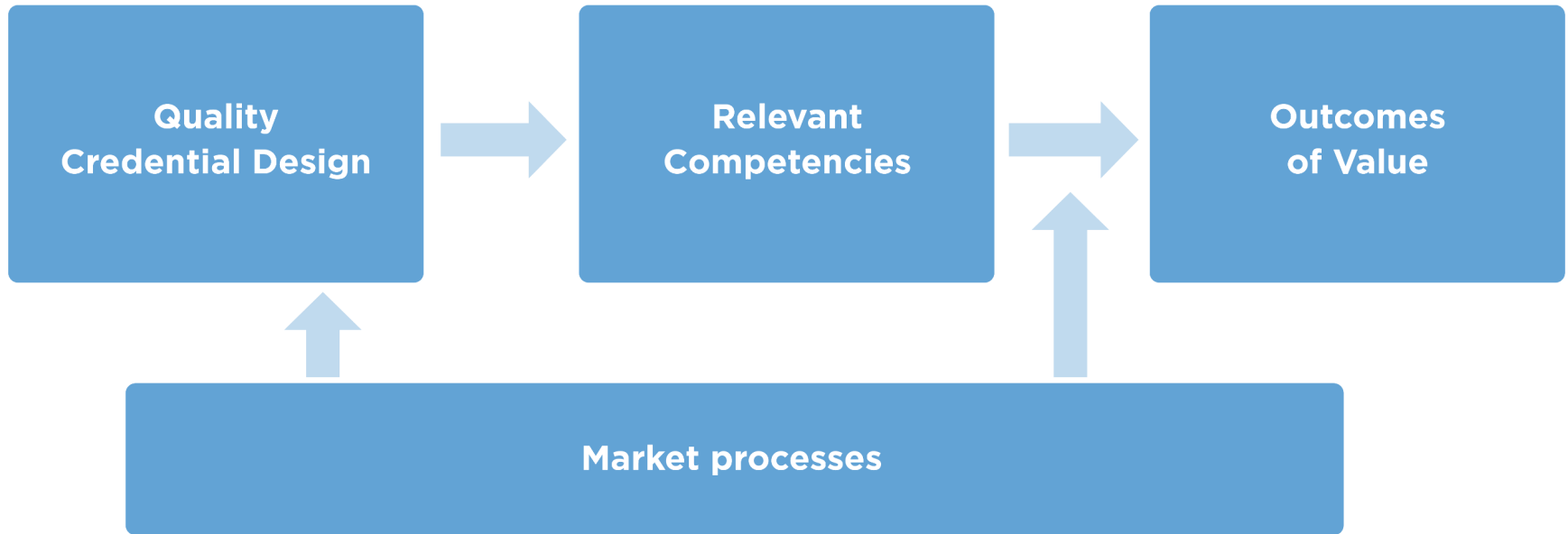
- **What policies and priorities have influenced the mix of non-degree credentials and noncredit program offerings in your institutions?**
- **Have you made any significant shifts or changes in recent years?**

Definitions of Quality

Many Definitions of NDC/Credential Quality

- **National Skills Coalition...** Documented Job opportunities, Competencies; Employment outcomes, stackability (optional)
- **Education Strategy Group...** In-demand occupation, Employer use in hiring, education articulation
- **New America...** strong labor market outcomes, advances equity in occupations, educational articulation, affordable, strong completion
- **Gates Postsecondary Value Commission...** Employment outcomes
- **Lumina Quality Credentials Task Force...** Multiple measures of credential design and outcomes
- And others

Commonalities in NDC Quality Definitions



Quality Definitions Relate to Stakeholder Goals

<i>Stakeholder</i>	<i>Goal</i>	<i>Key Questions to Consider</i>
Individuals	Informed decision making	How do we know as an individual whether it is a good investment of time and money to pursue an NDC?
Employer	Informed decision making	How do we know whether NDCs are a useful indicator of skill and competency to be used in hiring and advancement?
Policy Makers	Accountability	How do we know whether public funds should be used to support the attainment of NDCs?
Credential Providers	Program Improvement	How can NDCs be improved?

EERC Landscape Study of Noncredit Education

- Study provides a snapshot of essential issues and trends in community college noncredit workforce education
- Interviews of 29 community colleges across 22 states in spring 2021; topics included:
 - focus of noncredit
 - organizational structure
 - target student population
 - mechanisms for offering programs and ensuring quality
 - connections to credit-bearing programs

Findings from Landscape Study of Noncredit Education

- Labor market analysis – most commonly-mentioned approach to ensure quality
- Reliance on industry certificates, alignment with external standards
- Involvement of faculty in program development
- State approval processes, particularly associated with FTE funding
- Student demand as an indicator
- Earnings outcomes, but little data are available

EERC Case Studies of Noncredit Programs

- How do colleges approach quality in the development and design of their noncredit workforce programs?
- Interviews with administrators & faculty at 4 colleges (2022-23)
 - Harper College (IL)
 - La Guardia Community College (NYC)
 - Mt. San Antonio College (CA)
 - Northern Virginia Community College (VA)
- Compiled college context summary for each school
 - State policies, funding models
- Examined two programs from each school

Case Study Colleges and Noncredit Program Offerings

TABLE 1: SELECTED PROGRAMS AND CREDENTIALS BY COLLEGE

College/ Program	NDC Type	NDC Name
Harper College, IL (Harper)		
Real Estate	License	Illinois Real Estate Broker
Solar Photovoltaic Associate Certification Prep; Solar Business and Technical Sales	Certification; Digital badges	North American Board of Certified Energy Practitioners (NABCEP) Associate; NABCEP Solar Business and Technical Sales (the course provides approved training hours toward this certification)
LaGuardia Community College, NY (LaGuardia)		
Community Health Worker	Certificate	Community Health Worker
Medical Billing	Certificate	Medical Billing Specialist
Mt. San Antonio College, CA (Mt. SAC)		
Electronics	Certificate	Electronic Systems Technology Skills
Emergency Medical Technician	Certification; License	National Registry EMT; State EMT
Northern Virginia Community College, VA (NOVA)		
Medical Assistant	Certification	Certified Clinical Medical Assistant (CCMA)
CompTIA® Network+	Certification	CompTIA® Network+

Findings from Case Studies of Noncredit Programs: Contextual Influences

- Funding
 - Harper: Noncredit workforce courses categorized as “nontransferable credit” courses and receive some state reimbursement
 - LGA: No state formula funding; some state and city allocations, plus grants
 - Mt. SAC: CA provides funding for short-term vocational training/workforce prep programs that consist of 2+ courses that lead to a state-approved noncredit certificate
 - NOVA: Fast Forward, performance-based state funding established in 2016; focuses on industry-recognized credentials in high-demand fields
- College organization
 - Harper: Noncredit workforce programs are in the credit Career Technical Programs division
 - LGA: Division of Adult and Continuing Education
 - Mt. SAC: Continuing Education
 - NOVA: Continuing Education

Design Elements



Labor market relevance



Transparency



Stackability/articulation to credit



Accessibility



Instructional processes
(esp. approach and delivery)



Student supports



Assessment processes



Affordability

Findings from Case Studies of Noncredit Programs: Key Markers of Noncredit Program Quality

- Local and regional labor market alignment
 - Example: LGA's medical billing program
- Curricula/instruction that prepare students with test-taking, occupational, and employability skills
 - Example: NOVA's Medical assistant program
- Instructors with significant work experience using the credentials that they teach
 - Example: Harper's real estate program

- **What is one noncredit practice used by your institution that you wish other institutions would adopt?**
- **What are your thoughts on quality assurance in the future?**

Building the Data Infrastructure

EERC State Noncredit Data Project

Better understand noncredit – what is it??

Identify and document noncredit program characteristics in each state; generate state reports

Develop a taxonomy of noncredit to guide data collection efforts

Compare noncredit program characteristics across states and convene working group to build the taxonomy; generate cross state reports

Create a network of states dedicated to building the noncredit data infrastructure

Share lessons via a learning community of states and additional publications and presentations; over 30 states currently engaged

Project Phases

- With support from the National Center for Science and Engineering Statistics (NCSES), Rutgers Education and Employment Research Center is partnering with states to examine their state-level noncredit data.
- Phase 1: Iowa, Louisiana, Virginia
 - Noncredit data inventory
 - Capturing course/program level data
 - Develop noncredit data taxonomy across states
- Phase 2: Expand to other states through three roles
 - Established state research partners similar to IA, LA, VA
 - Emerging state research partners
 - Learning community members
- Phase 3: National scan of state noncredit data and policy
- Future phases: Student-level analyses, student experiences, quality



Data Inventory and Definitions

Courses/Programs

- Field of Study (name, CIP, SOC, Career Cluster)
- Type (occupational, sponsored, pre-college, personal interest)

Outcomes

- Non-degree Credentials (industry certification, occupational license, college-issued certificate, micro-credential, apprenticeship)
- Noncredit-to-credit articulation
- Student Outcomes (continue to credit, completion, employment, salary/wages)

Instructional Characteristics

- Length (number of classes for program, contact hours)
- Admission Requirements (prerequisites, tests, age)
- Delivery (F2F, location, online, blended, competency-based)
- Work-based learning requirement
- Faculty (FT credit/noncredit, FT noncredit, PT/adjunct, external/contract)

Finance

- Tuition
- Government Funding (state reimbursement, WIOA eligible, econ development incentive, other federal and state grants)

Enrollment

- Headcount
- Demographics (race/ethnicity, age, sex/gender)
- Prior Educational Attainment

Student Services

- Academic Advising
- Career Advising
- Nonacademic Support

Identifiers

- ID types (SS#, institutional ID, consistent ID, student names, birth dates)



Key Findings: Classifying Noncredit Offerings

- Standard definitions are needed to make proper comparisons across states
 - Various definitions surrounding noncredit courses and programs lead to confusion and inconsistencies
 - E.g., wide variability in the number of offerings and data elements
 - We have chosen to use the term “offerings” as a combination of all noncredit courses, programs, etc.

Key Findings: Offerings and Enrollment

- The most common noncredit offerings were workforce-oriented
 - Also the type of offering with the highest student enrollment
- Gender distribution varies by state
 - Women from Iowa and Virginia are more commonly enrolled in vocational offerings
- Data on race and ethnicity are often missing in noncredit studies
 - However, current data on noncredit enrollment by race reflects general credit enrollment

Key Findings: Instructional Characteristics

- Length of noncredit programs varies but much is quite short
 - Most and average offerings do not reach the 150-hour threshold required by short-term Pell Grants
 - Contact hours are most for:
 - FastForward in Virginia, occupational training in Louisiana, pre-college offerings in Iowa
- Noncredit is offered in a variety of modalities
 - The most common is in person, even post-pandemic
- States varied in types of credential awarded through occupational offerings
 - Certificate, certification, or both

Key Findings: Outcomes

- Attainment Measures
 - All partner states generally track completion rates
 - Despite completion having an inconsistent definition
- Employment Measures
 - Harder to track since they are collected externally to the college
 - Colleges must rely on labor market data
- Partnerships drive and enable states to accurately measure outcomes data
 - Data matching often requires state agency partnerships
 - These partnerships have been established over time alongside the development of noncredit data systems

Lessons Learned

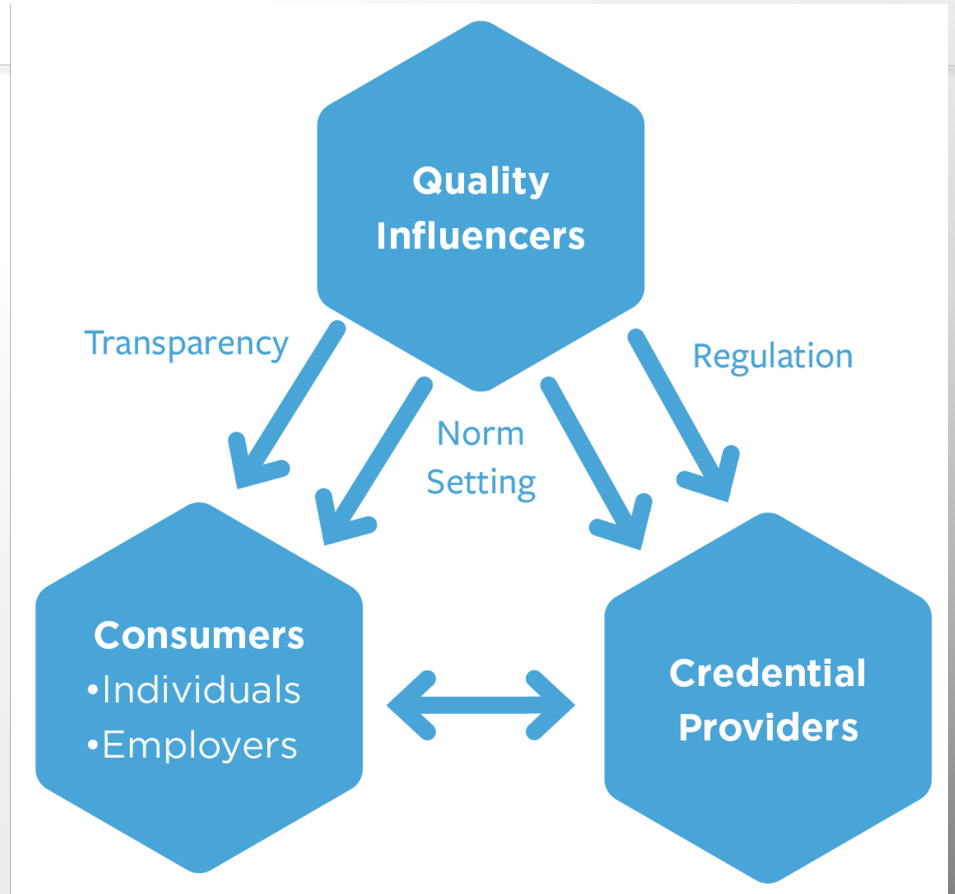
- Courses vs. programs vs. offerings
- Variation among states AND program types in terms of what is collected
- Programming and funding tied to economic development and workforce initiatives
- Without standard definitions, interpretation is necessary
- Credentials of quality drive funding and structure
- The data infrastructure builds over time
- Using data to “make the case”



- **What noncredit data collection practices have worked well at your institution?**
- **What are data issues you are currently working through?**
- **How would these data be used by your institution?**

Building the NDC Quality Ecosystem

Beginning Snapshot of the NDC Quality Ecosystem



Credential Providers of NDCs



Educational Institutions - 4 year and 2 year, credit and noncredit



Private training providers, boot camps, online, and emerging providers



Private companies



Professional and industry associations

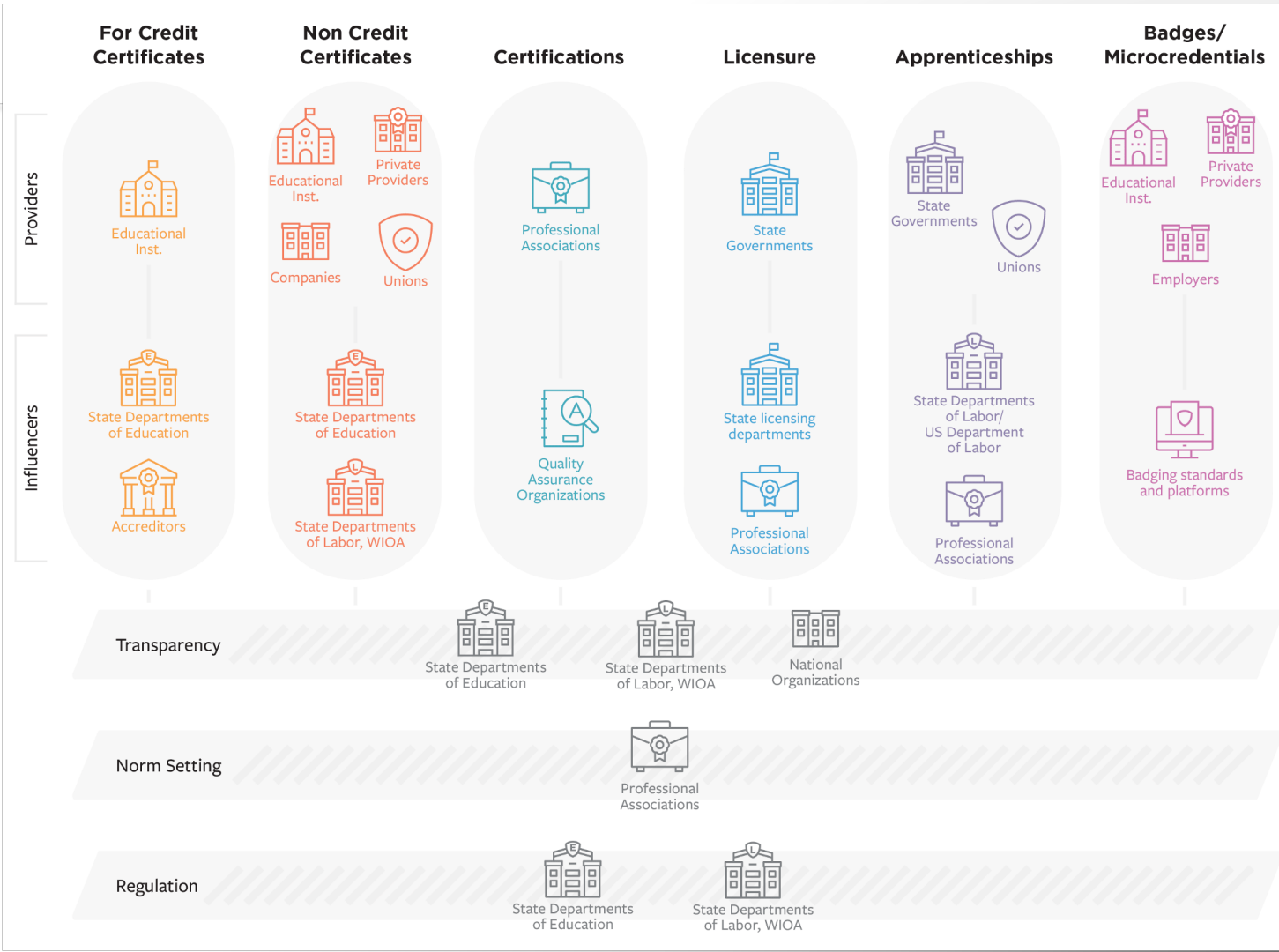


Joint training funds



State occupational licensing departments

Multiple NDC Markets Exist



Quality Influencers: Organizations Promoting Transparency and/or Norm Setting, Across NDCs

- Credential Engine
- State Departments of Labor, Eligible Training Provider Lists (ETPL)
- The Council on Integrity in Result Reporting
- Education Quality Outcomes Standards Board (EQOS)
- Badging Standards and Platforms
- And others...

Quality Influencers: Government Entities— Regulate and Set Norms, Across NDCs and Within NDC Types

- State Departments of Education, Noncredit Funding Oversight
- State Departments of Labor, WIOA Funding Oversight
- Various State Agencies, Proprietary School Oversight
- State Occupational Licensing Departments, Oversight of Licensure Processes and Standards
- US Department of Labor, Apprenticeship Oversight

Quality Influencers: Quality Assurance Bodies— Set Norms for Industry Certifications, Certificates

- ANSI National Accreditation Board (ANAB)
- Institute for Credentialing Excellence (ICE)
- National Commission for Certifying Agencies (NCCA)
- ISO/IEC 17024
- Assessment-Based Certificate Accreditation Programs (ACAP)

Quality Influencers: Higher Education Accreditors—Set Norms for Certificates

- Council of Higher Education Accreditation (CHEA)
- Accrediting Commission for Community and Junior Colleges
- Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- EFMD Quality Improvement System (EQUIS)
- Accrediting Commission of Career Schools and Colleges
- The Middle States Association Commission on Elementary and Secondary Schools (MSA-CESS)
- Former Regional Higher Education Accreditation Agencies.

How to Bring Together and Build on These Many Efforts?

- Many quality influencers, and many providers across NDC types
- Multiple definitions of quality... commonalities and distinct purposes
- Multiple ways to promote quality... different mechanisms and potential synergies
- Challenge and opportunity of creating something new

Summary of Current NDC Quality Efforts

- Certificates have most variation in providers and influencers
- Certifications, licensure, and apprenticeships have systems for quality—though not without challenges or limits
- Cross cutting efforts for quality are limited by lack of data and challenges of definitions; many are emergent and evolving
- States are a locus of activity, in tandem with national and institutional level efforts

- **How can we create the data infrastructure to track NDCs including new data systems and connecting fragmented existing systems?**
- **What role does information, norm setting, and regulation have in promoting NDC quality?**
- **What can different stakeholders each do, including providers, influencers, and consumers (e.g. employers, individuals, and public)?**

For More Information...

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