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ConneC+D (Certification + Degree) Pathways to Support First-Generation, Low-Income, and Adult Learners

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ABOUT WORKCRED

Workcred's Mission & Vision

Mission: To strengthen workforce quality by improving the credentialing system, ensuring its ongoing relevance, and preparing employers, workers, educators, and governments to use it effectively.

Vision: A labor market which relies on the relevance, quality, and value of workforce credentials for opportunities, growth, and development.

Workcred Services

Connecting Stakeholders

Connecting industry, education, credentialing organizations, and others to create a more integrated and effective credentialing system

Thought Leadership

Presenting at national workforce conferences; serving on national task forces, panels, and boards

Education & Training

Convening credentialing-focused workshops, conferences, and webinars

Quality

Helping stakeholders better understand the quality, value, and effectiveness of credentials, and make informed decisions

Consulting

Building credentialing programs that meet quality standards; helping employers define their competency needs and select appropriate credentials; ensuring credentials match the current body of knowledge for an occuptation; and more
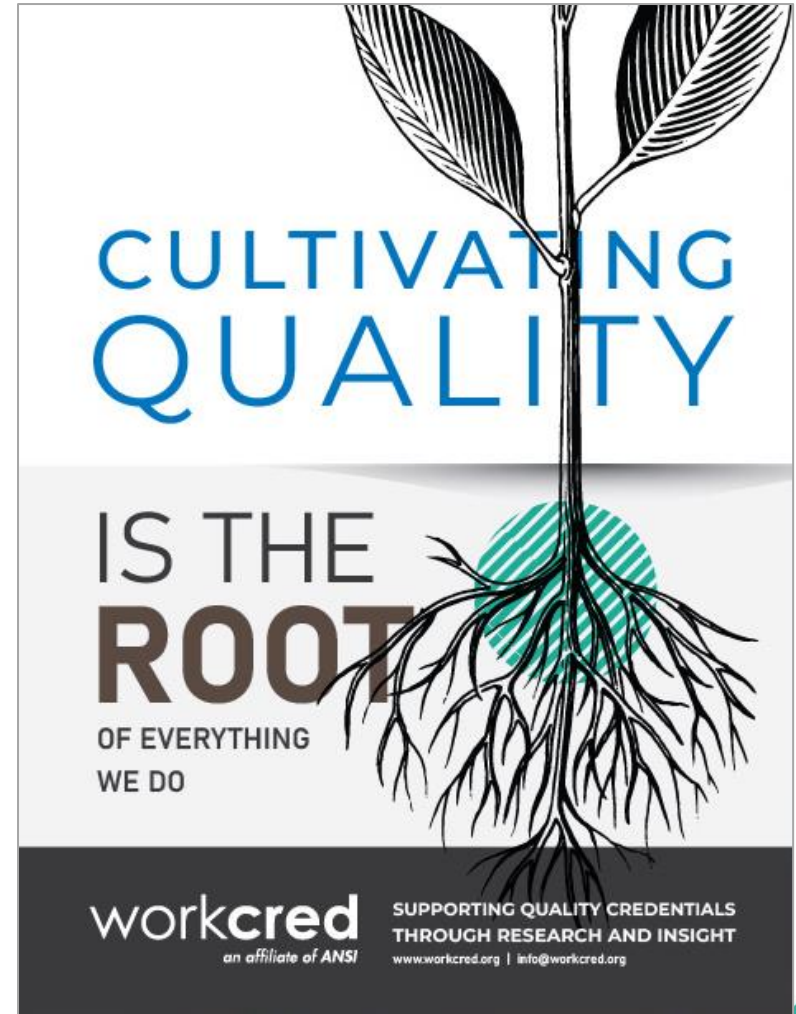
Research

Conducting research to address workforce credentialing issues

Workcred's Unique Expertise

- ✓ Creating valid qualitative and quantitative research projects to determine the quality, effectiveness, and market value of a credential, and its impact on an industry

- ✓ Building educational pathways that combine different types of credentials

- ✓ Aligning academic curriculum with competencies assessed on industry-recognized credentials

- ✓ Building credentialing programs that meet quality standards

- ✓ Helping employers articulate competencies and design or select appropriate credentials

- ✓ Ensuring that credentials are aligned to the current body of knowledge for an occupation

CULTIVATING QUALITY

IS THE ROOT

OF EVERYTHING WE DO

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SUPPORTING QUALITY CREDENTIALS
THROUGH RESEARCH AND INSIGHT
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CREDENTIALING SYSTEM: SO MANY CHOICES

The U.S. post-secondary credentialing system is a confusing maze.
*Understanding how to navigate it can be difficult.* *Workcred is here to help.*

THE U.S. POST-SECONDARY CREDENTIALING SYSTEM
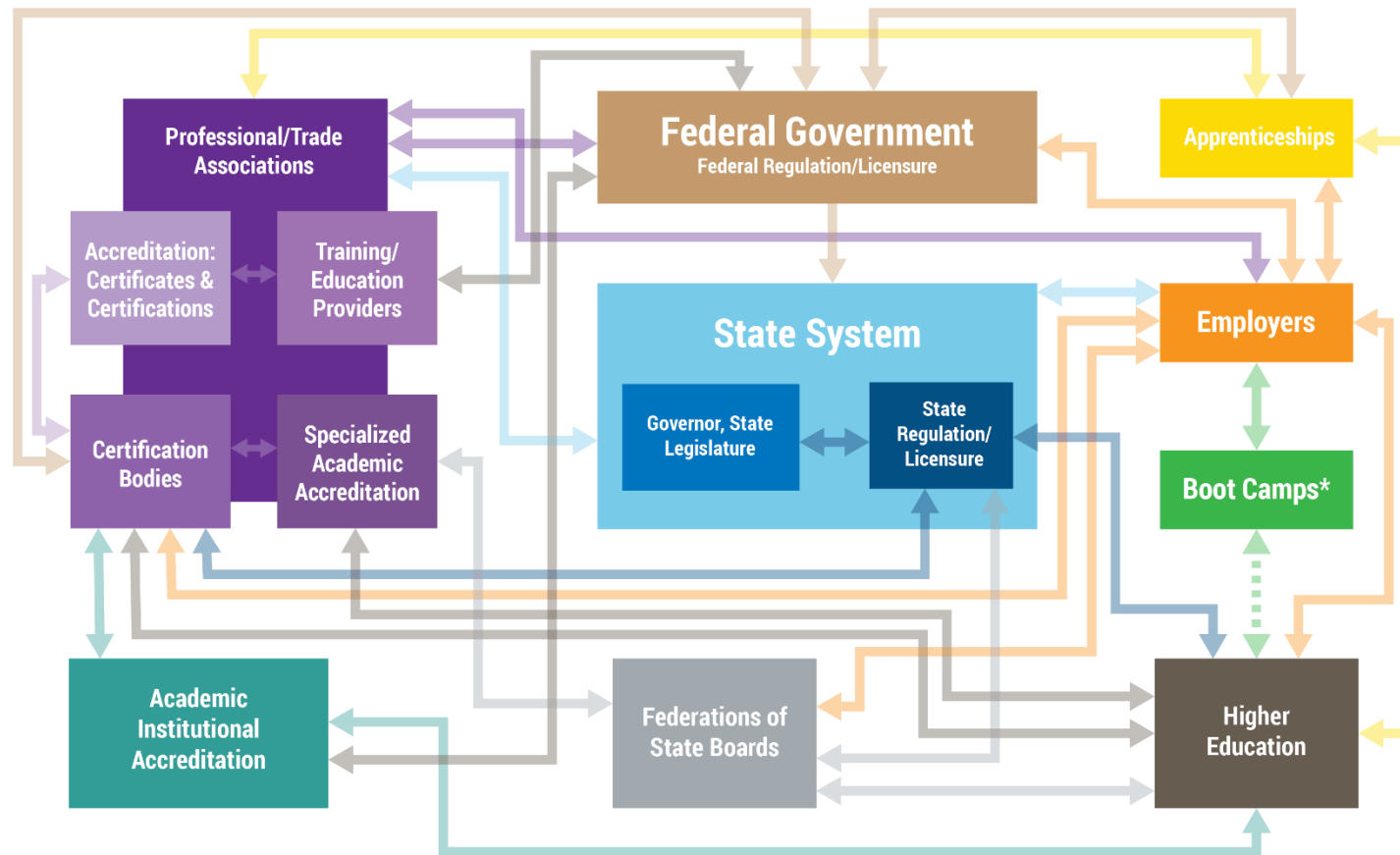
* Although boot camps initially existed outside of the higher education system, there is increasing interest of universities to develop partnerships with boot camps.

"CREDENTIAL"

CERTIFICATE

CERTIFICATION

BADGE

LICENSE

DEGREE

MICROCREDENTIAL

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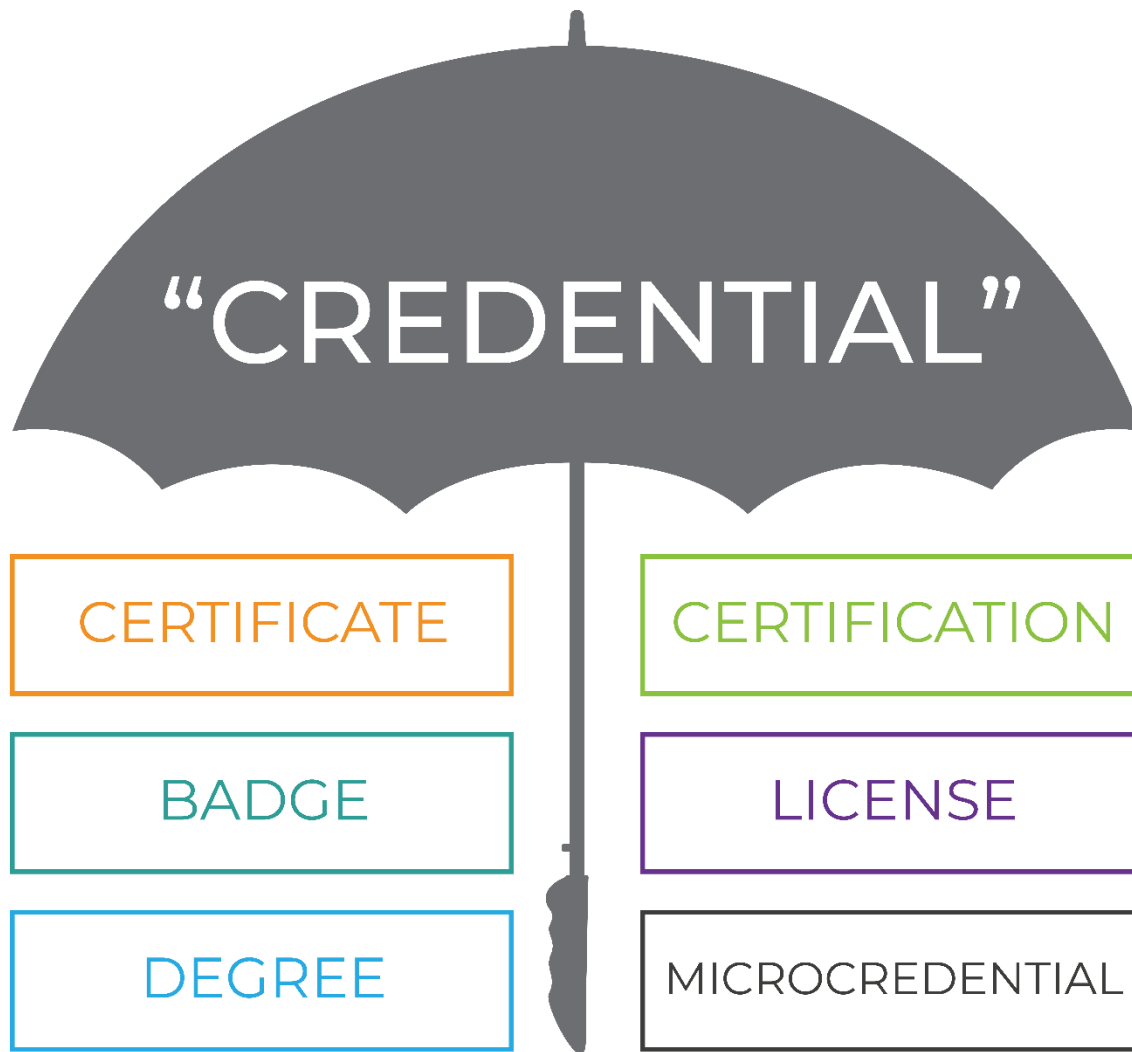
Credential is an "umbrella term" to denote many types of credentials such as degrees, licenses, and certifications.

Credential is not the same as a certification or a certificate. The terms cannot be used interchangeably.

Certifications and certificates are types of credentials.

How Do Credentials Differ?

	CERTIFICATE*	CERTIFICATION	DEGREE	LICENSE
Awarded by	Education and training providers, employers, labor unions, and industry associations	Industry certification bodies	Education institutions	Government agencies
Awarded for	An exam at the end of a training or education course or a one-time assessment	Third-party, independent competency assessment	Course of study	Meeting requirements of an occupation
Indicates	Education/ knowledge/skills	Skill mastery/ competencies	Education, successfully passed courses	Legal permission
Time to complete	Variable, generally less than 2 years	Variable	Variable, generally 2 years or more	Variable
Time and renewal requirements	Often no time limit, no renewal requirement	Time-limited, includes recertification	No time limit, no renewal requirement	Time-limited, renewal generally required
Revocation process	Cannot be revoked	Can be revoked for incompetence or unethical behavior	Cannot be revoked	Can be revoked for incompetence or unethical behavior
Examples	CNC Machinist, Zurich Insurance Apprenticeship	CompTIA Cybersecurity Analyst, Certified Energy Auditor, Medical Laboratory Scientist, MLS(ASCP)^{CM}	Bachelor of Science in Engineering, Associate of Arts in Business Administration	Electrician, Professional Engineer, Registered Nurse
Standard for accreditation	ANSI/ASTM E2659-18, a globally recognized American National Standard	ANSI/ISO/IEC 17024:2012, an international and national standard	National, regional, or programmatic	State law defines scope of practice

* There are many types of certificates. Some examples include: certificates of participation, certificates of achievement, certificates of completion for apprenticeship, and assessment-based certificates.

DEGREES OF RIGOR
FOR THE MANY FACES OF CERTIFICATION

Accredited by a third party (e.g., ANAB, NCCA) — **4**

Ability to revoke certification for violation or unethical behavior — **3**

Recertification requirement — **2**

Standardized exam — **1**

Note:
Training that is followed by an assessment to measure the learning outcomes is an assessment-based certificate, not a certification as sometimes referred to.

PROJECT OVERVIEW

Certification + Degree Pathways

- Certifications and degrees are complementary credentials

  - Degrees reflect a broad knowledge base, including "soft skills"

  - Certifications provide evidence of mastery of occupationally-relevant competencies through third-party assessments

- Hypothesis: learners who earn a 2-year degree + quality certification will be better prepared and will more easily enter the workforce

The Project

- ECMC Foundation provided a 3-year grant to develop and implement C+D Pathways in information technology and health science programs at community colleges

- Goal: provide technical assistance and support to four community college campuses to:

  - develop and implement multiple C+D Pathways

  - establish a process for low-cost replication

  - develop a metrics framework based on workforce data to guide implementation and improvement

Metrics of Success

Develop C+D Pathways, with two at each of the four community college partners

Enroll 250 students in the new C+D Pathways across the four community colleges

Develop playbooks for community colleges and certification bodies

Develop and pilot a metrics framework for C+D pathways

Increase in knowledge among faculty on all four campuses on the benefits of C+D Pathways

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PARTNERS, ROLES, AND PATHWAYS

Project Partners

- Workcred

- League for Innovation in the Community College (League)

- Higher Learning Commission (HLC)

- Community College of Aurora, in Aurora, CO

- Delta College, in University Center, MI

- Kirkwood Community College, in Cedar Rapids, IA

- Moraine Valley Community College, in Palos Hills, IL

Workcred's Role

- Work with college partners to advise on selection of certification, as needed

- Capture insights across colleges for C+D pathways development through playbooks, blogs, and case studies

- Coordinate dissemination of insights at conferences and publications

- Coordinate with partners on metrics framework

The League's Role

Overall

- Advancing innovation at every opportunity

- Active engagement with college partners (presidents and faculty)

- Collaboration with project - qualitative and quantitative

Sustainability & Next Steps

- Community of practice

- Potential to support the synthesis of college data

- Playbook (in collaboration with all partners)

HLC's Role

- Coordinate closely with colleges on any issues related to accreditation for C+D pathways

- Develop playbook to focus on accreditation challenges around C+D pathways

The Colleges' Roles

- Implement C+D pathways

    - Faculty participation

    - Leadership support

    - Curriculum development

    - Credentials alignment

- Enroll learners in pathways

    - Make changes to increase enrollment and completion

- Participate in metrics and evaluation with all partners

Community College of Aurora

- About Community College of Aurora (CCA)
  - Location: Aurora, Colorado
  - 60+ native languages are spoken across 2 campuses and within high school concurrent-enrollment partnerships
  - Total number of students enrolled: 12,242
    - Pell eligible: 15% (includes CE students)
    - First-generation learners: 52% (includes CE students)
    - Adult (age 25+) learners: 40%
    - Identify as parenting students: 35%
- The Pathways
  - NHA Certified Phlebotomy Technician (CPT) or ASCP Phlebotomy Technician + Associate Degree in Nursing
  - Mental Health First Aid, 21st Century Skill of Empathy, and IC&RC Exam for Peer Support Specialist + Behavioral Health AAS

Delta College

- About Delta College

  - Location: University Center, Michigan

  - Total number of students enrolled, in the fall 2023: 7,646

    - Low-income learners: 48.35%

    - Adult learners: 35.68%

    - Declare occupational and workforce majors: more than 50%

- The Pathways

  - CompTIA Security+ + Cybersecurity AAS

  - Google IT Support Professional + IT Support AAS

Kirkwood Community College

- About Kirkwood Community College
  - Location: Cedar Rapids, Iowa
  - Urban, comprehensive community college with 140 majors and programs
  - Total number of students enrolled (2022-2023): 16,581
    - Pell eligible: 21.3%
    - First-generation learners: 15%
    - Low-income learners: 24%
    - Adult learners: 44.3%
- The Pathways
  - CompTIA A+ Certification and Cisco Certified Network Associates + Network and System Administration AAS (CCNA)
  - CompTIA A+ and/or Amazon Web Services (AWS) Cloud Practitioner + Computer Support Specialist (CSS) AAS

Moraine Valley Community College

- About Moraine Valley Community College
  - Location: Palos Hills, Illinois
  - Second largest community college in Illinois, and offers more than 130 programs
  - Total number of students enrolled, in the fall 2023: 11,144
    - Pell eligible: 32%
    - First-generation learners: 26.3%
    - Low-income learners: 31.7%
    - Adult learners: 17.2%
- The Pathways
  - IT-LAN-Microsoft Azure or Cloud Certification + Computer and Local Area Network AAS
  - AHIMA's Certified Coding Associate (CCA), Certified Coding Specialist (CCS), and Certified Coding Specialist-Physician-based (CCS-P) or American Association of Professional Coders' (AAPC) Certified Professional Coder (CPC) + Health Information Technology AAS

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FINDINGS & CHALLENGES

Overall Progress on C+D Pathways

- All C+D pathways in the partner colleges have been developed and are enrolling learners

- The focus of the last year has been on sustainability and learner success and completion

Challenges

- Testing logistics
  - Testing centers are far away
  - Online/remote testing issues
  - Government-issued identification requirements
- Integrating liberal arts skills seamlessly into workforce programs to provide a well-rounded education and blends both philosophies
- Incorporating non-credit training and credit-bearing coursework within the same degree or program with accreditation constraints
- Aligning and implementing curriculum with industry certifications
  - Timeline for curriculum development for credit
  - Revisions of curriculum
  - Mixing credit and non-credit coursework
  - Timing of examination for certification and coursework

Challenges (continued)

- The requirement for faculty to hold master's degrees to teach certain courses – particularly those with industry expertise

- High cost of certifications and cost to students

- Collaboration needed across departments and staff

- The evolving certification and regulatory landscape

- Changing expectations for use of third-party, industry certifications

  - Industry fluctuations requires continued validation of demand for certification

  - Need for systemic approach

Sustaining C+D Pathways

- Developing new curriculum and curriculum revisions take time, effort, and resources, but sustainability of pathways is less intensive

  - Colleges had funds from grant to develop and launch C+D pathways

  - Funding for personnel needed to continue to advance and support the programs

- Cost of certification is not the largest barrier to pathway completion

  - Free + Accessible ≠ Completion

    - Explore making cost of certification a fee upfront so it can be part of the student's financial aid, scholarship, and/or grant funding

    - Explore industry as a resource for funding cost of certification

- Pathways may revert to degree/certificate only without third-party certifications

Sustaining C+D Pathways (continued)

- Many different ways to embed/align certification with degree/certificate programs
  - Noncredit to credit: earn a certification towards credit to a degree pathway
  - Noncredit bridge program: earn a certification in the bridge program, which can stack to earn entry into a certificate program or a degree program
  - Credit: certification material embedded in coursework that is mandatory to earn a degree
- Learners need support to be successful at earning the certification
  - Onsite testing centers – every college now has an approved testing center on campus
  - Practice testing – often done at the testing center, more extensive resources develop for test prep skills
  - Individual support – each C+D pathway has required tailored learner support to persist and complete the certification
  - When certification exam is not taken during semester – follow-up with learners will encourage taking the exam
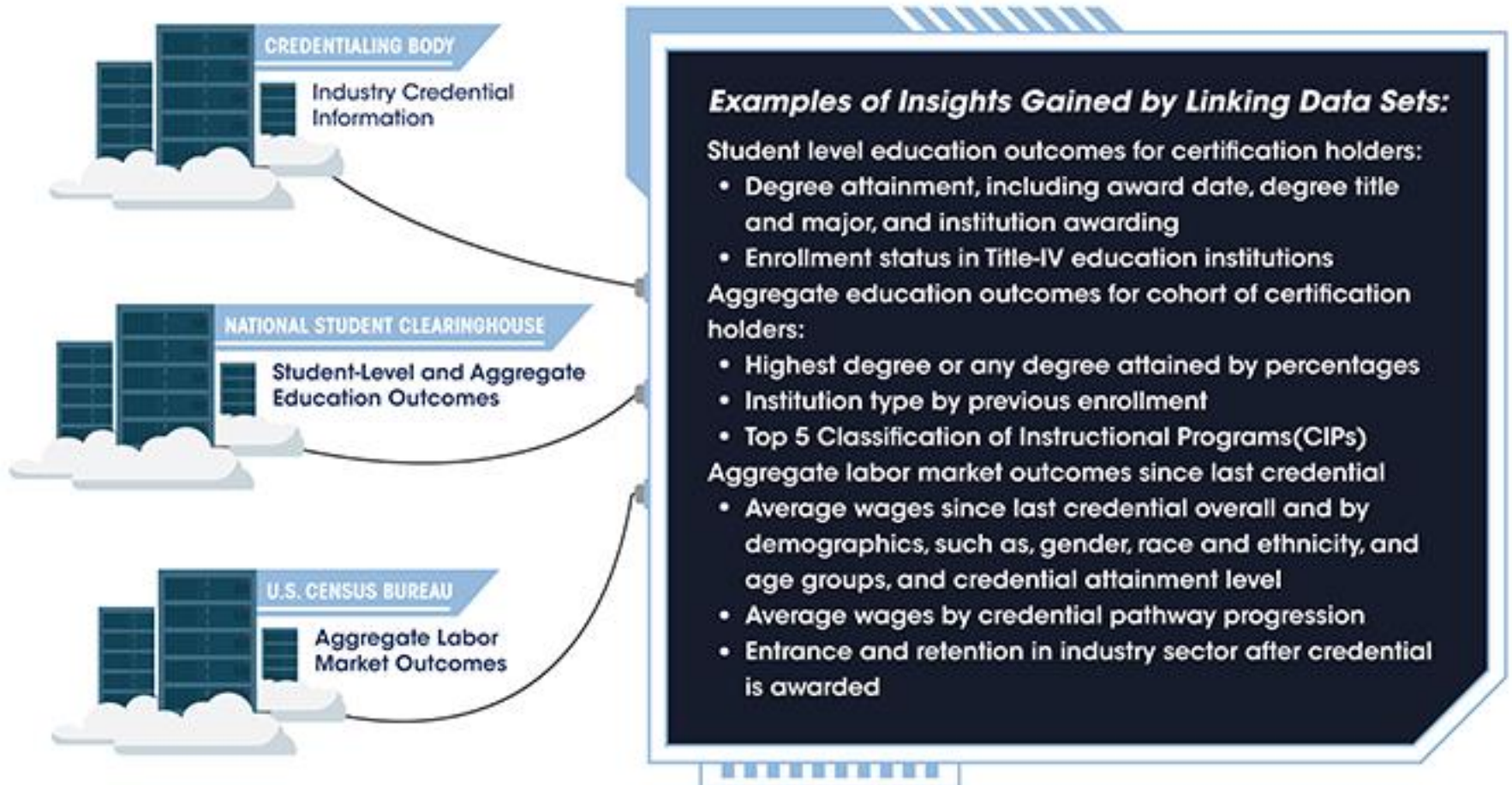
METRICS FRAMEWORK PILOT

Metrics Framework Pilot

- Use previously-established process to show proof-of-concept that administrative data can be used to examine workforce outcomes of C+D pathways

- Previous work was collaboration between:

  - National Student Clearinghouse

  - National Association of Manufacturers (NAM) Manufacturing Institute (MI)

  - U.S. Census Bureau

- Result of collaboration was ability to link higher education enrollment/degree data, certification data, and wage data
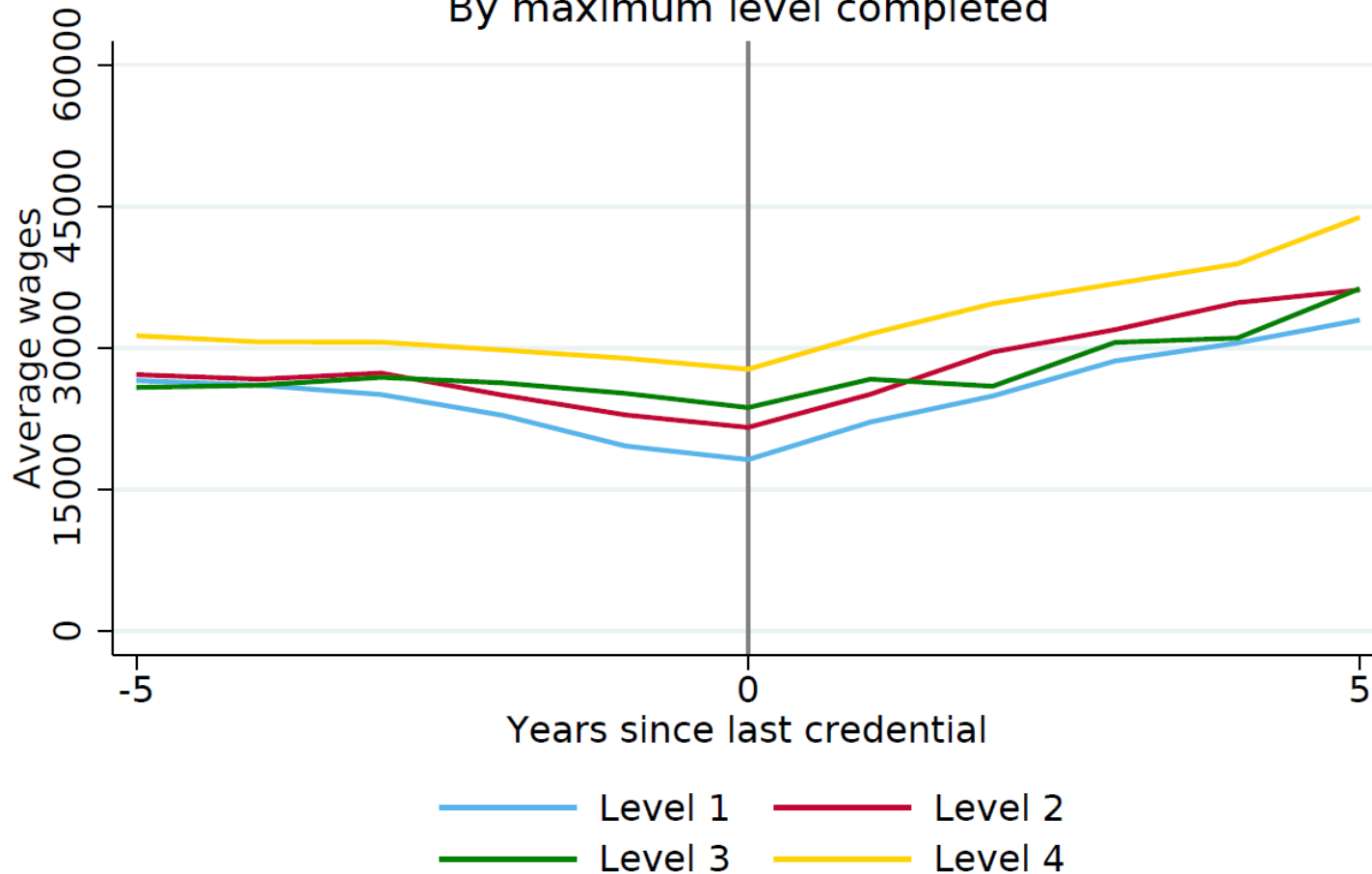
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Examples of Insights Gained by Linking Data Sets

CREDENTIALING BODY
Industry Credential Information

NATIONAL STUDENT CLEARINGHOUSE
Student-Level and Aggregate Education Outcomes

U.S. CENSUS BUREAU
Aggregate Labor Market Outcomes

Examples of Insights Gained by Linking Data Sets:

Student level education outcomes for certification holders:
- Degree attainment, including award date, degree title and major, and institution awarding
- Enrollment status in Title-IV education institutions

Aggregate education outcomes for cohort of certification holders:
- Highest degree or any degree attained by percentages
- Institution type by previous enrollment
- Top 5 Classification of Instructional Programs(CIPs)

Aggregate labor market outcomes since last credential
- Average wages since last credential overall and by demographics, such as, gender, race and ethnicity, and age groups, and credential attainment level
- Average wages by credential pathway progression
- Entrance and retention in industry sector after credential is awarded

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Previous Collaboration Results

Average wages since last credential
By maximum level completed

CBDRB-FY2020-CES010-007

Metrics Framework Pilot (continued)

- Workcred is working with a health sciences certification body to use administrative data to examine workforce outcomes (wages, industry of employment) of individuals who have:

  - Completed AAS degree + certification

  - Completed AAS degree only

  - Some college, no degree + certification

  - Certification only

- Results will provide proof of concept that this approach can be used to examine workforce outcomes of C+D pathways

NEXT STEPS

Next Steps for the Project

- Colleges continue to develop pathways, enroll students, and engage faculty

- Publish playbooks and case studies this year

- Complete pilot of metrics framework

Future Research Questions

- What is the value of other credentials (e.g., microcredentials, apprenticeships, assessment-based certificates, work-based learning) in combination with degree programs?

- How to used C+D pathways to meet the workforce demand in cybersecurity?

  - Use entry-level cybersecurity certifications (e.g., ISC^2 Certified in Cybersecurity Certification) to embed with AAS degrees

- How do we know if learners value certifications they have earned?

  - Did they recertify?

For More Information

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competencies, careers, customers

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