Microcredential Data Collection and Transcription

Consideration of Data Collection for Creation and Completion of Microcredentials

Credential WV is West Virginia's statewide initiative to expand access to high quality, workforce-relevant credentials that help learners gain skills and advance their careers while strengthening the state's economy. Based on conversations and feedback from a statewide convening in February 2025, three areas of focus were identified with associated workgroups created to address the following topics:

- Transcription and Data Management
- Institutional Policy, Practice, and Quality Assurance
- Workforce Connections

The efforts of these groups have led to a set of recommendations that reflect both the shared vision and the practical steps needed to advance credentialing innovation in West Virginia.

This report presents the work of Workgroup 1: Microcredential Data Collection and Transcription. Co-led by Zorrie Georgieva (WVHEPC/WVCTCS), Roy Simmons (West Virginia State University), and James Fauver (BridgeValley Community & Technical College) the group was charged with exploring how institutions can document, track, and report completion of microcredentials; addressing elements such use of official academic transcripts or other platforms; solutions for Banner and other specific student information; barriers to auto-awarding (or auto-notification) of credentials; and concerns related to data reporting to state and federal entities and compliance with relevant regulatory requirements.

Challenges and Opportunities Presented by Microcredentials

As microcredential offerings continue to expand in higher education, institutions face the challenge of understanding who participates, how programs impact learners, and how to measure outcomes. Student-level data collection provides the foundation for transparency, accountability, and evidence-based decision-making. A consistent statewide data collection system would ensure that institutions report information in the same way, allowing for an accurate and reliable record of program activity over time. This system could also serve multiple future purposes, such as guiding institutional productivity measures, supporting statewide reporting, and examining the

impact on students' workforce pathways. Building such a framework now will ensure flexibility and readiness for evolving policy and accountability needs.

Equally important is maintaining a current, public-facing microcredential inventory that is easily accessible to learners so they can see what is offered, how to enroll, and how each credential fits into academic and career pathways. Such an inventory should include key elements about the microcredentials to facilitate decisions about what microcredential fits best the needs of the learner. Clear, up-to-date information reduces barriers to participation, supports access and informed choice, and aligns with internal reporting requirements and standards for quality.

A centralized microcredential repository also provides employers with a clear, comprehensive view of the skills and competencies individuals can gain across programs. By accessing verified information in one place, employers can more easily identify microcredentials that offer skills aligning with their workforce needs. In addition, employers can offer direct feedback on emerging skill gaps, helping institutions tailor future credential development to better meet industry demands. This feedback loop strengthens collaboration between institutions and employers and ensures that credentials remain relevant, transparent, and aligned with real-world workforce requirements.

This document outlines recommended data elements and considerations for institutions developing or scaling microcredential offerings.

This document focuses on three primary areas: (1) microcredential-level data elements; (2) student/learner-level data elements; (3) outcomes and completion; and (4) considerations for selecting and implementing a student microcredential completion-tracking system.

Microcredential-Level Data Elements

Microcredential data elements are organized into tiers: 1) required or essential; and 2) optional or recommended. While the latter are not required, these additional elements can help institutions analyze enrollment and participation patterns and better assess learner outcomes.

Minimum Required Data Elements

1. **Institution Name and Institutional Reporting Code**
    - Identifies the institution offering the credential
2. **Proposed Microcredential Title**
    - A clear, student-facing title that reflects the purpose and content of the microcredential.
3. **CIP Code (Classification of Instructional Programs)**
    - Aligns the microcredential with national classification standards.
4. **Microcredential Identifier**
    - A unique identifier assigned to each microcredential. It may consist of a combination of the CIP code and a sequence number. This identifier will be

assigned by WVHEPC/WVCTCS and will help distinguish multiple microcredentials that align with the same CIP code.

5. **Total Credit Hours** *or* **Contact Hours**
    - Specify whether the credential is credit-bearing or non-credit and report the total instructional hours accordingly.
6. **Level of Instruction**
    - Indicate whether the microcredential is **Undergraduate** or **Graduate** level.
7. **Stackability**
    - Identify whether the microcredential is part of a **stackable pathway** at your institution (Yes/No). Please refer to the stackable credential definition.
    - If yes, describe or list the pathway or credential(s) it stacks into, if possible.
8. **HEAPS Eligibility (West Virginia Community & Technical Colleges Only)**
    - Note whether the microcredential is eligible for **HEAPS Workforce funding** (Yes/No).
9. **Credit vs. Non-Credit**
    - Indicate whether the microcredential is delivered for **Credit** or **Non-Credit**.
10. **Academic Year of Implementation**

Indicate the academic year when the microcredential was first offered and available for students to complete.

Additional Recommended Elements

11. **Instructional Modality**
    - Online, Hybrid, In-person.
12. **Credential Type**
    - Badge, Certificate, Industry Certification, etc. A microcredential may be associated with more than one category.
13. **Employer/Industry Alignment**
    - Indicate whether the credential was developed in collaboration with industry/employers and/or aligned to specific workforce needs.
14. **Licensure or Certification**
    - Identify any specific third-party issued licensure, certification, or industry recognized credential earned upon microcredential completion.

15. Credential Outcome

- Identify the specific learning outcomes, objectives, competencies, or skills students gain upon completion.

16. Delivery Timeline

- Estimated time to completion if enrolled or engaged full-time or the equivalent of full time (e.g., 8 weeks, 1 semester).

Microcredential Inventory Implementation Considerations

- Establish a **centralized database or registry** of microcredentials to ensure up-to-date and accessible information.
- Ensure practices are in place to maintain **data quality, accuracy, and timeliness**. Consider processes for deactivating or terminating a microcredential and ways to communicate the changes to WVHEPC/WVCTCS when a new microcredential is established or a current one is terminated.
- Potential future data elements to consider for inclusion in the microcredential inventory:
  - CIP-to-SOC crosswalk: a potential CIP-to-SOC code crosswalk offers a valuable opportunity to better understand the intended occupational pathways associated with each microcredential. By linking instructional programs (CIP codes) to corresponding occupations (SOC codes), institutions can identify the career fields that microcredentials are designed to support, assess alignment with workforce needs, and evaluate the potential employment outcomes for completers.
  - Licensure or Industry-Recognized Credential: Including third-party validation is especially important when a microcredential leads to an industry-recognized credential or licensure. Verification from an external accrediting body, certifying agency, or licensing authority ensures that the microcredential meets established industry standards and is valued by employers.

Student-Level Data Elements

As with the microcredential-level elements, student-level data elements are tiered—core (required) and optional—so institutions can build a reliable "minimum viable dataset" for reporting and accountability, while also enabling deeper analyses where capacity allows. The core tier captures the essentials needed to track participation and completion consistently across programs and institutions; the optional tier adds context that helps explain who learners are, how they engage, and which factors may correlate with success.

Core Data Elements (Required)

These fields ensure that institutions can uniquely identify and track students across systems and over time.

1. **Unique Student Identifier**
    - Internal system ID or SSN. Student unique identifier is related to tracking students within the same institution (learners completing multiple microcredentials/credentials), facilitating transfer/enrollment in other institutions or exploring student workforce outcomes after program completion.
2. **Demographics**
    - **Name**
    - **Date of Birth**
    - **Gender**
    - **Race/Ethnicity**
    - **Residency Status** (in-state, out-of-state, international)
3. **Enrollment Information**
    - Microcredential Title and CIP Code
    - Term and Year of Enrollment
    - Credit/Non-credit Designation
    - Credit Hours or Contact Hours

Supplemental/Optional Data Elements

Institutions may choose to collect these fields to better understand student needs, barriers, and outcomes.

1. **Educational Background**
    - Highest level of education attained prior to enrollment
    - Concurrent degree-seeking status (if enrolled in other programs)
2. **Employment & Workforce Context**
    - Employment status at enrollment (full-time, part-time, unemployed)
    - Industry or occupational field (if applicable)
    - Employer sponsorship or partnership involvement
3. **Socioeconomic Indicators**
    - Pell or other need-based aid eligibility (if credit-bearing)

- Household income bracket (self-reported, optional)
- First-generation college status

4. **Location/Accessibility**
    - Zip code or county of residence
    - Delivery mode (online, hybrid, in-person)
    - Campus/location of instruction

Outcome & Completion Data

To evaluate program effectiveness and return on investment, institutions should also track:

Completion Status

- Completed / Not Completed
- Date of completion

Credential Earned

- Digital badge, certificate, or other credential
- Verification (badging platform, transcript entry, etc.)

Post-completion Outcomes (where feasible)

- Employment changes (promotion, new job, increased wages)
- Continuing education (enrollment in degree or stackable credential)
- Industry-recognized certifications earned

Additional Considerations Relative to Data Collection

Privacy & Compliance

- Ensure compliance with FERPA and other applicable data privacy regulations.
- Clarify which fields are required vs. voluntary to avoid excluding learners.

Data Tracking System

Choosing where and how to house microcredential enrollment and completion records is a strategic decision that involves weighing each system's capabilities and trade-offs—not just what's convenient today. Institutions need to consider how completions will be verified and awarded; whether recognition appears on the academic transcript, as a digital badge, or both; the depth and flexibility of reporting; the ease and integrity of student application and enrollment; and the portability of learning (e.g., non-credit to credit, stacking, and transfer). Deliberate selections with well-designed integrations can minimize duplication, strengthen data quality and

compliance, and ensure that clear learning outcomes and credit equivalencies travel with the student. Taking time to evaluate these dimensions up front prevents rework later and supports learners, faculty, and employers with consistent, credible evidence of achievement.

These system considerations are explored below. This is not an exhaustive list as there may be additional considerations depending on the microcredential offerings at each campus.

Institutions may utilize a matrix to determine the strengths and limitations of their available systems.

Data Tracking Decision Matrix (could be modified)

Criterion	SIS (Banner)	LMS	Digital Badging Provider (e.g., Credly, Accredible)	Third-Party/ External System
Authoritative record for student identity				
Verification of microcredential completion and award				
Transcript notation support				
Digital badge system integration (if applicable)				
Reporting and reporting customization				
Ease of learner self-enroll				
Transfer and credit equivalency support				
Cost and resourcing				

Authoritative record for student identity - an authoritative record for student identity—one agreed-upon source for who the learner is. Without it, awards can be misattributed, duplicated, or lost across systems.

Importance

Ensures the right learner is verified, awarded, and—if needed—has a credential corrected or revoked with a defensible audit trail.

Allows different systems to sync as automatically as possible, reducing reconciliation work and automation failures (e.g., LMS completion → SIS award → badge issuance).

Links non-credit and credit records so learning can stack toward certificates/degrees and transfer across departments or institutions.

Recommended practices

Establish identity proofing and a documented merge/split policy for duplicate records.

Version and audit identity attributes (legal/preferred names, contact info) so transcripted recognitions and digital badges (if applicable) remain verifiable over time.

Verification of microcredential completion and award

Importance

A defensible verification step ensures the learner actually met defined outcomes, protecting the institution's reputation and employer confidence.

Clear, verified completions make it possible to transcript, badge, convert non-credit to credit, and articulate across departments or institutions.

Documented verification reduces fraud, supports FERPA and accreditation expectations, and provides an audit trail for funding or regulatory reviews.

Recommended practices

Define who verifies completion (faculty, program deans, registrar) and how (LMS rubric, exam, portfolio, external assessment).

Separate the different stages of microcredential awarding (e.g., eligible → verified → awarded → published (badge/transcript) with audit trails.

Automate triggers where possible to identify potential completers.

Allow controlled manual overrides with reason codes for auditability.

Consider institutional access to historical records long-term for legal, academic, and operational continuity; transcripts, audits, funding reports, and transfer/PLA decisions depend on verifiable past awards.

Transcript notation support

Importance

Receiving departments and other institutions rely on transcripts to make articulation, PLA, and equivalency decisions. Transcripted microcredentials move more easily across programs (e.g., non-credit → credit) and institutions.

Degree audit and advising systems can "see" transcripted achievements, enabling stackable pathways, prerequisite waivers, and milestone tracking toward certificates and degrees.

Badging platforms can change; transcripts persist. Notation ensures long-term verification even if a third-party system is retired.

Recommended practices

If the microcredential confers academic recognition or stackable credit, transcript notation is recommended.

Issue digital badges when you need employer-facing, verifiable metadata and evidence links.

Reporting and reporting customization

Recommended practices

Map internal/external use cases, document available standard reports, and define the scope for custom reporting.

Evaluate institutional staff expertise and proficiency with the system.

Consider opportunities to partner with peer users to exchange templates, code, and reporting approaches.

Ease of learner self-enroll

Recommended practices

Choose the registration path that best fits the population who is being served.

Easy entry shortens the path from interest → enrollment → completion → award, improving process and timeliness metrics.

A well-designed self-enroll flow ties each attempt to the authoritative student identity, preventing duplicates and enabling transcript/badge issuance and transfer/PLA decisions.

Review processes for student registration for credit/fee handling, prerequisites, identity proofing, and FERPA alignment.

Establish clear eligibility rules, automated confirmations, and easy re-entry for returning learners.

Transfer and credit equivalency support (within and across institutions)

Recommended practices

Publish clear learning outcomes mapped to frameworks/competencies.

Record credit equivalency (or contact hours) and assessment level to support PLA/articulation.

Maintain a course/credential equivalency table for internal transfers (non-credit → credit) and to share with partner institutions.

For external portability, ensure verifiable artifacts (e.g., badge verification URL) and registrar-validated documents when transcripted.

Cost and resourcing

Recommended practices

Estimate one-time implementation costs (procurement, integrations, data migration/clean-up, training) and recurring fees (licensing/subscription per user/learner/credential, hosting, support).

Budget for reporting needs. Distinguish built-in vs. custom reports. Consider additional cost for a vendor if customized reports need to be built.

Evaluate the institutional staffing resources to operate and maintain the system as well as monitor any data security issues. Additional training or additional staff may be required for effective implementation.