Aligning Certificates, Diplomas, Degrees, and Emerging Forms of Credentials: Macro, Micro, and Maintenance Credentials

Christopher M. Mullin, Ph.D.
Nondegree Credential Research Network
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Part 1. Introduction

Problem & Purpose

- How can we revise current data collection practice to align existing and emergent credentials with degrees?
- The purpose of this report, therefore, is to reimagine how certificates, diplomas, and emerging forms of credentials align with existing degree level structures.

Structure

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Credential: is a writ conferred by an entity that reflects the culmination of a learning experience under its direction.

writ noun



Synonyms of writ >

1 : something written: WRITING

Sacred Writ

2 a : a formal written document

specifically: a legal instrument in epistolary form issued under seal in the name of the English monarch

b: an order or mandatory process in writing issued in the name of the sovereign or of a court or judicial officer commanding the person to whom it is directed to perform or refrain from performing an act specified therein

writ of detinue
writ of entry
writ of execution

c: the power and authority of the issuer of such a written order → usually used with *run*

outside the United States where ... our writ does not run

Dean Acheson

Part 2. Postsecondary Credentials Collected by NCES

When and why were undergraduate and graduate certificates and other credentials included in the data collection efforts of NCES and its predecessor agencies?



2 to 4 years 1 to 2 years Less than 1 year 9 to 29 credits Less than 9 credits Post-Master's

Post-Baccalaureate First-Professional (Post Degree) For the present study, the term "Organized Occupational Curriculum" has adopted, defined in the questionnaire circulated to all institutions of higher education, as follows:

"Criteria. For purposes of this survey, an organized occupational curriculum is one which meets <u>all four</u> of the following criteria:

- "a. <u>High-school graduation</u> (or equivalent, including maturity) is required for admission to the curriculum.
- "b. The curriculum is designed to prepare students for <u>immediate employment</u> in an occupation or cluster of occupations, rather than for further, advanced study leading to a bachelor's or higher degree.
- "c. Completion of the curriculum requires at least 1 but less than 4 years of full-time (or equivalent) attendance. A 'year' means an academic year of approximately 9 months.
- "d. The curriculum leads to a certificate, diploma, associate degree, or other <u>formal</u> <u>award</u>, signifying that the students has completed an <u>organized</u> curriculum in an occupational area."

Each of these four factors is important. Some curriculums which were reported by institutions have been eliminated before summarization of the data because one or more of the four criteria were not satisfied, especially the fourth.

Part 3. Credentials Across Federal Entities

How do current definitions of certificates, degrees, and diplomas align with each other, within IPEDS, and across of other federal agency data collection efforts?



Credential	Federal Entity				
Credential	NCES	USDoL	NSF	Census	
Degree					
Doctoral – Research	IPEDS, B&B, AE			PSEO	
Doctoral - Professional Practice	IPEDS, B&B, AE			PSEO	
Doctoral – Other	IPEDS	O*NET			
First Professional		O*NET, ORS, CES	NTEWS	ACS, CPS, ASEC, SIPP	
Doctoral		/EP, ORS, CES	NTEWS, NSCG	ACS, CPS, ASEC, SIPP	
Master's	IPEDS, B&B, AE, ELS	EP, O*NET, ORS, CES	NTEWS, NSCG	ACS, CPS, ASEC, SIPP, PSEO	
Bachelor's or Advanced degree				J2J, QWI	
Bachelor's	IPEDS, B&B, AE, BPS, ELS, HSLS, NPSAS	EP, PIRL, ORS, CES	NTEWS, NSCG	ACS, CPS, ASEC, SIPP, PSEO	
Associate	IPEDS, B&B, AE, BPS, ELS, HSLS, NPSAS	EP, PIRL, O*NET, ORS, CES	NTEWS, NSCG	ACS, CPS, ASEC, SIPP, PSEO	
Associate - Vocational		ORS		CPS, ASEC	
Associate or Some College				J2J, QWI	
Certificate					
Post-Master's Certificate	IPEDS, B&B, AE, ELS	O*NET		PSEO	
Post-Baccalaureate Certificate	IPEDS, B&B, AE, ELS	O*NET		PSEO	
Undergraduate	B&B, BPS, ELS, HSLS, NPSAS				
Postsecondary nondegree award		OOH/EP			
Postsecondary		O*NET		ı	
Educational		ORS		SIPP	
Vocational			NTEWS		
Occupational		PIRL			
Certificate of 2–4 Years	IPEDS			PSEO	
Certificate of 1–2 Years	IPEDS			PSEO	
Certificate less than a year				PSEO	
Certificate of 9–29 credit hours	IPEDS				

Certificate up to 8 credit hours **IPEDS** Apprenticeship ΑE Certification ORS Professional B&B NTEWS, NSCG Occupational PIRL ORS License

CPS, ASEC, SIPP NTEWS, NSCG CPS ASEC SIPP State B&B B&B Industry NTEWS, NSCG **CPS ASEC SIPP** PIRL Occupational Diploma IPEDS Vocational ΑE NTEWS SIPP ΑE Technical

Part 4. Emergent Credentials

How are current definitions of certificates, degrees, diplomas, and emerging credentials reported on by non-governmental agencies?



			Report Publishers						
Credential		WorkCred	Credential Engine	National Student Clearinghouse	UNESCO	AACRAO			
Degree									
	Doctor – Research	X							
	Doctor - Professional Practice	X							
	Master's	X		X					
	Bachelor's	X		X					
	Associate	X		X					
	Title IV Degrees		X						
	Non-Title IV Degrees		X						
Certificate		X		X					
	Professional					Х			
	Graduate					Χ			
	Undergraduate					Χ			
	Contificate of Achievement	V							

i	Title IV Degrees		Λ		
	Non-Title IV Degrees		X		
Certificate		Χ		X	
	Professional				X
	Graduate				X
	Undergraduate				X
	Certificate of Achievement	Χ			
	Certificate of Participation	Χ			
i	Certificate of Completion	Χ			
i	Assessment-based Certificate	Χ			
i	Title IV Certificates		X		
	Non-Title IV Certificates		X		
	Course Completion Certificates		X		
i	Coding Bootcamp Course Completion Certificates		X		
	Online Course Completion Certificates		X		
Certification		Χ			
	Occupational		X		
License		X			
	Occupational		X		
Badge		Χ			
	Digital		X		X

	Assessment-based Certificate	X			
	Title IV Certificates		X		
	Non-Title IV Certificates		X		
	Course Completion Certificates		X		
	Coding Bootcamp Course Completion Certificates		X		
	Online Course Completion Certificates		X		
Certification		X			
	Occupational		X		
License		X			
	Occupational		X		
Badge		X			
	Digital		X		Χ
	Open				Χ
Credentials					
	Micro	X	X	Χ	Χ
	Macro			X	
Apprenticeships					
	Registered Apprenticeships		X		
	Unregistered Apprenticeships		X		

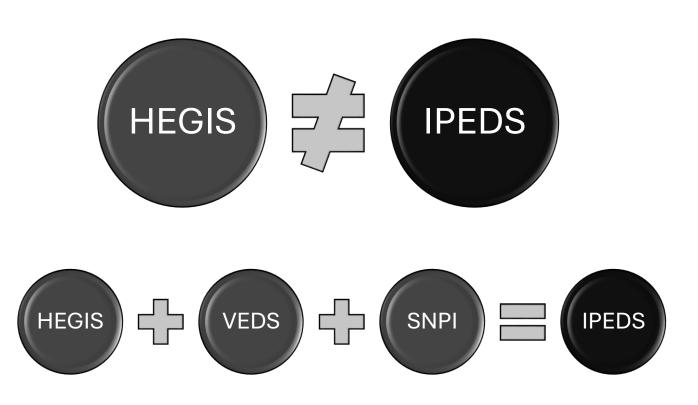
Part 5. Recommendations



Recommendations

Recommendation 1.

review to affirm that IPEDS is a data collection system for both Title IV and non-Title IV institutions.

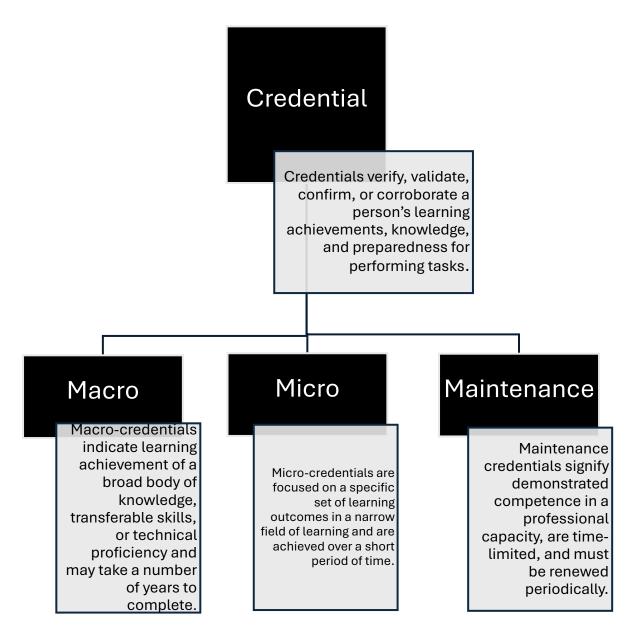




Recommendations

Recommendation 2.

organizational framework of credentials that includes the credentials IPEDS has collects and those it does not to allow for greater clarity to the public.



Name	Detailed Name	Definition
MACRO-CREDENTIALS		
Doctor's Degree	Doctor's Degree – Professional Practice Doctor's Degree – Research/Scholarship Doctor's Degree – Other	
Master's Degree	Master's Degree	
Graduate Certificate	Post-Master's Certificate Post-Bachelor's Certificate	*> 12 credit hours*> 12 credit hours
Bachelor's Degree	Bachelor's Degree	
Associate Degree	Associate Degree	
Undergraduate Certificate	Long-term Moderate-term Short-term	*13-29 credit hours/equiv.
MICRO-CREDENTIALS		
Skill-building Certificate	Skill Building Certificate	*4-12 credit hours/equiv.
Badge	Continuing Education Units (CEU) Course Completion Certificates Badges (Open & Digital)	*1 second to 3 credit hours/equiv.
MAINTENANCE CREDENTIALS		
License	Professional or Occupational License	Not collected in IPEDS
Certification	Professional or Occupational Certification	Not collected in IPEDS 15

Recommendations

Recommendation 3.

I recommend that NCES convene a cross statistical agency workgroup to share research and agree on common terminology for credentials.

Examples of Credential Names

- Certificates
 - Undergraduate, graduate, postsecondary, educational vocational, occupational, apprenticeship
- Certifications
 - Professional
 - Occupational (Labor only)
- License
 - State
 - Industry
 - Occupational (Labor only)
- Diploma
 - Vocational
 - Technical (Adult Education only)



Recommendations

Recommendation 4.

Program Characteristics Survey to complement the current Institutional Characteristics Survey of IPEDS.

Example of certificate titles that speak to how it was earned:

- of Achievement
- of Participation
- of Completion
- Assessment-based Certificate
- Title IV
- Non-Title IV
- Course Completion
- Coding Bootcamp Course Completion
- Online Course Completion

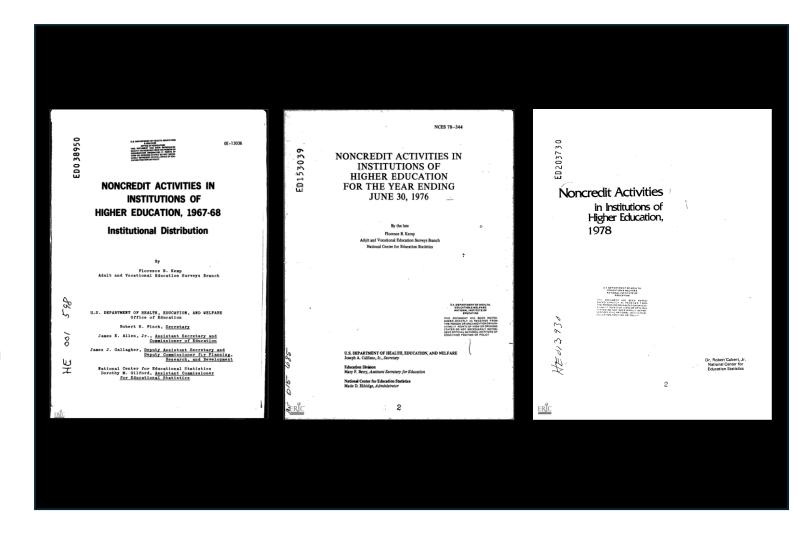


Academic Level	CIP Code	Credentials	Program of Study	Program Type	Program Duration in Weeks	Program Duration in Years	Program Minimum Coursework Credit Hours	Program Minimum Coursework Clock Hours
Undergraduate	52.0302 - Accounting Technology/Technician and Bookkeeping.	A.A.S Associate in Applied Science	A.A.S. Degree - Accounting Technology	Program	0	2	60	0
Undergraduate	15.0803 - Automotive Engineering Technology/Technician.	A.A.S Associate in Applied Science	A.A.S. Degree - Automotive Service Management Technology	Program	0	2	60	0
Undergraduate	15.1001 - Construction Engineering Technology/Technician.	A.A.S Associate in Applied Science	A.A.S. Degree - Building Construction Technology	Program	0	2	60	0
Undergraduate	52.0201 - Business Administration and Management, General.	A.A.S Associate in Applied Science	A.A.S. Degree - Business Administration	Program	0	2	60	0
Undergraduate	52.0201 - Business Administration and Management, General.	A.A.S Associate in Applied Science	A.A.S. Degree - Business Administration - Business Microcomputer Systems	Program	0	2	64	0
Undergraduate	52.0201 - Business Administration and Management, General.	A.A.S Associate in Applied Science	A.A.S. Degree - Business Administration - Customer Service	Program	0	2	64	0
Undergraduate	52.0302 - Accounting Technology/Technician and Bookkeeping.	T.C Technical Certificate	Technical Certificate - Accounting Technology Management	Technical Certificate	0	1	27	0
Undergraduate	52.0302 - Accounting Technology/Technician and Bookkeeping.	T.C Technical Certificate	Technical Certificate - Accounting Technology Operations	Technical Certificate	0	1	18	0
Undergraduate	52.0302 - Accounting Technology/Technician and Bookkeeping.	T.C Technical Certificate	Technical Certificate - Accounting Technology Specialist	Technical Certificate	0	1	12	0
Undergraduate	15.1302 - CAD/CADD Drafting and/or Design Technology/Technician.	T.C Technical Certificate	Technical Certificate - AutoCAD Foundations	Technical Certificate	16	0	15	0
Undergraduate	15.0303 - Electrical, Electronic, and Communications Engineering Technology/Technician.	T.C Technical Certificate	Technical Certificate - Basic Electronics Technician	Technical Certificate	0	1	14	0

Recommendations

Recommendation 5.

I recommend NCES replicate its
1977/78 survey measuring noncredit
activity to understand how noncredit
has changed over time while adding a
few questions relevant to current
practice and new knowledge.

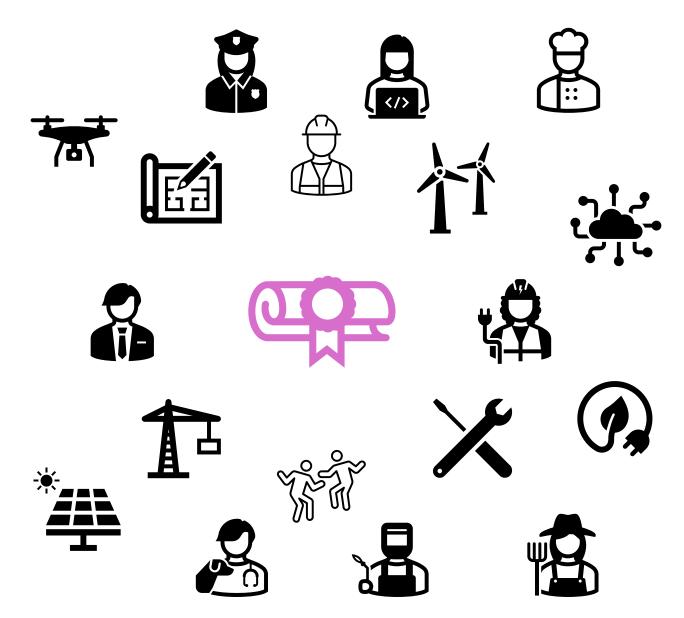




Recommendations

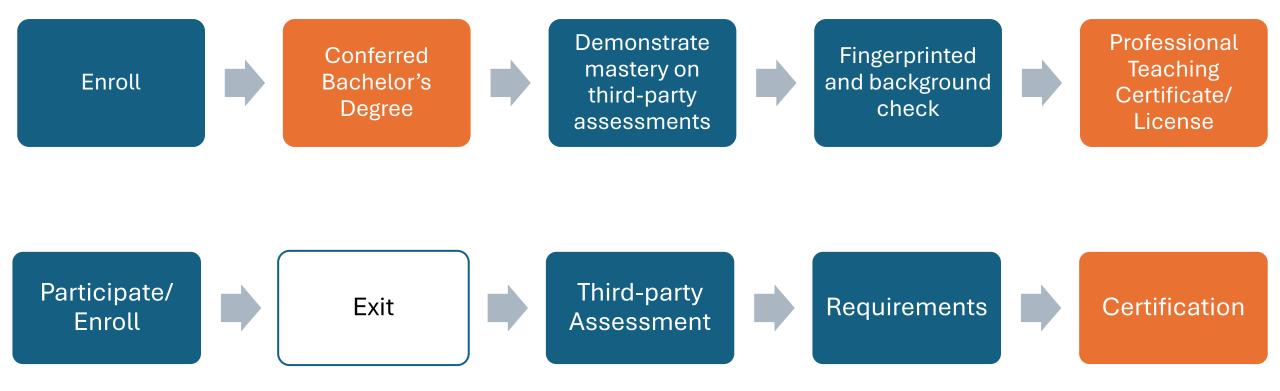
Recommendation 6.

I recommend NCES play a consultative role to federal governmental agencies and departments funding apprenticeships, workforce training, and career and technical education (CTE) when they revisit their performance metrics to ensure providers confer a credential upon completion.





"Leads to" (for illustrative purposes only)



Conclusion

If accomplished, and adopted, the collective enterprise can move toward a common vocabulary that supports learner ambitions, employer needs, and collaboration across entities conferring each credential so that each credential becomes interoperable, transferrable, and additive rather than disjointed.



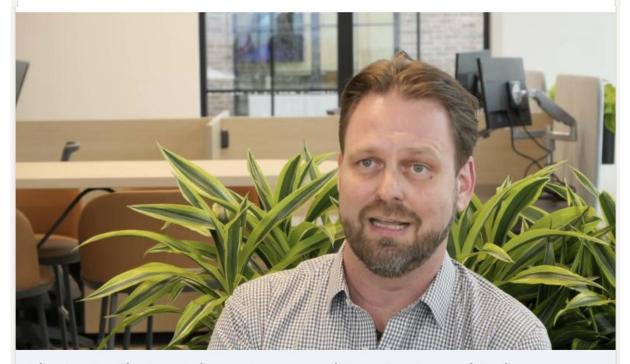
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Lumina's Christopher M. Mullin spent months digging into the history of credentialing in this country — and emerged with six recommendations to reduce the chaos.



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