

OCTOBER 2017



**Certification
Data
Exchange
Project**

**Connecting Industry-recognized
Certification Data to Education
and Workforce Outcomes:
Measuring the Value Added to
Skills, Employment and Wages**

*Challenges, Lessons Learned and
Recommendations from the
Certification Data Exchange Project*



National and state leaders are invested in increasing the percentage of the workforce with not only postsecondary degrees and certificates, but also industry and professional licenses and certifications, as part of efforts to build a skilled workforce. In addition, federal legislation such as the Carl D. Perkins Career and Technical Education (CTE) Act of 2006 (Perkins IV) and the Workforce Innovation and Opportunity Act (WIOA) measures student attainment of a variety of industry-recognized credentials.

The growing recognition of non-educational awards such as industry certifications offers students and workers new avenues to demonstrate their skills to employers, but also raises questions as to the quality and value of these credentials—questions that are difficult to answer because of issues with accessing data from third-party certification providers.

To address these data challenges and learn more about the impact of certification attainment on student outcomes, the Certification Data Exchange Project (CDEP) was engaged for the past five years in developing and testing data sharing between state education and workforce data systems and industry certifiers.

Project participants used a five-step process that can inform others doing similar work:

1. Establish the data-sharing agreement
2. Estimate bandwidth and allocate resources
3. Facilitate the transfer of data
4. Perform the analysis
5. Present results using common templates

As CDEP comes to a close, this report will describe the project's goals, share results and use these five steps to discuss lessons learned and provide recommendations for future data-sharing and data-matching efforts.

The Need for Industry Certification Data

The growing prevalence of industry certifications challenges education and job training programs to access data on students obtaining certifications and their employment and earnings outcomes. Benefits to obtaining this data include greater knowledge about students and alumni; enhanced data comparability across states; improvement to programs, notably better integration of industry standards into the curriculum; and reporting certifications for accountability purposes.

States are developing integrated data and reporting systems to track progress on student credential attainment and employment and earnings outcomes, often with federal support through Workforce Data Quality Initiative grants and State Longitudinal Data Systems grants. However, most of these state systems have yet to build comprehensive and sustainable data linkages with third-party industry certification organizations, which maintain

their own data systems. Without access to this data from the certification bodies, education and workforce development programs and agencies must rely on self-reporting about certifications from students, alumni and teachers, which is cumbersome and less accurate.

In addition, certification providers lose out on knowledge about their consumers, including the academic credentials that they also earn and how they benefit from their industry credentials, and about education and training providers that are incorporating industry certifications into their programs.

Industry Certification Reporting for Perkins and WIOA

On the federal level, data about industry-recognized certifications is particularly relevant to Perkins IV. However, states' difficulty in collecting industry certification data impacts their ability to accurately report these measures.

Secondary and postsecondary Perkins indicators measure “the number of CTE concentrators who passed technical skill assessments (TSA) that are aligned with industry-recognized standards, if available and appropriate.”¹ States measure technical skill attainment in a multitude of ways, including through industry certification exams, which are considered effective assessments because of their alignment with industry standards. Other Perkins indicators measure secondary and postsecondary completion and credential attainment. Industry certifications can be included in those counts, along with academic credentials.

Similarly, WIOA measures attainment of a “recognized postsecondary credential,” defined as a “credential consisting of an industry-recognized certificate or certification, a certificate of completion of an apprenticeship, a license recognized by the State involved or Federal Government, or an associate or baccalaureate degree.”²

CompTIA-Illinois Pilot

Aware of these challenges and of the potential for data sharing between states and certifiers, in 2012, the IT industry association CompTIA partnered on a pilot with the Illinois Community College Board. Illinois compared CompTIA data on Illinois exam-takers with community college student records, using the three data elements that CompTIA made available at the time: first name, last name and zip code (CompTIA has since begun collecting month and year of birth). Then, records were compared with unemployment insurance (UI) wage information from the Illinois Department of Employment Security to determine employment and earnings outcomes.

The resulting dataset provided demographic information on student test-takers and showed positive employment and earnings



outcomes for Illinois community college students who earned CompTIA certifications, relative to those who took exams but did not earn certifications.

Creation of CDEP

Upon learning about the Illinois-CompTIA pilot, the U.S. Department of Education Office of Career, Technical and Adult Education (OCTAE) expressed interest in further test cases, with an eye toward a sustainable solution for sharing data between third-party industry certifiers and state education and workforce data systems.

ACTE took the reins to coordinate a larger project replicating the pilot matching process with additional states and certifiers, named the Certification Data Exchange Project. In addition to replicating the data exchange, CDEP's leadership team created a roadmap to align the project with other efforts on the importance of industry-recognized credentials. The roadmap called for raising awareness and consensus on the need for industry certification data, developing standards and guidelines on data sharing and envisioning a national clearinghouse for industry certification data exchange.

Since 2012, representatives from various state CTE and community college agencies as well as state education and longitudinal data systems have established data-sharing agreements with CompTIA, exchanged data files and conducted analyses. In fall 2014, OCTAE's Division of Adult and Technical Education began supporting the activities of a consortium of CDEP participants through the customized technical assistance (TA) to states program. The original group of states applying for TA included California, Florida, Illinois, Iowa, North Carolina and Oklahoma. In the second year, Kentucky joined the consortium, while Oklahoma left due to other commitments, and Florida's participation stalled owing to a change in personnel.

Two states also matched state data with exam records from additional industry certification organizations: Illinois with the Manufacturing Skill Standards Council and California with ACT, provider of the National Career Readiness Certificate.

CDEP Results

Since the creation of CDEP, California, Florida, Illinois, Iowa, Kentucky, North Carolina and Oklahoma together received more than 89,000 duplicated exam records from CompTIA. Each state received only information for exams taken in that state. Most states matched records with their postsecondary systems, with the exception of Oklahoma, which matched with its CareerTech system, which includes high school and adult students.

In addition, Illinois received 4,444 duplicated records from the Manufacturing Skill Standards Council and California and ACT shared more than 1 million records.

States reported back to the group on the gender, age, race/ethnicity and special populations status (as defined in Perkins IV) of certified individuals and those who took certification exams but did not earn credentials.

In addition to this valuable demographic information, states investigated such topics as timing of certification attainment, program of study of the certified individual, credit hours and academic credentials also earned, and certification numbers by institution. For instance, Illinois looked at the academic credentials earned by CompTIA exam-takers, both those who gained certification and those who did not:

Degree Codes	Not Certified	Certified	Total
Associate in Arts (AA)	7	25	32
Associate in Science (AS)	6	36	42
Associate in Applied Science (AAS)	58	254	312
General Associate Degree (AGS, ALS, AGE)	4	5	9
Associate in Arts and Science (A&S)	-	2	2
Basic Skills	3	7	10
Occupational Certificate of 30 Semester (or 45 Quarter) Hours or More	1	41	42
Occupational Certificate of Less Than 30 Semester (or 45 Quarter) Hours	152	438	590
Associate in Engineering Science (AES)	2	-	2
Total	233	808	1041

Table 1: Academic credentials attained by CompTIA test-takers in the Illinois community college system who earned and did not earn certification(s). Source: Illinois Community College Board.

In Illinois, individuals earning CompTIA certifications and those who took a CompTIA exam but did not pass were more likely to earn a shorter-term occupational certificate than any other academic credential in FY2010-2014. The next most commonly earned academic credential was an Associate of Applied Science degree.

Our previous publication, *Certification Data Exchange Project: Measuring the Impact of Industry Credentials*, features median employment and wage data generated by each state in the earlier phases of the project. In addition to median employment and earnings, states explored additional attributes of this data, such as employment and wages over time as well as by industry. For



example, Iowa analyzed changes in employment and earnings by industry for CompTIA-certified current and former students:

Industry Sector	Year Before Certification		Year After Certification	
	# Matched Emp.	Adj. Median Wage (to 2015Q1)	# Matched Emp.	Adj. Median Wage (to 2015Q1)
Educational Services	11	\$38,757	20	\$30,064
Retail Trade	15	\$11,962	12	\$13,587
Professional, Scientific & Technical Services	3	\$9,312	8	\$33,866
Health Care & Social Assistance	7	\$10,526	7	\$44,712
Manufacturing	9	\$33,726	7	\$38,843
Accommodation & Food Services	15	\$6,767	5	\$4,344
Administrative & Support Services	*****	*****	5	\$18,864
Construction	*****	*****	4	\$5,845
Public Administration	7	\$5,012	4	\$30,419
Wholesale Trade	0	-	4	\$1,403
Arts, Entertainment & Recreation	*****	*****	3	\$37,024
Finance & Insurance	*****	*****	3	\$33,679
Information	4	\$6,809	3	\$10,957
Other Services	6	\$12,919	3	\$16,141
Utilities	0	-	3	\$13,892
Unknown	*****	*****	0	-
Management of Companies & Enterprises	*****	*****	*****	*****
Transportation & Warehousing	3	\$7,670	*****	*****

***** Insufficient data (less than 3)

Table 2: Employment and adjusted median wage of CompTIA-certified individuals in the Iowa community college system one year before and one year after certification, by industry sector. Source: Iowa Department of Education.

While the dataset is small, it demonstrates that more people with CompTIA credentials were employed one year after certification in the industries of Educational Services and Professional, Scientific

and Technical Services, which have higher median earnings, while fewer certified individuals were employed in Accommodation and Food Services, which has a lower adjusted median wage.

California looked at wage changes from one year before CompTIA certification to one year after, disaggregated by certification type:

CompTIA Certification	Average Wage 1 Year Before	2012	Average Wage 1 Year After	Change (%)
A+	\$13,645.09	314	\$19,216.85	40.8%
Network+	\$19,662.23	106	\$28,933.18	47.2%
Project+	\$21,595.66	44	\$33,378.91	54.6%
Security+	\$18,681.21	67	\$23,626.61	26.5%
Total	\$16,140.50	531	\$22,886.37	41.8%

Table 3: Average wage of CompTIA-certified individuals in the California community college system one year before and one year after certification, by CompTIA certification type. Source: California Community Colleges Chancellor's Office.

For each of four types of CompTIA certifications, average wages were substantially higher one year after the certification than one year prior. The average earnings increase across all these certifications was nearly 42 percent.

One of the most significant uses of industry certification data is that it allows investigation of the relationship between industry credentials, academic credentials and wages. Illinois, using CompTIA data, looked at post-award earnings for individuals with a certification only, those with a certification and an Illinois Community College Board (ICCB) credential, and individuals with neither.

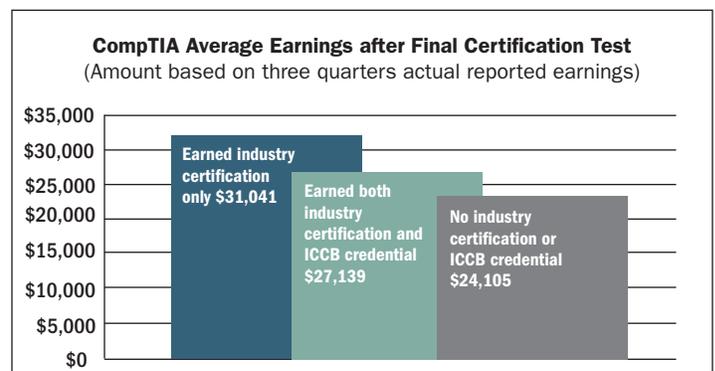


Chart 1: Average earnings of CompTIA test-takers in the Illinois community college system with earnings of at least \$2,970 during the quarter the test was taken and two and four quarters later, by credentials earned. Source: Illinois Community College Board.



Illinois community college students and former students with a CompTIA certification had higher average earnings after certification (including the quarter that the exam was taken, two quarters later and four quarters later) than those with both a certification and an academic credential. Both groups had higher earnings than individuals with neither credential. In this chart, unlike other tables in this report and in our prior publication, Illinois attempted to control for part-time and partial employment during a quarter by creating a threshold wage level. The \$2,970 threshold is calculated based on minimum wage in Illinois (\$8.25 per hour).

Limitations

Replicating this process demonstrated the value of this data as well as limitations that impact reliability and validity.

Numerous factors affected match rates, or the ability to identify the same individual across datasets with a high level of confidence. In North Carolina, analysts were unable to find many of the CompTIA test-takers in their for-credit student database. Another challenge occurred in California, where the large population made it difficult to ensure that the correct person had been identified using first name, last name and zip code, the elements that CompTIA provided earlier in the project (in 2016, CompTIA started collecting month and date of birth).

In addition to issues with the match rate, earnings data was not comparable across states. This was owing to variations in wage reporting as well as cost-of-living differences that were not taken into account.

Finally, disaggregating the data for analysis resulted in some very small datasets, limiting the conclusions that could be drawn.

Lessons Learned and Recommendations

Within the five-step process outlined earlier, participating states and certifiers addressed and often overcame challenges. These challenges and lessons learned are outlined below, along with recommendations for a state or group of states planning a similar data-sharing initiative.

1. Establish the data-sharing agreement

The project ran into early challenges developing a data-sharing agreement that met the needs of states and certifiers. CompTIA sought clarification from the U.S. Department of Education Office of Privacy, which stated that the Family Educational Rights and Privacy Act does not apply to third-party certification organizations sending student-level data to state agencies or public institutions. With this in mind, CompTIA designed a one-page data-sharing agreement, which participants have been able to sign in a timely manner and which has served as a template for other certifiers in the project.

In addition, some state representatives needed to inform and persuade state education leaders and their legal colleagues about the benefits of obtaining this data, in order to move the data-sharing agreement forward.

To successfully execute data-sharing agreements, CDEP participants recommend:

- Introducing the data-sharing process and its benefits early to relevant stakeholders, taking into consideration agency governance structures as well as privacy and security laws and regulations.
- Using CDEP's data-sharing agreement template (Appendix A) as the basis for data sharing between states and third-party certification organizations, with any edits recommended by the state's legal team.

2. Estimate bandwidth and allocate resources

Project participants were challenged to find time and resources to perform the data matching and analysis, as the project was a discretionary activity. Personnel and resources became a sticking point for states, creating delays and resulting in two states suspending their participation.

Also, for some states, accessing workforce data came at a cost, both financially as well as in time spent developing or updating data-sharing agreements between agencies.

To ensure that time and resources are available for this work, CDEP participants recommend:

- Identifying a team to perform the data exchange and analysis, and allocating time—about 30-40 hours, based on the experiences of CDEP states—and resources to the work.
- If not already available, putting in place data-sharing agreements between state education and workforce data agencies.
- Turning to CDEP materials, such as this report and appendices and other materials on our website, and to experienced CDEP states for guidance.

3. Facilitate the transfer of data

Participating states already had in place file transfer protocols for sharing data within and among state institutions and agencies. After the data-sharing agreement was signed, states used these protocols to access files from the industry certification bodies.

To facilitate data transfer, CDEP participants recommend:

- Using existing file transfer protocols to exchange data in ways that ensure privacy and security.

4. Perform the analysis

States had limited variables available for creating quality matches, so extra care was taken to guard against false positives.

Analysts incorporated additional elements from their databases,



such as email addresses, to further facilitate identifying individuals across datasets.

Through the matching process, some states learned of the extent to which certifications were being awarded through their non-credit programs, for which data was often lacking. This was part of the very low match rate in North Carolina, which spurred innovation in the state, adding justification to a push for a modified data system that will allow access to continuing education data in the same manner as for-credit student or degree data. Lessons learned from CDEP also impacted the North Carolina Community College System's design for its next Enterprise Resource Planning system.

To assist with the analysis, CDEP participants recommend:

- Standardizing a data dictionary based on available elements.
- Using as many identifiers in the match as possible and consistent with certification organizations' liability under U.S. and international law, such as date of birth and gender, to raise the degree of confidence and reduce the amount of staff and time needed for identity matching.
- Including for-credit and non-credit data in the matching process, with disaggregation to show the relationship between the type of credit earned and industry certification attainment.

5. Present results using common templates

Participating states collaborated to develop common templates for presenting the results, which included categories used in Perkins accountability reporting.

However, each state had different formats for key data, such as wage records, and needs that went beyond Perkins accountability requirements. Time constraints meant that it was easier and quicker for states to use their own protocols when completing the match. This resulted in the presentation of results varying across states. However, the templates were helpful in guiding the analysis and discussion of outcomes.

To best present results, CDEP participants recommend:

- Using CDEP's standardized templates (Appendix B) as a basis for developing a state's own reporting templates.
- Providing instructions with the templates in order to gain uniformity in reporting.

The Need for a Data Clearinghouse

Through these challenges and lessons learned, CDEP participants have concluded that, while the project has demonstrated the added value of industry certification data, the bottlenecks identified here would be unsustainable when scaled to include all states and potentially thousands of certification bodies.

One way to immediately address this sustainability issue would be to create a national clearinghouse of industry

certification data connected to education and employment information. This clearinghouse would ideally match data for states, institutions, industry certification organizations and other stakeholders with standardized processes as well as standardized data-sharing agreements and reports. States and others would be able to request customized reports and/or securely access matched data in order to do additional analysis to meet their goals.

CDEP Outcomes

Among national projects addressing industry certification data, CDEP was distinguished by its focus on replicating and refining procedures and protocols for data matching at the state level. CDEP has been uniquely engaged with the nuts and bolts of matching education and workforce data with industry certification data.

However, the project has also pursued larger aims and achieved objectives in line with the four-step roadmap outlined earlier.

Step 1: Raise awareness and gain consensus on need

CDEP has engaged states, industry certifiers and other stakeholders in national organizations and the federal government on the need for data sharing between industry certification bodies and state education and workforce data systems. The project has developed relationships with the Georgetown Center on Education and the Workforce, Lumina Foundation, National Association of Manufacturers (NAM), National Student Clearinghouse (NSC), U.S. Census Bureau, Workforce Data Quality Campaign, Western Interstate Commission for Higher Education and Workforce Credentials Coalition, among others. The project has also shared its work through conferences, meetings, online seminars and publications.

Step 2: Develop use cases and conduct pilot projects

CDEP has replicated the original CompTIA-Illinois pilot model with six additional states and two additional certifiers. During these pilots, participants focused on the five-step process identified earlier and succeeded in reporting a variety of findings, including demographics, employment and income, academic awards also earned, certifications awarded by institution and more.

Step 3: Develop standards and guidelines on data sharing

CDEP has developed data-sharing protocols so that this kind of matching will be easier in the future. This includes the one-page data-sharing agreement template established by CompTIA, which has been a model for other certifiers in the project (Appendix A), as well as a list of preferred variables for performing the match—first name, last name, zip code, gender, and month and year of birth—and uniform reporting templates (Appendix B).



Step 4: Establish a national data exchange clearinghouse

CDEP participants determined that a clearinghouse for industry certification data was necessary to sustainably address data-matching challenges, as described earlier, and explored potential clearinghouse formats. However, CDEP did not take on this task, as NAM was already beginning to develop a national, public-private infrastructure for industry certification, education and workforce data, with matching carried out by the NSC and the U.S. Census Bureau. A consortium of states, including former CDEP participants, will be advising NAM during its pilot testing, building off lessons learned from CDEP to establish protocols for how states will access, report and analyze the matched data.

Supportive State and Federal Policy

In addition to projects such as CDEP and related initiatives, state and federal policy can play a role in improving access to industry certification data in the following ways.

Counting industry certifications in state accountability systems

States are starting to count industry certification attainment in their accountability systems, through such means as state report cards and state performance-based funding for postsecondary institutions, as a way to recognize the value of these credentials. Oklahoma counts industry-recognized certifications for the “postsecondary opportunity” indicator in its accountability and assessment framework, along with Advanced Placement, dual-credit classes and more.³ Ohio is adding industry-recognized credentials to the Post-Program Outcomes module of its Career-Technical Planning District Report Card.⁴ And Louisiana, Missouri and North Carolina use industry certification attainment in their calculations for performance-based funding.⁵

Incorporating and incentivizing industry certifications

As noted earlier, Perkins IV has secondary and postsecondary measures for students’ technical skill attainment, which can be demonstrated through performance on industry-recognized certification exams. Florida is among the states that are increasingly using third-party assessments, particularly industry certification exams, for all CTE programs of study through the state-developed Perkins IV Technical Skill Attainment Inventory.⁶ In addition to their usefulness for assessment, industry certifications integrated into programs of study help better align education programs to industry standards. Several states, including Florida as well as Kansas and Wisconsin, are recognizing the value of industry certifications by rewarding schools and teachers when students earn industry certifications.⁷

Disaggregating by credential type for Perkins and WIOA measures

Local and state Perkins and WIOA recipients must demonstrate that students have obtained one of a variety of eligible credentials, including industry-recognized certifications. However, neither

law requires that this data be disaggregated by type of credential, and states vary on whether they report industry certification attainment, in large part because of the challenges outlined in this paper. In 2016, 62,827 industry credentials were reported by all states for Perkins measure 2P1, postsecondary credentials earned, for the Perkins Consolidated Annual Report, with one state reporting less than 10 industry credentials awarded and 23 states reporting no industry credentials awarded.⁸ It is likely that a large number of certifications earned by students and those recently exiting an education program are not included in these counts.

Conclusion

CDEP has provided a valuable proof of concept of how industry certification bodies and state agencies can share and match data to uncover a trove of information about certified individuals. By engaging granularly with the data, this project has developed processes and templates that can inform others doing similar work. CDEP is ending, but the information shared in this report can pave the way for future efforts to leverage industry certification data to the benefit of individuals, education and training programs, certifiers and employers.

Find additional project resources at
www.acteonline.org/certification_data.

ENDNOTES

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7. ExcelinEd. (2015, September 12). *It's Time Your State Wins Too*. Retrieved from <http://www.excelined.org/news/its-time-your-state-wins-too>
8. Haigh, J. (2017, March 24). Email correspondence.

The Certification Data Exchange Project thanks the many people who volunteered their time to support this work.

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The work reported herein was supported under the Improving Program Performance Technical Assistance to States project, Contract Number (ED-VAE-11-0-023) as administered by the Office of Career, Technical, and Adult Education, U.S. Department of Education. However, the contents do not necessarily represent the positions or policies of the Office of Career, Technical, and Adult Education or the U.S. Department of Education and you should not assume endorsement by the Federal Government.

CERTIFICATION ORGANIZATIONS

- ACT
- CompTIA
- Manufacturing Skill Standards Council



DATA SHARING AGREEMENT

This Data Sharing Agreement (the “**Agreement**”) is made and effective as of the date of last signature below, by and between (“**Certifying Organization**”) and the state organization set forth in the signature block below (the “**Organization**”). “**Certifying Organization**” administers certification examinations and the **Organization** desires to have results of certain certification examinations and related data or information (collectively, the “**Data**”) shared with the **Organization**. Prior to and as a condition of “**Certifying Organization**” disclosing the **Data**, “**Certifying Organization**” requires that the **Organization** agree to the terms and conditions set forth in this Agreement.

Accordingly, in consideration of the foregoing and the mutual promises contained herein, the parties agree as follows:

- 1. Representations and Warranties.** The **Organization** represents and warrants that: (1) “**Certifying Organization’s**” disclosure of the **Data** to the **Organization** does not violate any applicable law, regulation or other stipulation of any authorized agency or governmental authority and the **Organization** is authorized to receive such **Data**; and (2) this Agreement and the **Organization’s** performance hereunder is duly authorized by the **Organization** and this Agreement is valid, binding and enforceable against the **Organization**.
- 2. Use of Data.** The **Organization** agrees to use the **Data** solely for performance tracking and research purposes, and the **Organization** represents and warrants that it shall not use the **Data** for any purposes that are inconsistent with foregoing, including but not limited to, using the **Data** for sales or marketing purposes. “**Certifying Organization**” will only share the **Data** of those individuals who permit “**Certifying Organization**” to share their **Data** with the **Organization** for the purposes of performance tracking and research. Further, the **Organization** agrees that within ten (10) days of “**Certifying Organization’s**” request, the **Organization** will provide to “**Certifying Organization**” a report detailing all research and analysis that the **Organization** developed from the **Data**.
- 3. Data Provided “As Is”.** The **Organization** understands and agrees that the **Data** is being provided to it on an “as is” basis, and that “**Certifying Organization**” makes no warranties or representations of any kind, whether express, implied, or statutory regarding the **Data**, including but not limited to, the accuracy, correctness, and completeness of the **Data**.
- 4. Confidentiality.** The **Organization** agrees and acknowledges that it will keep and protect the **Data** as confidential information and shall protect it with the same degree of care that the **Organization** protects its own confidential information, but no less than a reasonable standard of care. Upon request by “**Certifying Organization**”, the **Organization** agrees that it will destroy immediately all **Data**, including all notes, data, documents, records, copies and other embodiments of any **Data**. The **Organization** agrees that it will not disclose, either directly or indirectly, the **Data** to any third party unless such disclosure is agreed to in writing by “**Certifying Organization**”.
- 5. Ownership of Data.** The parties recognize that “**Certifying Organization**” shall retain all ownership rights to the **Data**, and nothing in this Agreement should be interpreted as transferring any ownership rights in the **Data** to the **Organization**.
- 6. No Requirement to Disclose.** Nothing in this Agreement shall be interpreted to require “**Certifying Organization**” to disclose any **Data** to the **Organization**. Without limiting the foregoing, the parties further agree that if any claims are made or threatened against “**Certifying Organization**” with respect to the disclosure of the **Data** to the **Organization** or if “**Certifying Organization**” believes that the enforceability of this Agreement is in question or if laws or regulations are enacted which affect the subject matter of this Agreement, “**Certifying Organization**” may immediately suspend or cease the provision of **Data** to the **Organization**.

AGREE TO:

Certifying Organization

(State Organization)

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Appendix B:
Certification Data Exchange Project
Reporting Templates



These reporting templates were developed in the early stages of CDEP, and reflect the CompTIA datasets that states were using at that time. States and other entities conducting data matching should adapt these templates to their needs.

CompTIA Overall Certification Results
 Gender of Certified and Not Certified Tested Students

	Not Certified	Certified
Male		
Female		
Not Reported		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Race/Ethnicity of Certified and Not Certified Tested Students

	Not Certified	Certified
American Indian or Alaskan Native		
Asian		
Black or African American		
Hispanic/Latino		
Native Hawaiian or Other Pacific Islander		
White		
Two or More Races		
Not Reported		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Disability Status of Certified and Not Certified Tested Students

	Not Certified	Certified
Disability		
No Disability		
Not Reported		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

To access an Excel version of these tables, visit www.acteonline.org/certification_data.

Appendix B:
Certification Data Exchange Project
Reporting Templates



CompTIA Overall Certification Results
 Disadvantaged Status of Certified and Not Certified Tested Students

	Not Certified	Certified
Economically Disadvantaged		
Academically Disadvantaged		
Not Disadvantaged		
Not Reported		

Economically Disadvantaged (e.g., Pell Grant recipient\need-based financial aid recipient)
 Academically Disadvantaged developmental education participant

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Single Parent Status of Certified and Not Certified Tested Students

	Not Certified	Certified
Single Parent		
Not a Single Parent		
Not Reported		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Limited English Proficient Status of Certified and Not Certified Tested Students

	Not Certified	Certified
Limited English Proficient		
Not Limited English Proficient		
Not Reported		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Age Range of Certified and Not Certified Tested Students

	Not Certified	Certified
0-16		
17-20		
21-24		
25-30		
31-39		
40-55		
56-99		
Not Reported		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

To access an Excel version of these tables, visit www.acteonline.org/certification_data.

Appendix B:
Certification Data Exchange Project
Reporting Templates



CompTIA Overall Certification Results
 Top Two-Digit CIP Codes of Certified and Not Certified Tested Students

	Not Certified	Certified
11		
14		
15		
24		
30		
32		
37		
43		
47		
51		
52		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Top Four-Digit CIP Codes of Certified and Not Certified Tested Students

	Not Certified	Certified
1101		
1102		
1104		
1109		
1110		
1401		
1599		
2401		
3001		
3201		
3701		
4701		
5299		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Top Six-Digit CIP Codes of Certified and Not Certified Tested Students

	Not Certified	Certified
110103		
110201		
110901		
159999		
240101		
240102		
240104		
300101		
320140		
470104		
529999		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

To access an Excel version of these tables, visit www.acteonline.org/certification_data.

Appendix B:
Certification Data Exchange Project
Reporting Templates



CompTIA Overall Certification Results
 Exam Quarter Employment of Certified and Not Certified Tested Students

	Not Certified	Certified
Exam Quarter Employed		
Exam Quarter Not Employed		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Exam Quarter Median Earnings of Certified and Not Certified Tested Students

	Not Certified			Certified		
	Number Employed	Percent Employed	Median Earnings in Exam Quarter	Number Employed	Percent Employed	Median Earnings in Exam Quarter
State Total						
Minimum						
Maximum						
Median						
Mean						

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Exam Quarter Average Earnings of Certified and Not Certified Tested Students

	Not Certified			Certified		
	Number Employed	Percent Employed	Average Earnings in Exam Quarter	Number Employed	Percent Employed	Average Earnings in Exam Quarter
State Total						
Minimum						
Maximum						
Median						
Mean						

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

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Appendix B:
Certification Data Exchange Project
Reporting Templates



CompTIA Overall Certification Results
 Third Post-program Quarter Employment of Certified and Not Certified Tested Students

	Not Certified	Certified
3rd Post-program Quarter Employed		
3rd Post-program Quarter Not Employed		

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Third Post-program Quarter Median Earnings of Certified and Not Certified Tested Students

	Not Certified			Certified		
	Number Employed	Percent Employed	Median Earnings in 3rd Post-program Quarter	Number Employed	Percent Employed	Median Earnings in 3rd Post-program Quarter
State Total						
Minimum						
Maximum						
Median						
Mean						

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

CompTIA Overall Certification Results
 Third Post-program Quarter Average Earnings of Certified and Not Certified Tested Students

	Not Certified			Certified		
	Number Employed	Percent Employed	Average Earnings in 3rd Post-program Quarter	Number Employed	Percent Employed	Average Earnings in 3rd Post-program Quarter
State Total						
Minimum						
Maximum						
Median						
Mean						

SOURCE: CompTIA and State Annual Administrative Data System (2009 - 2014)

To access an Excel version of these tables, visit www.acteonline.org/certification_data.