

Non-Degree Credentials Provide Value for Adults in the Labor Market

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Contributors

This brief synthesizes findings from seven independent but coordinated analyses performed by the following researchers: **Debra Bragg, John Cosgrove, Maggie Cosgrove, Kate Dunham, Matt Giani, Khudodod Khudododov, Heather McKay, Marian Negoita, Derek Price, Jessa Lewis Valentine**



Summary

More than half of Americans between the ages of 25 and 64 do not hold a postsecondary credential of any kind, which significantly hinders their labor market opportunities. This report examines labor market outcomes for adults who obtain non-degree credentials, a growing option for education and training beyond high school that includes credit and non-credit certificates and other credentials that can be completed within two years. Drawing on results from seven independent studies involving 49 community and technical colleges across eight states, findings from a standardized analysis across these multiple datasets suggest:

- Non-degree credentials are associated with increased employment
- Earnings gains are larger and more consistent for non-degree credentials that take 6 months or more to complete
- Labor market benefits to non-degree credentials are present in both health and manufacturing fields, though absolute earnings of non-degree credential holders tend to be larger in the (male-dominated) manufacturing sector compared to the (female-dominated) health sector.

Introduction

Obtaining education and training beyond high school is increasingly necessary for securing employment and advancing beyond low-paying jobs in today's economy. However, according to Lumina Foundation's 2019 *A Stronger Nation* report, more than half of Americans between the ages of 25 and 64 do not hold a postsecondary credential of any kind, which hinders their labor market opportunities.¹

An increasingly common option for these adults is the pursuit of non-degree credentials, a broad category that includes sub-baccalaureate certificates that are credit-bearing, as well as non-credit certificates, occupational or professional licenses, and industry certifications. Recent research suggests some non-degree credentials can pay off in the labor market.² However, much of this evidence relies on single postsecondary institution studies or on national-level surveys based on self-reported educational or labor market information. Deeper understanding of the impact of non-degree credentials on labor market outcomes is needed, especially as the supply of these credentials is increasing.³

This brief synthesizes findings from seven independent analyses of labor market outcomes for adults who obtain non-degree credentials within public two-year colleges, drawing on administrative data from 49 institutions across eight states that are linked with state Unemployment Insurance records of earnings. The findings across the multiple datasets point to largely positive employment and earnings benefits for adults obtaining non-degree credentials.

Study Background

Between 2011 and 2018, the U.S. Department of Labor invested \$2 billion to fund the Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program.⁵ TAACCCT provided community and technical colleges across the country with funds to expand and improve the delivery of education and career training programs to prepare adults for employment in high-demand industries. With a strong emphasis on responsiveness to regional employer needs, participating colleges used TAACCCT funding to design and implement programs leading to industry-recognized credentials that can be completed in two years or less.

With support from Lumina Foundation and coordination by DVP-PRAXIS LTD, evaluators conducted analyses of data deriving from seven separate TAACCCT grants to 1) examine the relationship between non-degree credentials and labor market outcomes, specifically employment and earnings, and 2) explore the potential for different strategies (e.g. support services, career pathways programs) to improve student attainment of these credentials. As shown in Table 1, these consortium initiatives were focused in the fields of health and manufacturing.⁶ This brief presents a synthesis of the findings from analyses focused on labor market outcomes.

Non-degree credentials are a broad category of postsecondary credentials that includes credit-bearing certificates as well as non-credit certificates, occupational and professional licenses, and industry certifications.

For this brief, which focuses on credentials awarded within community and technical colleges, non-degree credentials refer to certificates and other college-issued credentials that can be either credit-bearing or non-credit, and that can be awarded within two years.⁴ Two-year associates degrees, even those that are vocationally focused, are not included in the definition of non-degree credentials



Table 1: TAACCCT Consortium Initiatives

SECTOR	TAACCCT CONSORTIUM INITIATIVES	NO. OF INSTITUTIONS IN ANALYSIS	STATE
Health	Advancing Careers and Training (ACT) for Healthcare	Fifteen	WI
	Health Professions Pathways (H2P)	Six	IL, MN, OH, TX
	Consortium of Healthcare Education Online (CHEO)	Thirteen	CO
Manufacturing	Making the Future (MTF)	Fifteen	WI
	Michigan Coalition for Advanced Manufacturing (M-CAM)	Seven	MI
	MoManufacturingWIns (MMW)	Eight	MO
	Colorado Helps Advanced Manufacturing Program (CHAMP)	Seven	CO

Data and Methods

Data used in the analyses are from administrative records from 49 postsecondary institutions across eight states that match student educational information with unit-record quarterly earnings data. Importantly, these data are not self-reported but rather are based on official academic and earnings records. The analytical samples were restricted to students aged 25-64 who had some postsecondary experience but no credential or who had never attended college previously.⁷

Evaluators used a standardized analytical approach designed by DVP-PRAXIS LTD in collaboration with the evaluators involved in this project to both re-analyze original TAACCCT data and in some cases, supplement the original datasets with additional data from state systems. The statistical method adopted for the analyses, OLS regression, controlled for student-and college-level characteristics to isolate the relationships between credential attainment and employment and earnings outcomes. Evaluators used a common set of controls in their models, including variables measuring student characteristics and pre-program factors (demographics, employment and earnings prior to program enrollment, and prior education), program of study or program area, and college- and enrollment cohort- fixed effects.

Evaluators assessed both employment and earnings outcomes associated with non-degree credentials. Employment models were based on a binary measure of employment in the post-study period. Earnings models used a continuous measure of (log) earnings in the post-study period and were restricted to adults securing employment. To explore the benefits of non-degree credentials of different lengths, evaluators grouped credentials into the following categories, which were included in the models as key explanatory variables: 1) non-degree credentials that can be completed in less than 6 months, and 2) non-degree credentials requiring 6 months to 2 years to complete.⁸



Results

Overall, findings across datasets suggest non-degree credentials are associated with increased employment and, to a lesser extent, increased earnings for adult learners. Results from employment and earnings regression models are summarized in Figure 1.⁹

- **Non-degree credential holders are more likely to be employed compared to those without a credential.**

Across all datasets—when controlling for a wide range of potentially confounding factors—earning a non-degree credential of any kind was associated with a 5 to 15 percentage point increase in the likelihood of being employed, or a 7 percentage point increase on average across all datasets.¹⁰ On average, based on descriptive information across the seven datasets, 72% of non-degree credential recipients were employed compared to 64% of those not receiving any postsecondary credential or degree.

- **Even shorter-term credentials can yield employment benefits.**

As shown in Figure 1, earning a credential of less than 6 months has a statistically significant, positive association with employment outcomes in three of the five datasets in which credentials of this length were offered. The boost to employment for short-term credential holders in these three datasets ranged from 4 to 7 percentage points.

- **Though less consistent than findings related to employment, non-degree credentials generate earnings benefits, especially for longer-term credentials.**

Consistent with other recent research,¹¹ these analyses show variable returns to non-degree credentials in terms of earnings. Among adults who were employed, non-degree credential receipt was associated with higher earnings in six of seven datasets, although this association was only statistically significant in three datasets.¹² As shown in Figure 1, these results were largely driven by longer-term credentials (those taking 6 months or more to complete) — in the three datasets where positive, significant associations were found, earnings for adults obtaining longer-term credentials (6 months – 2 years) were 14% to 22% higher than for adults who did not earn a credential. Based on descriptive information on earnings averaged across all datasets, adults who attained a 6- to 12-month credential increased their earnings over baseline by an average \$2,600 per quarter, and adults attaining a credential of more than one but no more than two years increased their earnings over baseline by nearly \$4,600 per quarter.

- **Non-degree credentials provide benefits in both the health and manufacturing fields.**

As shown in Figure 1, non-degree credentials in both the manufacturing and health sectors are consistently associated with a boost in employment. Although findings related to earnings are more varied, the patterns across these datasets suggest earning a non-degree credential within health is more consistently associated with a relative earnings boost compared to earnings of adults not attaining credentials.¹³ However, absolute earnings for credential-holders within manufacturing are larger. As noted in a recent New America study and a study by Lumina Foundation and Strada Education Network, men tend to earn substantially more than women who hold the same non-degree credential type, due in large part to gender segregation of occupations.¹⁴ Although analyses for this brief did not examine gender differences within-sector, descriptive results show that non-degree credential recipients in the male-dominated manufacturing sector earned an average \$10,084 in quarterly earnings, compared to \$7,996 for non-degree credential-holders in the female-dominated health field. These sector differences complicate the story of non-degree credential returns and merit additional study.

Figure 1 : Employment and Earnings Benefits of Non-degree Credentials

	HEALTH			MANUFACTURING			
	ACT	H2P	CHEO	CHAMP	MTF	M-CAM	MMW
Employment							
Observations	16355	1020	5300	901	3897	2001	1899
Any Non-Degree Credential							
Any Non-Degree Credential	0.07	0.09	0.07	0.15	0.06	0.08	0.05
Short- and Longer- Term Credentials							
Less than 6 months	0.04	0.05	n/a	n/a	-0.01	0.07	0.04
6 months to less than 2 years	0.09	0.12	0.07	0.15	0.09	0.10	0.08
Earnings							
Observations	12404	781	2565		2614	1203	1392
Any Non-Degree Credential							
Any Non- Degree Credential	0.07	0.13	0.16	0.14	0.23	-0.03	0.07
Short- and Longer- Term Credentials							
Less than 6 months	0.01	0.12	n/a	n/a	0.16	-0.02	0.06
6 months to less than 2 years	0.14	0.19	0.16	0.14	0.22	-0.06	0.12

■ Results are statistically significant, $p < .05$ □ Results are not statistically significant n/a Credential type not offered

Note: Coefficients are derived from OLS regression models that control for individual-level characteristics as well as institution and enrollment cohort fixed effects. Coefficients from employment models can be interpreted as the percentage point increase (or decrease) in the likelihood of being employed accruing to non-degree credential holders compared to those without a credential. Coefficients from (log) earnings models are exponentiated and can thus be interpreted as the percent increase (or decrease) in earnings for non-degree credential holders compared to those without a credential.

Discussion and Looking Ahead

Lumina Foundation has identified a goal to ensure that, by 2025, 60% of Americans aged 25 to 64 hold a quality postsecondary credential. Findings from this report suggest that non-degree credentials earned within public two-year colleges—specifically, credit and non-credit certificates and other college-issued credentials that can be earned in two years or less—can be a promising option for helping to meet this goal.

Results from this synthesis of seven studies based on administrative academic and employment records point to generally positive labor market outcomes for adults earning non-degree credentials, with larger and more consistent benefits accruing to the attainment of credentials that are longer in length. Analyses suggest non-degree credentials have important benefits in terms of securing employment, and that these employment benefits can accrue even to credentials that require less than 6 months to complete. Similar to findings from other recent studies, there are less consistent patterns of strong earnings returns to non-degree credentials among adults who are employed—and this is especially true of shorter-term credentials.

In light of these findings pointing to larger and more consistent benefits accruing to non-degree credentials that are longer in length, federal and state policies should continue to provide incentives for colleges to restructure their programming in ways that intentionally connect and embed shorter-term credentials within longer-term educational pathways, a strategy being pursued by some of the institutions in this study. To better support students financially, Federal Title IV financial aid programs could be revised to support the pursuit of shorter-term non-degree credentials with demonstrated labor market value.

A series of companion reports to be released in Fall 2019 will present findings from the contributing evaluators on the impact of various strategies being used by two-year colleges to improve adult completion of non-degree credentials.

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The views expressed in this publication are those of the authors and do not necessarily represent those of Lumina Foundation, their officers, or employees.

End Notes

¹Lumina Foundation. (2019). A stronger nation report: Learning beyond high school builds American talent. <http://strongernation.luminafoundation.org/repo/2019/#nation>

²Lumina Foundation, Strada Education Network, Gallup (2019). Certified Value: When Do Adults Without Degrees Benefit from Earning Certificates and Certifications? <https://www.luminafoundation.org/news-and-views/adults-hold-the-key>

Dadgar, M., & Trimble, M. J. (2015). Labor market returns to sub-baccalaureate credentials: How much does a community college degree or certificate pay? *Educational Evaluation and Policy Analysis*, 37(4): 399-418

Tesfai, L., Dancy, K., & McCarthy, M.A (2018). Paying more and getting less: How nondegree credentials reflect labor market inequality between men and women. New America. Washington, D.C.

³Ewert, S. & Kominski, R. "Measuring Alternative Educational Credentials: 2012," January 2014, <https://www.census.gov/prod/2014pubs/p70-138.pdf>.

Carnevale, A. P., Rose, S. J., & Hanson, A. R. (2012). Certificates: Gateway to gainful employment and college degrees. Georgetown Center on Education and the Workforce.

⁴Completion of some types of non-degree credentials, such as digital badges or micro-credentials, are not available in these datasets and thus cannot be commented on in this report.

⁵U.S. Department of Labor TAACCCT website: <https://www.doleta.gov/taaccct/applicantinfo.cfm>

⁶Although evaluators used data gathered through TAACCCT initiatives, analytical samples were not restricted to TAACCCT participants. Data for CHEO and CHAMP include institutions beyond those in the TAACCCT consortium, though results from analyses of TAACCCT institutions only were similar to those presented here for all colleges.

⁷These populations reflect two of Lumina Foundation's three opportunity populations, which are the focus of their postsecondary efforts to increase educational attainment. Across the various initiatives in this study, the analytic sample included over 31,000 adults aged 25-64 who had no prior college experience or who attended college but had not earned a credential of any kind.

⁸Evaluators also conducted analyses that differentiated between credentials of 6 month-1 year and those of >1 year-2 years; regression findings presented here focus on the collapsed category (6mo-2yr) given little variation between the more disaggregated categories. Within the "less than 6 months" category, these analyses did not isolate the impact of very short-term credentials, referring to credentials associated with 10 hours or less of credit or non-credit instruction.

⁹These findings represent a conservative measure of impact in that the comparison group is students enrolled in college as opposed to students never having enrolled, which may understate the value of non-degree credentials.

¹⁰All averages across datasets presented in this brief are weighted by analytic sample size, though unweighted averages produced similar results.

¹¹Xu, D., & Trimble, M. J. (2016). What about certificates? Evidence on the labor market returns to non-degree community college awards in two states. *Educational Evaluation and Policy Analysis*, 38(2): 272-292.

Dadgar, M., & Trimble, M. J. (2015). Labor market returns to sub-baccalaureate credentials: How much does a community college degree or certificate pay? *Educational Evaluation and Policy Analysis*, 37(4): 399-418.

¹²Sample size is likely one driver of lack of significant findings in some datasets.

¹³This could be driven by especially low earnings prospects for women without a postsecondary credential; our health datasets are predominantly female. In addition, certain non-degree credentials are increasingly required to secure even low-wage jobs in health (e.g. Nursing Assistant).

¹⁴Tesfai, L., Dancy, K., & McCarthy, M.A (2018). Paying more and getting less: How nondegree credentials reflect labor market inequality between men and women. New America. Washington, D.C.

Lumina Foundation, Strada Education Network, Gallup (2019). Certified Value: When Do Adults Without Degrees Benefit from Earning Certificates and Certifications? <https://www.luminafoundation.org/news-and-views/adults-hold-the-key>.

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