

# State Council of Higher Education for Virginia



## New Economy Workforce Credential Grant Annual Report 2022

February 2023



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## PURPOSE OF THIS REPORT

During the 2016 session, the General Assembly and Governor established the New Economy Workforce Grant Program (WCG). This grant program, the first of its kind in the nation, provides a pay-for-performance model for funding noncredit workforce training that leads to a credential in a high-demand field. The program also includes requirements for students to complete the program in order to avoid paying additional costs. A summary of the major components of the program is included below. Additional information is available through the [Code of Virginia](#).

The purpose of this report is to provide a review of FY 2022 activities of the New Economy Workforce Credential Grant to the General Assembly and the Virginia Board for Workforce Development, as outlined in § 23.1-627.7.

### Summary of Findings for FY 2022

In FY 2022, the Virginia Community College System and the Southern Virginia Higher Education Center offered training aligned to high-demand occupations and fields as identified by the Virginia Board for Workforce Development. Observations from FY 2022 include:

- Institutions offered training in 10 high-demand occupational fields.
- Collectively, institutions reported 11,533 enrollments in FY 2022, a 28% increase from FY 2021 and the most since the inception of the program.
- Of the 11,448 enrollments included in this report, 11,429 completed training. Among program completers, 8,794 went on to earn a credential. Both of these levels are increases of more than 30% from the previous fiscal year. The rates of completions and credentials remained relatively stable at 99% and 77% respectively.
- Most racial and ethnic groups share high program completion rates, but gaps exist in credential completion: 66% of Asian American students earned their credential, 11 points below the program average of 77%. Black or African American students' credentialing rate was nine points below the average, and Hispanic students' rate was six points below.
- The average tuition paid by students was \$802, up from \$767 in FY 2021. The average state cost per credential attained was \$1,850, a \$63 increase from FY 2021.
- The program with the highest enrollments was Commercial Driver's License (class A), with more than 21% of enrollments. Medical Assistant had the second highest enrollments, accounting for 6% of all enrollments in FY 2022.



- Most students who earned their credential saw an increase in earnings. Median annual wages increased approximately \$6,120, or 23%, in the 12 months following program completion.
- Two-thirds of enrollments entered a postsecondary training program in Virginia for the first time. The median age was 32 years old.

## Program Purpose

The Governor and the General Assembly outlined three primary purposes for the program, as outlined in § 23.1-627.2 of the *Code of Virginia*:

The New Economy Workforce Credential Grant is established for the purpose of (i) creating and sustaining a demand-driven supply of credentialed workers for high-demand occupations in the Commonwealth by addressing and closing the gap between the skills needed by workers in the Commonwealth and the skills of the available workforce in the Commonwealth; (ii) expanding the affordability of workforce training and credentialing; and (iii) increasing the interest of current and future Virginia workers in technician, technologist, and trade-level positions to fill the available and emerging jobs in the Commonwealth that require less than a bachelor's degree but more than a high school diploma.

The program also defines two key elements:

- *High-demand field*: a “discipline or field in which there is a shortage of skilled workers to fill current job vacancies or anticipated additional job openings.”
- *Noncredit workforce credential*: a “competency-based, industry-recognized, portable, and third-party-validated certification or occupational license in a high-demand field.”

## History of Funding

The state’s General Fund (GF) appropriation for WCG has increased since its inception. In FY 2022, the state appropriated \$13.5 million in GF to the WCG program. The program ended FY 2022 with a positive balance of \$7.8 million. Performance payments were over \$16 million, exceeding the GF appropriation and reducing the end-of-year balance compared to the previous year.





**Table 1: Historical GF Appropriations to WCG**

<b>Fiscal Year</b>	<b>Amount</b>
2017	\$5.0 million
2018	\$7.5 million
2019	\$9.5 million
2020	\$13.5 million
2021	\$13.5 million
2022	\$13.5 million

**Program Requirements and Pay-for-Performance Model**

The program entails a pay-for-performance model that provides payments for costs to institutions, but only when an individual completes training and when an individual completes a credential.

The requirements include:

- *Eligible institutions and type of training:* Eligible institutions are community colleges, higher-education centers and Richard Bland College. The training required of these institutions is noncredit training.
- *Alignment to high-demand fields:* Training programs should align with the high-demand fields set by the Virginia Board for Workforce Development. The governing boards of the eligible institutions are required to approve the aligned training programs.
- *Payments and cost of the program:* The student, the institution and the state, as described below, share the program’s cost. In addition, the table below illustrates the pay-for-performance model.
  - Student responsibility: Students are required to pay one-third of the total cost of the program upon enrollment. Students may use third-party funds, such as noncredit financial aid, training vouchers or employer payment to cover this cost. If the student does not complete the program, then the student is required to pay an additional one-third of the cost of the program.
  - State: If the student completes the training, then the state provides one-third of the cost of the program, up to \$1,500, to the institution. If the student earns and reports a credential, then the state pays an additional one-third of the cost of the program, up to \$1,500.
  - Institution: If a student does not report a credential earned, then the institution does not receive state funding for one-third of the cost of the program.



- *Reporting and payments:* Eligible institutions must provide student-level data to SCHEV to receive funding.
- *Administration:* SCHEV is responsible for administering the program, conducting periodic assessments of the program, collecting student data and making final decisions on disputes between eligible institutions and grant recipients.

**Table 2: Program Pay-for-Performance Model**

<b>Payment Scenario if a student...</b>	<b>Student Pays ...</b>	<b>State Pays Training Institution... *</b>
... Completed training and credential	<b>1/3 program cost</b>	<b>2/3 program cost*</b>
... Completed training but did not earn or report credential to the training institution	<b>1/3 program cost</b>	<b>1/3 program cost*</b>
... Did not complete training and did not earn or report a credential	<b>2/3 program cost</b>	<b>No cost</b>

\*Maximum contribution from the state is \$3,000.

## **High-demand Field and Training Alignment Process**

### **Identification of High-Demand Fields**

The *Code of Virginia* requires that the Virginia Board for Workforce Development identify high-demand occupational fields. In 2017, the Virginia Board for Workforce Development developed a methodology to identify high-demand programs, using the following criteria:

- The relevance of the occupational group to the state’s economic development strategy, as outlined in then-Governor McAuliffe’s [New Virginia Economy](#) strategy document.
- Annual statewide job openings, based on Virginia Employment Commission/Bureau of Labor Statistics’ 10-year employment projections. Jobs were considered if they had more than 50 annual openings.
- The degree to which the occupations required advanced skills, as measured by entry-level education.

The board also allows a region to petition to add an occupational field to the list, if that region can demonstrate sufficient demand. A complete list of training programs offered is provided on the [Virginia Career Works website](#). Based on a review of the occupations meeting the criteria above, the Virginia Board for Workforce Development identified high-demand occupations in 11 fields.



## Training Programs Offered by Eligible Institutions

Once the Virginia Board for Workforce Development identifies the high-demand fields, the eligible institutions develop or align existing noncredit training programs to meet the new credential criteria, and their boards approve the programs. To date, the Virginia Community College System, the Southern Virginia Higher Education Center and the New College Institute are the only eligible training institutions offering programs in the high-demand fields.

The boards of the institutions submit their approved lists to the Virginia Board for Workforce Development. A full list of high-demand occupations and aligned training programs offered by eligible training institutions is maintained and updated on the Career Works website.

Table 2 is a sample list by occupational field of the types of training and credentials students could attain upon completion. A full list of credentials by type is provided in the Appendix.

**Table 3: Sample Workforce Training and Certifications Offered by Occupational Field**

<b>Occupational Field (Occupation Number)</b>	<b>Sample Workforce Training/Certification Offered</b>
Computer and Mathematical (15)	CompTIA A+, Network+ and Server+ Computer Entry Level (CISCO Networking Technician and Associate, CompTIA IT Fundamentals); Information Systems Security Project Management Professional
Construction and Extraction (47)	Construction (Project Management, Carpentry, Contractor's License), Plumbing and Electrical, Highway Construction, Welding
Education, Training and Library (25)	Career Switcher/Teaching License
Healthcare Practitioners and Technical (29)	Emergency Medical Technician???, Pharmacy, EKG Technician
Healthcare Support (31)	Certified Nurse Aide, Medical Assistant, Medication Aide, Phlebotomy Technician
Installation, Maintenance and Repair (49)	Electrical and Electrical Systems, Engine Repair, HVAC, Power Line Worker
Office and Administrative Support (43)	Billing and Coding Specialist, Customer Services and Sales, Medical Administrative Assistant, Professional Coder, Society for Human Resource Management Certified Professional
Production (51)	Backflow Prevention, Electronics Assembly (JSTD-001 Certification), Machine Tool Operations, Manufacturing Technician 1 (MT1), Manufacturing Entry Level (specialist and production technician), Mechatronics, Six Sigma, Millwright (industrial machine installation, maintenance, troubleshooting and repair), Welding (flux, gas and general)
Transportation and Material Moving (53)	Commercial Driver's License, Logistics Associate, Logistics Technician, Remote Pilot Airman Certification



## ENROLLMENT, TRAINING AND CREDENTIAL COMPLETIONS AND COSTS

In FY 2022, 11,553 individuals were enrolled in training, and 11,429 (99%) completed training. Among program completers, 8,794 (77%) went on to earn the credential. FY 2022 data are based on all students completing a training course between July 1, 2021, and June 30, 2022. Eligible institutions are allowed up to 180 days after the completion of training to obtain verification that a student earned a credential. Training institutions may verify this information either through receiving information from a student or through a record match with the entity issuing the credential.

Since inception of the program, the program has recorded 44,476 enrollments, 42,712 completions, and 32,536 credentials or licenses. FY 2022 saw a record number of students enrolled, completing the program and earning their credential or license. The growth of the program is particularly notable given that, in recent years, enrollments in for-credit academic programs at Virginia Community Colleges have [declined](#).

**Table 4: Workforce Credential Grant Enrollments, Program Completions, and Credentials, History of the Program**

Fiscal Year	Enrollments	Completed Training	Earned Credential
2017	5,210	4,961	3,487
2018	4,310	4,007	3,099
2019	6,970	6,570	5,096
2020	7,440	7,030	5,444
2021	9,013	8,715	6,616
2022	11,533	11,429	8,794
<b>Grand Total</b>	<b>44,476</b>	<b>42,712</b>	<b>32,536</b>

The following section provides data for FY 2022 by occupational field, credential type and institution.

### Training Offered in Ten High-Demand Occupational Fields

The highest numbers of enrollments were in construction, production, healthcare support and transportation; these fields accounted for three-quarters of the program. Table 4 summarizes enrollments, completions, reported credentials, average costs to students, total payments by the state and average costs to the state per credential attained, by occupational field.



**Table 5: FY 2022 Data on Enrollment, Training Completion and Reported Credentials by Occupational Field**

Occupational Field	Enrolled	Completed Training	Reported a Credential Attained	Average Cost to Student*	Total State Payments for Training and Credential Completion*	Average State Payments per Credential Attained
Computer and Mathematical (15)	1,061	1,055	297	\$694	\$938,752	\$3,161
Construction and Extraction (47)	2,380	2,368	1,971	\$210	\$917,336	\$465
Education, Training, and Library (25)	75	74	75	\$1,330	\$198,170	\$2,642
Healthcare Practitioners and Technical (29)	316	313	150	\$620	\$288,399	\$1,923
Healthcare Support (31)	1,591	1,583	1,190	\$872	\$2,432,958	\$2,045
Installation, Maintenance, and Repair (49)	1,271	1,225	1,091	\$866	\$2,043,973	\$1,873
Office and Administrative Support (43)	602	593	386	\$932	\$896,054	\$2,321
Production (51)	1,243	1,240	1,016	\$579	\$1,289,354	\$1,269
Public Administration (92)	12	12	4	\$183	\$2,760	\$690
Transportation and Material Moving (53)	2,982	2,966	2,614	\$1,325	\$7,257,349	\$2,776
<b>All</b>	<b>11,533</b>	<b>11,429</b>	<b>8,794</b>	<b>\$802</b>	<b>\$16,265,104</b>	<b>\$1,850</b>

**The Average Cost to Each Student was \$802. The Average Per-Credential Cost to the State was \$1,850.**

As shown in Table 4, the average cost of the program to a student (reflecting one-third of the cost) was \$802. SCHEV provided reimbursements to institutions through state general funds in the amount of \$16.1 million for training completions and credentials. This figure is higher than the general fund appropriation for FY 2022 of \$13.5 million because the program began the year with a positive balance.

The pay-for-performance model obligates funds when a student enrolls, but funds are paid when an institution submits reimbursement upon completion of training and earning of a credential. And as seen in Table 3, enrollments, completions and credentials have been growing. Also, some students who completed their program in FY 2021 went on to earn a credential in FY 2022.

Based on the attainment data and the total payments through state general fund, the average state payment per credential attained in FY 2022 was \$1,850 (total payments/credentials attained).

**Top Training Programs and Alignment to Annual Job Openings**

While many certifications are offered, nearly three-quarters of students enrolled in just 10 program clusters. Of the more than 50 programs offered, four programs accounted for over half of enrollments: Commercial Drivers' License; Medical Assistant; Highway Construction; and Phlebotomy Technicians.

This analysis de-duplicates individual records, such that one student pursuing, for example, multiple road construction certifications is not counted more than once, as that individual would fill only a single job opening.

In comparing enrollments in these programs to the annual job openings provided by the Virginia Employment Commission (VEC), the certifications appear to meet an annual need. For example, the VEC projects annual openings for truck drivers to be about 6,341. In FY 2022, about 2,370 individuals enrolled in the credential program to attain a commercial driver’s license. Similarly, the VEC projects annual openings for medical assistants to be 2,309, while 627 students enrolled in medical assistance programs.

The difference between the annual openings and enrollments does not necessarily indicate a shortage, as training programs offered by private providers are not included in this analysis. At the same time, not all students go on to earn their credential, and those who do complete may not pursue the exact occupation aligned with their program.

**Table 6: Top 10 Credentials and Annual Openings by Related Occupational Field, FY 2022**

<b>Occupation</b>	<b>Annual Job Openings by Field*</b>	<b>Program</b>	<b>Individuals ** Enrolled FY 2022</b>
Heavy and Tractor-Trailer Truck Drivers	6,341	Commercial Driver's License	2,370
Medical Assistants	2,309	Medical Assistant	627
Highway Maintenance Workers + Paving, Surfacing, and Tamping Equipment Operators	470	VDOT Asphalt Field	382
Phlebotomists	466	Phlebotomy Technician	346
Computer and Information Systems Managers	1,311	CompTIA A+	329
Carpenters	2,964	Core - Introductory Craft Skills	273
Other Healthcare Support Occupations	6,685	Certified Nurse Aide (CNA)	264
Pharmacy Technicians	990	Pharmacy Technician	196
Welders, Cutters, Solderers, and Brazers	1,160	Shielded Metal Arc Welding (SMAW)	196
Health Technologists and Technicians	1,004	Billing and Coding Specialist	170

\*Review based on Virginia Employment Commission short-term 2021-2023 projections.

<https://viriniaworks.com/occupational-projections?page80257=1&size80257=12&page79862=1&size79862=12&page81630=1&size81630=12>

Differences may not represent a shortage as other individuals may complete certification through non-WCG programs.

\*\*Enrollments figures can include individuals completing multiple credentials. The figures provided for individuals represent unduplicated count of the enrollments.



## Training Completion Rates Averaged 99%, and Credential Completion Rates Averaged 77%

While completion rates for training vary by field and credential type, the average completion rate for the last four years remains relatively stable – about 99% of enrolled individuals complete their training. Of those who complete their training, about 77% earn a credential. Some credential rates, such as IT certification, are much lower. A full list of completion rates by credential type appears in the Appendix. Rates may vary because some credentialing and licensing bodies offer testing on-site while others are located elsewhere. Some students also might be able to start employment before earning a credential.

**Table 7: Average Completion Rates, FY 2022**

<b>Occupational Field</b>	<b>Training Completion Rate</b>	<b>Credential Completion Rate</b>
Computer and Mathematical (15)	99%	28%
Construction and Extraction (47)	99%	83%
Education, Training, and Library (25)	99%	101%
Healthcare Practitioners and Technical (29)	99%	48%
Healthcare Support (31)	99%	75%
Installation, Maintenance, and Repair (49)	96%	89%
Office and Administrative Support (43)	99%	65%
Production (51)	100%	82%
Public Administration (92)	100%	33%
Transportation and Material Moving (53)	99%	88%
<b>Grand Total</b>	<b>99%</b>	<b>77%</b>

\*Education, Training, and library rates exceed 100% due to students earning credential but not completing training.

## Participation and Completion Rates by Institution

The number of students enrolling across training institutions varies. Table 8 provides enrollments and completions by institution. Half of enrollments in FY 2022 were at institutions in rural areas of the state. The remaining enrollments occurred at urban institutions: Germanna, Northern Virginia, Tidewater and Brightpoint/Reynolds community colleges.



**Table 8: FY 2022 Data on Enrollment, Training Completion and Reported Credentials by Eligible Training Institution**

<b>Training Institution</b>	<b>Enrolled</b>	<b>Completed Training</b>	<b>Credential Attained</b>
Blue Ridge CC	510	510	428
Brightpoint/Reynolds CC (CCWA)	1,860	1,842	1,398
Central Virginia CC	148	147	104
Danville CC	42	34	13
Eastern Shore CC	112	111	66
Germanna CC	2,489	2,479	2,047
Laurel Ridge CC	871	866	759
Mountain Empire CC	177	177	163
Mountain Gateway CC	156	156	124
New River CC	185	185	133
Northern Virginia CC	858	857	461
Patrick & Henry CC	173	173	151
Paul D. Camp CC	361	358	238
Piedmont CC	372	372	252
Rappahannock CC	282	282	168
Southern Virginia Higher Ed Center	75	69	56
Southside Virginia CC	572	529	477
Southwest Virginia CC	176	176	118
Thomas Nelson CC	610	609	371
Tidewater CC	659	653	478
Virginia Highlands CC	130	129	110
Virginia Western CC	478	478	445
Wytheville CC	237	237	234
<b>Grand Total</b>	<b>11,533</b>	<b>11,429</b>	<b>8,794</b>

## STUDENT DEMOGRAPHICS

### Enrollment

The Workforce Credential Grant program tends to serve a nontraditional (adult) student; the median age is 32. Only 29% of students are ages 24 years or younger.

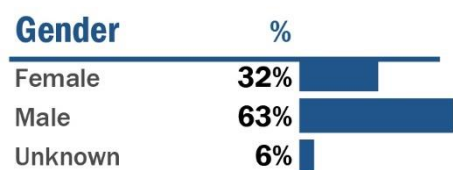
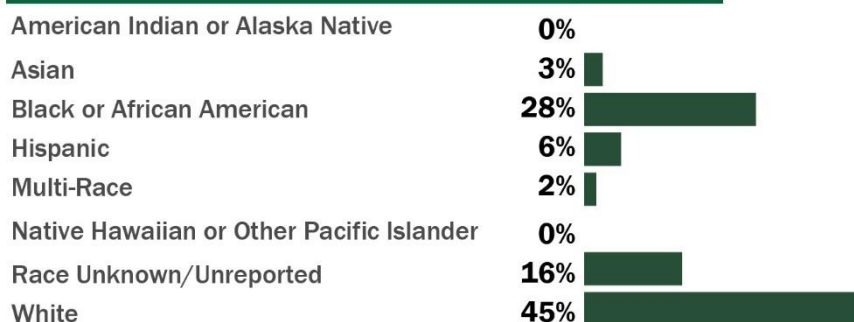
**Table 9: Enrollment by Age, FY 2022**

Age Group	#	%
Less than 18 years	154	1%
18 to 24 years	3,206	28%
Age 25 to 34 years	3,507	30%
Age 35 to 44 years	2,325	20%
Age 45 to 64 years	2,234	19%
Age 65 years and older	107	1%
<b>Total</b>	<b>11,533</b>	<b>100%</b>

By gender, 63% of enrolled students were male; 32%, female; and 6%, unknown (sum exceeds 100% due to rounding). By race and ethnicity, 45% of enrollment were white; 28% were Black or African American; and 6% were Hispanic. The [measures of SCHEV's strategic plan, Pathways to Opportunity](#) compare population and enrollment as a proportion for different groups. Given that 18% of Virginia's working age population is Black or African American, it could be asserted that the WCG program especially serves this population. However, the accuracy of such a claim would be disputable because 16% of WCG enrollments are unknown/unreported.





**Figure 1: Student Demographics by Sex and Race/Ethnicity, FY 2022****Race/Ethnicity**

The WCG program also serves a large first-time-in-college population. In fact, two-thirds (7,658) of WCG enrollments in FY 2022 had not previously entered a postsecondary training or credential program.

**Success**

Credential completion varies by race and ethnicity. (Training completion rates do not vary significantly for the largest demographic groups.) Black or African American students are 9 percentage points less likely to earn their program's credential compared to the program average. Hispanic students are 6 points less likely. The prevalence of unreported racial and ethnic demographics complicates this analysis.

**Table 10: Training Completion and Credentials by Race and Ethnicity, FY 2022**

Race/Ethnicity	Enrollment	Training Completion	Credential Completion	% Complete Training	% Complete Credential
American Indian or Alaska Native	32	32	19	100%	59%
Asian	390	388	258	99%	66%
Black or African American	3,216	3,178	2,152	99%	68%
Hispanic	670	667	476	100%	71%
Multi-Race	249	245	185	98%	76%
Native Hawaiian or Other Pacific Islander	18	18	15	100%	83%
Race Unknown/Unreported	1,815	1,808	1,461	100%	81%
White	5,143	5,093	4,228	99%	83%
<b>Total</b>	<b>11,533</b>	<b>11,429</b>	<b>8,794</b>	<b>99%</b>	<b>77%</b>

## EARNINGS OUTCOMES

### Methodology

When the General Assembly established the program in 2016, an important intention was better alignment of training to high-demand fields where unmet needs for workers existed. The *Code of Virginia* also requires SCHEV to report “information on the wages, including average wage and other relevant information, of students who have completed noncredit workforce training programs by credential name and relevant industry sectors.” To better evaluate the impact of the program on an individuals’ job prospects, it is also important to measure wages – wages prior to completion of the program as well as after completion.

Through the [Virginia Longitudinal Data System](#) SCHEV staff matched completers’ wages with the wage records of the Virginia Employment Commission (VEC). While VEC records are a valuable and unique source of post-program wages, they are imperfect. For example, some people are exempt from reporting, such as individuals who are self-employed, work for the federal government or those who meet other exemption qualifications. Wages also are collected on a quarterly basis, without any indication of the hours worked, thereby rendering it impossible to know whether an individuals’ quarterly wage was based on full-time or part-time work. The matching of individuals’ records from their training to their incomes also takes time, resulting in wage outcomes that are not as up to date as information about the program itself.

To accurately assess programs’ impact on wages, SCHEV staff only compared students who had at least four quarters of wages before and four quarters of wage records after completing the program. SCHEV staff summed those four quarters to serve as a proxy for annual income, even though those individuals might be earning additional income not counted in that quarterly wage, or that they could be choosing to work part-time.

Given the need to restrict analysis to students with wages before and after completing the program, the analysis below includes students throughout the history of the program, and not for FY 2022 alone. SCHEV staff then analyzed earnings of the remaining 21,407 students with wage records before and after enrolling in the program. Of these, 15,465 students earned a credential.

### Earnings Analysis

Before enrolling in WCG programs, students earned a median annual wage of \$24,877. Twelve months after leaving the program, students earned a median wage of \$30,274. This change represents a 22% increase compared to the median pre-wage. The median wage increase was \$5,397.

Students who went on to earn the credential saw a greater increase to their wages: an increase in median earnings of 23%, or \$6,120 annually. These wages are not adjusted for inflation.

**Table 11: Wages Pre- and Post-Program of WCG Completers, by Credential Status, History of the Program**

	# of Students w/ pre- and post- wages successfully matched	Median Pre-wage	Median Post-wage	Median Wage Change
<b>Did Not Earn Credential</b>	6,699	\$21,065	\$24,403	\$3,338
<b>Earned Credential</b>	15,464	\$26,538	\$32,657	\$6,120
<b>Total</b>	<b>22,163</b>	<b>\$24,877</b>	<b>\$30,274</b>	<b>\$5,397</b>

### Median Wages Increased in all Occupational Fields

To measure specific credentials' impact on wages more effectively, Table 12 examines only the students who earned their credential and successfully had their pre- and post-program wages matched. In all occupational fields, median wages increased after attaining the credential. Students who earned credentials in Construction and Extraction earned the highest median wages, at \$49,902. However, these students also started with a higher pre-wage. Students who earned credentials in Education, Training and Library fields saw the largest median wage increases, over \$16,000. These students represent a relatively narrow slice of the wage analysis, however, with only 136 student records matched.



**Table 12: Wages Pre- and Post-Program for Credentialed Students by Industry, History of the Program**

	<b># of Students w/ pre- and post- wages successfully matched</b>	<b>Median Pre-wage</b>	<b>Median Post-wage</b>	<b>Median Wage Change</b>	<b>% Change</b>
Computer and Mathematical (15)	534	\$36,303	\$44,830	\$8,527	23%
Construction and Extraction (47)	4,118	\$45,503	\$49,902	\$4,399	10%
Education, Training, and Library (25)	136	\$24,365	\$40,563	\$16,198	66%
Healthcare Practitioners and Technical (29)	223	\$17,622	\$22,060	\$4,438	25%
Healthcare Support (31)	2,288	\$14,739	\$19,711	\$4,972	34%
Installation, Maintenance, and Repair (49)	1,491	\$19,578	\$30,306	\$10,728	55%
Office and Administrative Support (43)	603	\$22,136	\$22,920	\$784	4%
Production (51)	2,181	\$23,824	\$31,945	\$8,121	34%
Transportation and Material Moving (53)	3,868	\$26,259	\$32,753	\$6,495	25%
<b>Grand Total</b>	<b>15,442</b>	<b>\$26,583</b>	<b>\$32,674</b>	<b>\$6,091</b>	<b>23%</b>

**Wages by Race and Ethnicity**

All credentialed racial and ethnic groups saw increases in their median wages. The wage analysis by race and ethnicity is complicated by the high numbers of unknown and unreported, and some groups having relatively small cell sizes. (See the enrollments and success rates by race and ethnicity above.)

**Table 13: Wages Pre- and Post-Program for Credentialed Students by Race and Ethnicity, History of the Program**

	<b># of Students w/ pre- and post- wages successfully matched</b>	<b>Median Pre-wage</b>	<b>Median Post-wage</b>	<b>Median Wage Change</b>
American Indian or Alaska Native (NH)	70	\$23,710	\$31,035	\$7,325
Asian (NH)	390	\$32,070	\$37,955	\$5,885
Black or African American (NH)	3,597	\$21,629	\$26,718	\$5,089
Hispanic	640	\$23,422	\$28,035	\$4,613
Multi-Race (NH)	258	\$16,229	\$23,041	\$6,812
Native Hawaiian or Other Pacific Islander (NH)	20	\$16,598	\$35,271	\$18,673
Race Unknown/Unreported (NH)	2,222	\$32,765	\$38,048	\$5,283
White (NH)	8,267	\$28,192	\$35,036	\$6,844
<b>Grand Total</b>	<b>15,464</b>	<b>\$26,538</b>	<b>\$32,657</b>	<b>\$6,120</b>

## **ADDITIONAL OBSERVATIONS AND NEXT STEPS**

### **Program Cap**

The 2022-24 biennial budget includes language restricting any single occupational field from receiving more than 25% of WCG funds. In FY 2022, 44% of GF reimbursements went to programs in the Transportation and Material Moving (53) field. Most of these programs were commercial drivers' licenses. As noted above, commercial driver's licenses made up less than 25% of individual student enrollments, but contributed to Transportation and Material Moving (53) exceeding the 25% program cap.

Private initiatives, like Virginia Ready, which incentivize students to enroll in and complete credentials funded through the Workforce Credential Grant, have specifically promoted the truck-driving programs in response to employer requests for credentialed workers. As noted above, truck driving positions have 6,341 annual openings, while only 2,370 individuals enrolled in truck driving programs through WCG, suggesting that there is more demand for this training than the current WCG funding structure can supply.

To comply with the 25% cap, the VCCS monitors projected encumbrances based on student registrations throughout the fiscal year. In past years, the VCCS has periodically used projected encumbrances to implement a temporary pause on student enrollments in truck-driving programs, to stay below the reimbursement cap. Programs were not paused in FY 2022 due to the heightened demand for truck drivers and statewide initiatives to increase the supply of commercial driver's license holders.

### **Reimbursement Limit of \$3,000 per credential**

Since the beginning of the program, a reimbursement limit of \$3,000 has been in place on any individual credential completion. Adjusting for the Consumer Price Index, \$3,000 in 2016 is worth roughly \$3,700 in December 2022. A growing number of programs have reached this \$3,000 reimbursement limit. In FY 2022, 1,158 programs reached the \$3,000 limit, the vast majority of which were in Commercial Drivers' License programs, but other programs included power line worker and heavy equipment operator. As training programs face increasing costs for personnel, equipment and supplies, policymakers may consider adjusting this \$3,000 reimbursement limit.





## CONCLUSION

Since the inception of the Workforce Credential Grant in 2016, the program has continued to grow based on student demand. The largest areas of enrollment occur in occupational fields with annual job openings that exceed training completions. In addition, median earnings continue to grow post-training completion.



## APPENDIX: FY 2022 TRAINING CREDENTIAL ENROLLMENT, COMPLETIONS AND COSTS

	Enrollments	Training Completions	Credential Completions	% Complete Training	% Complete Credential	Average Tuition	Sum of GF reimbursed	Average of GF Reimbursed
<b>Computer and Mathematical (15)</b>	<b>1,061</b>	<b>1,055</b>	<b>297</b>	<b>99%</b>	<b>28%</b>	<b>\$694</b>	<b>\$938,752</b>	<b>\$3,161</b>
Adobe Certified Associate: Illustrator	3	3	-	100%	0%	\$250	\$750	NA
AWS Cloud	151	151	40	100%	26%	\$539	\$102,056	\$2,551
Certified Ethical Hacker	20	20	10	100%	50%	\$1,045	\$31,350	\$3,135
CompTIA A+	393	390	88	99%	23%	\$840	\$401,528	\$4,563
CompTIA IT Fundamentals	99	99	31	100%	31%	\$328	\$43,675	\$1,409
CompTIA IT Fundamentals+	17	15	10	88%	67%	\$221	\$5,850	\$585
CompTIA Linux+	7	7	3	100%	43%	\$524	\$5,226	\$1,742
CompTIA Network+	127	127	44	100%	35%	\$632	\$108,006	\$2,455
CompTIA Security+	180	180	65	100%	36%	\$746	\$187,436	\$2,884
CompTIA Server+	4	3	1	75%	33%	\$322	\$1,288	\$1,288
IT Fundamentals+	4	4	-	100%	0%	\$234	\$936	NA
JavaScript Specialist Certificate	5	5	1	100%	20%	\$1,500	\$9,000	\$9,000
Linux+	2	2	1	100%	50%	\$367	\$1,101	\$1,101
PCAP - Certified Associate in Python Programming	38	38	3	100%	8%	\$750	\$30,750	\$10,250
Project Management	11	11	-	100%	0%	\$891	\$9,800	NA
<b>Construction and Extraction (47)</b>	<b>2,380</b>	<b>2,368</b>	<b>1,971</b>	<b>99%</b>	<b>83%</b>	<b>\$210</b>	<b>\$917,336</b>	<b>\$465</b>
AC Electricity	27	27	19	100%	70%	\$370	\$16,646	\$876
Asphalt- Slurry Surfacing	242	240	207	99%	86%	\$92	\$40,972	\$198
Carpentry	19	19	19	100%	100%	\$714	\$27,150	\$1,429
Construction Project Management	7	7	7	100%	100%	\$1,038	\$14,532	\$2,076
Contractor's License	15	15	-	100%	0%	\$80	\$1,200	NA
Core - Introductory Craft Skills	323	323	276	100%	85%	\$300	\$182,192	\$660
Documentation & Record Keeping for Inspectors	10	10	10	100%	100%	\$200	\$4,000	\$400
Electrical	30	30	29	100%	97%	\$550	\$32,450	\$1,119
Electrical Tradesman License Renewal	1	1	-	100%	0%	\$42	\$42	NA
Facilities Maintenance	14	14	-	100%	0%	\$1,115	\$15,610	NA
Marine Trade Training: Coatings Level 1	21	21	21	100%	100%	\$340	\$14,280	\$680

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Marine Trade Training: Electrical Level 1	42	42	26	100%	62%	\$280	\$19,040	\$732
Marine Trade Training: Pipefitting Level 1	33	32	31	97%	97%	\$800	\$50,400	\$1,626
Marine Trade Training: Sheet Metal Level 1	25	25	25	100%	100%	\$525	\$26,250	\$1,050
Marine Trade Training: Welding Level 1	12	12	12	100%	100%	\$707	\$16,980	\$1,415
Plan Reading for Inspectors	23	23	23	100%	100%	\$200	\$9,200	\$400
Plumbing	93	93	75	100%	81%	\$651	\$110,530	\$1,474
Plumbing License Renewal	2	2	-	100%	0%	\$42	\$83	NA
Roadway Construction & Drainage for Inspectors	15	15	14	100%	93%	\$283	\$8,215	\$587
Surface Treatment	249	247	221	99%	89%	\$92	\$42,897	\$194
Surveying for Inspectors	15	15	14	100%	93%	\$208	\$6,032	\$431
VDOT Asphalt Field	408	405	333	99%	82%	\$117	\$86,095	\$259
VDOT Asphalt Field	519	517	435	100%	84%	\$117	\$111,060	\$255
VDOT Asphalt Plant	75	75	46	100%	61%	\$117	\$14,116	\$307
VDOT Asphalt Plant Level 2	45	45	23	100%	51%	\$117	\$7,933	\$345
Welding	20	18	18	90%	100%	\$927	\$33,882	\$1,882
Work Zone Flagger	95	95	87	100%	92%	\$140	\$25,549	\$294
<b>Education, Training, and Library (25)</b>	<b>75</b>	<b>74</b>	<b>75</b>	<b>99%</b>	<b>101%</b>	<b>\$1,330</b>	<b>\$198,170</b>	<b>\$2,642</b>
Teaching License	75	74	75	99%	101%	\$1,330	\$198,170	\$2,642
<b>Healthcare Practitioners and Technical (29)</b>	<b>316</b>	<b>313</b>	<b>150</b>	<b>99%</b>	<b>48%</b>	<b>\$620</b>	<b>\$288,399</b>	<b>\$1,923</b>
Apprentice Medical Scribe Professional (AMSP)	14	14	11	100%	79%	\$630	\$15,572	\$1,416
EKG Technician (NHA)	77	77	42	100%	55%	\$547	\$65,248	\$1,554
Paramedic	6	6	6	100%	100%	\$900	\$10,800	\$1,800
Pharmacy Technician	219	216	91	99%	42%	\$638	\$196,779	\$2,162
<b>Healthcare Support (31)</b>	<b>1,591</b>	<b>1,583</b>	<b>1,190</b>	<b>99%</b>	<b>75%</b>	<b>\$872</b>	<b>\$2,432,958</b>	<b>\$2,045</b>
Advanced Cardiovascular Life Support	16	16	16	100%	100%	\$50	\$1,600	\$100
Advanced Emergency Medical Technician (AEMT) (NREMT)	16	15	11	94%	73%	\$1,121	\$29,041	\$2,640
Certified Nurse Aide (CNA)	272	271	138	100%	51%	\$828	\$332,307	\$2,408
Emergency Medical Technician (NREMT)	50	50	27	100%	54%	\$609	\$46,408	\$1,719
Licensed Massage Therapist	15	15	10	100%	67%	\$1,500	\$37,500	\$3,750
Medical Assistant	740	734	640	99%	87%	\$1,057	\$1,455,544	\$2,274
Medication Aide	20	20	10	100%	50%	\$367	\$11,010	\$1,101
Pediatric Advanced Life Support	5	5	5	100%	100%	\$50	\$500	\$100

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Phlebotomy Technician	457	457	333	100%	73%	\$657	\$519,048	\$1,559
<b>Installation, Maintenance, and Repair (49)</b>	<b>1,271</b>	<b>1,225</b>	<b>1,091</b>	<b>96%</b>	<b>89%</b>	<b>\$866</b>	<b>\$2,043,973</b>	<b>\$1,873</b>
ASE Entry-Level Certification: Electrical/Electronic Systems	4	4	4	100%	100%	\$1,500	\$12,000	\$3,000
ASE Entry-Level Medium/Heavy Truck Brakes	23	23	20	100%	87%	\$1,000	\$43,000	\$2,150
ASE Entry-Level Medium/Heavy Truck Electrical/Electronic Systems	23	16	20	70%	125%	\$1,000	\$36,000	\$1,800
ASE Entry-Level Medium/Heavy Truck Inspection Maintenance & Minor Repair	21	10	20	48%	200%	\$1,000	\$30,000	\$1,500
Certificate for Apartment Maintenance Technician	11	11	9	100%	82%	\$650	\$13,000	\$1,444
Compact Diesel Engine Certification	4	4	3	100%	75%	\$333	\$2,331	\$777
Driveline/Hydraulics Certification	4	4	-	100%	0%	\$225	\$900	NA
Electrical	282	280	242	99%	86%	\$575	\$302,637	\$1,251
Electrical Systems	4	4	3	100%	75%	\$200	\$1,400	\$467
Engine Repair	19	19	11	100%	58%	\$184	\$5,465	\$497
EPA Section 608 Technician Certification	50	50	47	100%	94%	\$461	\$44,675	\$951
ESCO System Diagnostics & Troubleshooting (Air Conditioning)	13	13	13	100%	100%	\$425	\$11,050	\$850
Heavy Equipment Operations	105	104	93	99%	89%	\$1,117	\$219,177	\$2,357
Heavy truck engines	23	16	21	70%	131%	\$1,000	\$37,000	\$1,762
Heavy truck suspension & steering	20	10	18	50%	180%	\$1,000	\$28,000	\$1,556
HVAC	310	309	233	100%	75%	\$735	\$403,516	\$1,732
PMI - Slide Caliper Measurement	12	12	12	100%	100%	\$333	\$7,992	\$666
Power Industry Fundamentals	126	126	125	100%	99%	\$1,200	\$301,200	\$2,410
Power Line Worker	165	165	161	100%	98%	\$1,476	\$481,500	\$2,991
Power Line Worker: Distribution Level 2	14	14	14	100%	100%	\$1,500	\$42,000	\$3,000
SHRM Certified Professional	7	7	-	100%	0%	\$690	\$4,830	NA
Slide caliper management	23	16	22	70%	138%	\$366	\$13,908	\$632
Solar Installation Technician Certification	8	8	-	100%	0%	\$299	\$2,392	NA
<b>Office and Administrative Support (43)</b>	<b>602</b>	<b>593</b>	<b>386</b>	<b>99%</b>	<b>65%</b>	<b>\$932</b>	<b>\$896,054</b>	<b>\$2,321</b>
Billing and Coding Specialist	187	187	151	100%	81%	\$1,060	\$358,519	\$2,374
Customer Services and Sales	10	10	10	100%	100%	\$232	\$4,640	\$464
Medical Administrative Assistant	136	136	115	100%	85%	\$710	\$177,958	\$1,547
Professional Coder	209	200	82	96%	41%	\$1,068	\$294,757	\$3,595
SHRM Certified Professional	60	60	28	100%	47%	\$686	\$60,180	\$2,149

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<b>Production (51)</b>	<b>1,243</b>	<b>1,240</b>	<b>1,016</b>	<b>100%</b>	<b>82%</b>	<b>\$579</b>	<b>\$1,289,354</b>	<b>\$1,269</b>
Backflow Prevention	21	21	21	100%	100%	\$100	\$4,200	\$200
CNC Milling	13	13	10	100%	77%	\$746	\$16,615	\$1,662
CNC Turning	10	10	7	100%	70%	\$743	\$12,085	\$1,726
Drill Press Skills 1, Machining	4	4	4	100%	100%	\$299	\$2,392	\$598
Fi4.OCP Level 1 - Industry 4.0 Fundamentals	11	11	10	100%	91%	\$700	\$14,700	\$1,470
Flux Core Arc Welding (FCAW)	161	160	118	99%	74%	\$682	\$189,137	\$1,603
Fundamentals of Mechanical Systems	19	19	19	100%	100%	\$412	\$15,642	\$823
Gas Metal Arc Welding (GMAW)	192	192	127	100%	66%	\$698	\$222,899	\$1,755
Gas Tungsten Arc Welding (GTAW)	56	56	23	100%	41%	\$306	\$24,411	\$1,061
Industrial Maintenance Electrical and Instrumentation - Level 1	2	2	-	100%	0%	\$1,500	\$3,000	NA
Industrial Maintenance Mechanic - Level 1	3	3	3	100%	100%	\$932	\$5,592	\$1,864
Industrial Maintenance Mechanic - Level 2	3	3	3	100%	100%	\$932	\$5,592	\$1,864
Job Planning, Benchwork, and Layout	21	21	21	100%	100%	\$384	\$16,144	\$769
Lean Practitioner Certification	130	130	125	100%	96%	\$400	\$102,000	\$816
Level 1 CNC Milling: Programming Setup & Operations	7	7	7	100%	100%	\$800	\$11,200	\$1,600
Manual Milling Skills 1, Machining	9	9	9	100%	100%	\$600	\$10,792	\$1,199
Manufacturing Specialist (MS)	78	78	78	100%	100%	\$528	\$82,432	\$1,057
Manufacturing Technician 1 (MT1)	93	93	78	100%	84%	\$272	\$46,488	\$596
Marine Trade Training: Outside Machinist Level 1	58	58	58	100%	100%	\$668	\$77,530	\$1,337
Masonry - Level 1	3	3	3	100%	100%	\$932	\$5,594	\$1,865
Measurement, Materials, and Safety	29	28	27	97%	96%	\$401	\$21,093	\$781
Photovoltaic - Entry Level	7	7	7	100%	100%	\$475	\$6,650	\$950
Pneumatics Level 1	4	4	3	100%	75%	\$399	\$2,793	\$931
Shielded Metal Arc Welding (SMAW)	265	264	227	100%	86%	\$676	\$326,071	\$1,436
Siemens Mechatronic Systems Certification Program Level 1	11	11	11	100%	100%	\$700	\$15,400	\$1,400
Six Sigma Green Belt	7	7	-	100%	0%	\$800	\$5,600	NA
Turning Operations: Turning Chucking Skills	2	2	2	100%	100%	\$500	\$2,000	\$1,000
Welder	24	24	15	100%	63%	\$1,046	\$41,302	\$2,753
<b>Public Administration (92)</b>	<b>12</b>	<b>12</b>	<b>4</b>	<b>100%</b>	<b>33%</b>	<b>\$183</b>	<b>\$2,760</b>	<b>\$690</b>
Emergency Telecommunicator	12	12	4	100%	33%	\$183	\$2,760	\$690



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<b>Transportation and Material Moving (53)</b>	<b>2,982</b>	<b>2,966</b>	<b>2,614</b>	<b>99%</b>	<b>88%</b>	<b>\$1,325</b>	<b>\$7,257,349</b>	<b>\$2,776</b>
ASME IX Pressure Pipe	2	2	2	100%	100%	\$267	\$1,068	\$534
Bridge Preservation for Inspectors	27	27	26	100%	96%	\$200	\$10,600	\$408
Central Mix Aggregate Plant	56	56	37	100%	66%	\$200	\$18,600	\$503
Commercial Driver's License	2,469	2,455	2,180	99%	89%	\$1,466	\$6,621,692	\$3,037
Commercial Driver's License Class A Endorsement	2	2	2	100%	100%	\$600	\$2,400	\$1,200
Commercial Driver's License Class B Endorsement	14	12	13	86%	108%	\$893	\$22,000	\$1,692
Intermediate Work Zone Traffic Control Training & Flagger Certification	19	19	19	100%	100%	\$134	\$5,092	\$268
Logistics Associate	79	79	75	100%	95%	\$315	\$48,200	\$643
Logistics Technician	82	82	73	100%	89%	\$415	\$63,800	\$874
New Structures and Bridges for Inspectors	30	30	29	100%	97%	\$250	\$14,750	\$509
Power Line Commercial Driver's License Class A Endorsement	149	149	144	100%	97%	\$1,487	\$435,667	\$3,025
Remote Pilot Airman Certification	53	53	14	100%	26%	\$208	\$13,480	\$963
<b>Grand Total</b>	<b>11,533</b>	<b>11,429</b>	<b>8,794</b>	<b>99%</b>	<b>77%</b>	<b>\$802</b>	<b>\$16,265,104</b>	<b>\$1,850</b>

\*Education, Training, and library rates exceed 100% due to students earning credential but not completing training.