



PREPARED FOR
Virginia Career Works Hampton Roads and Greater Peninsula



Hampton Roads and Greater Peninsula Regions

October 11, 2019

ECONOMIC IMPACT & RETURN ON INVESTMENT OF VIRGINIA CAREER WORKS HAMPTON ROADS & GREATER PENINSULA **FISCAL YEAR 2019**

Contents

1. EXECUTIVE SUMMARY 1

2. BACKGROUND 4

3. ECONOMIC IMPACT METHODOLOGY 5

 3.1. PROFILE OF VCWHR&GP AND ECONOMIC PROFILE OF THE HAMPTON ROADS AND GREATER PENINSULA REGIONS 5

 3.2. ECONOMIC IMPACT ANALYSIS 5

 3.3. RETURN ON INVESTMENT ANALYSIS 6

4. PROFILE OF THE HAMPTON ROADS AND GREATER PENINSULA REGIONAL ECONOMY ... 7

 4.1. PROFILE OF VCWHR&GP PROGRAMS AND SERVICES 7

 4.2. REGIONAL ECONOMIC PROFILE 9

5. ECONOMIC IMPACT OF VCWHR&GP 14

 5.1. ECONOMIC IMPACT OF VCWHR&GP WIOA PROGRAMS 14

 5.2. ECONOMIC IMPACT OF ALL VCWHR&GP PROGRAMS AND SERVICES 15

6. RETURN ON INVESTMENT 16

7. CONCLUSION 17

APPENDIX 1: IMPACT ANALYSIS GLOSSARY ... 18

APPENDIX 2: VIRGINIA CAREER WORKS HAMPTON ROADS BOARD OF DIRECTORS 19

APPENDIX 3: VIRGINIA CAREER WORKS GREATER PENINSULA WORKFORCE DEVELOPMENT BOARD 21

APPENDIX 4: IMPACT AND ROI OF VIRGINIA CAREER WORKS HAMPTON ROADS 23

APPENDIX 5: IMPACT AND ROI OF VIRGINIA CAREER WORKS GREATER PENINSULA 24

1. Executive Summary

This report assesses the economic impact and return on investment (ROI) attributable to the workforce programs and services provided by Virginia Career Works Hampton Roads and Greater Peninsula (VCWHR&GP) for Fiscal Year (FY) 2019 in the combined regions of Hampton Roads and Greater Peninsula.¹ The main findings of the report are summarized below.

The economy of the Hampton Roads and Greater Peninsula region continued to expand in FY2019.

As of the second quarter of 2019, wage and salaried employment in the Hampton Roads and Greater Peninsula region reached 761,774. Regional employment expanded 0.8% in FY2019 from FY2018.

As of the second quarter of 2019, the average annual wage per worker in the Hampton Roads and Greater Peninsula region was \$48,290. This was lower than both the state average of \$59,396 and the national average of \$58,440.

In FY2019, the Hampton Roads and Greater Peninsula region added 6,550 total wage and salaried jobs. More than ninety-five percent (95.9%) of new jobs were in the private sector. State and local governments in the region lost 396 and 294 jobs, respectively, while federal government employment added 961 jobs.

In FY2019, the largest industry by employment in the Hampton Roads and Greater Peninsula region was health care and social assistance, followed by retail trade, and accommodation and food services.

At the end of FY2019 (June 2019), the unemployment rate stood at 3.2% in the Hampton Roads and Greater Peninsula region, higher than 2.9% statewide but lower than 3.9% nationally. The regional

unemployment rate further declined to 3.1% in July 2019.

The various workforce programs and services provided by Virginia Career Works Hampton Roads and Greater Peninsula have a large economic impact in the VCWHR&GP service area.

In FY2019, Virginia Career Works Hampton Roads and Greater Peninsula provided the following workforce programs and services:

- Workforce Innovation and Opportunity Act (WIOA) Adult Program
- WIOA Dislocated Workers Program
- WIOA Youth Program
- Hampton Roads Incumbent Worker Innovation Program
- Working Families Success Network Model
- Youth Career Centers
- Other youth-focused regional events
- Career Access Network (CAN)
- Business Services Direct Hire Placement
- One-Stop services, providing self-service resources for jobseekers²

In FY2019, Virginia Career Works Hampton Roads and Greater Peninsula successfully helped 602 individuals either obtain employment or improve their skills through its WIOA programs. The increased annual household income associated with those programs is estimated to be have been \$21.5 million in FY2019.

The increased income resulting from VCWHR&GP WIOA programs is estimated to have supported 776 total jobs in the Hampton Roads and Greater Peninsula region in FY2019,

¹ Fiscal Year 2019 starts July 1, 2018 and ends June 30, 2019. Virginia Career Works Hampton Roads serves the counties of Isle of Wight and Southampton, and the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach. Virginia Career Works Greater Peninsula serves the counties of Gloucester, James City, York, and the cities of Hampton, Newport News, Poquoson, and Williamsburg.

² In this report, all workforce programs and services excluding Business Services Direct Hire are collectively termed VCWHR&GP WIOA programs. Economic impact and ROI are evaluated for all VCWHR&GP WIOA programs and all VCWHR&GP programs and services.

associated with \$28.6 million in total regional labor income. In addition, the increased income is estimated to have generated \$23.3 million in additional regional economic output, and \$3.1 million in state, local, and federal tax revenue.

If job placements through Business Services Direct Hire Placements were included, VCWHR&GP was instrumental in helping 761 individuals either obtain employment or improve their skills in FY2019. The increased annual household income associated with those job placements is estimated to have been \$26.4 million in FY2019. As hiring data from One-Stop services are not available, estimates for the total impact of VCWHR&GP should be considered conservative.³

Increased income resulting from VCWHR&GP programs is estimated to have supported 975 total jobs in the Hampton Roads and Greater Peninsula region in FY2019, associated with \$35.0 million in total regional labor income. In addition, the increased income was also responsible for \$28.5 million in additional regional economic output, and \$3.8 million in state, local, and federal tax revenue.

The return on investment analysis shows that the benefit of VCWHR&GP programs and services exceeds the cost.

In FY2019, the cost associated with all VCWHR&GP programs and services was \$8.2 million, with \$5.8 million for Hampton Roads and \$2.3 million for the Greater Peninsula region (numbers may not sum due to rounding).

The benefit is defined as the total labor income attributable to persons served through VCWHR&GP programs and services.

Excluding business services, the benefit-to-cost ratio of VCWHR&GP WIOA programs was 3.5 in FY2019, indicating that the benefit of VCWHR&GP programs was 3.5 times the public cost required.

If the ROI analysis is expanded to encompass business services, the benefit-to-cost ratio of all VCWHR&GP programs and services in FY2019 would rise to 4.3. This indicates that the benefit is 4.3 times the public cost required.

³ The analysis in this report is based on available data. The following programs did not have data on job placements: One-Stop services; Incumbent Worker Innovation Program; Working Families Success Network Model; Youth Career Centers; other youth-focused regional events; Career Access Network (CAN).

2. Background

Virginia Career Works Hampton Roads and Greater Peninsula (VCWHR&GP) serves the counties of Isle of Wight, Southampton, Gloucester, James City, and York, and the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, Virginia Beach, Hampton, Newport News, Poquoson, and Williamsburg (VCWHR&GP service area, Figure 2.1).⁴ Virginia Career Works Hampton Roads and Greater Peninsula workforce boards provide a comprehensive list of workforce development programs. It includes the Workforce Innovation and Opportunity Act (WIOA) Adult, Youth, and Dislocated Worker programs, as well as other career services. In addition, there are five VCWHR&GP-managed centers (One-Stop Employment Centers) and two youth career centers in the region.

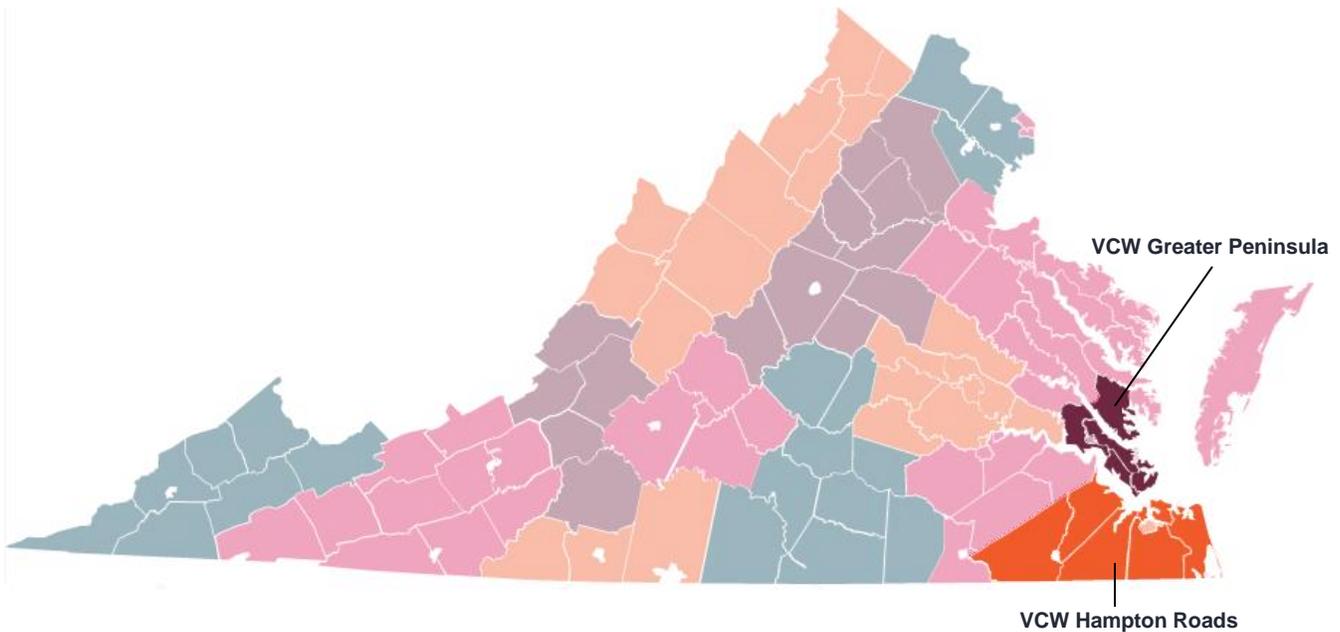
Virginia Career Works Hampton Roads and Greater Peninsula needs a study of the economic and fiscal impacts of the varied workforce training and career services programs it provides. In addition, VCWHR&GP wants to understand the return on investment (ROI) of programs and services. Chmura Economics & Analytics (Chmura) was contracted to perform such an analysis for Fiscal Year (FY) 2019.⁵

The remainder of this report is organized as follows:

- Section 3 explains the methodology in conducting economic impact and return on investment analysis for workforce programs and services.

- Section 4 provides a profile of VCWHR&GP programs and services and an economic profile of the Hampton Roads and Greater Peninsula regions.
- Section 5 analyzes the economic impact of VCWHR&GP programs and services in the Hampton Roads and Greater Peninsula region.
- Section 6 presents the ROI analysis for VCWHR&GP programs and services.
- Section 7 provides a summary and conclusion.
- Appendices 4 and 5 provide the economic impact and ROI analysis by region.

Figure 2.1: Virginia Career Works Hampton Roads and Greater Peninsula Regions



Source: Virginia Career Works

⁴ Source: <https://www.vcwhamptonroads.org/> and <https://vcwpeninsula.com/>.

⁵ Fiscal Year 2019 is defined as July 1, 2018 – June 30, 2019.

3. Economic Impact Methodology

To maintain consistency with prior reports published by VCWHR&GP on the economic impact and ROI of programs and services, this study utilizes the same methodology as previous studies. Based on the needs of VCWHR&GP and a review of prior studies, this report includes three major components:

1. A profile of Virginia Career Works Hampton Roads and Greater Peninsula programs and services, and an economic profile of the Hampton Roads and Greater Peninsula region for FY2019.
2. The economic impact of VCWHR&GP programs and services in the Hampton Roads and Greater Peninsula region for FY2019.
3. Return on investment analysis of VCWHR&GP programs and services for FY2019.

3.1. Profile of VCWHR&GP and Economic Profile of the Hampton Roads and Greater Peninsula Region

The profile of VCWHR&GP is a summary of existing programs and services and demonstrated roles they play in helping regional workers achieve career success. This profile presents information such as a list of available programs and services, participants and job placements by program, and post-training wages for program participants. The main data sources

for this analysis are program reports and administrative data from both VCWHR and VCWGP.

An economic profile of Hampton Roads and Greater Peninsula region is also included, providing a broad context to evaluate the economic impact and ROI of VCWHR&GP

programs and services. Chmura analyzed data on total employment and employment growth, employment by major industry sector, employment by ownership category, average wages, and the unemployment rate for the region. Data from Chmura's proprietary JobsEQ[®] platform were utilized to complete this analysis.

3.2. Economic Impact Analysis

In this analysis, Chmura examined the economic impact of VCWHR&GP programs and services in the Hampton Roads and Greater Peninsula region. The main source of economic impact is incremental income gained by individuals who either successfully transitioned into employment or gained new training with the help of VCWHR&GP programs and services.⁶ For individuals who were unemployed prior to utilizing these programs and services, the incremental wage is equivalent to wages and salaries they would receive in their new jobs. For individuals receiving training, the incremental wage is defined as the difference between pre- and post-training wages.

When individuals spend incremental income in the Hampton Roads and Greater Peninsula region, additional economic impact is generated. While incremental spending constitutes the direct economic impact of

VCWHR&GP programs and services in the Hampton Roads and Greater Peninsula region, total economic impact also includes economic ripple effects from the direct impact. Ripple effects, categorized as indirect and induced impacts (see Appendix 1 for definitions), measure the secondary benefits of increased household spending at regional businesses. For example, when newly employed individuals spend their wages on housing, groceries, and transportation, they help other businesses and support additional jobs. The cumulative result of these secondary effects is called indirect impact when it represents business-to-business transactions, and induced impact when it represents household- (employee) to-business transactions.

Direct impact, measured as household spending from incremental income, was estimated based on data from VCWHR&GP.

Chmura estimated the indirect and induced economic impacts with the IMPLAN Model after the direct impacts were estimated.⁷

In the analysis, Chmura examined the economic impact of VCWHR&GP programs and services in four dimensions:

1. Employment, or the total number of jobs that are supported in the regional economy through incremental household income
2. Labor income, or the salaries and wages that are associated with total employment
3. Economic output, or the total amount of regional economic activity that is generated through secondary indirect and induced transactions
4. Fiscal impact, or the federal, state, and local tax revenue as a result of the increased economic activity

⁶ The operation of VCWHR&GP will also generate positive economic impact in the area. This impact is not included in this study as the focus is the success of program participants.

⁷ IMPLAN is an economic impact assessment modeling system developed by IMPLAN Group that is often used by economists to build models that estimate the impact of economic changes on local economies.

3.3. Return on Investment Analysis

In addition to the economic impact analysis, Chmura assessed the return on investment (ROI) of VCWHR&GP programs and services. ROI is expressed as a benefit-to-cost ratio. In this study, the cost is represented by all expenses associated with workforce programs

and services provided by Virginia Career Works Hampton Roads and Greater Peninsula in FY2019. The benefit is represented by the total annual labor income attributable to VCWHR&GP programs and services, resulting from new job placements and improved skills.⁸

To conclude the ROI analysis, a benefit-to-cost ratio was computed for two broad programs. These included VCWHR&GP WIOA programs, and all VCWHR&GP programs and services.

⁸ This definition is consistent with prior studies.

4. Profile of the Hampton Roads and Greater Peninsula Regional Economy

4.1. Profile of VCWHR&GP Programs and Services

Virginia Career Works Hampton Roads and Greater Peninsula provide a wide range of workforce training programs and services to regional jobseekers to help them locate

employment in the area. In particular, VCWHR&GP offers several structured workforce programs in which individuals are enrolled and work with case managers (WIOA

programs). In addition, VCWHR&GP maintains five One-Stop Employment Centers where individuals can utilize facilities and resources in search of employment.

4.1.1. Description of VCWHR&GP Programs & Services

In FY2019, Virginia Career Works Hampton Roads and Greater Peninsula provided career training and job placement services through the following programs:

- **Workforce Innovation and Opportunity Act (WIOA) Programs**
 - o WIOA Adult Program – provides employment and training services to assist eligible adults (individuals 18 years and older) in finding meaningful employment.
 - o WIOA Dislocated Worker Program – provides employment and training services to dislocated workers (an individual who has been terminated or laid off, or has received notice that they will be terminated or laid off) in finding meaningful employment.
 - o WIOA Youth Program – provides summer and year-round development programs to at-risk youth ages 16 – 24 (e.g., dropouts, foster children, juvenile

offenders, children of incarcerated parents, and migrant children).

- **Other WIOA Grant Programs**

- o Hampton Roads Incumbent Worker Innovation Program (HRIWIP) – provides training for employees of small-to-medium size employers in the Hampton Roads region, targeting employers in advanced manufacturing; information technology; transportation, warehousing, and logistics; and healthcare.
- o Working Families Success Network Model – delivers bundled services such as workforce and education services; income and work support; and financial services and asset building.⁹

- **Non - WIOA Grants Programs**

- o Youth Career Center of Hampton Roads (YCCHR) – provides career exploration, job preparation, and financial literacy education to youth grades 6 through 12 and young adults up to age 24.

- o Career Access Network – connects individuals to essential career-related information and services within their communities. Offerings include career exploration, job search assistance, labor market information, financial literacy education, and employer recruitment activities.
- o Other youth-focused regional events – include the Greater Peninsula Youth Expo, the NextGen Opportunity Fair, Career Guidance Academy, and Entrepreneurship Summit.
- o Business Services – assists with direct placement and hires.

In the analysis that follows, Chmura refers to all programs and services (other than business services direct hires) as VCWHR&GP WIOA programs. Economic impact and ROI evaluations are conducted for all VCWHR&GP programs and services, as well as for WIOA programs.

⁹ Services will be delivered through September 30, 2019.

4.1.2. Outcome of VCWHR&GP Programs & Services

Table 4.1 summarizes participants and job placements for different VCWHR&GP programs and services in FY2019. In FY2019, a total of 917 individuals were enrolled in WIOA Adult, WIOA Dislocated Worker, and WIOA Youth programs. In addition, 19,222 individuals utilized Youth Career Centers, Youth Expo, and Career Access Network services. Finally, 14,903 unique individuals accessed the One-Stop Employment Centers to conduct job searches. They registered 58,981 total visits in FY2019.

In total, these programs and services were instrumental in transitioning 761 individuals to employment, with an average annual wage of \$34,668. Out of this number, 602 were placed into employment through the WIOA Adult, Dislocated Worker, and Youth programs. An additional 159 jobseekers found employment as a result of the Business Services Direct Hire Placement program.

Wages for participants in WIOA Youth programs were not tracked by VCWHR&GP. To evaluate earnings for the program, Chmura used regional entry-level wages for jobs which typically require short term on-the-job training, no experience, and no education award. The average wage for those positions is estimated at \$9.53 per hour for FY2019.

Table 4.1: Virginia Career Works Hampton Roads and Greater Peninsula Program Participants and Job Placements in FY2019

PROGRAMS & SERVICES	ENROLLMENT	JOB PLACEMENTS	AVERAGE INCREMENTAL ANNUAL SALARY
WIOA Enhanced Career Services	917	602	\$35,738
WIOA – Adult	455	291	\$29,860
WIOA – Dislocated Worker	209	199	\$52,557
WIOA – Youth	253	112	\$21,128
Other Programs	19,222	159	\$30,618
Business Services Direct Hire Placement		159	\$30,618
Youth Career Center of Hampton Roads - Total Youth Served	8,526		
Greater Peninsula Youth Expo - Total Youth Served	1,500		
Career Access Network - Total Participants Served	9,196		
Total WIOA Programs	917	602	\$35,738
Participants in Other Programs	19,222	159	\$30,618
One-Stop Services	14,903		
Total VCWHR&GP Programs & Services		761	\$34,668

Source: VCWHR & VCWGP

4.2. Regional Economic Profile

4.2.1. Trend in Employment and Wages

Employment size and growth is the broadest and timeliest indicator of a region's overall economic health. A growing labor market also increases the chances that participants of VCWHR&GP programs and services can find meaningful employment in the region.

The data show that in the second quarter of 2019, the Hampton Roads and Greater Peninsula region had a total wage and salaried employment of 761,774, which is 0.8% higher than the second quarter of 2018.¹⁰

Figure 4.1 depicts quarterly trends in total employment in the Hampton Roads and Greater Peninsula region since 2010. As these data show, despite the seasonal regional employment decline in the first quarter of each year, the overall employment trend shows a steady expansion since 2010. Regional employment growth stalled during 2013 and 2014, largely due to federal spending cuts as a result of federal budget sequestration, but growth resumed after 2014 and employment has expanded solidly since 2015. In total, the Hampton Roads and Greater Peninsula region has gained 69,077 jobs since the first quarter of 2010.

In terms of employment growth, since 2010, employment in the Hampton Roads and Greater Peninsula region expanded at an average rate of 0.6% per year, compared with 1.0% for Virginia and 1.4% for the nation. As Figure 4.2 shows, the region rebounded from the 2007 to 2009 recession slower than both the state and the nation, as job growth from 2010 to 2013 remained lower in the region. Employment growth in the Hampton Roads and Greater Peninsula region outpaced growth in Virginia in 2013. Since 2014, the region's employment growth has consistently fallen below statewide and national growth.

Figure 4.1: Hampton Roads and Greater Peninsula Regions Quarterly Wage and Salaried Employment

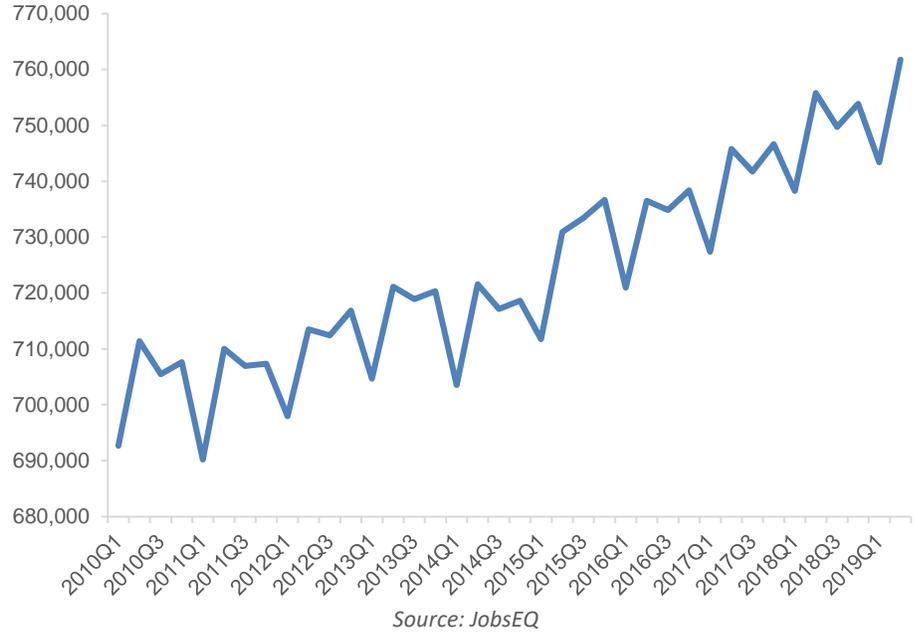
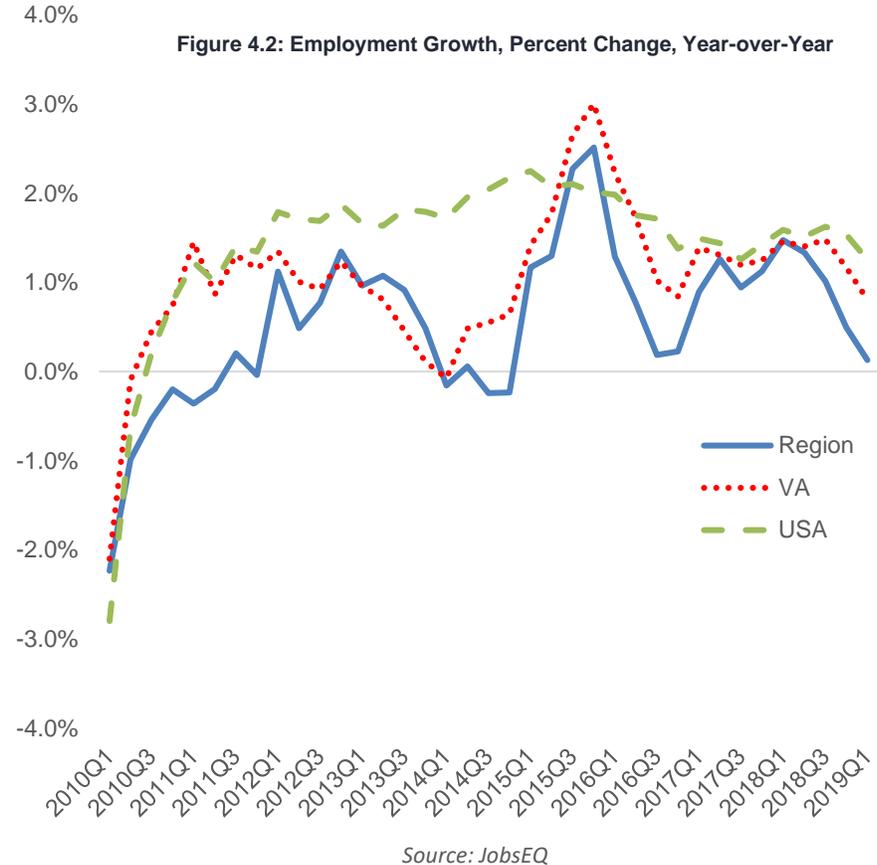
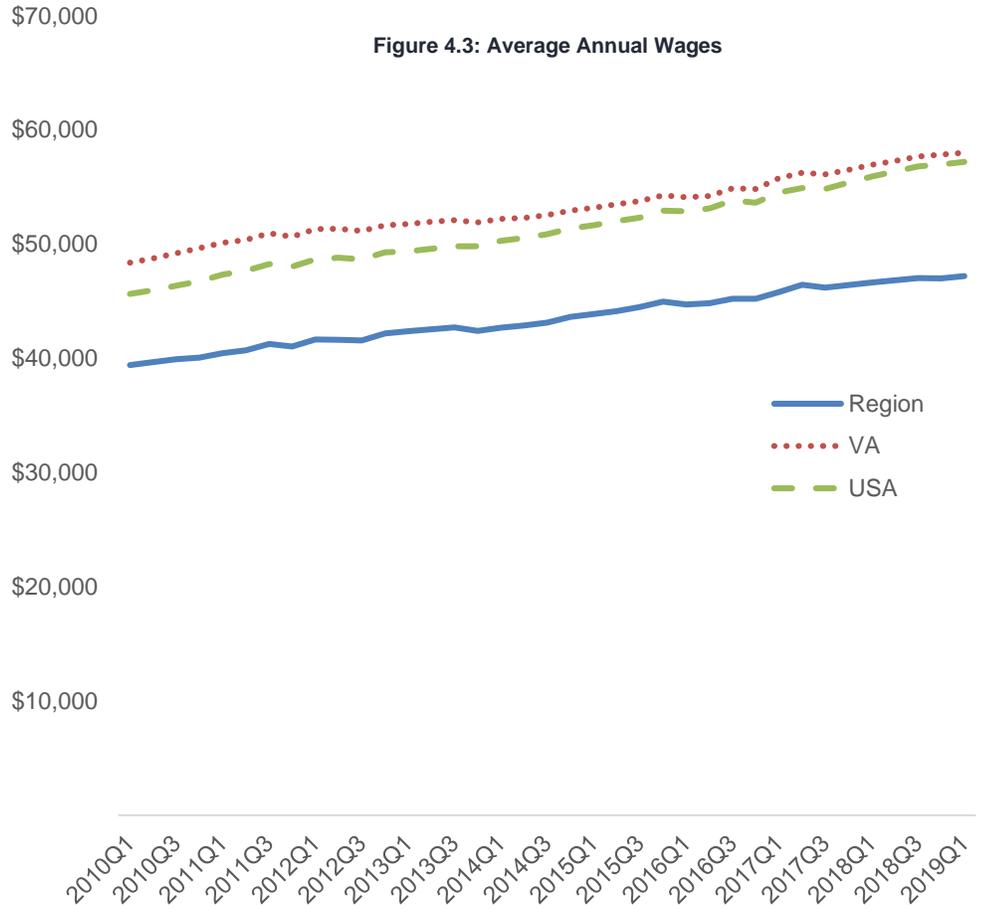


Figure 4.2: Employment Growth, Percent Change, Year-over-Year



¹⁰ Wage and salaried employment does not include proprietors or self-employed individuals. Chmura excluded those groups to be consistent with prior studies.

As of the second quarter of 2019, the average annual wage per worker in the Hampton Roads and Greater Peninsula region was \$48,290, significantly lower than both the state average of \$59,396 and the national average of \$58,440. As will be analyzed later, the lower average wage can be primarily attributed to the industry mix of the region. The Hampton Roads and Greater Peninsula region employs a high concentration of workers in arts, entertainment, and recreation; real estate and rental and leasing; and accommodation and food services which tend to pay lower salaries. In addition, wages grew 3.1% in the region over the year ending 2019Q2, trailing 3.7% growth rates in both the state and the nation.



Source: JobsEQ

4.2.2. Employment and Wage by Ownership

Figure 4.4 provides a breakdown of total wage and salaried employment in the Hampton Roads and Greater Peninsula region in FY2019 by ownership category. In FY2019, the data show that 593,648 jobs (or 78.9%) of the region's total employment of 752,178 was in the private sector, while 158,530 (or 21.1%) was in the government sector. Compared with the state average of 18.1%, the percentage of overall government employment in the Hampton Roads and Greater Peninsula region is higher (21.0%). The region has a lower percentage of state government employment compared to the state overall, but has a higher percentage of both local government (10.6% compared with 9.7% in the state), and federal government (7.7% to the state's 4.6%) employment.

Among different ownership categories, average wages were highest for workers in the federal government, averaging \$79,518 in FY2019. This is significantly higher than the average of \$48,290 for all wage and salaried workers in the Hampton Roads and Greater Peninsula region (Figure 4.5). In contrast, workers employed in state and local governments had average wages of \$46,232 and \$44,264, respectively—much lower than wages in the federal government.

Figure 4.6 depicts the changes in employment by ownership category from FY2018 to FY2019 in the Hampton Roads and Greater Peninsula region. The largest contributor to job growth in the region was the private sector. Of the total 6,550 new jobs added in the region in FY2019, the private sector accounted for 6,280. Federal government employment expanded, while jobs in both state and local governments declined. Overall, government employment added 270 jobs over FY2019.

Figure 4.4: Employment by Ownership Category, FY2019

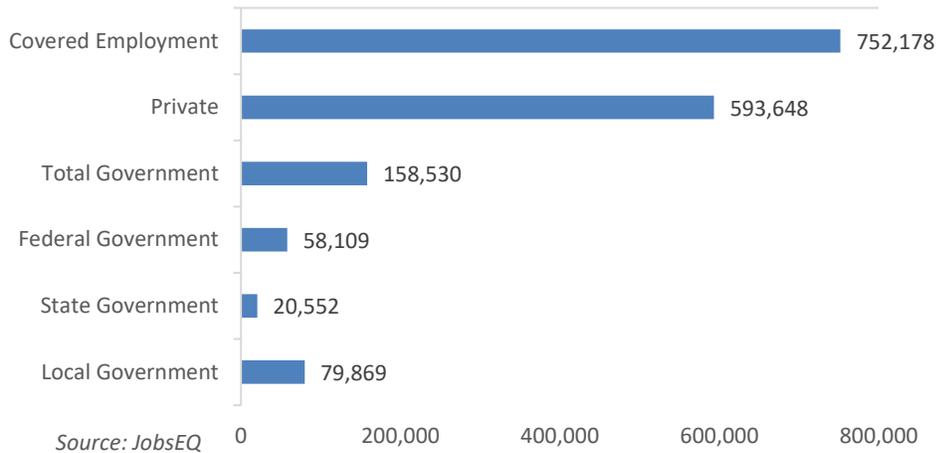
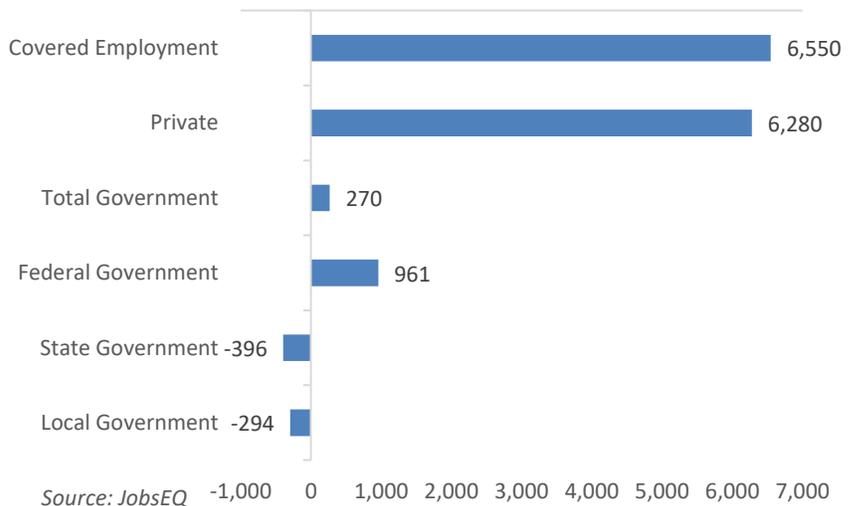


Figure 4.5: Average Annual Wage by Ownership Category, FY2019



Figure 4.6: Annual Change in Employment by Ownership Category, FY2018 to FY2019



4.2.3. Employment and Wage by Industry Sector

The Hampton Roads and Greater Peninsula region is home to many different industries. As Figure 4.7 shows, in FY2019, the largest industry by employment was health care and social assistance (106,589 jobs), followed by retail trade (87,892 jobs), and accommodation and food services (80,475 jobs). Other large industry sectors included educational services (69,230 jobs), manufacturing (69,145 jobs), and public administration (53,109 jobs).¹¹

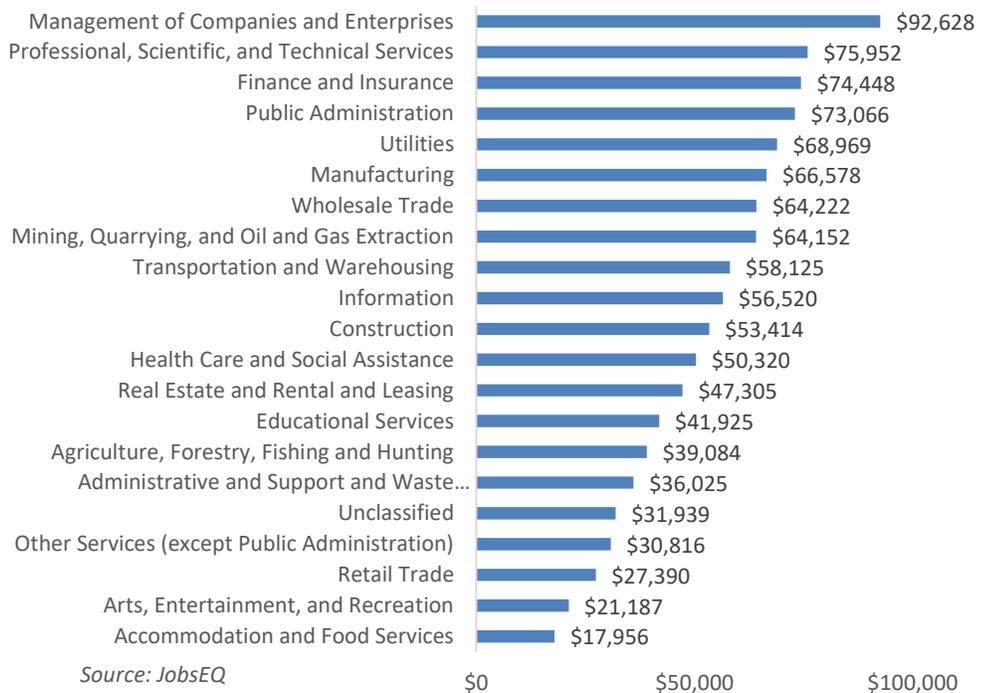
Figure 4.8 presents the average annual wages by major industry in the Hampton Roads and Greater Peninsula region for FY2019. Management of companies and enterprises was the highest-paying industry, with an average annual wage of \$92,628. This industry represents many corporate headquarters in the Hampton Roads and Greater Peninsula region, employing a large number of corporate executives and highly skilled professionals. Professional, scientific, and technical services was ranked second with an average annual wage of \$75,952. Other high-paying industries were finance and insurance (\$74,448 annual wage), public administration (\$73,066) and utilities (\$68,969).

On the other end of the spectrum, accommodation and food services, and arts, entertainment, and recreation paid the lowest annual wages, averaging \$17,956 and \$21,187, respectively, in FY2019. Workers in those industries may face challenges to maintain a certain standard of living, even though costs for housing and transportation in the Hampton Roads and Greater Peninsula region are lower than in other areas of Virginia.

Figure 4.7: Employment by Major Industry, FY2019



Figure 4.8: Average Annual Wages by Major Industry, FY2019



¹¹ Please note that employees of public schools are classified as government employees by ownership category, but by industry, they are classified as working in the education services industry. For this reason, employment in public administration was smaller than total government jobs.

Figure 4.9 summarizes the employment changes by industry in the Hampton Roads and Greater Peninsula region between FY2018 and FY2019. The largest employment gains over the period occurred in manufacturing (+ 4,015 jobs), administrative support and waste management (+1,817), health care and social assistance (+1,646 jobs), and accommodation and food services (+917). On the other hand, the largest employment losses over the period occurred in retail trade (-2,879 jobs), educational services (-718) and finance and insurance (-611).

4.2.4. Unemployment Rate

Another broad indicator of the health of a regional economy is the unemployment rate. Figure 4.10 compares recent unemployment trends in the Hampton Roads and Greater Peninsula region to those at the state and national levels. The unemployment rate data are monthly from January 2010 through July 2019 (the most recent month for which such data were available).

Since 2010, the unemployment rates of the region, state, and nation have steadily declined as the country recovered from the recession of 2007 to 2009. Labor market conditions continued to improve in 2018 and 2019, but the unemployment rate is declining at a slower pace. The data also show that unemployment rates in the Hampton Roads and Greater Peninsula region have been consistently below that of the United States, but greater than that of Virginia. In July 2019, unemployment rates stood at 3.1% in the Hampton Roads and Greater Peninsula region, 2.9% statewide, and 4.0% nationally.

Figure 4.9: Employment Change by Major Industry, FY2018 to FY2019

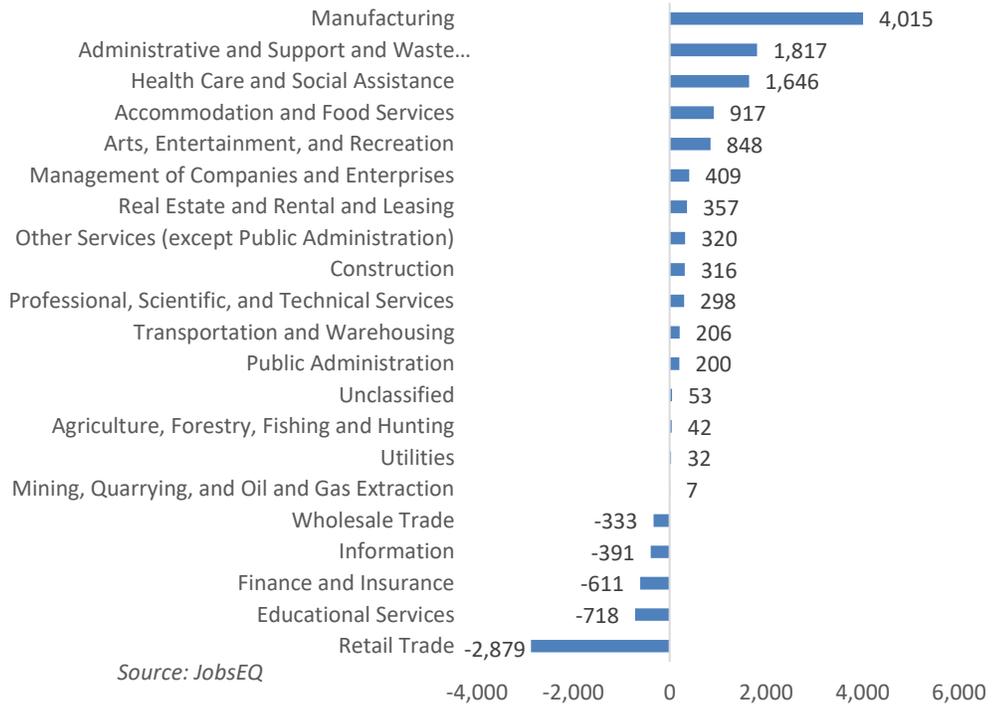
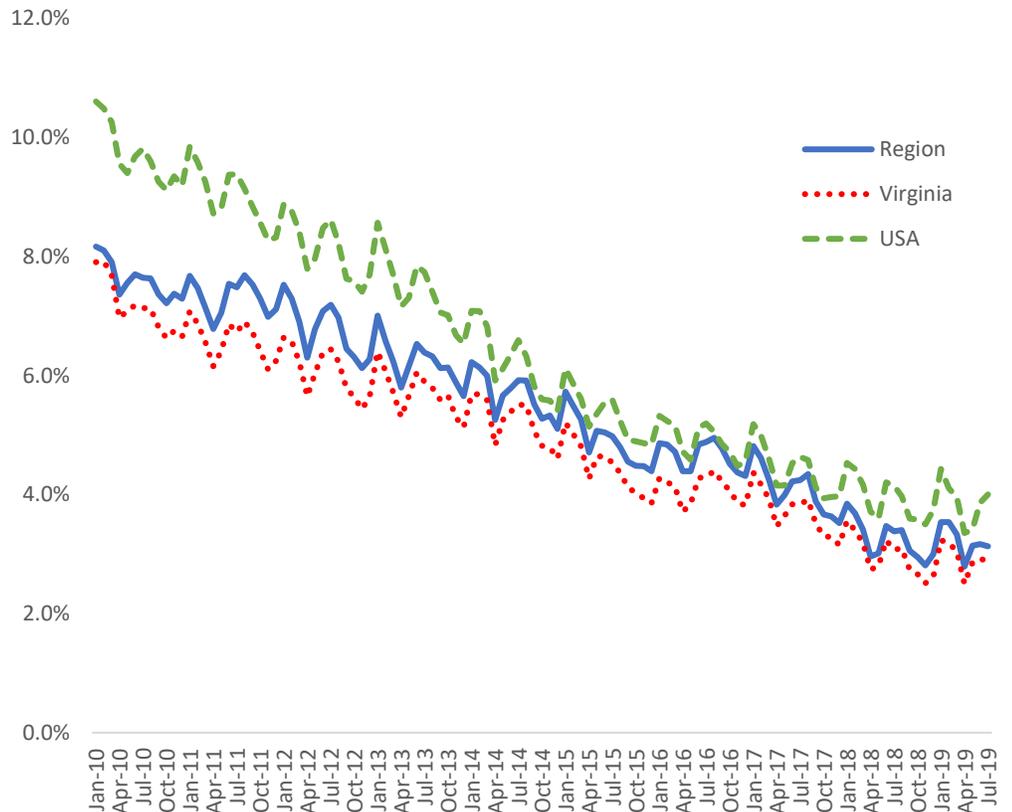


Figure 4.10: Monthly Unemployment Rate, January 2010 to July 2019



5. Economic Impact of VCWHR&GP

As noted earlier, the main benefit for a jobseeker to enroll in VCWHR&GP workforce training programs and services is the potential for obtaining a job and receiving higher earnings for those formerly unemployed. When this additional income is spent within local communities, it generates additional economic impact in the Hampton Roads and Greater Peninsula region.

As shown in Table 5.1, a total of 761 individuals found employment after enrolling in VCWHR&GP programs in FY2019. Their average incremental wage was \$34,668 per year. As a result, the total annual incremental household income generated through these programs is estimated to be \$26.4 million. Of this figure, \$21.5 million is the incremental income for those who either found jobs or received training through VCWHR&GP WIOA programs, and \$4.9 million is for those using the Business Services Direct Hire Placement services.

Table 5.1: Additional Household Income Attributable to FY2019 VCWHR&GP Programs

PROGRAMS & SERVICES	JOB PLACEMENTS	INCREMENTAL AVERAGE ANNUAL SALARY	INCREMENTAL TOTAL HOUSEHOLD INCOME (\$MILLION)
WIOA – Adult	291	\$29,860	\$8.7
WIOA – Dislocated Worker	199	\$52,557	\$10.5
WIOA – Youth	112	\$21,128	\$2.4
Business Services Direct Hire Placement	159	\$30,618	\$4.9
Total WIOA Programs	602	\$35,738	\$21.5
Participants in Other Programs	159	\$30,618	\$4.9
Total VCWHR&GP Programs & Services	761	\$34,668	\$26.4

Source: VCWHR and VCWGP

5.1. Economic Impact of VCWHR&GP WIOA Programs

Excluding job placements through Business Services Direct Hire Placement, a total of 602 individuals found jobs with the help of VCWHR&GP WIOA programs in FY2019. They earned \$21.5 million in annual incremental income from wages and salaries.

It is assumed that all consumption expenditures were made within the Hampton Roads and Greater Peninsula region. In addition, the economic impact is estimated based on a “representative year” assuming all those individuals work a full year, even though employment start dates were likely spread out over FY2019.¹²

Table 5.2 sums up the economic impact of WIOA programs in the Hampton Roads and Greater Peninsula region in FY2019. In terms of regional employment, direct impact is represented by the 602 individuals who transitioned into employment through VCWHR&GP programs. The household expenditures made by these newly employed individuals also supported an additional 174 jobs in the area through indirect and induced impact, for a total employment

Table 5.2: Economic Impact of VCWHR&GP WIOA Programs, FY2019

	EMPLOYMENT	LABOR INCOME (\$MILLION)	OUTPUT
Direct Impact	602	\$21.5	\$0.0
Indirect & Induced Impact	174	\$7.0	\$23.3
Total Impact	776	\$28.6	\$23.3
	STATE & LOCAL	FEDERAL	TOTAL
Fiscal Impact (\$Million)	\$1.4	\$1.7	\$3.1

Note: Numbers may not sum due to rounding
 Source: IMPLAN 2017

impact of 776 jobs in the Hampton Roads and Greater Peninsula region.

For regional labor income, the direct impact is represented by \$21.5 million in annual wages and salaries paid to individuals benefiting from VCWHR&GP WIOA programs. The household expenditures made by these individuals also generated \$7.0 million in additional regional labor income through indirect and induced

impact, for a total regional labor income of \$28.6 million in FY2019.

Finally, household spending by newly employed individuals also generated \$23.3 million in additional annual total economic output in the region.¹³ In addition, this household spending is estimated to have generated \$1.4 million in state and local tax revenue, and \$1.7 million in federal tax revenue—for a total fiscal impact of \$3.1 million in FY2019.

¹² This same assumption has been used in previous studies.

¹³ Economic output is typically represented by total sales (revenue of all businesses) in a region.

5.2. Economic Impact of all VCWHR&GP Programs and Services

Including job placements from Business Services Direct Hire Placement, a total of 761 individuals found jobs with the help of VCWHR&GP programs and services in FY2019. They earned an estimated \$26.4 million in annual income in terms of wages and salaries.

Table 5.3 summarizes the economic impact of all VCWHR&GP programs and services in the Hampton Roads and Greater Peninsula region in FY2019. In terms of regional employment, direct impact is represented by 761 individuals who transitioned into employment through VCWHR&GP programs and services. Household expenditures made by these individuals also supported an additional 214 jobs in the area through indirect and induced impact, for a total regional employment impact of 975 jobs.

For regional labor income, the direct impact is represented by \$26.4 million in annual wages and salaries paid to individuals benefiting from all VCWHR&GP programs and services. Household expenditures made by these individuals also generated \$8.6 million in regional labor income through indirect and induced impact, for a total regional labor income of \$35.0 million in FY2019.

Finally, household spending by newly employed individuals also generated \$28.5 million in total economic output in the region.

In addition, household spending was responsible for generating \$1.8 million in additional state and local tax revenue, and \$2.1 million in additional federal tax revenue. The total fiscal impact was \$3.8 million in FY2019.

Table 5.3: Economic Impact of all VCWHR&GP Programs and Services, FY2019

	EMPLOYMENT	LABOR INCOME (\$MILLION)	OUTPUT
Direct Impact	761	\$26.4	\$0.0
Indirect & Induced Impact	214	\$8.6	\$28.5
Total Impact	975	\$35.0	\$28.5
	STATE & LOCAL	FEDERAL	TOTAL
Fiscal Impact (\$Million)	\$1.8	\$2.1	\$3.8

Note: Numbers may not sum due to rounding
 Source: IMPLAN 2017

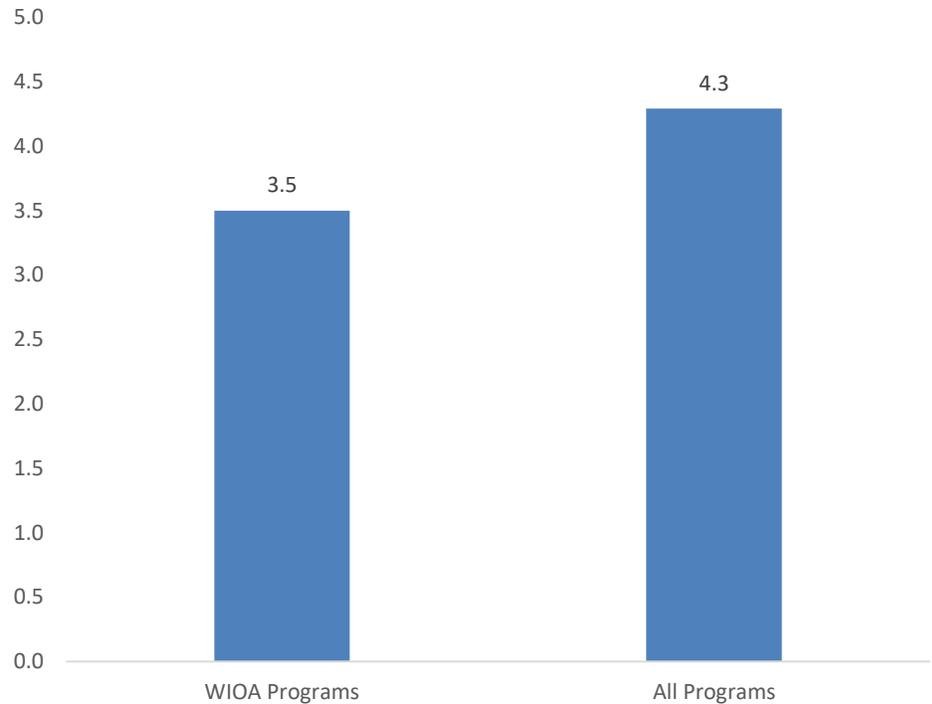
6. Return on Investment

In FY2019, the public cost associated with delivering VCWHR&GP programs and services was \$8.2 million.¹⁴ Comparing this cost to the benefit derived from these programs, measured in total labor income, it is estimated that the benefit-to-cost ratio was 3.5 in FY2019 for VCWHR&GP WIOA programs. This indicates that the benefit derived from the programs was 3.5 times the public cost required (Figure 6.1).

If the analysis is expanded to encompass all programs and services provided by VCWHR&GP, the benefit-to-cost ratio rose to 4.3 in FY2019, indicating that the benefit was more than four times the public cost required.¹⁵

The ratios estimated in this section only capture the annual benefits of VCWHR&GP programs and services. However, benefits will recur in the Hampton Roads and Greater Peninsula region each year, provided those individuals remain employed. As a result, the long-term return on investment of these programs and services can be significantly higher.

Figure 6.1: Benefit-to-Cost Ratio of VCWHR&GP Programs and Services, FY2019



Source: Chmura

¹⁴ Source: VCWHR and VCWGP.

¹⁵ To be consistent with prior studies, this report does not differentiate costs for One-Stop services.

7. Conclusion

In FY2019, Virginia Career Works Hampton Roads and Greater Peninsula made significant contributions to the regional economy. The system was instrumental in helping 761 individuals obtain jobs in FY2019. The associated incremental household income for those individuals was approximately \$26.4 million. The total impact of those programs and services is estimated to be 975 jobs in the Hampton Roads and Greater Peninsula region, associated with \$35.0 million in total regional labor income, \$28.5 million in additional regional

economic output, and \$3.8 million in state, local, and federal tax revenue.

Excluding job placements through Business Services Direct Hire Placement, Virginia Career Works Hampton Roads and Greater Peninsula helped 602 individuals obtain employment and improve their skills through its WIOA programs in FY2019. The increased household income for those was approximately \$21.5 million. The total impact of those programs is estimated to be 776 jobs in the Hampton Roads and Greater

Peninsula region, associated with \$28.6 million in total regional labor income, \$23.3 million in additional regional economic output, and \$3.1 million in state, local, and federal tax revenue.

In FY2019, the public cost associated with all VCWHR&GP programs and services was \$8.2 million. Comparing benefit and cost, the benefit-to-cost ratio for VCWHR&GP WIOA programs was 3.5, while the benefit-to-cost ratio rose to 4.3 for all VCWHR&GP programs and services.

Appendix 1: Impact Analysis Glossary

Impact Analysis—an examination of business-business and business-consumer economic relationships capturing all monetary transactions in a given period, allowing one to calculate the effects of a change in an economic activity on the entire economy (input-output analysis).

Direct Impact—economic activity generated by a project or operation. For construction, this represents activity of the contractor; for operations, this represents activity by tenants of the property.

Overhead—construction inputs not provided by the contractor.

Indirect Impact—secondary economic activity that is generated by a project or operation. An example might be a new office building generating demand for parking garages.

Induced (Household) Impact—economic activity generated by household income resulting from direct and indirect impacts.

Ripple Effect—the sum of induced and indirect impacts. In some projects, it is more appropriate

to report ripple effects than indirect and induced impacts separately.

Total Economic Impact—the sum of the direct, indirect and induced impact.

Fiscal Impact—the tax revenue for federal, state or local governments derived from the direct economic impact. Appendix 2 shows the fiscal impact when ripple effects are also included.

Multiplier—the cumulative impacts of a unit change in economic activity on the entire economy.

Appendix 2: Virginia Career Works Hampton Roads Board of Directors

Delceno C. Miles (Chair)

The Miles Agency

Vonya Alleyne

Cox Communications Virginia

Chas Wright

TowneBank

Thomas Calhoun

Norfolk Federation of Teachers Local 4261

William W. Crow

Virginia Ship Repair Association

Dr. Larry Dotolo

Virginia Tidewater Consortium for Higher Education

Daniel Lufkin

Paul D. Camp Community College

L'Tanya Johnson

Cost Plus World Market

Pamela Little-Hill

City of Portsmouth

Mary D. McGovern

Divaris Real Estate, Inc.

Dr. Ruth Jones Nichols

Foodbank of Southeastern Virginia and the Eastern Shore

Ron Ritter

On Point, LLC

Kim Shepard

VA Department of Aging & Rehabilitative Services

Chris Stuart

Top Guard Security

Edith White

Hampton Roads Community Action Program

Kevin Will

Boys & Girls Club of Southeast Virginia

Dr. Corey McCray

Tidewater Community College

Mark Johnson (Vice Chair)

SunTrust Bank

Andy Jaeckle

Stihl, Inc.

Hosey Burgess

Virginia Employment Commission

Dr. Ken Chandler

City of Virginia Beach

Dr. Elsie M. Barnes

Norfolk State University

Dr. Johnny Garcia

SimIS, Inc.

The Honorable Donald Goldberg

Harvey Lindsay Commercial Real Estate

Whitney Lester

VersAbility Resources

John Kownack

Norfolk Redevelopment & Housing Authority

Bill Miller

Fairlead Integrated

Jared Chalk

City of Norfolk

Dr. Aaron Spence

Virginia Beach City Public Schools

Bryan K. Stephens

Hampton Roads Chamber of Commerce

Steve S. Herbert

Hampton Roads Economic Development Alliance

Virginia Batteen Hawks

S.L. Nusbaum Realty Co.

Steven C. Wright

Chesapeake Economic Development

Alice Graham

Portsmouth Public Schools

Thom Prevette

Bon Secours Health System

Ellis Cofield

Cofield's Locksmith

Greg Garrett

Garrett Realty Partners

Brian Courtien

Finishing Trades Institute of MD, VA, DC & Vicinities

Shannon Kane

EWR Management

Dr. Keisha Pexton

Newport News Shipbuilding

Ross Cherry

Cherry Carpeting & Flooring Co.

Peninsula Representative: Dr. John Olson

ECPI University

Stephanie Gorham

VOLUNTEER Hampton Roads

Appendix 3: Virginia Career Works Greater Peninsula Workforce Development Board

The Honorable Phillip N. Bazzani

Gloucester County Board of Supervisors

Dr. John T. Dever

Thomas Nelson Community College

The Honorable James “Jimmy” Gray

City of Hampton

The Honorable James Icenhour

James City County Board of Supervisors

Robin Nelhuebel, Ph.D., RN, RTR

Riverside College of Health Careers

Dale K. Stone

Wal-Mart Import Distribution Center 6088

Vince Warren, Ed.D.

Newport News Shipbuilding

Andrea Arnett

Sentara Healthcare System

Honorable Melanie Rapp Beale

Dominion Energy

Josie Pearson,PHR, SHRM-CP

Science Systems and Applications, Inc.

Ronald Jackson

Hampton Redevelopment and Housing Authority

Rachel Ambrose

Denbigh Learning Center

Peter P. Walentisch

City of Williamsburg

James Randall “Randy” Wheeler

City of Poquoson

Whitney C. Lester

VersAbility Resources, Inc.

John C. Meyer

SynEnergy Inc.

Mary M. Williams

1st Advantage Federal Credit Union

Rhonda Bunn

Canon Virginia, Inc.

Greg Garrett

Greg Garrett Realty

The Honorable Herbert R. Green, Jr.

Greater Peninsula Workforce Development Consortium

The Honorable Ted Maslin

City of Williamsburg

John Olson, Ed.D.

ECPI University

The Honorable Tina Vick

City of Newport News

The Honorable Jeff Wassmer

York County Board of Supervisors

Joseph C. “Joe” Barto, III

TMG

Jeffrey W. Clemons

PNC Bank

Ken Taylor

W. M. Jordan Company, Inc.

Albert D. Welcher

Point Transitions LLC

Donna Crittenden

Virginia Employment Commission

Barbara E. Watson

James City County

Gerald Dix

York River Electric, Inc.

Bob McKenna

Virginia Peninsula Chamber of Commerce

Thomas G. Tingle

Guernsey Tingle Architects

Mike Briley

Virginia Peninsula Central Labor Council

Verna Chamberliss

United Steelworkers of America Local 8888

Dr. Susan English

Thomas Nelson Community College

Rick L. Weddle

Hampton Roads Economic Development Alliance

Pamela Croom

City of Hampton

Sherry A. Spring

Gloucester County

Dr. Rex Evans

AARP Foundation

Kim H. Shepard

Virginia Department for Aging and Rehabilitative Services

Alan K. Archer

City of Newport News

Sheri Newcomb

County of York

Appendix 4: Impact and ROI of Virginia Career Works Hampton Roads

Including job placements from Business Services Direct Hire Placement, a total of 608 individuals found jobs with the help of VCWHR programs and services in FY2019. They earned an estimated \$21.7 million in annual income in terms of wages and salaries.

Table A.4 summarizes the economic impact of all VCWHR programs and services in the Hampton Roads region in FY2019. In terms of regional employment, direct impact is represented by 608 individuals who transitioned into employment through VCWHR programs and services. Household expenditures made by these individuals also supported an additional 174 jobs in the area through indirect and induced impact, for a total regional employment impact of 782 jobs.

For regional labor income, the direct impact is represented by \$21.7 million in annual wages and salaries paid to individuals benefiting from all VCWHR programs and services. Household expenditures made by these individuals also generated \$7.1 million in regional labor income through indirect and induced impact, for a total regional labor income of \$28.8 million in FY2019.

Finally, household spending by newly employed individuals also generated \$23.5 million in total economic output in the region.

In addition, household spending was responsible for generating \$1.5 million in additional state and local tax revenue, and \$1.7 million in additional federal tax revenue. The total fiscal impact was \$3.1 million in FY2019.

In FY2019, the public cost associated with delivering VCWHR programs and services was \$5.8 million. Comparing this cost to the benefit derived from these programs, measured in total labor income, it is estimated that the benefit-to-cost ratio was 5.0 in FY2019 for all VCWHR programs. This indicates that the benefit derived from the programs was 5.0 times the public cost required. Hires from One-Stop services are not included as data are not available, so this ROI can be considered a conservative estimate.

The ratio estimated in this section only captures the annual benefits of VCWHR programs and services. However, benefits will recur in the Hampton Roads region each year, provided those individuals remain employed. As a result, the long-term return on investment of VCWHR programs and services can be significantly higher.

Table A.4: Economic Impact of all VCWHR Programs and Services, FY2019

	EMPLOYMENT	LABOR INCOME (\$MILLION)	OUTPUT
Direct Impact	608	\$21.7	\$0.0
Indirect & Induced Impact	174	\$7.1	\$23.5
Total Impact	782	\$28.8	\$23.5
	STATE & LOCAL	FEDERAL	TOTAL
Fiscal Impact (\$Million)	\$1.5	\$1.7	\$3.1

*Note: Numbers may not sum due to rounding
 Source: IMPLAN 2017*

Appendix 5: Impact and ROI of Virginia Career Works Greater Peninsula

A total of 153 individuals found jobs with the help of VCWGP programs and services in FY2019. They earned an estimated \$4.7 million in annual income in terms of wages and salaries.

Table A.5 summarizes the economic impact of all VCWGP programs and services in the Greater Peninsula region in FY2019. In terms of regional employment, direct impact is represented by 153 individuals who transitioned into employment through VCWGP programs and services. Household expenditures made by these individuals also supported an additional 34 jobs in the area through indirect and induced impact, for a total regional employment impact of 187 jobs.

For regional labor income, the direct impact is represented by \$4.7 million in annual wages and salaries paid to individuals benefiting from all VCWGP programs and services. Household expenditures made by these individuals also generated \$1.3 million in regional labor income through indirect and induced impact, for a total regional labor income of \$6.0 million in FY2019.

Finally, household spending by newly employed individuals also generated \$4.4 million in total economic output in the region.

In addition, household spending was responsible for generating \$0.3 million in additional state and local tax revenue, and \$0.3 million in additional federal tax revenue. The total fiscal impact was \$0.6 million in FY2019.

In FY2019, the public cost associated with delivering VCWGP programs and services was \$2.3 million. Comparing this cost to the benefit derived from these programs, measured in total labor income, it is estimated that the benefit-to-cost ratio was 2.5 in FY2019 for all VCWGP programs. This indicates that the benefit derived from the programs was 2.5 times the public cost required. Hires from One-Stop services are not included as data are not available, so this ROI can be considered a conservative estimate.

The ratio estimated in this section only captures the annual benefits of VCWGP programs and services. However, the benefits will recur in the Greater Peninsula region each year, provided those individuals remain employed. As a result, the long-term return on investment of VCWGP programs and services can be significantly higher.

Table A.5: Economic Impact of all VCWGP Programs and Services, FY2019

	EMPLOYMENT	LABOR INCOME (\$MILLION)	OUTPUT
Direct Impact	153	\$4.7	\$0.0
Indirect & Induced Impact	34	\$1.3	\$4.4
Total Impact	187	\$6.0	\$4.4
	STATE & LOCAL	FEDERAL	TOTAL
Fiscal Impact (\$Million)	\$0.3	\$0.3	\$0.6

*Note: Numbers may not sum due to rounding
 Source: IMPLAN 2017*