



PREPARED FOR  
Virginia Career Works Northern Region



NORTHERN REGION

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# ECONOMIC IMPACT & RETURN ON INVESTMENT OF THE VIRGINIA CAREER WORKS NORTHERN REGION

**FISCAL YEAR 2018**

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# 1. Executive Summary

This report assesses the economic impact and return on investment (ROI) attributable to the workforce programs and services provided by the Virginia Career Works Northern Region (VCWNR) for Fiscal Year (FY) 2018 in the region of Northern Virginia.<sup>1</sup> The main findings of the report are summarized below.

**The economy of Northern Virginia continued to expand in FY2018.**

As of the second quarter of 2018, wage and salaried employment in Northern Virginia reached 1.25 million. Regional employment expanded 1.4% in FY2018 from FY2017.

As of the second quarter of 2018, the average annual wage per worker in Northern Virginia was \$75,891. This was significantly higher than the state average of \$56,167 and the national average of \$55,465.

In FY2018, the Northern Virginia region added 17,385 total wage and salaried jobs. More than ninety percent (94.5%) of new jobs were in the private sector. State and local governments in the region added 132 and 1,650 jobs, respectively, while government employment contracted at the federal level.

In FY2018, the largest industry by employment in Northern Virginia was professional, scientific, and technical services, followed by retail trade, and health care and social assistance.

At the end of FY2018 (June 2018), the unemployment rate stood at 2.6% in Northern Virginia, lower than 3.3% statewide and 4.2% nationally. The regional unemployment rate further declined to 2.2% in November 2018.

**The various workforce programs and services provided by the Virginia Career Works Northern Region have a large economic impact in Northern Virginia.**

In FY2018, Virginia Career Works Northern Region provided the following workforce programs and services:

- Workforce Innovation and Opportunity Act (WIOA) Adult Program
- WIOA Dislocated Workers Program
- WIOA Youth Program
- TOGETHER
- Virginia Financial Services Network (VFSN)
- Incumbent Worker Training (IWT and IWT-VCCS)
- NoVA IT Employment Partnership (NVITE)
- Fairfax Alternative Incarceration Branch Center (AIB)
- Success through Education, Employment, and Reintegration (STEER)
- Ticket to Work
- Temporary Assistance for Needy Families (TANF)
- One-Stop services, providing self-service resources for jobseekers<sup>2</sup>

<sup>1</sup> Fiscal Year 2018 starts on July 1, 2017 and ends June 30, 2018. Virginia Career Works Northern Region serves the counties of Fairfax, Loudoun, and Prince William, and the cities of Fairfax, Falls Church, Manassas, and Manassas Park. This region is referred to as the VCWNR service area. However, in this report, the study region is defined as Northern Virginia, which also includes Arlington County and the City of Alexandria, in addition to seven localities served by VCWNR.

<sup>2</sup> In this report, all workforce programs and services excluding One-Stop services are collectively termed VCWNR non-self-service programs. Economic impact and ROI are evaluated for all non-self-service VCWNR programs and all VCWNR programs and services.

In FY2018, the Virginia Career Works Northern Region successfully helped 914 individuals either obtain employment or improve their skills through its non-self-service programs. The increased annual household income associated with those programs is estimated to be have been \$42.0 million in FY2018.

The increased income resulting from VCWNR non-self-service programs is estimated to have supported 1,149 total jobs in Northern Virginia in FY2018, associated with \$54.8 million in total regional labor income. In addition, the increased income is estimated to have generated \$38.3 million in additional regional economic output, and \$5.0 million in state, local, and federal tax revenue.

If job placements through One-Stop services were included, VCWNR was instrumental in helping 1,404 individuals either obtain

employment or improve their skills in FY2018. The increased annual household income associated with those job placements is estimated to have been \$60.8 million in FY2018.

Increased income resulting from VCWNR programs is estimated to have supported 1,744 total jobs in Northern Virginia in FY2018, associated with \$79.3 million in total regional labor income. In addition, the increased income was also responsible for \$55.4 million in additional regional economic output, and \$7.2 million in state, local, and federal tax revenue.

**The return on investment analysis shows that the benefit of VCWNR programs and services exceeds the cost.**

In FY2018, the cost associated with all VCWNR programs and services was \$6.2 million.

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

Excluding One-Stop services, the benefit-to-cost ratio of VCWNR non-self-service programs was 8.8 in FY2018, indicating that the benefit of VCWNR programs was 8.8 times the public cost required.

If the ROI analysis is expanded to encompass One-Stop services, the benefit-to-cost ratio of all VCWNR programs and services in FY2018 would rise to 12.7. This indicates that the benefit is 12.7 times the public cost required.

## 2. Background

Virginia Career Works Northern Region (VCWNR) serves the counties of Fairfax, Loudoun, and Prince William, and the cities of Fairfax, Falls Church, Manassas, and Manassas Park (VCWNR service area).<sup>3</sup> Through the SkillSource Group, Inc., (SkillSource), Virginia Career Works Northern Region provides a comprehensive list of workforce development programs, such as the Workforce Innovation and Opportunity Act (WIOA) Adult, Youth, and Dislocated Worker programs; and other career services. In addition, there are six SkillSource-managed centers (One-Stop Employment Centers) in the region (Figure 2.1).

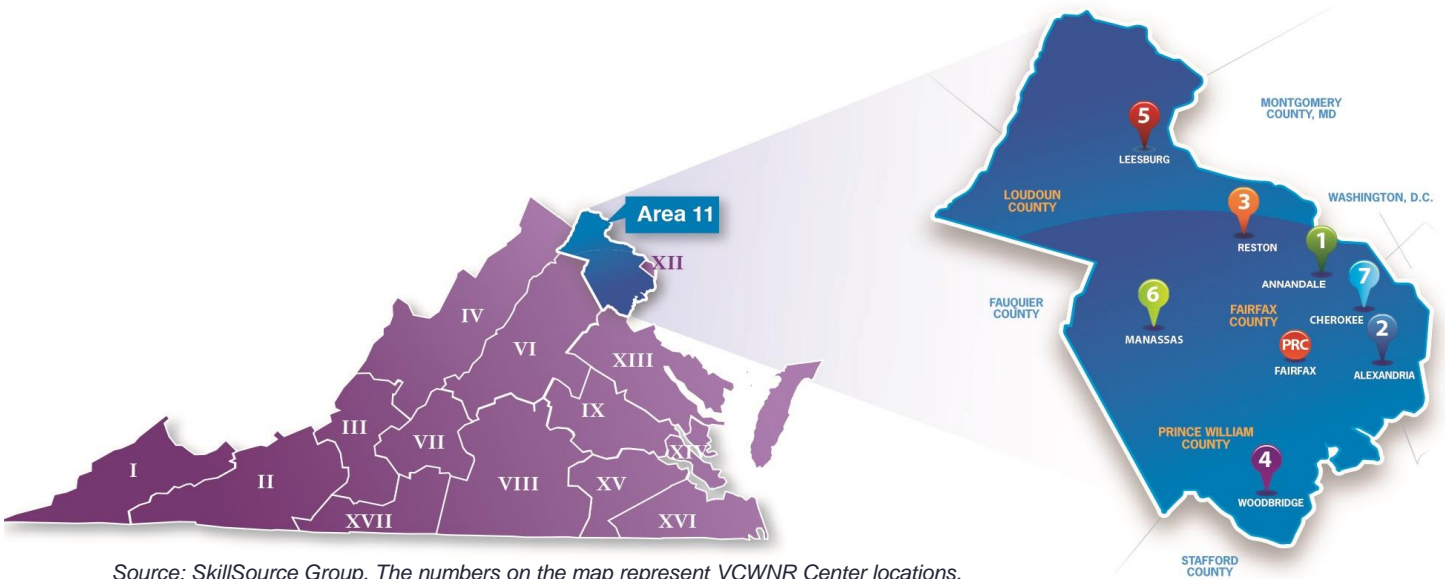
Each year, the SkillSource Group commissions a study of the economic and fiscal impacts of the Virginia Career Works Northern Region focusing on the varied workforce training and career services programs it provides. In addition, SkillSource seeks to understand the return on investment (ROI) of VCWNR programs and services. Chmura Economics & Analytics (Chmura) was contracted to perform such an analysis for Fiscal Year 2018.

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 VCWNR programs and services and an economic profile of Northern Virginia.
- Section 5 analyzes the economic impact of VCWNR programs and services in Northern Virginia.
- Section 6 performs the ROI analysis for VCWNR programs and services.
- Section 7 provides a summary and conclusion.

Figure 2.1: Virginia Career Works Northern Region Center Locations



Source: SkillSource Group. The numbers on the map represent VCWNR Center locations.

<sup>3</sup> Source: SkillSource website, <http://www.myskillsource.org/page/id/13/locations>. Please note that the economic impact and economic profile are analyzed for the broader Northern Virginia region, which also includes Arlington County and the City of Alexandria.

### 3. Economic Impact Methodology

To maintain consistency with prior reports published by SkillSource on the economic impact and ROI of VCWNR programs and services, this study utilizes the same methodology as previous studies.<sup>4</sup> Based on the needs of SkillSource and a review of prior studies, this report includes three major components:

1. A profile of Virginia Career Works Northern Region programs and services, and an economic profile of Northern Virginia for FY2018.
2. The economic impact of VCWNR programs and services in Northern Virginia for FY2018.
3. Return on investment analysis of VCWNR programs and services for FY2018.

#### 3.1. Profile of VCWNR and Economic Profile of Northern Virginia

The profile of VCWNR 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 VCWNR programs and services, participants and job placements by program, and post-training wages for program participants.

The main data sources for this analysis are SkillSource program reports, audited SkillSource financial records, and administrative data.

An economic profile of Northern Virginia is also included, providing a broad context to evaluate the economic impact and ROI of VCWNR

programs and services. Chmura analyzed data on total employment and employment growth, employment by major industry sector, employment by ownership category, average wages, and 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 VCWNR programs and services in Northern Virginia. The main source of economic impact is the incremental income gained by individuals who either successfully transitioned into employment or gained new training with the help of VCWNR programs and services.<sup>5</sup> For individuals who were unemployed prior to utilizing VCWNR 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.

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 SkillSource. Chmura estimated the indirect and induced

economic impacts with the IMPLAN Model after the direct impacts were estimated.

In the analysis, Chmura examined economic impacts of VCWNR 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

When individuals spend incremental income in Northern Virginia, additional economic impact is generated in the region. While incremental spending constitutes the direct economic impact of VCWNR programs and services in Northern Virginia, the total economic impact also includes

<sup>4</sup> For examples of previous studies, please see <http://www.myskillsource.org/page/id/82/>.

<sup>5</sup> The operation of VCWNR will also generate positive economic impact in the area. In addition, VCWNR also manages other programs such as the Center for Business Planning and Development. Those impacts are not included in this study as the focus is the success of participants of VCWNR programs.

### 3.3. Return on Investment Analysis

In addition to the economic impact analysis, Chmura also assessed the return on investment (ROI) of VCWNR 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

Northern Region in FY2018. The benefit is represented by the total annual labor income attributable to VCWNR programs and services, resulting from new job placements and improved skills.<sup>6</sup>

To conclude the ROI analysis, a benefit-to-cost ratio was computed for two broad programs. These included all non-self-service VCWNR programs, and all VCWNR programs and services, including One-Stop services.

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<sup>6</sup> This definition is consistent with prior studies.

## 4. Profile of VCWNR and the Northern Virginia Regional Economy

### 4.1. Profile of VCWNR Programs and Services

The Virginia Career Works Northern Region provides a wide range of workforce training programs and services to regional jobseekers to help them locate employment in the area. In

particular, VCWNR offers several structured workforce programs in which individuals are enrolled and work with case managers (non-self-service programs). In addition, VCWNR

also maintains seven One-Stop Employment Centers (SkillSource centers) where individuals can utilize facilities and resources in search of employment.

#### 4.1.1. Description of VCWNR Programs & Services

In FY2018, Virginia Career Works Northern Region 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 years (e.g., dropouts, foster children, juvenile offenders, children of incarcerated parents, and migrant children).
- **Other WIOA Grant Programs**
  - o TOGETHER – promotes healthy family relationships and financial stability by offering couples lessons on communication, stress management, problem-solving, and financial management; connecting participants to

- community services, and providing job and career services.
- o Virginia Financial Success Network (VFSN) – enhances long-term financial stability of individuals by employing an integrated approach where jobseekers are connected to workforce, education, income support, and financial services.
- o Incumbent Workers Training (IWT, and IWT-VCCS) – reimburses employers for the cost of training their incumbent workers, and covers instructional costs for training courses, classes for certification exams, online training, textbooks, and manuals.
- o NoVA IT Employment Partnership (NVITE) – provides unemployed, underemployed, and low-income jobseekers with intensive case management, employment coaching, and on-the-job skills training to launch them into entry-level, living-wage careers as computer user support specialists.
- o Additional WIOA Programs – includes some programs carried over from prior years.<sup>7</sup>

- **Non - WIOA Grants Programs**

- o Fairfax Alternative Incarceration Branch (AIB) Center – previously known as Fairfax pre-release employment center (PRC), supports the transition of long-term incarcerated adults into the workforce and community.

- o Success through Education, Employment, and Reintegration (STEER) – provides inmates opportunities for training (GED and occupational skills training), as well as dual enrollment into WIOA programs while they are still incarcerated, with a transition strategy for continued service from One-Stop Employment Centers after they are released.
- o Temporary Assistance for Needy Families (TANF) Employment Advancement (EA) Program – provides subsidized and unsubsidized employment opportunities for Prince William TANF participants and increases self-sufficiency through employment.
- o Ticket to Work – provides workforce and employment services for adults receiving Social Security disability benefits who want to return to employment.

In the analysis that follows, Chmura refers to all programs and services (other than One-Stop services) as VCWNR non-self-service programs. Economic impact and ROI evaluations are conducted for all VCWNR programs and services, as well as for non-self-service programs.

<sup>7</sup> NVTI program is also part of other WIOA Grant Programs.

4.1.2. Outcome of VCWNR Programs & Services

Table 4.1 summarizes participants and job placements for different VCWNR programs and services in FY2018. In FY2018, a total of 1,946 individuals were enrolled in various non-self-service programs. Over half of them (966) were enrolled in WIOA Adult, WIOA Dislocated Worker, and WIOA Youth programs. In addition, 424 were enrolled in other WIOA grant programs, such as TOGETHER, VFSN, and IWT. An additional 556 jobseekers were enrolled in non-WIOA funded programs, such as Fairfax AIB, STEER, Ticket to Work, and TANF. Finally, 21,954 unique individuals utilized the VCWNR’s One-Stop Employment Centers to conduct job searches. They registered 50,752 total visits in FY2018.

In total, these programs and services were instrumental in transitioning 1,404 individuals to employment or improving their skills. For 1,145 previously unemployed individuals (excluding IWT and IWT-VCCS), VCWNR helped place them into meaningful jobs, with an average annual wage of \$34,111. Out of this number, 290 were placed into employment through the WIOA Adult, Dislocated Worker, and Youth programs. An additional 324 jobseekers found jobs through non-WIOA funded programs, such as Fairfax AIB, STEER, Ticket to Work, and TANF. Finally, 490 jobseekers found employment as a result of utilizing VCWNR One-Stop services.

Participants in IWT and IWT-VCCS programs had full-time jobs prior to the training, but IWT programs offered training for in-demand industries such as healthcare, information technology (IT), and cyber security.<sup>8</sup> The focus of the IWT-VCCS program was on IT and cyber security, which resulted in higher post-training wages. To evaluate incremental earnings for

Table 4.1: Virginia Career Works Northern Region Participants and Job Placements in FY2018

VCWNR PROGRAMS & SERVICES	ENROLLMENT	JOB PLACEMENTS	AVERAGE INCREMENTAL ANNUAL SALARY
<b>WIOA Enhanced Career Services</b>	<b>966</b>	<b>290</b>	<b>\$36,865</b>
WIOA – Adult	476	163	\$31,762
WIOA – Dislocated Worker	236	80	\$54,390
WIOA – Youth	254	47	\$24,731
<b>Other WIOA Grant Programs</b>	<b>424</b>	<b>300</b>	<b>\$76,554</b>
TOGETHER	7	1	\$39,572
VFSN	107	27	\$33,198
IWT	254	254	\$84,052
IWT-VCCS	5	5	\$88,026
NVITE	2	2	\$32,240
NVTI	43	6	\$17,442
Additional WIOA Programs	6	5	\$14,362
<b>Other Programs</b>	<b>556</b>	<b>324</b>	<b>\$25,881</b>
Fairfax AIB	51	45	\$25,979
STEER	189	124	\$20,862
TANF	150	139	\$31,287
Ticket to Work	166	16	\$17,534
<b>Total Non-Self-Service Programs</b>	<b>1,946</b>	<b>914</b>	<b>\$45,998</b>
<b>One-Stop Services</b>	<b>21,954</b>	<b>490</b>	<b>\$38,376</b>
<b>Total VCWNR Programs &amp; Services</b>		<b>1,404</b>	<b>\$43,338</b>

Source: SkillSource

those two programs, Chmura used regional prevailing wages of the five in-demand industries as the pre-training wage for the IWT program; Chmura also used the regional prevailing wage of the computer system design

and service industry as the pre-training wage for the IWT-VCCS program.<sup>9</sup>

<sup>8</sup> The IWT program offers training for in-demand industries, while the IWT-VCCS program offers training in IT and cyber security industries. According to Northern Virginia Workforce Development Board’s (Area #11) Local Plan, the five in-demand industries are professional and business services, healthcare, retail trade, food and hospitality, and construction.

<sup>9</sup> The actual pre-training wages for those individuals participating in IWT and IWT-VCCS programs were not available.



## 4.2. Regional Economic Profile

### 4.2.1. Trend in Employment and Wages

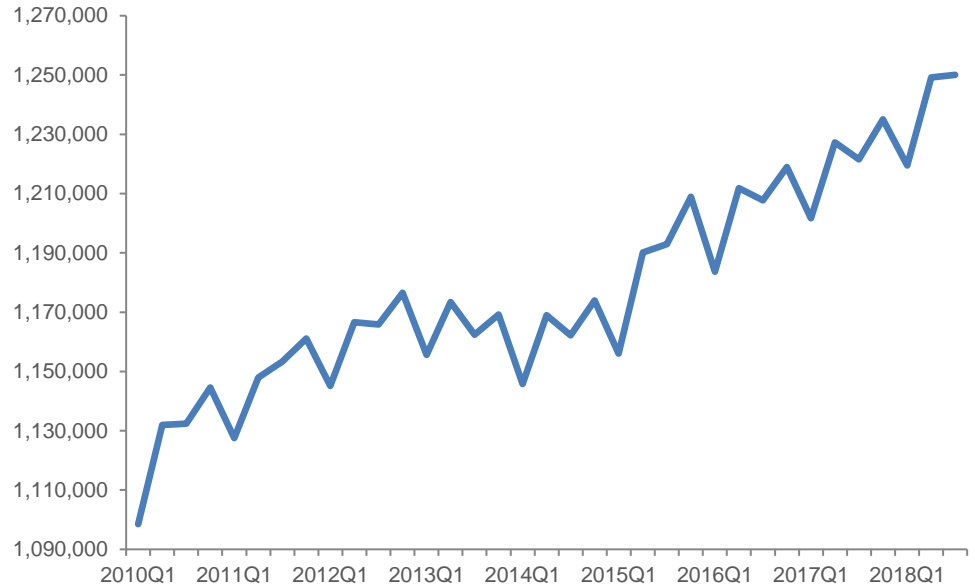
Employment size and growth is the broadest and timeliest indicator of a region's overall economic health. A growing labor market also increases the chances that participants of VCWNR programs and services can find meaningful employment in the region.

The data show that in the second quarter of 2018 (last quarter of FY2018), Northern Virginia had a total wage and salaried employment of 1.25 million, 1.8% more than the 2<sup>nd</sup> quarter of 2017. The region accounted for more than 30% of total state employment, and serves as one of the major economic centers in Virginia.<sup>10</sup>

Figure 4.1 depicts quarterly trends in total employment in Northern Virginia 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. However, 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, with robust employment expansion occurring in 2016 and 2017. In total, Northern Virginia has gained 150,672 jobs since the first quarter of 2010.

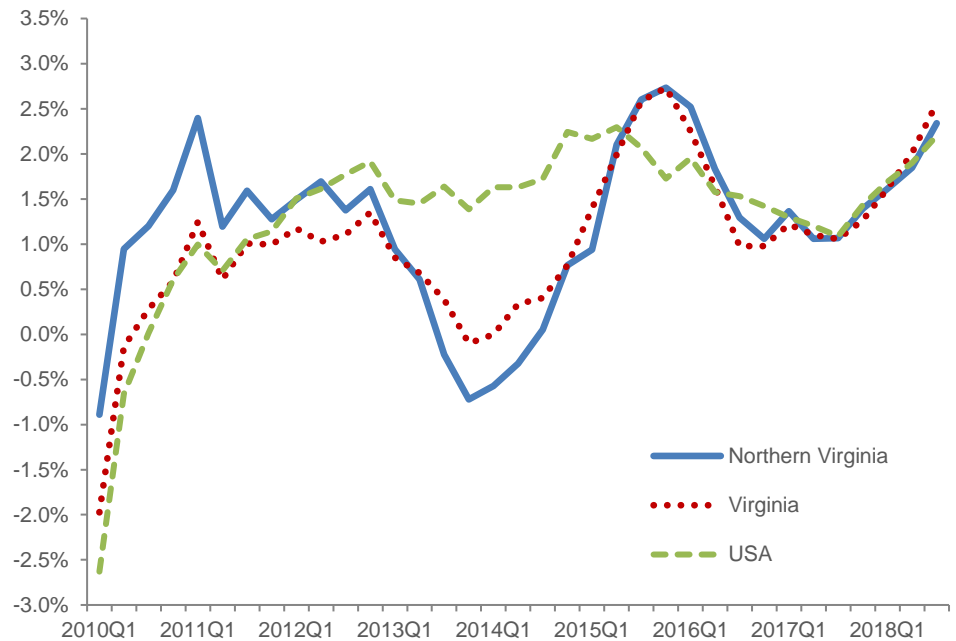
In terms of employment growth, since 2010, Northern Virginia's employment expanded at an average rate of 1.2% per year; this is compared with 1.1% for Virginia and 1.4% for the nation. As Figure 4.2 shows, Northern Virginia rebounded from the 2007-09 recession better than both the state and nation, as job growth from 2010 to 2012 outpaced those two regions. However, regional job growth lagged state and national averages from 2013 to 2015. This is largely due to federal budget cuts resulting from budget sequestration, which affected Northern Virginia disproportionately as the region has a high concentration of federal employees and federal contractors. The negative effect of federal budget cuts has since worn off. Employment growth in the region accelerated in the second half of 2015, but moderated toward the end of 2016 before accelerating in 2017.

Figure 4.1: Northern Virginia Quarterly Wage and Salaried Employment



Source: JobsEQ

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

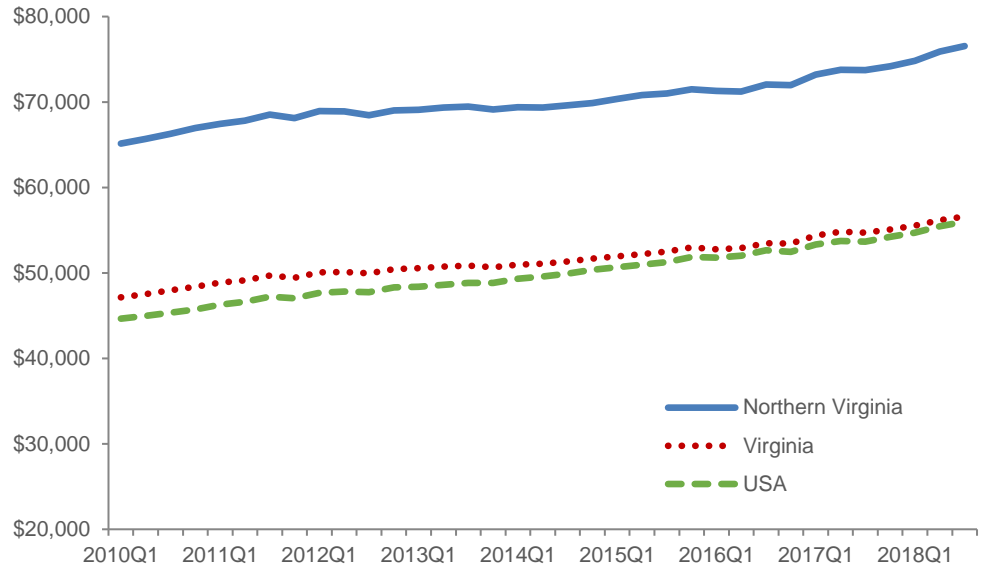


Source: JobsEQ

<sup>10</sup> 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 2018, the average annual wage per worker in Northern Virginia was \$75,891, significantly higher than the state average of \$56,167 and the national average of \$55,465. As will be analyzed later, the higher average wage can be primarily attributed to the industry mix of the region. Northern Virginia has a high concentration of professional services and high-tech jobs, as well as federal government employees, which tend to pay high salaries. But wage growth in Northern Virginia trailed both state and national averages. Since 2010, the average annual wage per worker in Northern Virginia grew at 1.9% per year, compared with state and national averages of 2.1% and 2.5%, respectively.

Figure 4.3: Average Annual Wage



Source: JobsEQ

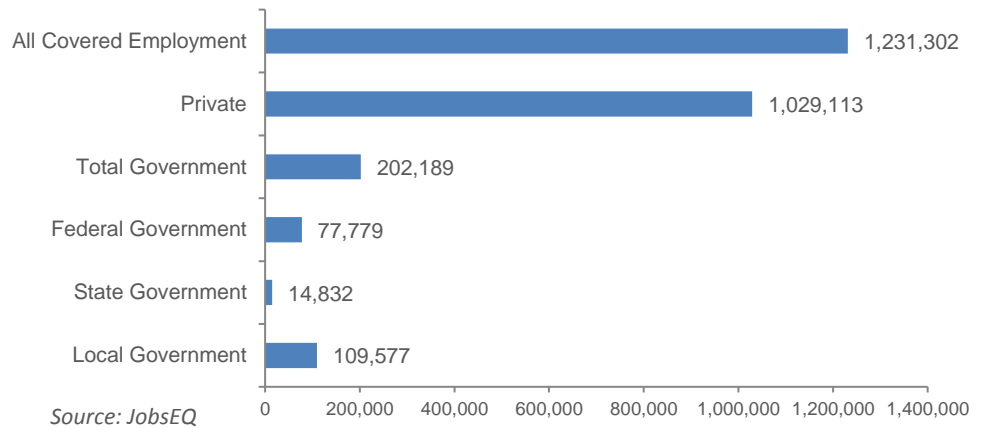
**4.2.2. Employment and Wage by Ownership**

Figure 4.4 provides a breakdown of total wage and salaried employment in Northern Virginia in FY2018 by ownership category. The data show that in FY2018, 1.03 million jobs (or 83.6%) of the region's total employment of 1.23 million were in the private sector, while 202,189 (or 16.4%) were in the government sector. Compared with the state average of 18.1%, the percentage of overall government employment in Northern Virginia is smaller. However, there is a higher percentage (6.3%) of federal government employment in the region than in Virginia (4.6%).

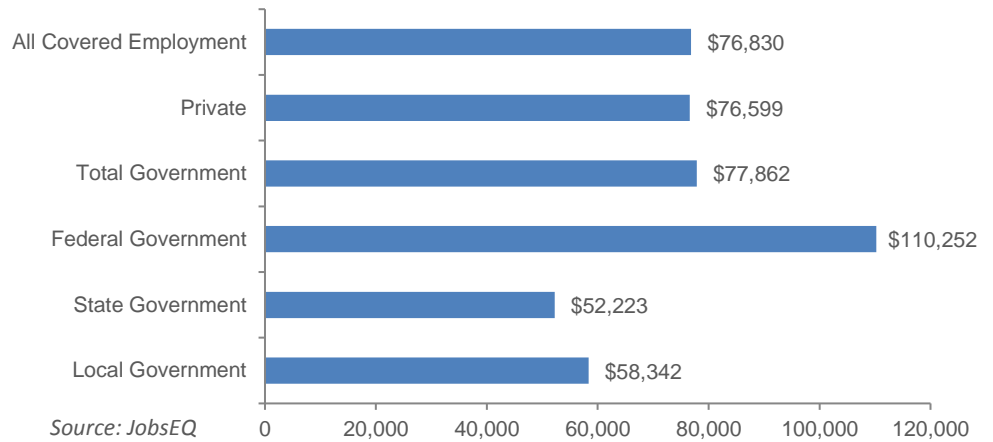
Among different ownership categories, average wage was the highest for workers in the federal government, averaging \$110,252 in FY2018. This is significantly higher than the average of \$76,830 for all wage and salaried workers in Northern Virginia (Figure 4.5). In contrast, workers employed in state and local governments had average wages of \$52,223 and \$58,342, respectively—much lower than wages in the federal government and private sector.

Figure 4.6 depicts the changes in employment by ownership category from FY2017 to FY2018 in Northern Virginia. The largest contributor to job growth in the region was the private sector. Of the total 17,385 new jobs added in Northern Virginia in FY2018, 16,423 (94.5%) were in the private sector. Local government added 1,650 jobs and state government added 132 jobs, while federal government employment contracted.

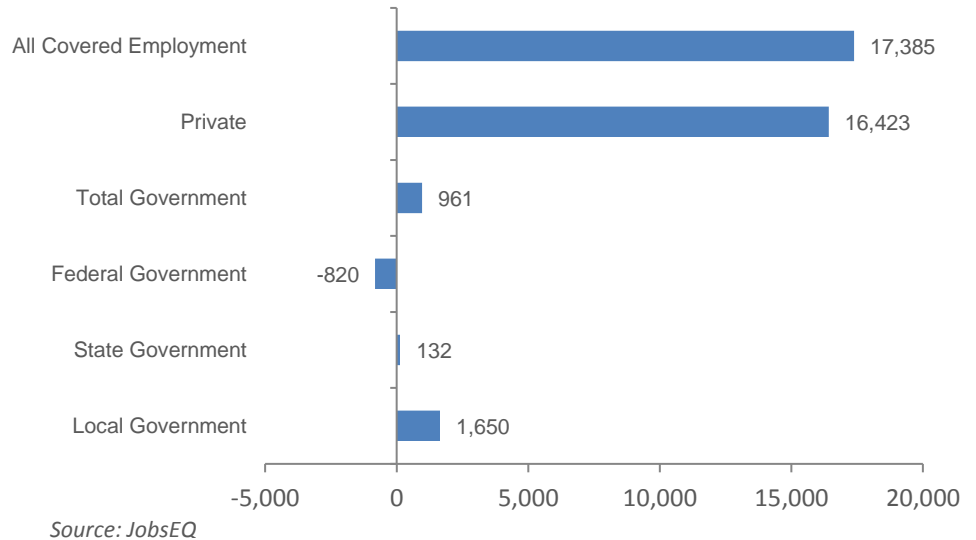
**Figure 4.4: Employment by Ownership Category, FY2018**



**Figure 4.5: Average Annual Wage by Ownership Category, FY2018**



**Figure 4.6: Annual Change in Employment by Ownership Category, FY2017 to FY2018**



4.2.3. Employment and Wage by Industry Sector

Northern Virginia is home to many different industries. As Figure 4.7 shows, in FY2018, the largest industry by employment was professional, scientific, and technical services (256,453 jobs), followed by retail trade (120,813 jobs), and health care and social assistance (117,032 jobs). Other large industry sectors included accommodation and food services (106,855 jobs), education services (103,326 jobs), and public administration (91,251 jobs).<sup>11</sup> The professional, scientific, and technical services industry plays an important role in the regional economy as more than one in five (20.9%) regional workers were employed in this industry, compared with 11.2% for the state average.

Figure 4.8 presents the average annual wages by major industry in Northern Virginia for FY2018. Management of companies and enterprises was the highest-paying industry, with an average annual wage of \$174,247. This industry represents many corporate headquarters in Northern Virginia, employing a large number of corporate executives and highly-skilled professionals. Finance and Insurance was ranked second with an average annual wage of \$128,126. Other high-paying industries were information (\$127,992 annual wage), utilities (\$122,014 annual wage) and professional, scientific, and technical services (\$118,220 annual wage).

On the other end of the spectrum, accommodation and food services, and retail trade paid the lowest annual wages, averaging \$24,011 and \$34,383, respectively, in FY2018. Workers in those industries may face challenges to maintain a certain standard of living as costs for housing and transportation in Northern Virginia are higher than in other areas of Virginia.

Figure 4.7: Employment by Major Industry, FY2018

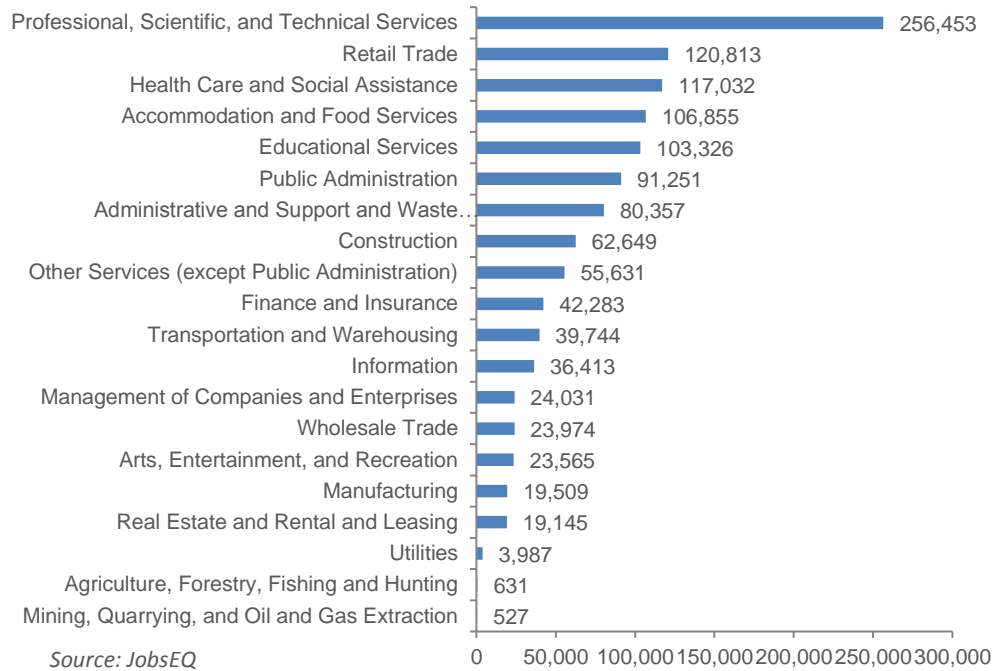
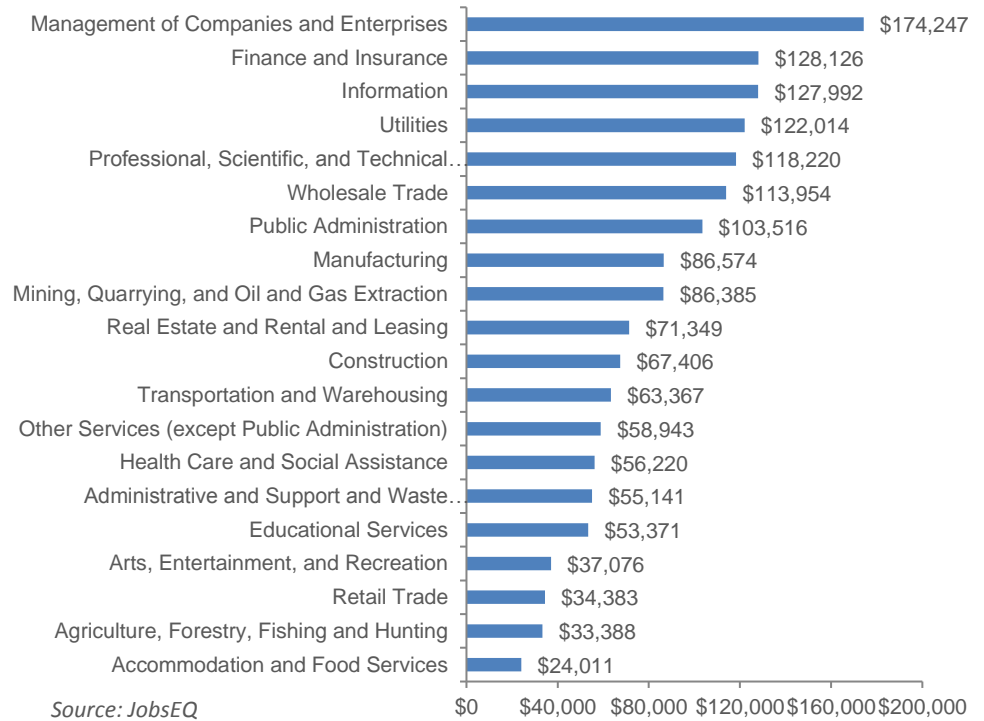


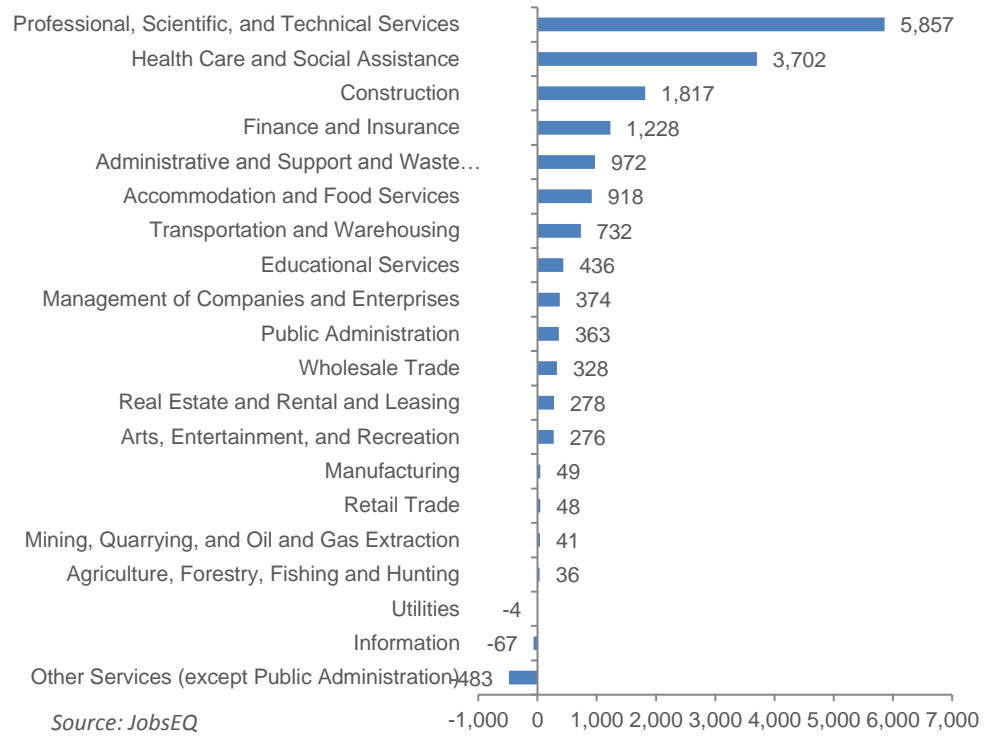
Figure 4.8: Average Annual Wages by Major Industry, FY2018



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

Figure 4.9 summarizes the employment changes by industry in Northern Virginia between FY2017 and FY2018. The largest employment gains over the period occurred in professional, scientific, and technical services (up 5,857 jobs), health care and social assistance (up 3,702 jobs), construction (up 1,817 jobs), and finance and insurance (up 1,228 jobs). On the other hand, the largest employment losses over the period occurred in other services excluding public administration (down 483 jobs), and information (down 67 jobs). From the perspective of many participants of VCWNR programs and services, opportunities may lie in growing industries such as health care and social assistance, accommodation and food services, and construction.

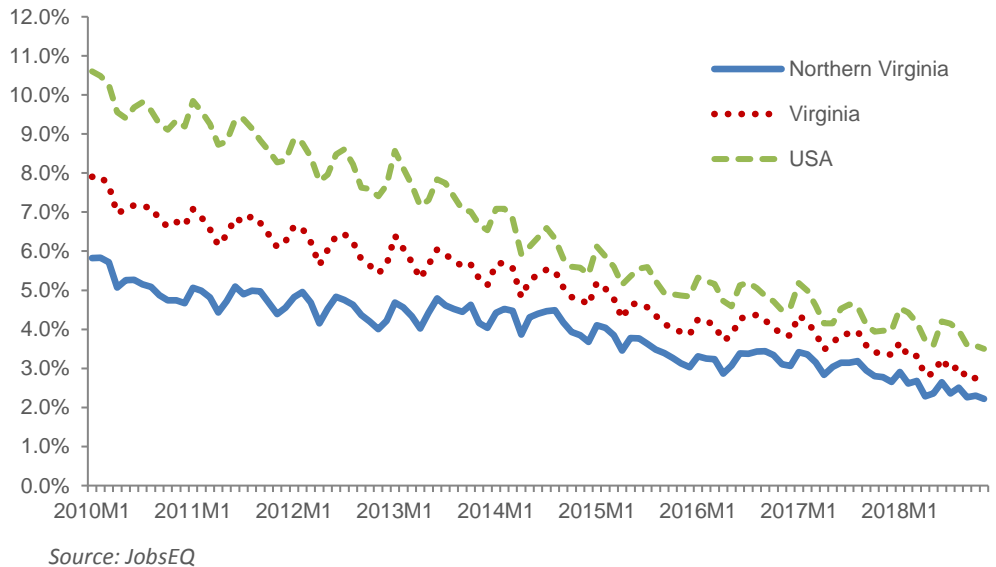
Figure 4.9: Employment Change by Major Industry, FY2017 to FY2018



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 Northern Virginia to those at the state and national levels. The unemployment rate data are monthly from January 2010 through November 2018 (the most recent month for which such data were available).

Figure 4.10: Monthly Unemployment Rate, January 2010 to November 2018



Since 2010, the unemployment rates of the region, state, and nation have steadily declined as the country recovered from the recession of 2007-09. Labor market conditions continued to improve in 2017 and 2018, but the unemployment rate is declining at a slower pace. The data also show that unemployment rates in Northern Virginia have been consistently below the Virginia and U.S. levels since 2010. At the end of FY2018 (June 2018), unemployment rates stood at 2.6% in Northern Virginia, 3.3% statewide, and 4.2% nationally. The regional unemployment rate further fell to 2.0% in November 2017, indicating a healthy regional economy and labor market. The

expanding economy bodes well for participants of VCWNR programs and services as they are more likely to find employment with adequate wages in the region.

## 5. Economic Impact of VCWNR

As noted earlier, the main benefit for a jobseeker to enroll in VCWNR workforce training programs and services is the potential for obtaining a job and receiving higher earnings for those formerly unemployed. For incumbent workers who participated in different training courses, the training can improve their skills and increase their income. When this additional income is spent within local communities, it generates additional economic impact in Northern Virginia.

As shown in Table 5.1, a total of 1,404 individuals found employment or improved their skills after enrolling in VCWNR programs or utilizing One-Stop services in FY2018. Their average incremental wage was \$43,338 per year. As a result, the total annual incremental household income generated through VCWNR programs' job placements is estimated to be \$60.8 million. Of this figure, \$42.0 million is the incremental income for those who found jobs or received training through VCWNR non-self-service programs, and \$18.8 million is for those using One-Stop services.

**Table 5.1: Additional Household Income Attributable to FY2018 VCWNR Programs**

VCWNR PROGRAMS & SERVICES	JOB PLACEMENTS	INCREMENTAL AVERAGE ANNUAL SALARY	INCREMENTAL TOTAL HOUSEHOLD INCOME (\$MILLION)
WIOA – Adult	163	\$31,762	\$5.2
WIOA – Dislocated Worker	80	\$54,390	\$4.4
WIOA – Youth	47	\$24,731	\$1.2
TOGETHER	1	\$39,572	\$0.0
VFSN	27	\$33,198	\$0.9
IWT	254	\$84,052	\$21.3
IWT-VCCS	5	\$88,026	\$0.4
NVITE	2	\$32,240	\$0.1
NVTI	6	\$17,442	\$0.1
Additional WIOA Programs	5	\$14,362	\$0.1
Fairfax AIB	45	\$25,979	\$1.2
STEER	124	\$20,862	\$2.6
TANF	139	\$31,287	\$4.3
Ticket to Work	16	\$17,534	\$0.3
<b>Total Non-Self-Service Programs</b>	<b>914</b>	<b>\$45,998</b>	<b>\$42.0</b>
<b>One-Stop Services</b>	<b>490</b>	<b>\$38,376</b>	<b>\$18.8</b>
<b>Total VCWNR Programs &amp; Services</b>	<b>1,404</b>	<b>\$43,338</b>	<b>\$60.8</b>

Source: SkillSource

### 5.1. Economic Impact of VCWNR Non-Self-Service Programs

Excluding job placements through One-Stop services, a total of 914 individuals either found jobs or improved their skills with the help of VCWNR non-self-service programs in FY2018. They earned \$42.0 million in annual incremental income from wages and salaries.

It is assumed that all consumption expenditures were made within Northern Virginia. 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 FY2018.<sup>12</sup>

Table 5.2 sums up the economic impact of VCWNR non-self-service programs in Northern Virginia in FY2018. In terms of regional employment, direct impact is represented by 914 individuals who either transitioned into

**Table 5.2: Economic Impact of VCWNR Non-Self-Service Programs, FY2018**

	EMPLOYMENT	LABOR INCOME (\$MILLION)	OUTPUT
Direct Impact	914	\$42.0	\$0.0
Indirect & Induced Impact	235	\$12.8	\$38.3
Total Impact	1,149	\$54.8	\$38.3
	STATE & LOCAL	FEDERAL	TOTAL
Fiscal Impact (\$Million)	\$2.1	\$2.8	\$5.0

Note: Numbers may not sum due to rounding

Source: IMPLAN 2017

employment or improved their skills through VCWNR programs. The household expenditures made by these newly employed individuals also supported an additional 235 jobs in the area

through indirect and induced impact, for a total employment impact of 1,149 jobs in Northern Virginia.

<sup>12</sup> This same assumption has been used in previous studies.

For regional labor income, the direct impact is represented by \$42.0 million in annual wages and salaries paid to individuals benefiting from VCWNR non-self-service programs. The household expenditures made by these individuals also generated \$12.8 million in

additional regional labor income through indirect and induced impact, for a total regional labor income of \$54.8 million in FY2018.

Finally, household spending by newly employed individuals also generated \$38.3 million in

annual total economic output in the region.<sup>13</sup> In addition, this household spending is estimated to have generated \$2.1 million in state and local tax revenue, and \$2.8 million in federal tax revenue—for a total fiscal impact of \$5.0 million in FY2018.

## 5.2. Economic Impact of all VCWNR Programs and Services

Including job placements from One-Stop services, a total of 1,404 individuals either found jobs or improved their skills with the help of VCWNR programs and services in FY2018. They earned an estimated \$60.8 million in annual income in terms of wages and salaries.

Table 5.3 summarizes the economic impact of all VCWNR programs and services in Northern Virginia in FY2018. In terms of regional employment, direct impact is represented by 1,404 individuals who either transitioned into employment or improved their skills through VCWNR programs and services. Household expenditures made by these individuals also supported an additional 340 jobs in the area through indirect and induced impact, for a total regional employment impact of 1,744 jobs.

For regional labor income, the direct impact is represented by \$60.8 million in annual wages and salaries paid to individuals benefiting from all VCWNR programs and services. Household

**Table 5.3: Economic Impact of all VCWNR Programs and Services, FY2018**

	EMPLOYMENT	LABOR INCOME (\$MILLION)	OUTPUT
Direct Impact	1,404	\$60.8	\$0.0
Indirect & Induced Impact	340	\$18.5	\$55.4
Total Impact	1,744	\$79.3	\$55.4
	STATE & LOCAL	FEDERAL	TOTAL
Fiscal Impact (\$Million)	\$3.1	\$4.1	\$7.2

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

expenditures made by these individuals also generated \$18.5 million in regional labor income through indirect and induced impact, for a total regional labor income of \$79.3 million in FY2018.

Finally, household spending by newly employed individuals also generated \$55.4 million in total economic output in the region.

In addition, household spending was responsible for generating \$3.1 million in additional state and local tax revenue, and \$4.1 million in additional federal tax revenue. The total fiscal impact was \$7.2 million in FY2018.

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

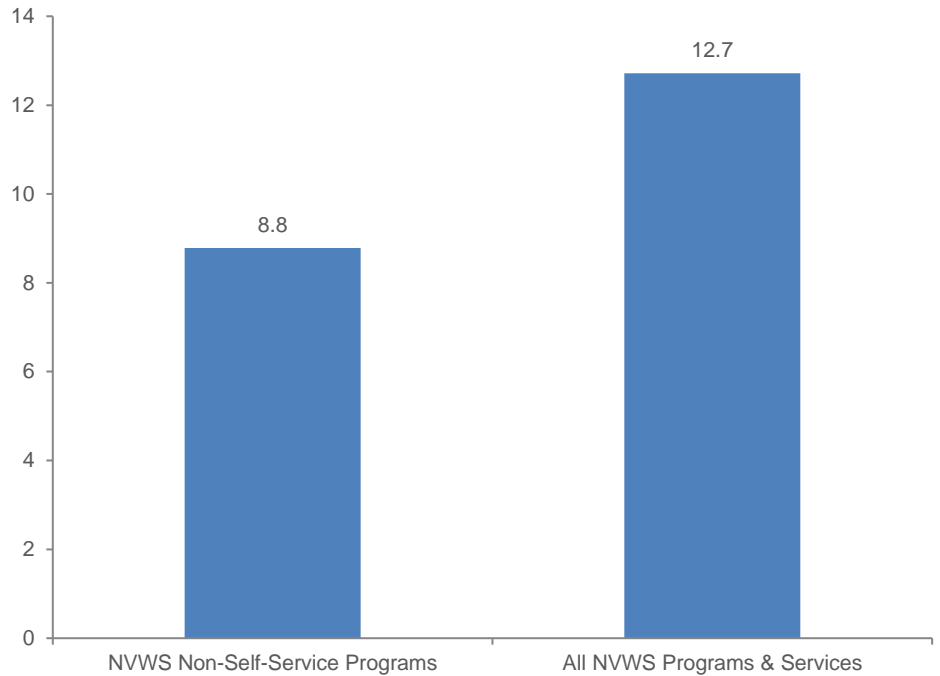
## 6. Return on Investment

In FY2018, the public cost associated with delivering VCWNR programs and services was \$6.2 million.<sup>14</sup> 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 8.8 in FY2018 for VCWNR non-self-service programs. This indicates that the benefit derived from the programs was 8.8 times the public cost required (Figure 6.1).

If the analysis is expanded to encompass all programs and services provided by VCWNR, including One-Stop services, the benefit-to-cost ratio rose to 12.7 in FY2018, indicating that the benefit was more than ten times the public cost required.<sup>15</sup>

The ratios estimated above only capture the annual benefits of VCWNR programs and services. However, the benefits will recur in Northern Virginia each year, provided those individuals remain employed. As a result, the long-term return on investment of VCWNR programs and services can be significantly higher.

Figure 6.1: Benefit-to-Cost Ratio of VCWNR Programs and Services, FY2018



Source: Chmura

<sup>14</sup> Source: Audit Report, Financial and Federal Award Compliance Examination, for Year Ending June 30, 2018, SkillSource Group.

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



## 7. Conclusion

In FY2018, Virginia Career Works Northern Region made significant contributions to the economy of Northern Virginia. The system was instrumental in helping 1,404 individuals obtain jobs and improve their skills in FY2018. The associated incremental household income for those individuals was approximately \$60.8 million. The total impact of those programs and services is estimated to be 1,744 jobs in Northern Virginia, associated with \$79.3 million in total regional labor income, \$55.4 million in

additional regional economic output, and \$7.2 million in state, local, and federal tax revenue.

Excluding job placements through One-Stop services, the Virginia Career Works Northern Region helped 914 individuals obtain employment and improve their skills through its non-self-service programs in FY2018. The increased household income for those was approximately \$42.0 million. The total impact of those programs is estimated to be 1,149 jobs in Northern Virginia, associated with \$54.8 million

in total regional labor income, \$38.3 million in additional regional economic output, and \$5.0 million in state, local, and federal tax revenue.

In FY2018, the public cost associated with all VCWNR programs and services was \$6.2 million. Comparing benefit and cost, the benefit-to-cost ratio for VCWNR non-self-service programs was 8.8, while the benefit-to-cost ratio rose to 12.7 for all VCWNR 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.

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