May 9, 2022

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

FISCAL YEAR 2021
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) 2021 in the region of Northern Virginia.1 The main findings of the report are summarized below.2

The COVID-19 pandemic continued to interrupt the economy in Northern Virginia in FY2021.

During FY2021, the region was still recovering from the significant job losses resulting from the COVID-19 pandemic. By the fourth quarter of 2019, wage and salaried employment in Northern Virginia reached 1.27 million. As the COVID-19 pandemic caused shutdowns across the nation, employment dropped to 1.13 million by the second quarter of 2020. The region recovered 85,260 jobs (+7.5%) between June 2020 and June 2021 to reach 1.22 million employed.

As of the second quarter of 2021, the average annual wage in Northern Virginia was $90,491. This was significantly higher than the state average of $67,275 and the national average of $66,648.

Comparing the four-quarter average ending with the second quarter of 2021 against the prior year, the Northern Virginia region lost 33,888 total wage and salaried jobs. Losses of more than 30,200 in the private sector were partially offset by gains of 1,834 jobs in federal government. State government shed 487 jobs, while employment in local government declined 4,967.

In FY2021, the largest industry by employment in Northern Virginia was professional, scientific, and technical services followed by health care and social assistance, and retail trade.

At the end of FY2021 (June 2021), the unemployment rate stood at 4.0% in Northern Virginia, lower than 4.5% statewide and 6.1% nationally. The regional unemployment rate has continued to decline to 2.9% as of January 2021 as the region recovers from the pandemic.

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

In FY2021, 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
- Virginia Financial Services Network (VFSN)
- NoVA IT Employment Partnership (NVITE)
- Fairfield Alternative Incarceration Branch Center (AIB)
- Temporary Assistance for Needy Families (TANF)
- Ticket to Work
- Employment Support for Lifelong Achievement (ESLA)

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1 Fiscal Year 2021 starts on July 1, 2020 and ends June 30, 2021. 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.

2 Chmura provides economic software, consulting, and data to our clients that help them make informed decisions to benefit their communities. Our Ph.D. economists, data scientists, and strategic planners guide clients through their local labor market. Over the past 24 years, Chmura has served hundreds of clients nationwide with thoroughness, accuracy, and objectivity.
• Senior Community Service Employment Program (SCSEP)
• One-Stop services, providing self-service resources for jobseekers

In FY2021, the Virginia Career Works Northern Region successfully helped 289 individuals obtain employment through its non-self-service programs. The increased annual household income associated with those programs is estimated to have been $12.8 million in FY2021. The number of individuals served and total household income effects are lower than typical levels seen in past reports as the pandemic continued to impact in-person services and hiring.

The increased income resulting from VCWNR non-self-service programs is estimated to have supported 357 total jobs in Northern Virginia in FY2021, associated with $16.9 million in total regional labor income. In addition, the increased income is estimated to have generated $12.5 million in additional regional economic output, and $2.2 million in state, local, and federal tax revenue.

If job placements through One-Stop services were included, VCWNR was instrumental in helping 363 individuals obtain employment in FY2021. The increased annual household income associated with those job placements is estimated to have been $16.0 million in FY2021.

Increased income resulting from VCWNR programs is estimated to have supported 447 total jobs in Northern Virginia in FY2021, associated with $21.0 million in total regional labor income. In addition, the increased income was also responsible for $15.5 million in additional regional economic output, and $2.7 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 FY2021, the cost associated with all VCWNR programs and services was $7.2 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 2.3 in FY2021, indicating that the benefit of VCWNR programs was more than twice 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 FY2021 would rise to 2.9. This indicates that the benefit is nearly three times the public cost required.

3 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.
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). 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 2021.

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.

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4 Source: SkillSource website, https://vcwnorthern.com/contact/. 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 largely utilizes a similar methodology to previous studies. 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 FY2021.

2. The economic impact of VCWNR programs and services in Northern Virginia for FY2021.

3. Return on investment analysis of VCWNR programs and services for FY2021.

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. 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. 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 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 and groceries, 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. To minimize variance in tax estimates from IMPLAN, Chmura directly estimated federal, state, and local taxes for the fiscal impact estimates.

3.3. Return on Investment Analysis

In addition to the economic impact analysis, Chmura also assessed the return on investment (ROI) of VCWN 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 FY2021. The benefit is represented by the total annual labor income attributable to VCWN programs and services, resulting from new job placements. To conclude the ROI analysis, a benefit-to-cost ratio was computed for two broad programs. These included all non-self-service VCWN programs, and all VCWN programs and services, including One-Stop services.

7 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. There are also programs helping employed workers gain new knowledge and skills.

4.1.1. Description of VCWNR Programs & Services

In FY2021, Virginia Career Works Northern Region provided career training and job placement services through the following programs:

- **Workforce Innovation and Opportunity Act (WIOA) Programs**
  - WIOA Adult Program – provides employment and training services to assist eligible adults (individuals 18 years and older) in finding meaningful employment.
  - 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.
  - 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**
  - 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.
  - Incumbent Workers Training (IWT) – 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.
  - 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 such as computer user support specialists.
  - Additional WIOA Programs – includes some programs carried over from prior years.

- **Non-WIOA Grants Programs**
  - 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.
  - Temporary Assistance for Needy Families (TANF) – SkillSource currently has three TANF grants that have a mission to prepare jobseekers with barriers such as low-income, legal history, and/or disabilities to enter and maintain employment, with the prospect of a career path and wage growth.
  - Ticket to Work – provides workforce and employment services for adults receiving Social Security disability benefits who want to return to employment.
  - Employment Support for Lifelong Achievement (ESLA) – provides subsidized and unsubsidized employment opportunities to eligible TANF/VIEW/WIOA recipients.
  - Senior Community Service Employment Program (SCSEP) – provides temporary community service training opportunities as a bridge to find employment opportunities outside the program.

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.

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8 The impact of some programs may not be evaluated if data are not available
4.1.2. Outcome of VCWNR Programs & Services

Table 4.1 summarizes participants and job placements for different VCWNR programs and services in FY2021. Participation and successful job placements were hindered by the COVID-19 pandemic. In FY2021, a total of 872 individuals were enrolled in various non-self-service programs. The majority (520) were enrolled in WIOA Adult, WIOA Dislocated Worker, and WIOA Youth programs. In addition, at least 17 were enrolled in other WIOA grant programs, such as NVITE. An additional 335 jobseekers were enrolled in non-WIOA funded programs, such as Fairfax AIB and SCSEP. Finally, individuals utilized the VCWNR’s One-Stop Employment Centers in-person and virtually to conduct job searches. They registered 45,964 total visits in FY2021.

In total, these programs and services were instrumental in transitioning 363 individuals to employment or improving their skills. VCWNR helped place them into meaningful jobs, with an average annual wage of $43,958. Out of this number, 202 were placed into employment through the WIOA Adult, Dislocated Worker, and Youth programs. An additional 76 jobseekers found jobs through non-WIOA funded programs, such as TANF and SCSEP. Finally, 74 jobseekers found employment as a result of utilizing VCWNR One-Stop services.

<table>
<thead>
<tr>
<th>VCWNR PROGRAMS &amp; SERVICES</th>
<th>ENROLLMENT</th>
<th>JOB PLACEMENTS</th>
<th>AVERAGE INCREMENTAL ANNUAL SALARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIOA Enhanced Career Services</td>
<td>520</td>
<td>202</td>
<td>$48,039</td>
</tr>
<tr>
<td>WIOA – Adult</td>
<td>231</td>
<td>110</td>
<td>$40,088</td>
</tr>
<tr>
<td>WIOA – Dislocated Worker</td>
<td>164</td>
<td>64</td>
<td>$64,321</td>
</tr>
<tr>
<td>WIOA – Youth</td>
<td>125</td>
<td>28</td>
<td>$27,643</td>
</tr>
<tr>
<td>Other WIOA Grant Programs</td>
<td>17</td>
<td>11</td>
<td>$41,933</td>
</tr>
<tr>
<td>NVITE</td>
<td>17</td>
<td>11</td>
<td>$41,933</td>
</tr>
<tr>
<td>Other Programs</td>
<td>335</td>
<td>76</td>
<td>$35,215</td>
</tr>
<tr>
<td>Fairfax AIB</td>
<td>1</td>
<td>0</td>
<td>$30,992</td>
</tr>
<tr>
<td>SCSEP</td>
<td>112</td>
<td>17</td>
<td>$25,542</td>
</tr>
<tr>
<td>TANF</td>
<td>92</td>
<td>47</td>
<td>$36,839</td>
</tr>
<tr>
<td>Ticket to Work</td>
<td>130</td>
<td>12</td>
<td>$42,557</td>
</tr>
<tr>
<td>Total Non-Self-Service Programs</td>
<td>872</td>
<td>289</td>
<td>$44,434</td>
</tr>
<tr>
<td>One-Stop Services*</td>
<td>45,964</td>
<td>74</td>
<td>$42,099</td>
</tr>
<tr>
<td>Total VCWNR Programs &amp; Services</td>
<td>363</td>
<td></td>
<td>$43,958</td>
</tr>
</tbody>
</table>

Source: SkillSource
* Visit numbers are brought current to include all virtual services provided by center programs that would have utilized pre-COVID walk-in services if available. Some programs may not be displayed here if data are not available.
4.2. Regional Economic Profile

4.2.1. Trend in Employment and Wages

Employment level 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 2021 (last quarter of FY2021), Northern Virginia had total wage and salaried employment of 1.22 million, 7.5% above the 2nd quarter of 2020. Employment dropped rapidly at the end of the first quarter and over the second quarter of 2020 due to the COVID-19 pandemic and statewide stay-at-home orders. As the economy reopened, the region has recovered more than 60% of the lost jobs as of the second quarter of 2021, and remains below pre-pandemic levels.

Figure 4.1 depicts quarterly trends in total employment in Northern Virginia since 2010. Despite the seasonal regional employment decline in the first quarter of each year, the overall employment trend shows an expansion with two interruptions. Regional employment growth stalled during 2013 and 2014 largely due to federal spending cuts as a result of federal budget sequestration. Growth resumed after 2014, with strong employment growth occurring from 2015 through 2019. Employment peaked at 1.27 million in the fourth quarter of 2019, up 11.3% (or 129,700 jobs) since 2010. Job losses due to the pandemic set employment in the region back to its lowest level since the first quarter of 2011. As of the second quarter of 2021, the region has recovered an estimated 61% of the jobs lost in early 2020.

In terms of employment growth, since 2010, Northern Virginia’s employment

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Wage and salaried employment does not include proprietors or self-employed individuals. Chmura excluded those groups to be consistent with prior studies.
expanded at an average rate of 0.7% year-over-year; this is compared with 0.6% for Virginia and 0.9% for the nation. As Figure 4.2 shows, Northern Virginia rebounded from the 2007 to 2009 recession faster than both the state and nation, as job growth from 2010 to 2012 generally outpaced those two regions. 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 was steady from 2015 to the fourth quarter of 2019. However, there was a sharp decline in the second quarter of 2020 due to the COVID-19 pandemic, with a healthy recovery over FY2021.

As of the second quarter of 2021, the average annual wage per worker in Northern Virginia was $89,269, significantly higher than the state average of $66,300 and the national average of $65,540 (Figure 4.3). As 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 2.7% per year, compared with state and national averages of 3.0% and 3.6%, respectively.
4.2.2. Employment and Wage by Ownership

Figure 4.4 provides a breakdown of total wage and salaried employment in Northern Virginia in FY2021 by ownership category. The data show that in FY2021, 996,596 jobs (or 83.1% of the region’s total employment of 1.20 million) were in the private sector. With 203,236 jobs (or 16.9%) in the government sector, the percentage of overall government employment in Northern Virginia is smaller than the state average of 18.2%. However, there is a higher percentage (6.8%) of federal government employment in the region than in Virginia (5.0%).

Among different ownership categories, average wage was the highest for workers in the federal government, averaging $116,971 in FY2021. This is significantly higher than the average of $89,269 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 $59,236 and $66,455, respectively—much lower than wages in the federal government and private sector.

Figure 4.6 depicts the changes in employment by ownership category from FY2020 to FY2021 in Northern Virginia. The COVID-19 pandemic continued to impact employment in the private sector, which lost 30,267 jobs over this period. Local and state governments lost 4,967 and 487 jobs respectively, and federal government employment increased by 1,834 jobs.
4.2.3. Employment and Wage by Industry Sector

Northern Virginia is home to many different industries. As Figure 4.7 shows, in FY2021, the largest industry by employment was professional, scientific, and technical services (265,299 jobs), followed by health care and social assistance (118,609 jobs), and retail trade (109,405 jobs). Other large industry sectors included educational services (99,789 jobs), accommodation and food services (94,786 jobs), and public administration (80,520 jobs). The high-paying professional, scientific, and technical services industry plays an important role in the regional economy as more than one in five (22.1%) regional workers were employed in this industry, compared with 12.0% for the state average.

Figure 4.8 presents the average annual wages by major industry in Northern Virginia for FY2021. Management of companies and enterprises was the highest-paying industry, with an average annual wage of $174,059. This industry represents many corporate headquarters in Northern Virginia, employing a large number of corporate executives and highly skilled professionals. Finance and insurance ranked second with an average annual wage of $157,468. Other high-paying industries were information ($148,735 average annual wage), professional, scientific, and technical services ($132,162), and wholesale trade ($131,521).

On the other end of the spectrum, accommodation and food services, and agriculture, forestry, fishing and hunting paid the lowest annual wages, averaging $26,104 and $38,493, respectively, in FY2021. Workers in those industries may have faced 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 4.9 summarizes the employment changes by industry in Northern Virginia between FY2020 and FY2021. The largest employment gains over the period occurred in public administration (up 1,858 jobs), and professional, scientific, and technical services (up 1,076 jobs). On the other hand, the largest employment losses over the period occurred in accommodation and food services (down 14,914 jobs, largely due to the pandemic), and education services (down 6,264 jobs).

From the perspective of many participants of VCWNR programs and services, opportunities may lie in industries recovering lost jobs and forecast to grow the long run such as health care and social assistance, educational services, and construction.

### 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 is monthly from January 2010 through February 2022 (the most recent month for which such data were available).

The unemployment rates of the region, state, and nation steadily declined between 2010 and 2020 as the country recovered from the recession of 2007 to 2009. 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 FY2021 (June 2021), unemployment rates stood at 4.1% in Northern Virginia, 4.5% statewide, and 6.1% nationally. The unemployment rate spiked in April 2020 to 9.9% in the region due to the pandemic, compared with 10.9% in the state, but has been on a steady decline ever since. The regional unemployment rate has fallen to 2.5% in February 2022, indicating a rather quick recovery from the unemployment caused by the pandemic. The resilient economy and recovery bode 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. 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 363 individuals found employment after enrolling in VCWNR programs or utilizing One-Stop services in FY2021. Their average incremental wage was $43,958 per year. As a result, the total annual incremental household income generated through VCWNR programs’ job placements is estimated to be $16.0 million. Of this figure, $12.8 million is the incremental income for those who found jobs or received training through VCWNR non-self-service programs, and $3.1 million is for those using One-Stop services, which were limited during the social distancing measures in 2021.

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

Excluding job placements through One-Stop services, a total of 289 individuals found jobs with the help of VCWNR non-self-service programs in FY2021. They earned $12.8 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 FY2021.\textsuperscript{10}

Table 5.2 sums up the economic impact of VCWNR non-self-service programs in Northern Virginia in FY2021. In terms of regional employment, direct impact is represented by 289 individuals who transitioned into employment through VCWNR programs. The household expenditures made by these newly employed individuals also supported an additional 68 jobs in the area through indirect and induced impact, for a total employment impact of 357 jobs in Northern Virginia.

For regional labor income, the direct impact is represented by $12.8 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 $4.1 million in additional regional labor income through indirect and induced impact, for a total regional labor income of $16.9 million in FY2021.

\textsuperscript{10} This same assumption has been used in previous studies.

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Table 5.1: Additional Household Income Attributable to FY2021 VCWNR Programs

<table>
<thead>
<tr>
<th>VCWNR PROGRAMS &amp; SERVICES</th>
<th>JOB PLACEMENTS</th>
<th>INCREMENTAL AVERAGE ANNUAL SALARY</th>
<th>INCREMENTAL TOTAL HOUSEHOLD INCOME (MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIOA – Adult</td>
<td>110</td>
<td>$40,088</td>
<td>$4.4</td>
</tr>
<tr>
<td>WIOA – Dislocated Worker</td>
<td>64</td>
<td>$64,321</td>
<td>$4.1</td>
</tr>
<tr>
<td>WIOA – Youth</td>
<td>28</td>
<td>$27,643</td>
<td>$0.8</td>
</tr>
<tr>
<td>NVITE</td>
<td>11</td>
<td>$41,933</td>
<td>$0.5</td>
</tr>
<tr>
<td>Fairfax AIB</td>
<td>0</td>
<td>$30,992</td>
<td>$0.0</td>
</tr>
<tr>
<td>SCSEP</td>
<td>17</td>
<td>$25,542</td>
<td>$0.4</td>
</tr>
<tr>
<td>TANF</td>
<td>47</td>
<td>$36,839</td>
<td>$1.7</td>
</tr>
<tr>
<td>Ticket to Work</td>
<td>12</td>
<td>$42,557</td>
<td>$0.5</td>
</tr>
<tr>
<td>Total Non-Self-Service Programs</td>
<td>289</td>
<td>$44,434</td>
<td>$12.8</td>
</tr>
<tr>
<td>One-Stop Services</td>
<td>74</td>
<td>$42,099</td>
<td>$3.1</td>
</tr>
<tr>
<td>Total VCWNR Programs &amp; Services</td>
<td>363</td>
<td>$43,958</td>
<td>$16.0</td>
</tr>
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</table>

Source: SkillSource

Table 5.2: Economic Impact of VCWNR Non-Self-Service Programs, FY2021

<table>
<thead>
<tr>
<th></th>
<th>EMPLOYMENT</th>
<th>LABOR INCOME (MILLION)</th>
<th>OUTPUT</th>
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</thead>
<tbody>
<tr>
<td>Direct Impact</td>
<td>289</td>
<td>$12.8</td>
<td>$0.0</td>
</tr>
<tr>
<td>Indirect &amp; Induced Impact</td>
<td>68</td>
<td>$4.1</td>
<td>$12.5</td>
</tr>
<tr>
<td>Total Impact</td>
<td>357</td>
<td>$16.9</td>
<td>$12.5</td>
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<table>
<thead>
<tr>
<th></th>
<th>STATE &amp; LOCAL</th>
<th>FEDERAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Impact ($Million)</td>
<td>$0.9</td>
<td>$1.3</td>
<td>$2.2</td>
</tr>
</tbody>
</table>

Note: Numbers may not sum due to rounding
Source: IMPLAN 2020
Finally, household spending by newly employed individuals also generated $12.5 million in annual total economic output in the region.\textsuperscript{11} In addition, this household spending is estimated to have generated $0.9 million in state and local tax revenue, and $1.3 million in federal tax revenue—for a total fiscal impact of $2.2 million in FY2021.

5.2. Economic Impact of all VCWNR Programs and Services

Including job placements from One-Stop services, a total of 363 individuals found jobs with the help of VCWNR programs and services in FY2021. They earned an estimated $16.0 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 FY2021. In terms of regional employment, direct impact is represented by 363 individuals who transitioned into employment through VCWNR programs and services. Household expenditures made by these individuals also supported an additional 84 jobs in the area through indirect and induced impact, for a total regional employment impact of 447 jobs.

For regional labor income, the direct impact is represented by $16.0 million in annual wages and salaries paid to individuals benefiting from all VCWNR programs and services. Household expenditures made by these individuals also generated $5.1 million in regional labor income through indirect and induced impact, for a total regional labor income of $21.0 million in FY2021.

In addition, household spending was responsible for generating $1.1 million in additional state and local tax revenue, and $1.6 million in additional federal tax revenue. The total fiscal impact was $2.7 million in FY2021.

Table 5.3: Economic Impact of all VCWNR Programs and Services, FY2021

<table>
<thead>
<tr>
<th></th>
<th>EMPLOYMENT</th>
<th>LABOR INCOME ($MILLION)</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Impact</td>
<td>363</td>
<td>$16.0</td>
<td>$0.0</td>
</tr>
<tr>
<td>Indirect &amp; Induced Impact</td>
<td>84</td>
<td>$5.1</td>
<td>$15.5</td>
</tr>
<tr>
<td>Total Impact</td>
<td>447</td>
<td>$21.0</td>
<td>$15.5</td>
</tr>
<tr>
<td>STATE &amp; LOCAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal Impact ($Million)</td>
<td></td>
<td>$1.1</td>
<td>$1.6</td>
</tr>
</tbody>
</table>

Note: Numbers may not sum due to rounding
Source: IMPLAN 2020

\textsuperscript{11} Economic output is typically represented by total sales (revenue of all businesses) in a region.
6. Return on Investment

In FY2021, the public cost associated with delivering VCWNR programs and services was $7.2 million.\textsuperscript{12} 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 2.3 in FY2021 for VCWNR non-self-service programs. This indicates that the benefit derived from the programs was more than two times the public cost required (Figure 6.1). The ROI is lower than in previous years due to the COVID-19 pandemic.

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 2.9 in FY2021, indicating that the benefit was nearly three times the public cost required.\textsuperscript{13}

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.

\textsuperscript{12} Source: Audit Report, Financial and Federal Award Compliance Examination, for Year Ending June 30, 2020, SkillSource Group.

\textsuperscript{13} To be consistent with prior studies, this report does not differentiate costs for One-Stop services.
7. Conclusion

In FY2021, Virginia Career Works Northern Region made significant contributions to the economy of Northern Virginia. Despite the continued interruption of the COVID-19 pandemic, including waves of coronavirus variants, in Fiscal Year 2021, the system was instrumental in helping 363 individuals obtain jobs in FY2021. The associated incremental household income for those individuals was approximately $16.0 million. The total impact of those programs and services is estimated to be 447 jobs in Northern Virginia, associated with $21.0 million in total regional labor income, $15.5 million in additional regional economic output, and $2.7 million in state, local, and federal tax revenue.

Excluding job placements through One-Stop services, the Virginia Career Works Northern Region helped 289 individuals obtain employment through its non-self-service programs in FY2021. The increased household income for those was approximately $12.8 million. The total impact of those programs is estimated to be 357 jobs in Northern Virginia, associated with $16.9 million in total regional labor income, $12.5 million in additional regional economic output, and $2.2 million in state, local, and federal tax revenue.

In FY2021, the public cost associated with all VCWNR programs and services was $7.2 million. Comparing benefit and cost, the benefit-to-cost ratio for VCWNR non-self-service programs was 2.3, while the benefit-to-cost ratio rose to 2.9 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.

Multiplier—the cumulative impacts of a unit change in economic activity on the entire economy.
Appendix 2: The SkillSource Group, Inc. Board of Directors

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SAP Public Sector Industry Business Solutions

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Todd Rowley  
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ICF International

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Christopher Rieley  
Bank of Clarke County

Joseph Carter  
R&K Cyber Solutions LLC

Todd Rowley  
Old Dominion National Bank

Rodney Caulkins  
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Roopal Saran  
Northern Virginia Literacy Council

Louis Cernak  
International Union of Operating Engineers, Local 99

Olivia Shultz  
SAP NS2

Julie Coons  
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Mary Ann Shurtz  
Stratford University

Nicholas Dunn  
Integrated Federal Solutions

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Fairfax County Economic Development Agency

Edward Dupass  
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Zuzana Steen  
Micron Technology, Inc.

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AFL-CIO

Julie Mullen
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Cornerstones Virginia

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ICF International

Hector Velez
Vector Talent

Michele Weatherly
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Lisa Whetzel
Britepaths, Inc.