

The Regional Economic Impact of the NORTHERN VIRGINIA WORKFORCE SYSTEM – FY 2016



SEPTEMBER 2016



Executive Summary

This report assesses the economic and fiscal impact attributable to the job placement and career training services provided by the Northern Virginia Workforce System in fiscal year (FY) 2016. The principle findings from that assessment are as follows:

1. In FY 2016, employment growth in the Northern Virginia Workforce System's service area began to rebound from the effects of the 2013 federal sequester:

- Employment in the broader Northern Virginia region fell to a recession-driven low of 1,127,523 in the first quarter of 2011, then generally trended upward through 2012.
- Largely as a result of the 2013 federal sequester, employment growth then stalled in 2013 and 2014.
- It has since rebounded and hit a high of 1,208,749 in the fourth quarter of 2015.
- Between the fourth quarter of 2010 and the fourth quarter of 2015, Northern Virginia gained 63,925 jobs, for a net employment increase of 5.6 percent. By way of comparison, over the same period, total employment statewide increased by 6.3 percent.
- As of June 2016, unemployment stood at 3.1 percent in Northern Virginia, 4.0 percent statewide, and 5.1 percent nationally.

2. The job placement and career training services provided by the Northern Virginia Workforce System have a large economic and fiscal impact on Northern Virginia:

- In FY 2016, the Northern Virginia Workforce System transitioned 802 previously unemployed individuals into employment through its WIOA Enhanced Career Services and other grant programs. The increased household income associated with this employment was approximately \$32.7 million.
- Our analysis indicates that the total regional economic and fiscal impact associated with the consumption expenditures attributable to this \$32.7 million increase in income included: 986 full time equivalent jobs, \$42.7 million in additional regional labor income, \$28.5 million in additional regional economic output, and \$4.1 million in state, local, and federal tax revenue.
- If one broadens the scope of workforce services provided to include self-referred individuals who take advantage of the Northern Virginia Workforce System's Basic Career Services, the System was instrumental in placing 1,301 previously unemployed individuals into employment in FY 2016, and the increased household income associated with this employment was approximately \$48.3 million.
- Our analysis indicates that the total regional economic and fiscal impact associated with the consumption expenditures attributable to this \$48.3 million increase in income included: 1,578 full time equivalent jobs, \$63.4 million in additional regional labor

income, \$42.7 million in additional regional economic output, and \$6.1 million in state, local, and federal tax revenue.

3. Comparing the costs attributable to these programs to their economic benefits shows that benefits far exceed costs.

- In FY 2016, the cost associated with the WIOA; Employing Northern Virginia through Entrepreneurship (ENOVATE); Credentials to Careers (C2C); National Emergency Grants; Virginia Financial Services Network (VFSN); Jobs for Veterans (J4Vets); Virginia Serious and Violent Offender Reentry Initiative (VASAVOR); Fairfax Pre-Release Employment Center (PRC); Ticket to Work, Success through Education, Employment, and Reintegration (STEER); Temporary Assistance for Needy Families (TANF); and Basic Career Services programs administered by the Northern Virginia Workforce System was approximately \$7.9 million.
- Comparing that cost to the benefits derived from these programs (excluding Basic Career Services), in terms of total household (or labor) income, shows that the benefit/cost ratio is 5.4, indicating that the benefits derived from these programs were almost five and a half times greater than the costs required to generate those benefits.
- If the analysis is expanded to encompass Basic Career Services as well, the benefit/cost ratio rises to 8.0, indicating that the benefits are eight times greater than the costs required to generate them.

4. In conclusion, in FY 2016 the Northern Virginia Workforce System made a significant contribution to the economy of Northern Virginia.

*This report was prepared by Mangum Economics through a contract with the **SkillSource** Group, Inc., the non-profit arm of the Northern Virginia Workforce Development Board.*

Introduction

This report assesses the economic and fiscal contribution that the Northern Virginia Workforce System's fiscal year (FY) 2016 career training and job placement services made to Northern Virginia.¹ The remainder of the report is divided into three sections. The *Background* section provides details on the Northern Virginia Workforce System's service area, the services it provided in FY 2016, and recent economic trends within the region. The *Economic Impact – FY 2016* section provides an estimate of the economic and fiscal impact that the job placement and training services provided by the Northern Virginia Workforce System had on the region in FY 2016. Finally, the *Conclusion* section provides a brief summary. This report was prepared by Mangum Economics through a contract with the **SkillSource** Group Inc., the non-profit arm of the Northern Virginia Workforce Development Board.

Background

The Northern Virginia Workforce System

The Northern Virginia Workforce System serves the counties of Fairfax, Loudoun, and Prince William, and the cities of Fairfax, Falls Church, Manassas, and Manassas Park. A map depicting these localities along with the locations of the **SkillSource** Group's various service centers is provided in Figure 1.² In 2015, these localities had a combined estimated population of almost 2.1 million, accounting for more than one out of every four people in the state of Virginia as a whole.³ Moreover, between 2010 and 2015 the estimated population of these localities grew by almost 10 percent, twice the 5 percent growth rate exhibited by the state as a whole.⁴

¹ July 1, 2015 through June 30, 2016.

² The addresses of these facilities are as follows: 1) Fairfax **SkillSource** Center Annandale, 7611 Little River Turnpike (West Wing), Suite 300W, Annandale; 2) Fairfax **SkillSource** Center Alexandria, 8350 Richmond Highway, Alexandria; 3) Fairfax **SkillSource** Center Reston, 11484 Washington Boulevard West, Reston; 4) Prince William Workforce Center, 13370 Minnieville Road, Woodbridge; 5) Loudoun Workforce Resource Center, 102 Heritage Way, Northeast, Leesburg; 6) Manassas **SkillSource** Career Services Center at Northern Virginia Community College, Manassas Campus, 6901 Sudley Road, MS Building, Manassas; and PRC) Fairfax County Pre-Release Employment Center, 10520B Judicial Drive, Fairfax.

³ *Data Source:* U.S. Census Bureau.

⁴ *Data Source:* U.S. Census Bureau.

Northern Virginia Workforce Area #11 and *SkillSource* Center Locations



Figure 1: *SkillSource* Group Service Area and Service Center Locations

The mission of the Northern Virginia Workforce System is to foster a globally competitive business environment in Northern Virginia. It does that by:

- aiding in the creation of a well-trained workforce to keep regional businesses competitive,
- providing the services and workforce information that enable businesses to connect with qualified job applicants,

- helping residents find their way to meaningful employment,
- providing unique and targeted workforce training services to targeted populations, including veterans, adults with disabilities, and emerging entrepreneurs,
- facilitating the transition of ex-offenders and others with employment challenges into the community by providing them with the skills they need to become successfully employed, and
- preparing today's young adults for tomorrow's jobs.

Services Provided in FY 2016

In FY 2016, the Northern Virginia Workforce System provided career training and job placement services through fourteen separate workforce programs:

- Workforce Innovation and Opportunity Act (WIOA Adult) Program – provides employment and training services to assist eligible adults (individuals 18 years of age 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).
- Employing Northern Virginia through Entrepreneurship (ENOVATE) – provided entrepreneurship training and technical assistance to aid individuals in starting their own businesses. This program concluded in June 2016; however, is undergoing a year-long evaluation overseen by the U.S. Department of Labor.
- Credentials to Careers (C2C) – in partnership with Northern Virginia Community College, provided job training and workforce services to jobseekers impacted by trade and economic transitions, including job dislocation. This program concluded in March 2016.
- National Emergency Grants – On the Job Training (NEG-OJT) – provided supplemental dislocated worker funds to respond to the needs of dislocated workers and communities affected by major economic dislocations and other worker dislocation events which cannot be met through other WIOA programs. This program concluded in June 2016.
- Virginia Financial Success Network (VFSN) – enhances long-term financial stability by employing an integrated approach where jobseekers are connected to workforce, education, income support, and financial services.
- J4Vets – provided employment and training services, including entrepreneurship training, to veterans. This program concluded in March 2016.

- Virginia Serious and Violent Offender Re-entry Initiative (VASAVOR) – supports the transition of long-term incarcerated adults into the community.
- Fairfax Pre-Release Employment Center (PRC) – a one-stop employment center that provides pre-release employment and training services to selected Fairfax County jail inmates.
- Success through Education, Employment, and reintegration (STEER) – provides inmates opportunities for pre- and post-training (GED and occupational skills training), as well as dual enrollment into WIOA while they are still incarcerated, with a transition strategy for continued service by the One-Stops post-release.
- Ticket to Work – workforce and employment services for adults receiving Social Security disability benefits who want to return to employment. **SkillSource** is an Employment Network with the Social Security Administration.
- 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.
- WIOA Basic Career Services – provides self-service tools that assist a jobseeker in making an effective job search.

As shown in Table 1, in FY 2016 these programs were instrumental in transitioning 1,301 previously unemployed individuals into well-paying jobs (average annual salaries ranged from \$19,656 to \$87,942).⁵ Out of this number, 577 were placed through the Northern Virginia Workforce System's WIOA Enhanced Career Services (adult, dislocated worker, and youth), 170 were placed through the System's other WIOA grant programs (ENOVATE, C2C, NEG-OJT, VFSN, and the Fairfax PRC). An additional 55 jobseekers were placed into employment through non-WIOA funded grants (J4VETS, Ticket to Work, STEER, and TANF) and 499 found employment as a result of services provided through the Northern Virginia Workforce System's WIOA Basic Career Services.⁶

⁵ Data Source: the **SkillSource** Group, Inc.

⁶ Data Source: the **SkillSource** Group, Inc. The totals presented for Enhanced Career Services include 101 placements from the ENOVATE grant program at an average annual salary of \$49,483, 14 from the C2C at an average annual salary of \$53,498, 3 from the NEG-OJT program at an average annual salary of \$53,830, and 6 from the VFSN program at an average annual salary of \$33,946.

Table 1: Northern Virginia Workforce System Job Placements in FY 2016

Program	Job Placements	Average Annual Salary
WIOA – Adult	182	\$32,531
WIOA – Dislocated Worker	334	\$58,864
WIOA – Youth	61	\$20,010
WIOA Enhanced Career Services Subtotal	577	
J4Vets	15	\$87,942
VASAVOR	28	\$21,341
PRC	75	\$21,424
Ticket to Work	31	\$29,411
TANF	24	\$18,377
STEER	52	\$19,656
Non-WIOA Grants Subtotal	225	
Basic Career Services	499	\$31,304
TOTAL	1,301	

Regional Economic Trends

Figure 2 depicts changes in total employment in the broader Northern Virginia region for the five-year period from the fourth quarter of 2010 through the fourth quarter of 2015 (the most recent quarter for which data are available).⁷ As these data show, regional employment fell to a low of 1,127,523 in the first quarter of 2011, then generally trended upward through 2012. However, largely as a result of the 2013 federal sequester, it stalled in 2013 and 2014. But, began to escalate rapidly in 2015, hitting a high of 1,208,749 in the fourth quarter of 2015. Over the period as a whole, Northern Virginia gained 63,925 jobs, for a net employment increase of 5.6 percent. By way of comparison, over the same period, total employment statewide increased by 6.3 percent.

⁷ In this graph and those that follow in this section, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board (the counties of Fairfax, Loudoun, and Prince William, and the cities of Fairfax, Falls Church, Manassas, and Manassas Park).

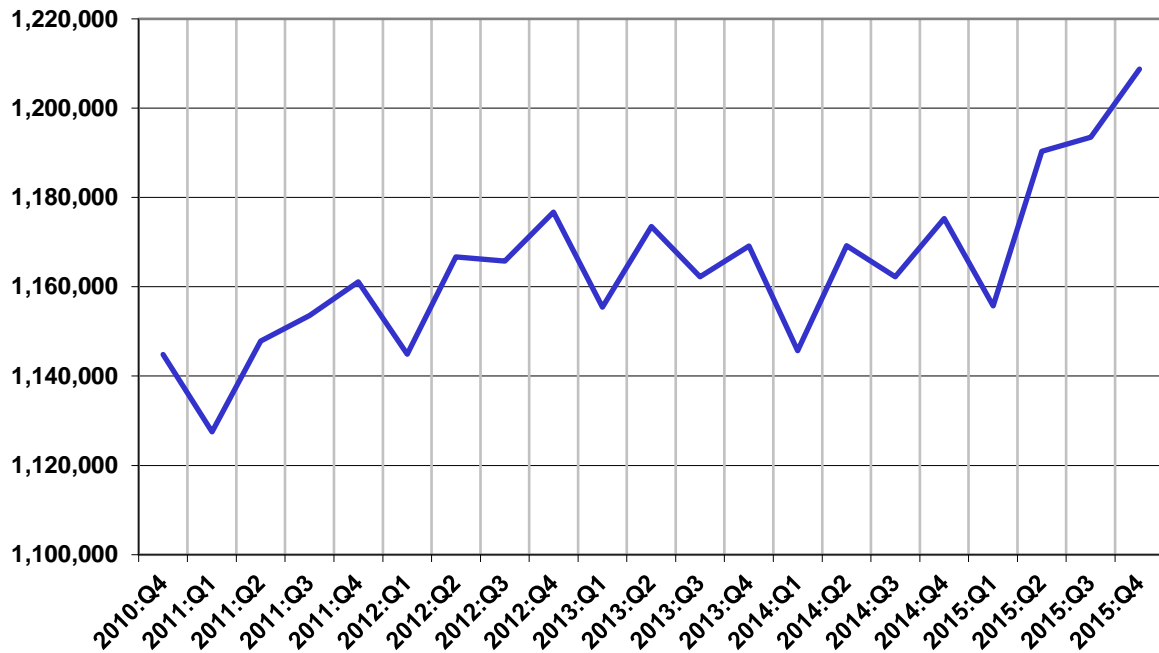


Figure 2: Northern Virginia Total Employment, 2010:Q4 through 2015:Q4⁸

Figure 3 puts these numbers in perspective by comparing year-over-year changes in employment in Northern Virginia to that of the state as a whole. Any observation above the horizontal zero line in this graph reflects an increase in employment from the prior year, while any observation below the zero line reflects a decrease in employment from the prior year. As these data indicate, Northern Virginia initially out-performed the statewide norm. However, due primarily to the 2013 federal sequester, Northern Virginia started under-performing the state in 2013, even dropping into negative territory from the third quarter of 2013 through the second quarter of 2014. As of the fourth quarter of 2015, year-over-year employment growth stood at 2.8 percent in Northern Virginia and 3.0 percent statewide.

⁸ *Data Source:* Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

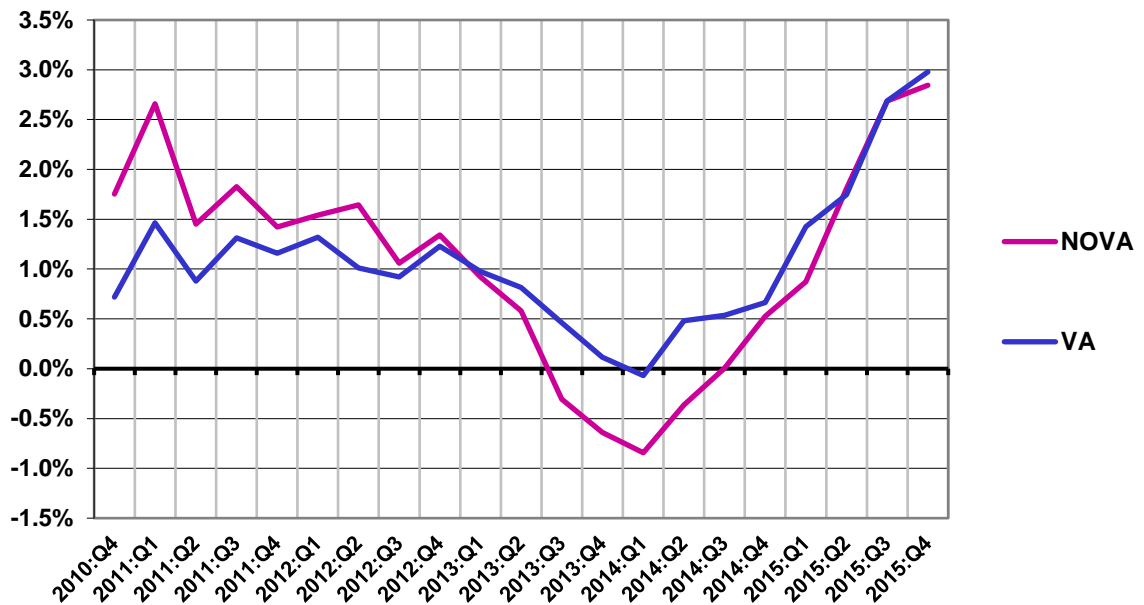


Figure 3: Year-Over-Year Change in Total Employment, 2010:Q4 through 2015:Q4⁹

Figures 4 through 6 provide a break-down of total employment in Northern Virginia in the fourth quarter of 2015 by ownership category. As the data depicted in Figure 4 show, 1,005,037 jobs (or 83 percent) of the region's total employment of 1,208,749 jobs were in the private sector that quarter, while 203,712 (or 17 percent) were in the government sector. As depicted in Figure 5, average wages across all sectors were \$1,475 per week in the fourth quarter of 2015, \$1,480 per week in the private sector, and \$1,448 per week in the government sector. Finally, Figure 6 depicts the change in employment in each of these sectors between the fourth quarter of 2014 and the fourth quarter of 2015. As these data indicate, total employment in Northern Virginia increased by 33,441 jobs over the period, with the private sector experiencing a net gain of 33,152 jobs and the government sector experiencing a net gain of 290 jobs.

⁹ *Data Source:* Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

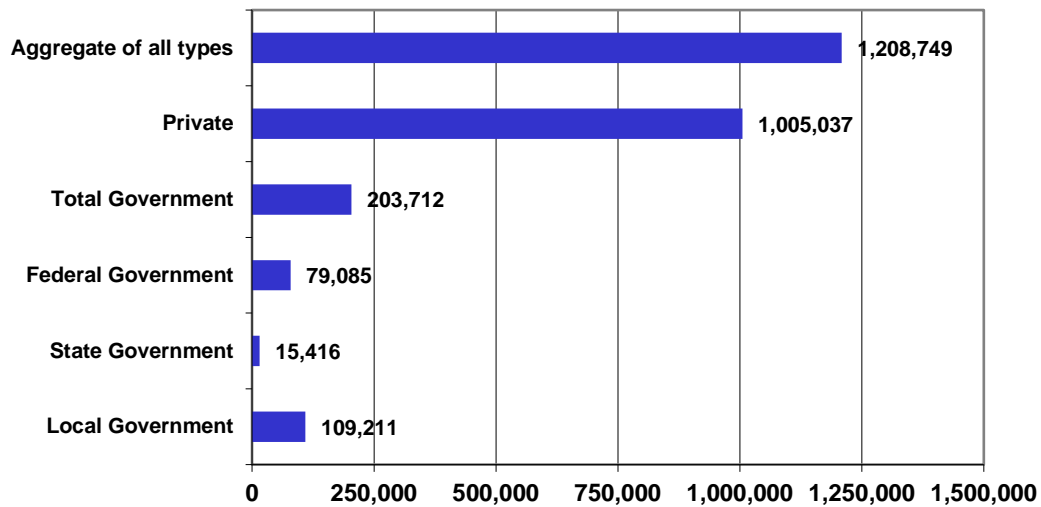


Figure 4: Northern Virginia Employment by Ownership Category, 2015:Q4¹⁰

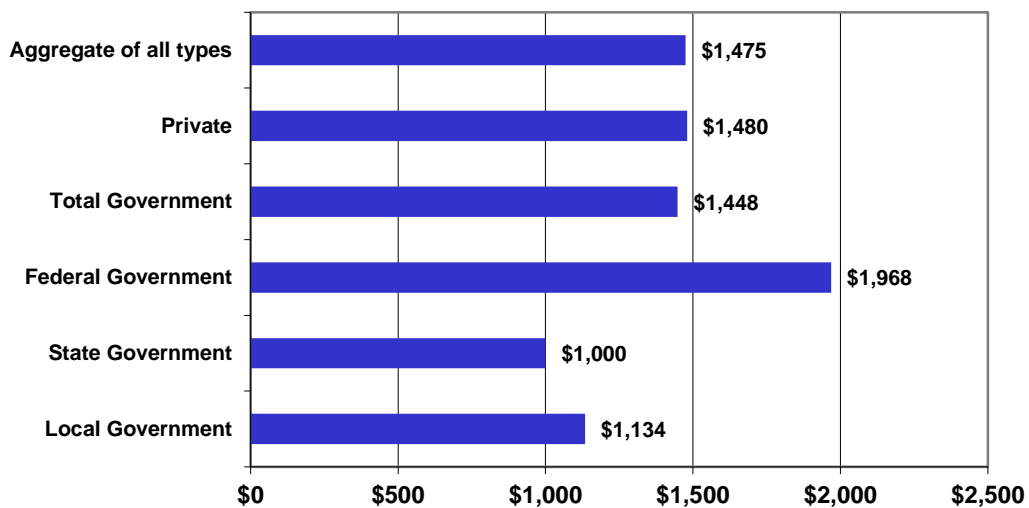


Figure 5: Northern Virginia Average Weekly Wages by Ownership Category, 2015:Q4¹¹

¹⁰ Data Source: Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

¹¹ Data Source: Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

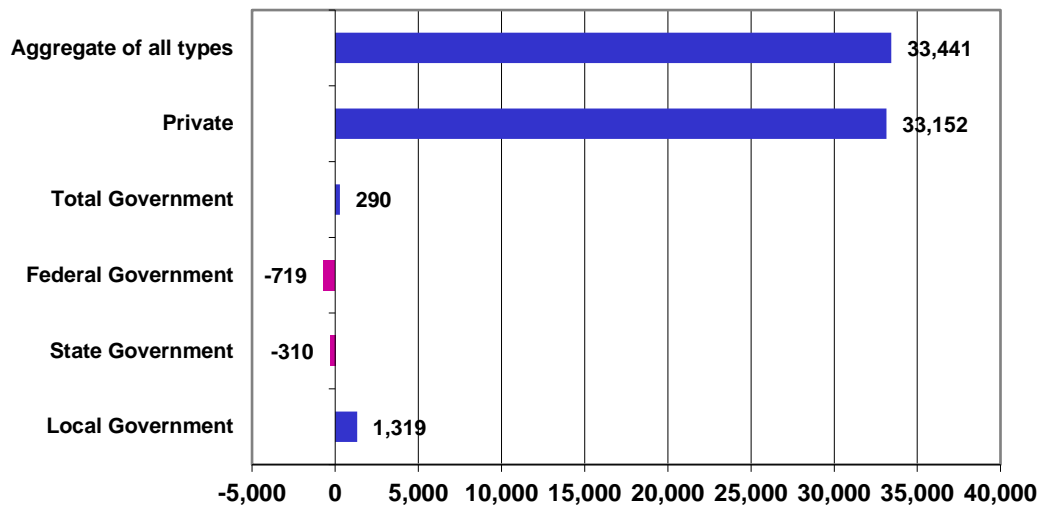


Figure 6: Northern Virginia Change in Employment by Ownership Category, 2014:Q4 to 2015:Q4¹²

Figures 7 through 9 provide a more detailed picture of private sector employment in Northern Virginia. Figure 7 depicts employment by major industry category in the fourth quarter of 2015. As these data clearly indicate, with 248,744 jobs, *Professional, Scientific, and Technical Services* was by far the largest employment sector in Northern Virginia that quarter, accounting for 25 percent of total private sector employment, or one out of every four private sector jobs. *Retail Trade* ranked second with 123,862 jobs (12 percent of total private sector employment), *Accommodation and Food Services* ranked third with 102,762 jobs (10 percent), *Health Care and Social Services* ranked fourth with 100,112 jobs (10 percent), and *Administrative, Support, and Waste Management Services* ranked fifth with 78,769 jobs (8 percent).

¹² *Data Source:* Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

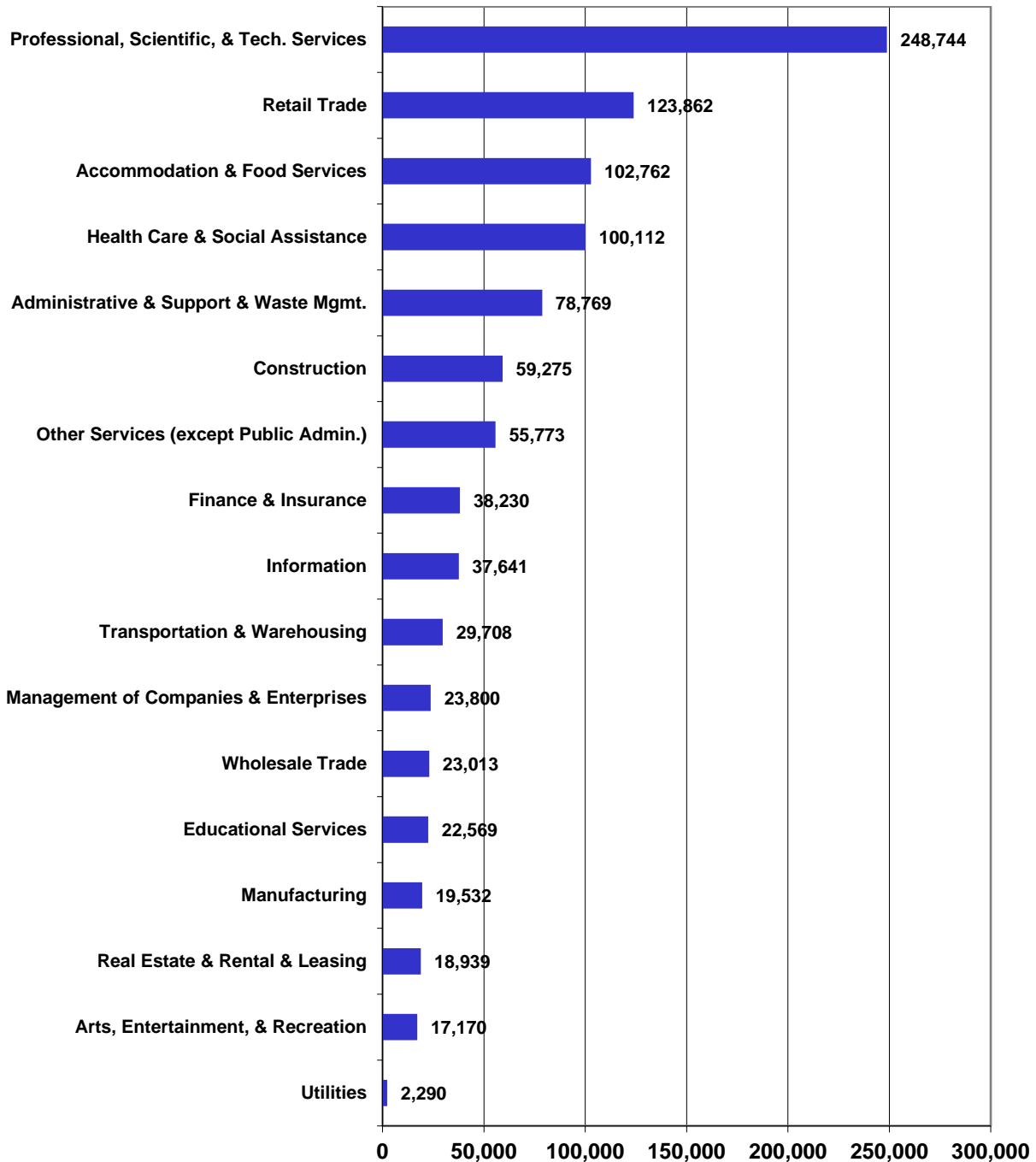


Figure 7: Northern Virginia Private Employment by Major Industry Category, 2015:Q4¹³

¹³ *Data Source:* Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

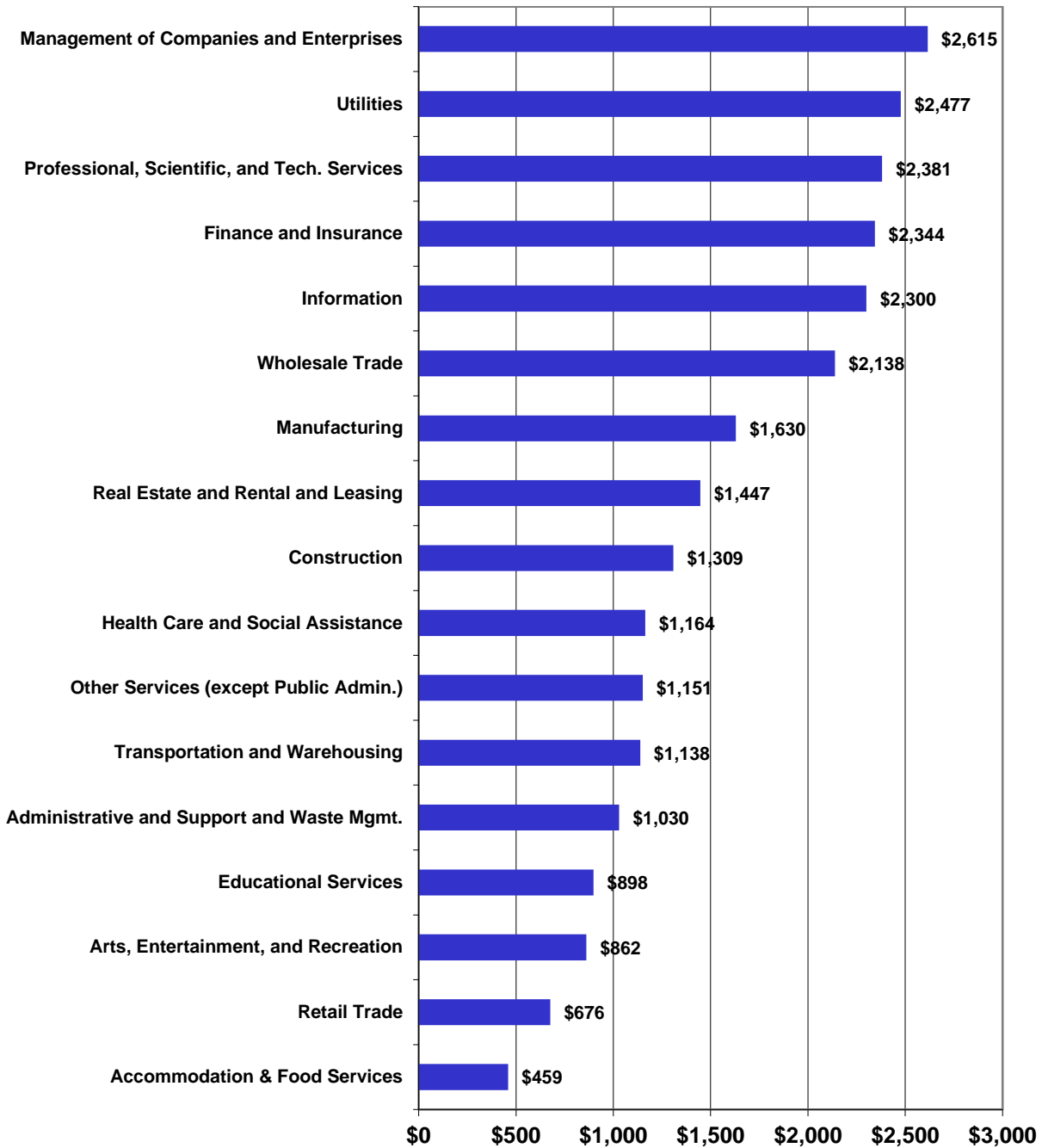


Figure 8: Northern Virginia Private Average Weekly Wages by Major Industry Category, 2015:Q4¹⁴

¹⁴ Data Source: Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

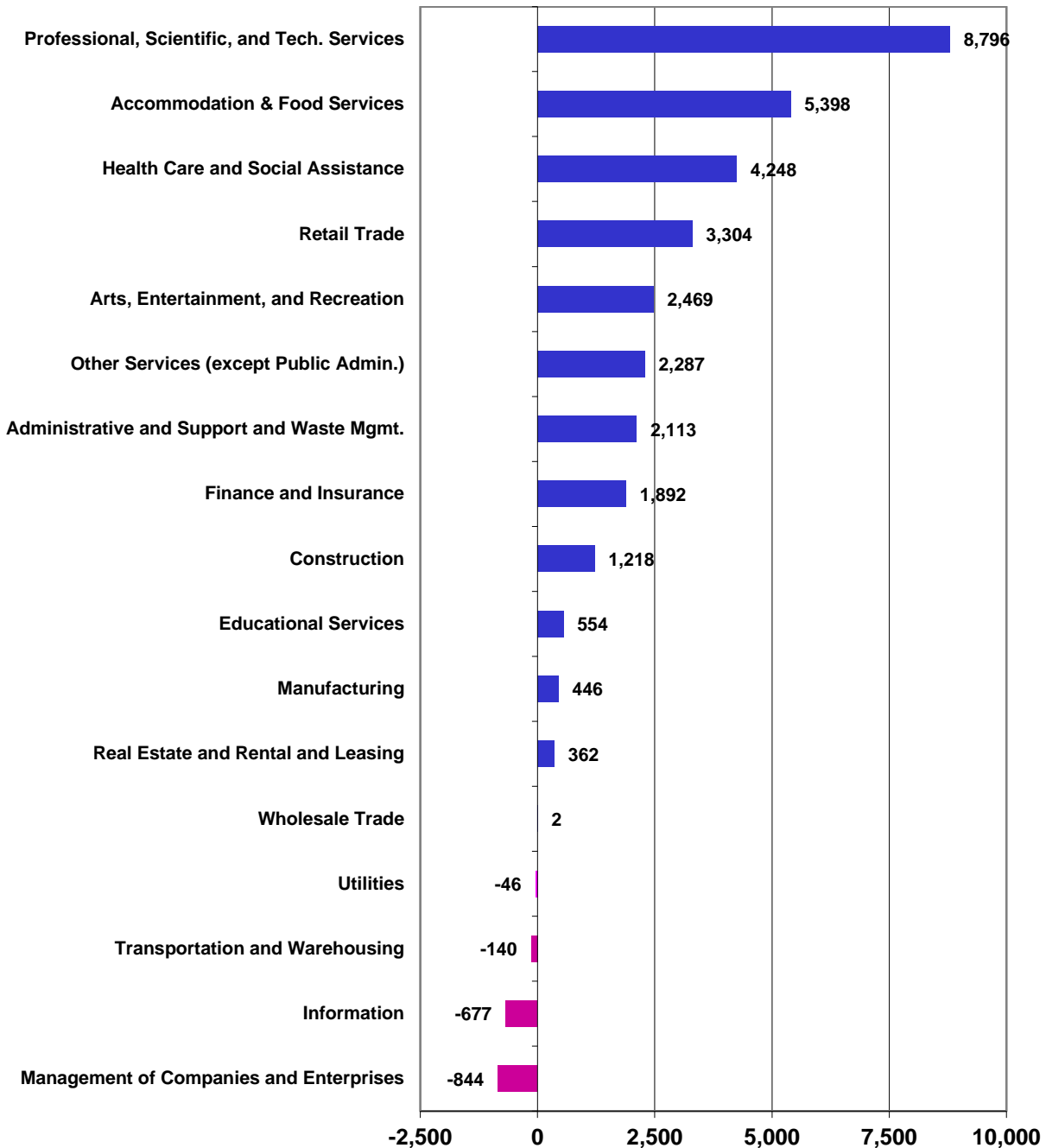


Figure 9: Northern Virginia Private Change in Private Employment Average by Major Industry Category, 2014:Q4 to 2015:Q4¹⁵

¹⁵ *Data Source:* Virginia Employment Commission. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

Figure 8 provides similar information for private average weekly wages by major industry category. As these data show, *Management of Companies and Enterprises* was the highest paying employment sector in Northern Virginia in the fourth quarter of 2015, with average weekly wages of \$2,615. *Utilities* ranked second with average weekly wages of \$2,477, *Professional, Scientific, and Technical Services* third with average weekly wages of \$2,381, *Finance and Insurance* fourth with average weekly wages of \$2,344, and *Information* fifth with average weekly wages of \$2,300. To put these numbers in perspective, the private average weekly wage across all industries in Northern Virginia in the fourth quarter of 2014 was \$1,480.

Figure 9 depicts the change in private employment in Northern Virginia between the fourth quarter of 2014 and the fourth quarter of 2015. As these data indicate, the largest employment gains over the period occurred in *Professional, Scientific, and Technical Services* (up 8,796 jobs), *Accommodation and Food Services* (up 5,398 jobs), and *Health Care and Social Assistance* (up 4,248 jobs). At the other end of the spectrum, the largest employment losses over the period occurred in *Management of Companies and Enterprises* (down 844 jobs), *Information* (down 677 jobs), and *Transportation and Warehousing* (down 140 jobs).

Finally, Figure 10 compares recent unemployment trends in Northern Virginia to those at the state and national level. These data are monthly and cover the five-year period from June of 2011 through June of 2016 (the most recent month for which data are available). As these data indicate, unemployment rates in Northern Virginia were consistently below the Virginia and U.S. average rates throughout the period. However, those rates have steadily converged. As of June 2016, unemployment stood at 3.1 percent in Northern Virginia, 4.0 percent statewide, and 5.1 percent nationally.

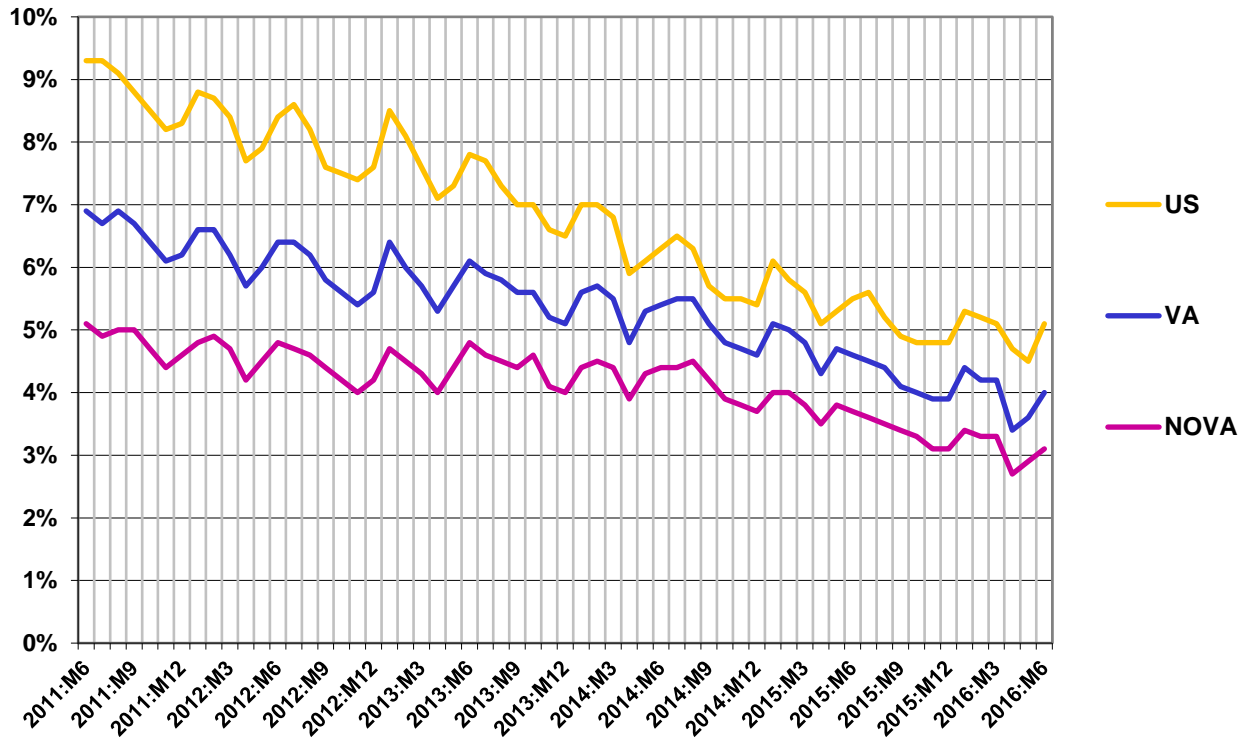


Figure 10: Unemployment Rate, June 2011 to June 2016¹⁶

Economic Impact – FY 2016

In this section, we assess the economic impact that the career training, job placement, and other workforce services provided by the Northern Virginia Workforce System in FY 2016 had on the economy of Northern Virginia. The primary nature of that impact had to do with the new income earned by the 1,301 previously unemployed individuals that the Northern Virginia Workforce System was instrumental in transitioning into meaningful employment.¹⁷ As shown in Table 2, the total additional household income generated through those placements is estimated to be \$48.3 million.

¹⁶ *Data Source:* Virginia Employment Commission and U.S. Bureau of Labor Statistics. In this graph, Northern Virginia is defined to include the City of Alexandria and Arlington County, as well as the seven localities served by the Northern Virginia Workforce Development Board.

¹⁷ It is important to note that whereas the wages earned by these previously unemployed individuals constitute the primary economic impact of the career training, job placement, and other workforce services provided by the Northern Virginia Workforce System in FY 2016, they are by no means the only economic impact. Although it is beyond the scope of the analysis presented here, a more inclusive definition of economic impact would also include, among other things, the cost of any social assistance that these individuals were receiving while unemployed (e.g., unemployment assistance, food stamps) and that they no longer required after they were employed. For that reason, the more narrowly focused estimates of economic impact presented in this report should be assumed to be conservative in nature.

Table 2: Total Additional Household Income Attributable to FY 2016 Northern Virginia Workforce System Job Placements

Program	Job Placements	Average Annual Salary	Total Household Income
WIOA – Adult	182	\$32,531	\$5,920,678
WIOA – Dislocated Worker	334	\$58,864	\$19,660,576
WIOA – Youth	61	\$20,010	\$1,220,586
J4Vets	15	\$87,942	\$1,319,136
VASAVOR	28	\$21,341	\$597,542
PRC	75	\$21,424	\$1,606,800
Ticket to Work	31	\$29,411	\$911,747
TANF	24	\$18,377	\$441,043
STEER	52	\$19,656	\$1,022,112
Subtotal	802	\$40,773	\$32,700,221
Basic Career Services	499	\$31,304	\$15,620,696
TOTAL	1,301	\$37,141	\$48,320,917

To quantify the regional economic and fiscal impact attributable to this increase in household income, we employ a commonly used impact simulation model called IMPLAN.¹⁸ The IMPLAN model uses regional and national data on production and trade flows to construct region-specific economic multipliers and uses these multipliers to quantify economic impact. Economic multipliers measure the second round effects, or ripple effects, that an expenditure has as it makes its way through the economy. For example, as when individuals that the Northern Virginia Workforce System transitioned into employment spend their newly acquired salaries and wages on housing, groceries, and transportation, thereby generating income for someone else, which is in turn spent, thereby becoming income for yet someone else, and so on, and so on.

Through this process, one dollar in expenditures generates multiple dollars of income. The mathematical relationship between the initial expenditure and the total income generated is the economic multiplier. The cumulative result of these second round effects is called indirect impact when it refers to business to business transactions, and induced impact when, as in the current case, it refers to household (employee) to business transactions.

¹⁸ IMPLAN v.3 is produced by Minnesota IMPLAN Group, Inc.

In the analysis that follows, we also provide estimates for four categories of impact. The first is employment, or the total number of full time equivalent jobs that are created in the regional economy through first round direct effects (*i.e.*, the jobs that are filled by individuals transitioned into employment through services provided by the Northern Virginia Workforce System) and as a result of second round indirect and induced transactions. The second is labor income, or the salaries and wages that are associated with that total employment. The third is economic output, or the total amount of regional economic activity that is generated through second round indirect and induced transactions. The fourth is fiscal impact, or the state and local tax revenues as a result of this economic activity.

WIOA Enhanced Career Services and Other Grant Programs

We first look at the economic impact associated with the Northern Virginia Workforce System's WIOA Enhanced Career Services and other grant programs – those programs where the Northern Virginia Workforce System directly provided career training and job placement services that enabled an individual to transition from unemployment into a well-paying job. In assessing the likely economic impact attributable to these programs, we employ the following assumptions:

- A total of 802 individuals exited from these programs and were placed into jobs in FY 2016.
- The average salary and total pre-tax income associated with these programs are as detailed in Table 2.
- All consumption expenditures were made within Northern Virginia.
- Economic impact is based on a “representative year” and no attempt is made to phase placements in based on actual job start data from FY 2016.

By feeding these assumptions into the IMPLAN model, we obtain the estimates of annual regional economic impact shown in Table 3:

- Regional Employment: In addition to the 802 full time equivalent jobs filled by individuals transitioned into employment through the Northern Virginia Workforce System's WIOA Enhanced Career Services and other grant programs, the household expenditures made by these newly employed individuals also were responsible for supporting 184 full time equivalent jobs through second round effects, for a total regional employment impact of 986 full time equivalent jobs.
- Regional Labor Income: In addition to the \$32.7 million in labor income paid to individuals transitioned into employment through the Northern Virginia Workforce System's WIOA Enhanced Career Services and other grant programs, the household expenditures made by these newly employed individuals also were responsible for creating \$10.0 million in additional regional labor income through second round effects, for a total regional labor income impact of \$42.7 million.

- **Regional Economic Output:** Second round effects from the \$32.7 million in labor income paid to individuals transitioned into employment through the Northern Virginia Workforce System's WIOA Enhanced Career Services and other grant programs were also responsible for generating \$28.5 million in additional economic output in the region.
- **Fiscal Impact:** In total, this economic activity was responsible for generating \$1.6 million in additional state and local tax revenue, and \$2.5 million in additional federal tax revenue, for a total fiscal impact of \$4.1 million.

Table 3: Estimated Economic Impact of FY 2016 Northern Virginia Workforce System Job Placements through WIOA Enhanced Career Services and Other Grant Programs

	Employment	Labor Income	Output
<i>First Round Direct Economic Activity</i>	802	\$32,700,221	\$0
<i>Second Round Indirect and Induced Economic Activity</i>	184	\$10,007,208	\$28,505,663
<i>Total, Direct, Indirect, and Induced Economic Activity</i>	986	\$42,707,429	\$28,505,663
	State and Local	Federal	Total
<i>Fiscal Impact</i>	\$1,592,464	\$2,490,856	\$4,083,320

WIOA Enhanced Career Services and Other Grant Programs, plus Basic Career Services

In this section, FY 2016 placements from Basic Career Services are added to the placements attributable to the WIOA Enhanced Career Services and other grant programs. Basic Career Services have an arguably less direct impact on job placement since these services primarily involve self-service tools that assist a job seeker in making an effective job search. In assessing the likely economic impact attributable to these programs, we employ the following assumptions:

- A total of 1,301 individuals exited from these programs and found employment in FY 2016.
- The average salary and total pre-tax income associated with these programs are as detailed in Table 2.
- All consumption expenditures were made within Northern Virginia.
- Economic impact is based on a “representative year” and no attempt is made to phase placements in based on actual job start data from FY 2016.

By feeding these assumptions into the IMPLAN model, we obtain the estimates of annual regional economic impact shown in Table 4:

- Regional Employment: In addition to the 1,301 full time equivalent jobs filled by individuals transitioned into employment through the WIOA Enhanced Career Services, other grant programs, and Basic Career Services provided by the Northern Virginia Workforce System, the household expenditures made by these newly employed individuals also were responsible for supporting 277 full time equivalent jobs through second round effects, for a total regional employment impact of 1,578 full time equivalent jobs.
- Regional Labor Income: In addition to the \$48.3 million in labor income paid to individuals transitioned into employment through the WIOA Enhanced Career Services, other grant programs, and Basic Career Services provided by the Northern Virginia Workforce System, the household expenditures made by these newly employed individuals also were responsible for creating \$15.0 million in additional regional labor income through second round effects, for a total regional labor income impact of \$63.4 million.
- Regional Economic Output: Second round effects from the \$48.3 million in labor income paid to individuals transitioned into employment through the Northern Virginia Workforce System’s WIOA Enhanced Career Services, other grant programs, and Basic Career Services were also responsible for generating \$42.7 million in additional economic output in the region.

- **Fiscal Impact:** In total, this economic activity was responsible for generating \$2.4 million in additional state and local tax revenue, and \$3.7 million in additional federal tax revenue, for a total fiscal impact of \$6.1 million.

Table 4: Estimated Economic Impact of FY 2016 Northern Virginia Workforce System Job Placements through WIOA Enhanced Career Services and Other Grant Programs, plus Basic Career Services

	Employment	Labor Income	Output
<i>First Round Direct Economic Activity</i>	1,301	\$48,320,917	\$0
<i>Second Round Indirect and Induced Economic Activity</i>	277	\$15,040,413	\$42,748,069
<i>Total, Direct, Indirect, and Induced Economic Activity</i>	1,578	\$63,361,330	\$42,748,069
	State and Local	Federal	Total
<i>Fiscal Impact</i>	\$2,382,280	\$3,741,501	\$6,123,781

Benefit/Cost Ratio

In FY 2016, the cost associated with the WIOA Enhanced Career Services, other grant programs, and Basic Career Services provided by the Northern Virginia Workforce System was approximately \$7.9 million.¹⁹ Comparing this cost to the benefits derived from these programs, in terms of total household (or labor) income, allows us to calculate a benefit/cost ratio. If the analysis is restricted to WIOA Enhanced Career Services and other grant programs, that benefit/cost ratio is 5.4, indicating that the benefits derived from the programs are almost five and a half times the costs required to generate those benefits. If the analysis is expanded to encompass Basic Career Services as well, the benefit/cost ratio rises to 8.0, indicating that the benefits are eight times the costs required to generate them.

¹⁹ Data Source: The *SkillSource* Group, Inc.

Conclusion

The Northern Virginia Workforce System provides workforce services to the localities of Fairfax, Loudoun, and Prince William counties, and the cities of Fairfax, Falls Church, Manassas, and Manassas Park. Employment in the broader Northern Virginia region fell to a low of 1,127,523 in the first quarter of 2011, then generally trended upward through 2012. Then, largely as a result of the 2013 federal sequester, it stalled in 2013 and 2014. It has since rebounded and hit a high of 1,208,749 in the fourth quarter of 2015. Over the period as a whole, Northern Virginia gained 63,925 jobs, for a net employment increase of 5.6 percent. By way of comparison, over the same period, total employment statewide increased by 6.3 percent. As of June 2016, unemployment stood at 3.1 percent in Northern Virginia, 4.0 percent statewide, and 5.1 percent nationally.

This report has shown that the most significant economic and fiscal contribution that the Northern Virginia Workforce System made to Northern Virginia in FY 2016 has to do with the 1,301 previously unemployed individuals that the System was able to transition into well-paying jobs. Out of that total, 802 of the placements came through WIOA Enhanced Career Services and other grant programs (programs that directly provide career training and job placement services), and 499 came through Basic Career Services (self-service tools that assist a job seeker in making an effective job search). The average annual salaries associated with those placements ranged from \$19,656 to \$87,942. In combination, these 1,301 placements generated approximately \$48.3 million in additional household income in the region.

In turn, second round effects from the additional local consumption expenditures that were facilitated by this increased household income also had a significant economic impact on the Northern Virginia economy. Focusing first on the 802 placements associated with WIOA Enhanced Career Services and other grant programs, the total first and second round impact from those placements is estimated to be 986 full time equivalent jobs, \$42.7 million in additional regional labor income, \$28.5 million in additional regional economic output, and \$4.1 million in state, local, and federal tax revenue. If we increase the scope of workforce services to include Basic Career Services, the total first and second round economic impact associated with the resulting combined 1,301 placements is estimated to be 1,578 full time equivalent jobs, \$63.4 million in additional regional labor income, \$42.7 million in additional regional economic output, and \$6.1 million in state, local, and federal tax revenue.

Comparing these estimated benefits to the \$7.9 million in costs associated with the WIOA Enhanced Career Services, other grant programs, and Basic Career Services that the Northern Virginia Workforce System provided in FY 2016 allows us to calculate a benefit/cost ratio. If the analysis is restricted to WIOA Enhanced Career Services and other grant programs, that benefit/cost ratio is 5.4, indicating that the benefits derived from the programs are almost five and a half times the costs required to generate those benefits. If the analysis is expanded to encompass Basic Career Services as well, the benefit/cost ratio rises to 8.0, indicating that the benefits are eight times the costs required to generate them.

In conclusion, in FY 2016 the Northern Virginia Workforce System made a significant contribution to the economy of Northern Virginia.

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