


NORTHERN VIRGINIA: STANDING AT A FORK IN THE ROAD?

A photograph of a paved road that splits into two paths, one leading to the left and one to the right, set against a backdrop of a vast green field and a bright blue sky with light clouds. The road has white dashed lines in the center and solid lines on the edges.

It is no accident that Northern Virginia often is referred to as the economic engine of the Commonwealth of Virginia. After all, it accounts for more than 40 percent of the value of all economic activity in the state.

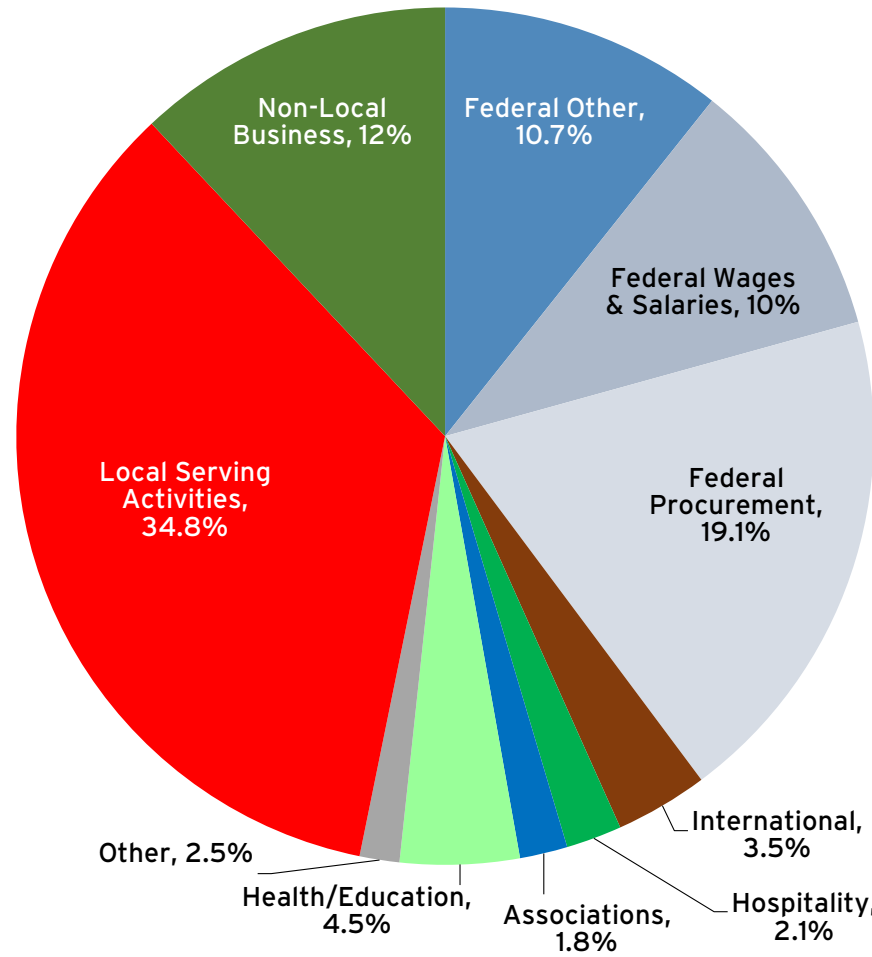
A history of sustained economic growth in Northern Virginia has kept office buildings full, housing prices at lofty levels and unemployment rates low. Taken together, these factors have ensured that the Washington, D.C., metropolitan region, of which Northern Virginia has become a dominant part, has been at or near the top of the nation for many years in terms of both population and job growth.

Retrospectively, we can say that the Great Recession, which officially began in December 2007, resulted only in an interruption in Northern Virginia's growth trajectory. Sluggish federal spending, however, has been a different matter. It is hardly a mystery that much of Northern Virginia's economic strength has come from a single economic sector – the federal government – and that federal government sequestration has throttled the growth of that spending in Northern Virginia. Graph 1 reveals that direct federal employment and procurement spending in 2010 represented almost 40 percent of all economic activity in the Greater Washington, D.C., metropolitan region.

The Washington, D.C., metropolitan region has three identifiable subregions: (1) Northern Virginia, (2) Suburban Maryland and (3) Washington, D.C. Northern Virginia includes: Arlington County, Clarke County, Culpeper County, Fairfax County, Fauquier County, Loudoun County, Prince William County, Rappahannock County, Spotsylvania County, Stafford County, Warren County and the independent cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas and Manassas Park. Suburban Maryland counties include Calvert County, Charles County, Frederick County, Montgomery County and Prince George's County.

GRAPH 1

ECONOMIC STRUCTURE OF THE WASHINGTON, D.C., METROPOLITAN ECONOMY



Source: GMU Center for Regional Analysis

Northern Virginia is in many ways a quintessential company town in which the federal government assumes the role of the company. As long as federal spending is increasing, *laissez les bon temps rouler* – let the good times roll. However, as often holds true in company towns, significant problems arise when the company falters, or in this case, when its management chooses to pass a Budget Control Act, or even decides to shut down.

In the following pages, we examine recent economic trends and assess the state of the economy in Northern Virginia. As we shall see, the region stands at an apparent fork in the road – one created primarily by federal budget issues. Northern Virginia must choose between the strategies of the past, namely, relying on federal spending, with a likelihood of sluggish long-term growth, or engaging in a comprehensive realignment of economic priorities that creates a more resilient and globally competitive economy in Northern Virginia.

Employment

Post-recession employment in the Washington, D.C., metropolitan region took off smartly by the end of 2010 as the federal government's spending associated with the American Recovery and Reinvestment Act of 2009 (ARRA) took off. Seemingly, the regional economy once again appeared to be an economic hot spot. Graph 2 illustrates these positive employment changes in 2011, 2012 and 2013.

However, below the headlines attached to rising employment, there were signs that a fundamental shift was occurring in the regional economy. As a compromise solution to the federal debt ceiling crisis that emerged in the summer of 2011, Congress enacted and President Obama signed the Budget Control Act of 2011 (BCA). In addition to raising the debt ceiling and reducing spending over a 10-year period, the BCA included a set of automatic budget cuts that we have described in Chapter 1. The effects of these cuts in federal employment and spending, which are illustrated in Graphs 3 and 4, became apparent in 2013 as job growth plunged.

One of the keys to federal spending and activity in the Washington, D.C., metropolitan area is federal procurement spending on items ranging

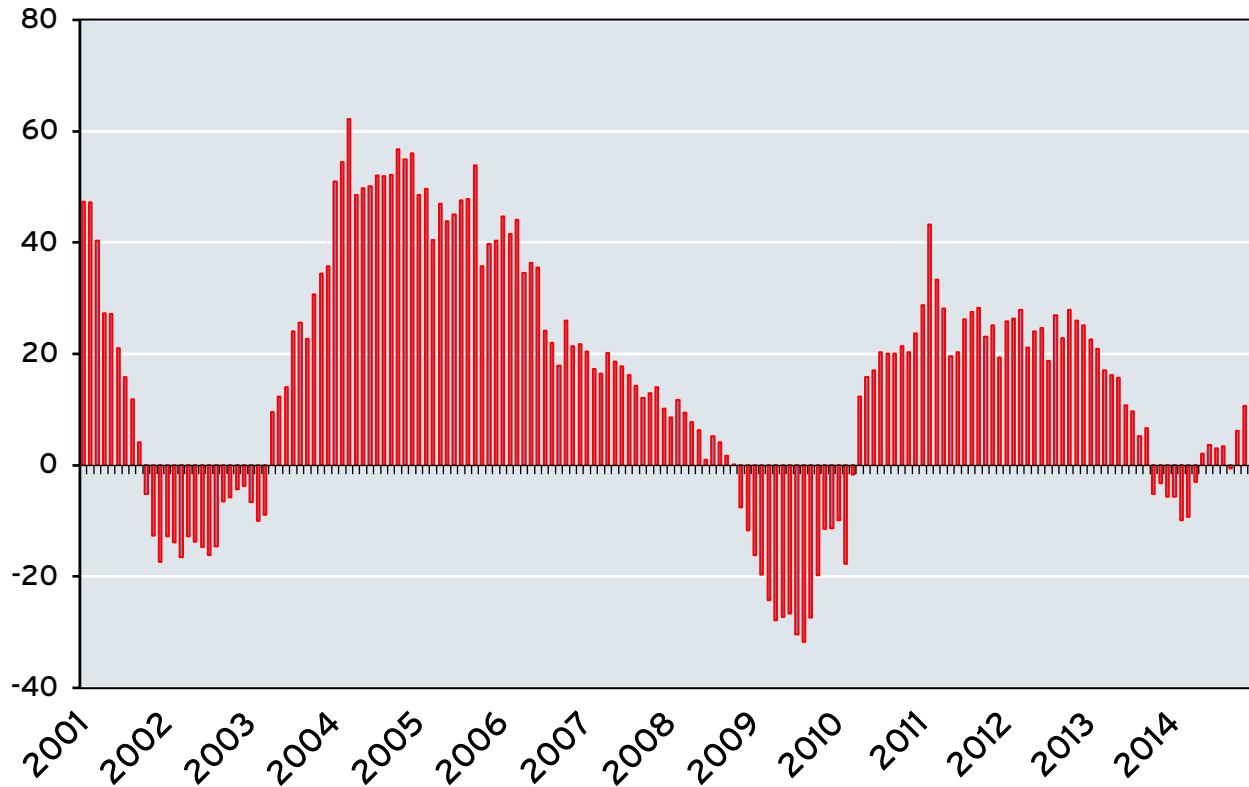
from weapons and information technology to food and fuel. Historically, procurement spending has injected great energy into the regional economy. Between 1980 and 2000, for example, federal procurement spending in the region grew an amazing 598 percent, or more than 10 percent annually. During the next decade (2001-2010), federal procurement spending grew even faster – 11.8 percent. Unfortunately, as economist Herbert Stein once sagely remarked, things that cannot go on forever do not, and this phenomenal growth came to an end. Between 2010 and 2014, federal procurement spending in the region actually declined by 11.2 percent. This accompanied declining federal government employment in the region, which is clearly visible in Graph 4.

The federal spending cuts constituted nothing less than a body blow to the region's economic growth. Graph 5 discloses that although job growth in the Washington, D.C., metropolitan area was positive between January 2014 and January 2015, it was among the slowest in the nation. The region actually trailed Detroit. Further, there was a change in the mix of jobs, with lower-wage retail and hospitality jobs taking the place of higher-wage professional services jobs. The net effect was that starting in 2010, the average wage for all jobs in the Washington, D.C., metropolitan area declined for three straight years. At the same time, office vacancy rates increased to more than 20 percent in key regional markets and consequently local governments found themselves facing a fiscal crunch.

Fortunately, 2015 has turned out to be a better year than 2013 and 2014 for the region, in terms of job creation, with particular gains occurring in professional and business services and education and health services (see Graph 6). Local governments have surmounted many of their budget difficulties and are hiring again. Still, construction employment has not been growing quickly and information-sector growth has been modest. It remains to be seen if this recent surge in job growth is sustainable. More important, while the trend was generally positive over the past two quarters, on a year-over-year basis, the region still trails many of its key peer regions across the nation.

GRAPH 2

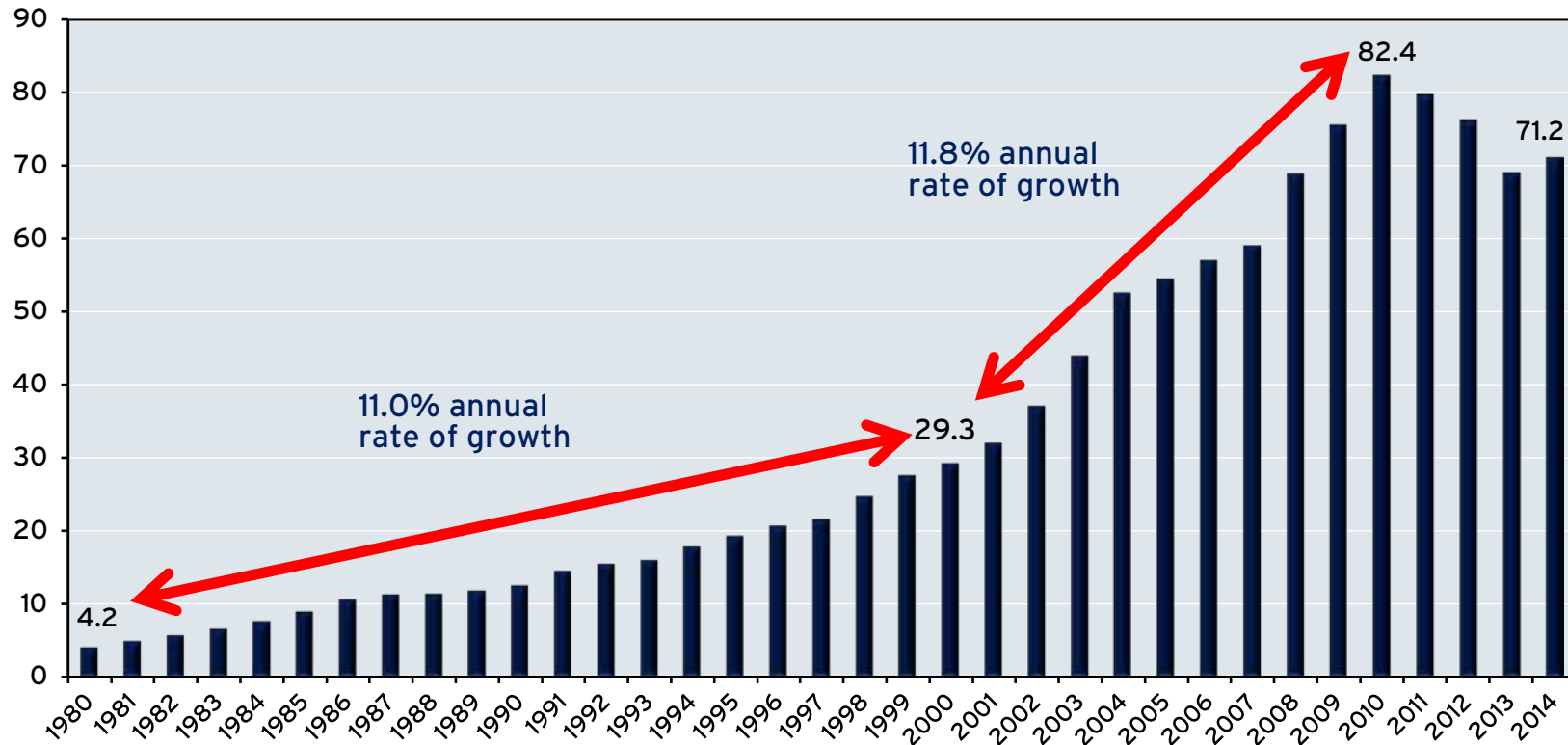
WASHINGTON, D.C., METROPOLITAN AREA ANNUAL JOB CHANGE, ANNUAL MONTH OVER YEAR, JANUARY 2001 TO DECEMBER 2014
(IN THOUSANDS)



Sources: Bureau of Labor Statistics and the GMU Center for Regional Analysis

GRAPH 3

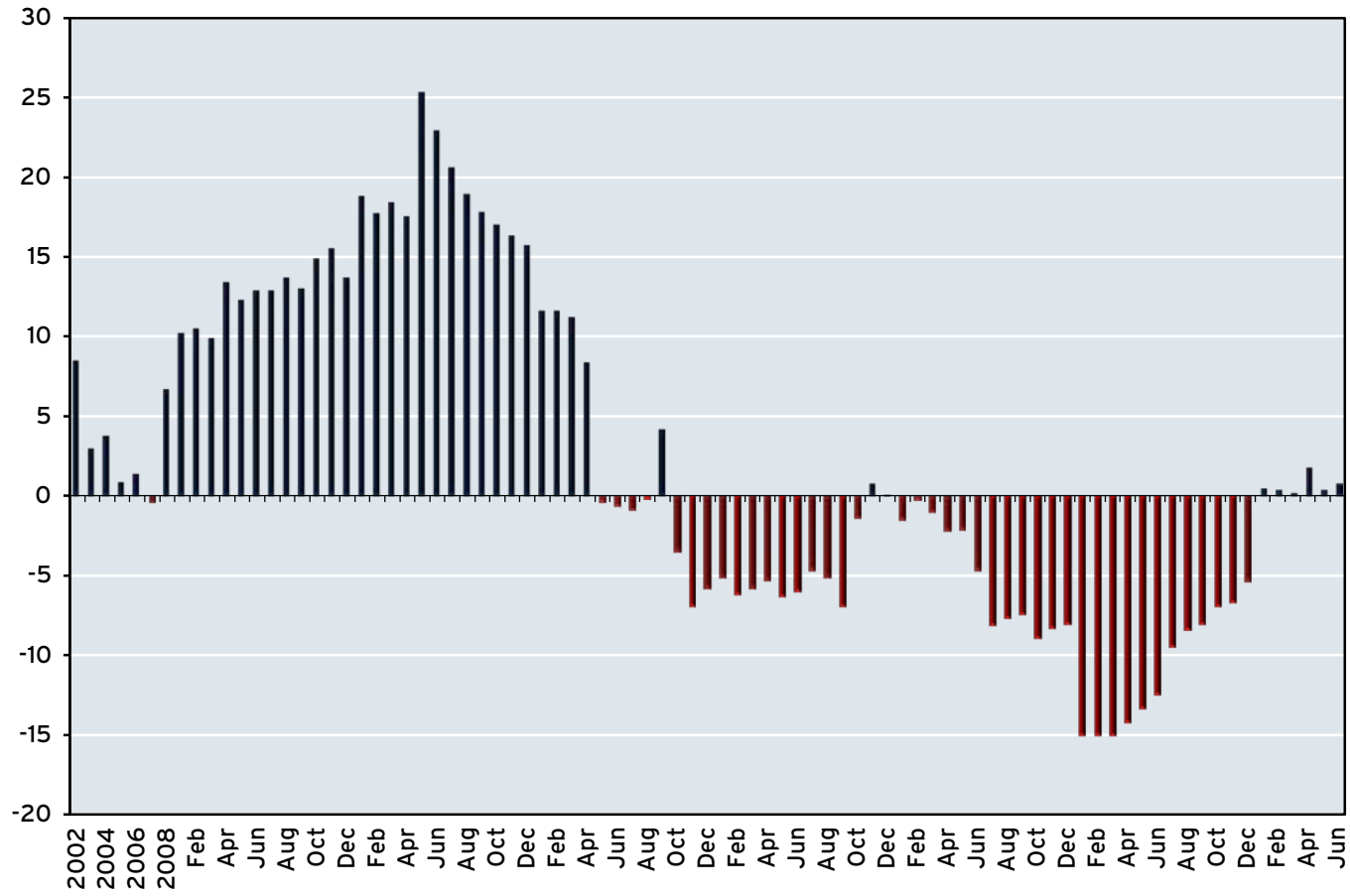
FEDERAL PROCUREMENT IN THE WASHINGTON, D.C., METROPOLITAN AREA, 1980-2014 (BILLIONS OF \$)



Sources: Bureau of Labor Statistics and the GMU Center for Regional Analysis

GRAPH 4

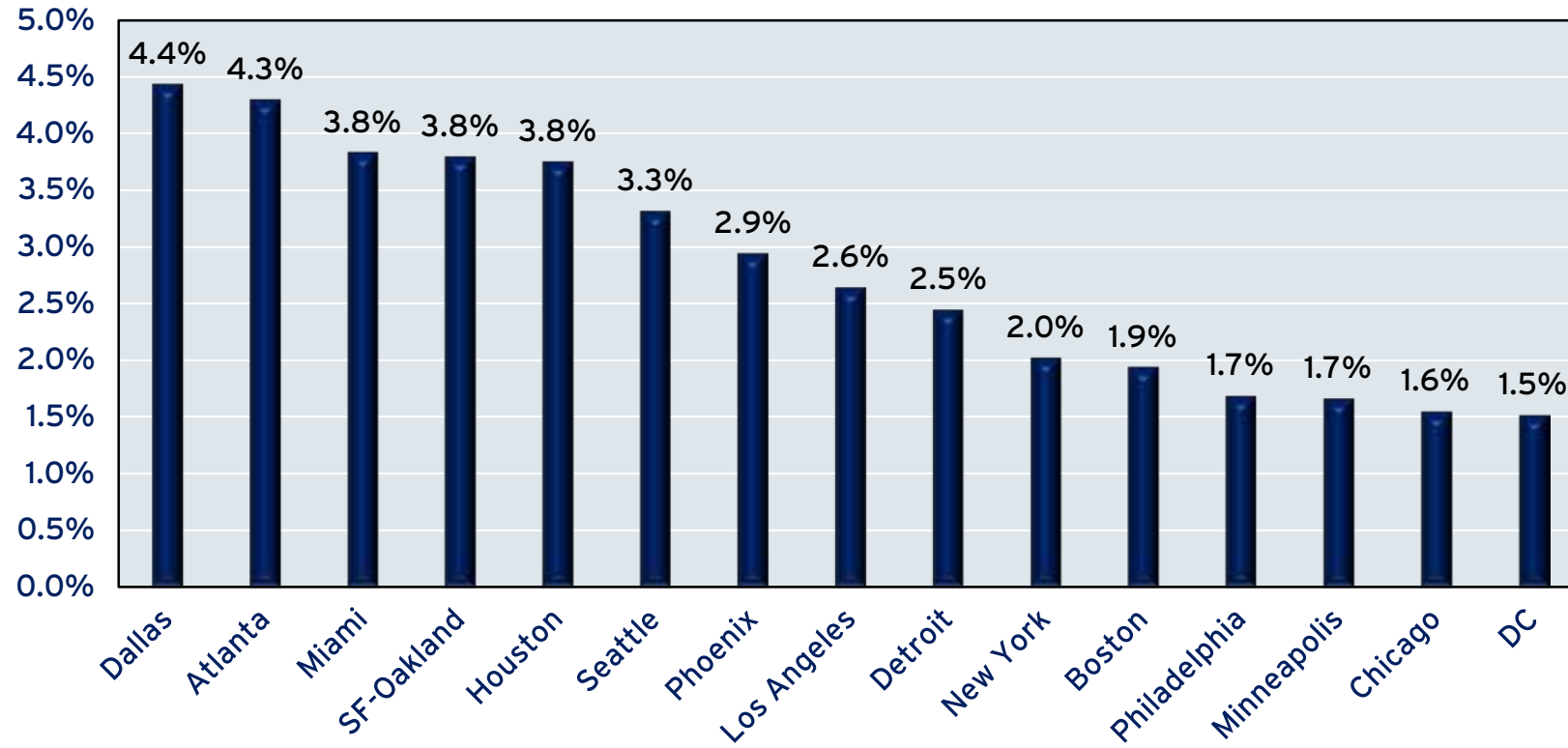
CHANGES IN FEDERAL GOVERNMENT EMPLOYMENT, 2002-2014 (IN THOUSANDS)



Source: Bureau of Labor Statistics

GRAPH 5

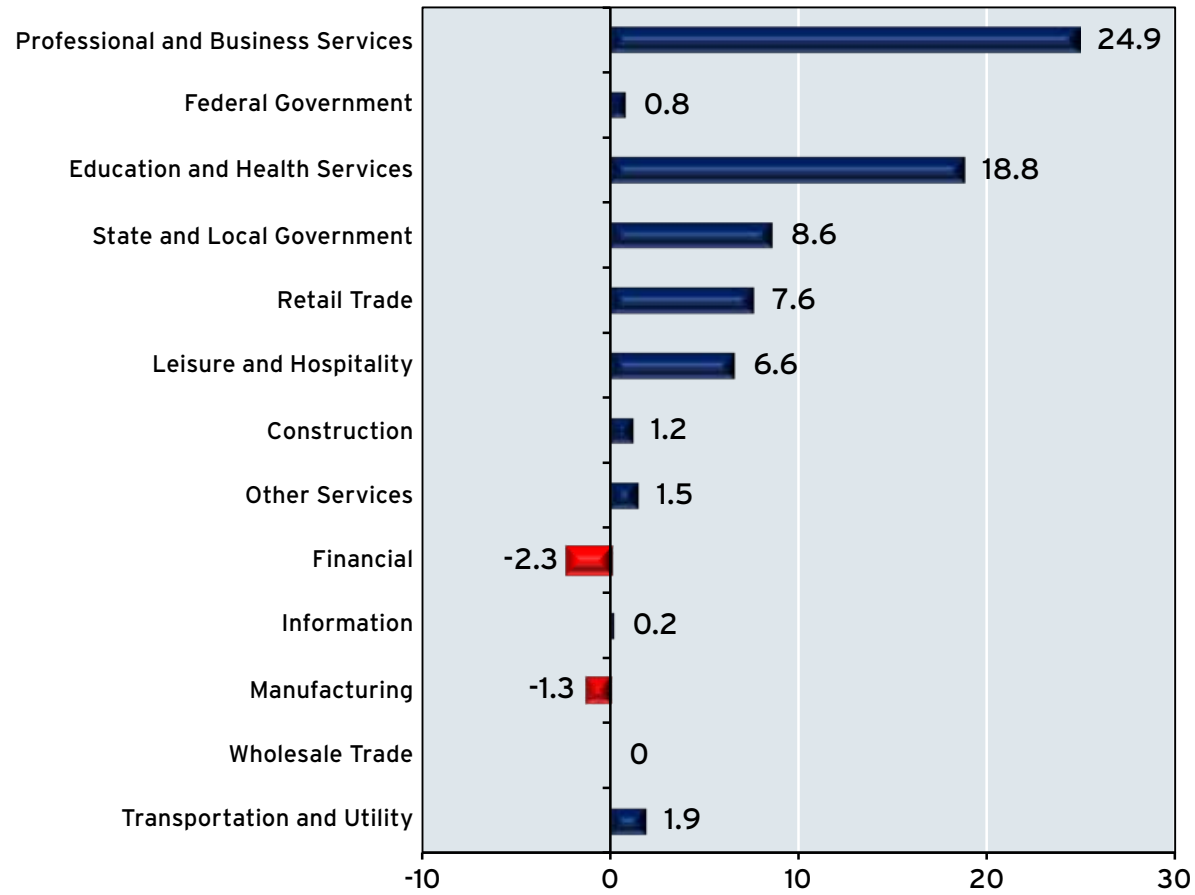
JOB GROWTH IN THE LARGEST U.S. METROPOLITAN AREAS, JANUARY 2014 TO JANUARY 2015



Sources: Bureau of Labor Statistics and the GMU Center for Regional Analysis

GRAPH 6

JOB CHANGES IN THE WASHINGTON, D.C., METROPOLITAN AREA BETWEEN JUNE 2014 AND JUNE 2015 (IN THOUSANDS)



Sources: Bureau of Labor Statistics (not seasonally adjusted) and the GMU Center for Regional Analysis

Northern Virginia

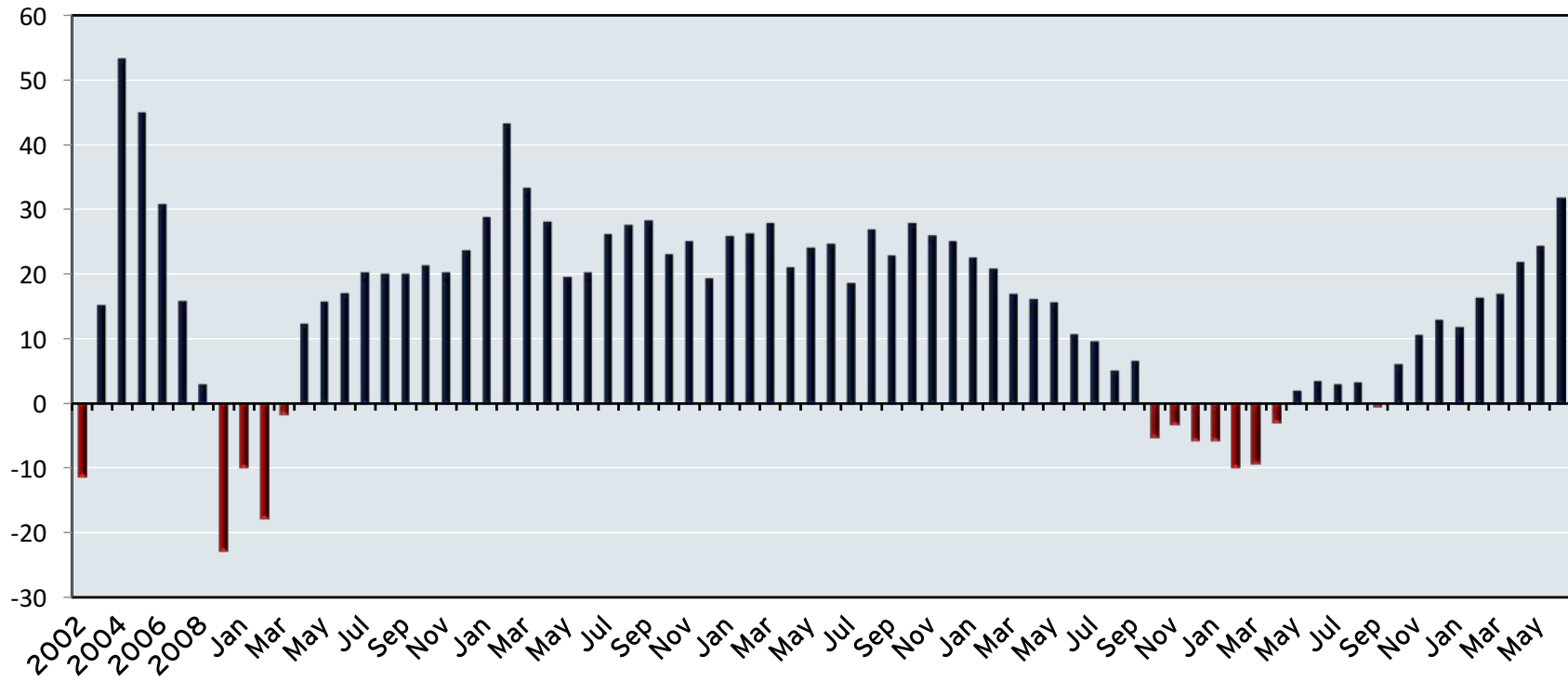
Shifting our attention to the Northern Virginia component of the regional economy, we see most of the same economic trends as we observed for the entire metropolitan region, with one notable exception. The decline in job growth in 2013 that hit the overall region was more muted in Northern Virginia. One can see in Graph 7 that job growth was negative in 2013, but recovered and generally has shown positive trends over the past two years. Further, the rate of unemployment in Northern Virginia has been lower than either the national or regional rates (see Graph 8). **Simply put, while Northern Virginia has not been booming, economically speaking, over the past year it has performed better than the nation, the Washington, D.C., metropolitan area and the Commonwealth of Virginia.**

Even so, Northern Virginia, like Hampton Roads to the south, remains vulnerable because of its substantial dependence upon federal spending. One can see in Graph 9 that federal procurement spending in Northern Virginia has declined every year since 2011 and fell 15.8 percent during this time period. Once again, this has been reflected in employment. Graph 10 reveals that federal government employment in Northern Virginia fell from 91,200 to 84,600 between June 2010 and June 2015 (7.2 percent). Since the average wage for federal jobs in Northern Virginia exceeded \$102,000 in 2014 (see Graph 11), this reduction in employment has had a noticeable negative impact upon the subregion.



GRAPH 7

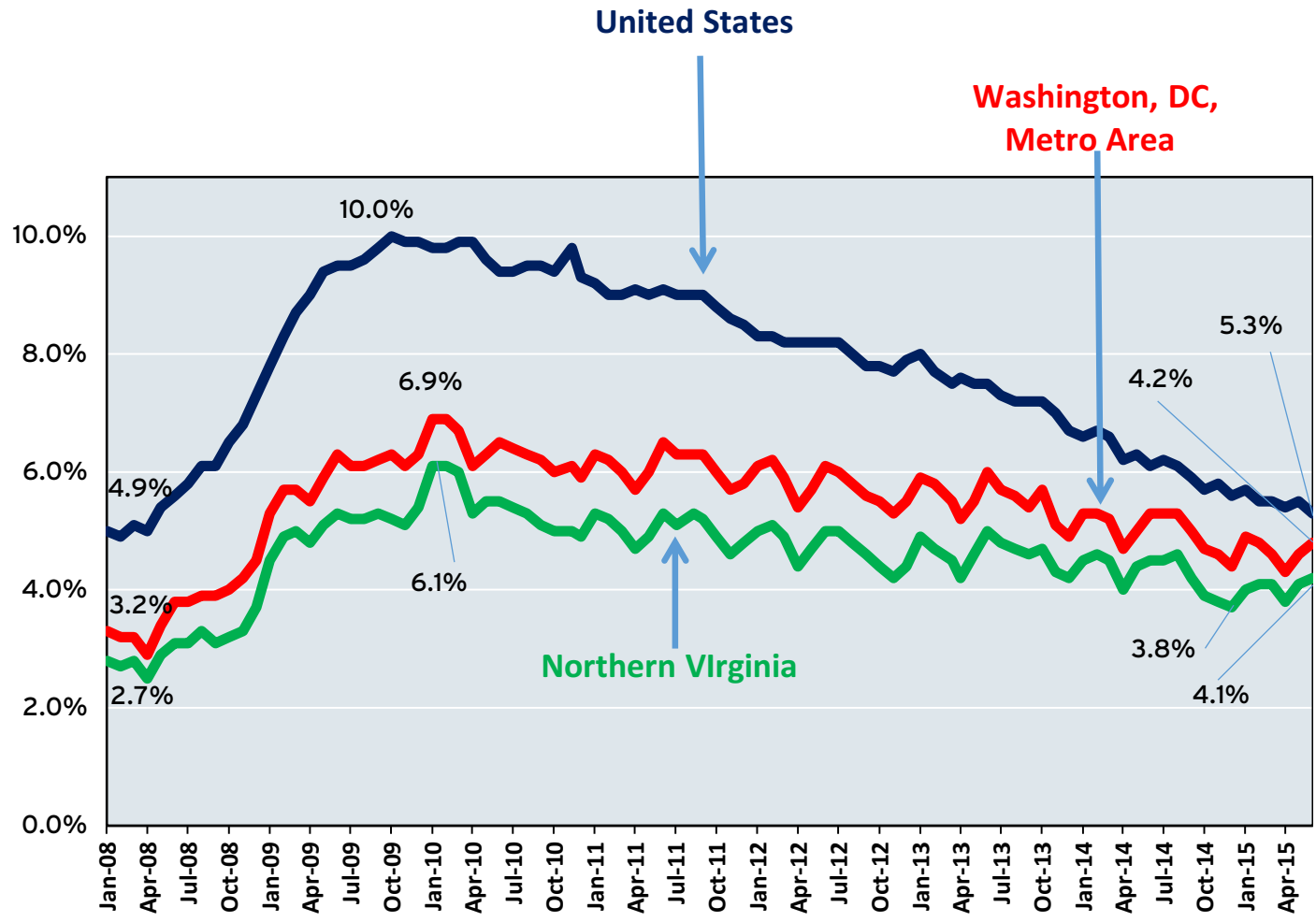
CHANGES IN NONFARM EMPLOYMENT IN NORTHERN VIRGINIA, 2002-2015 (IN THOUSANDS)



Sources: Bureau of Labor Statistics and the GMU Center for Regional Analysis

GRAPH 8

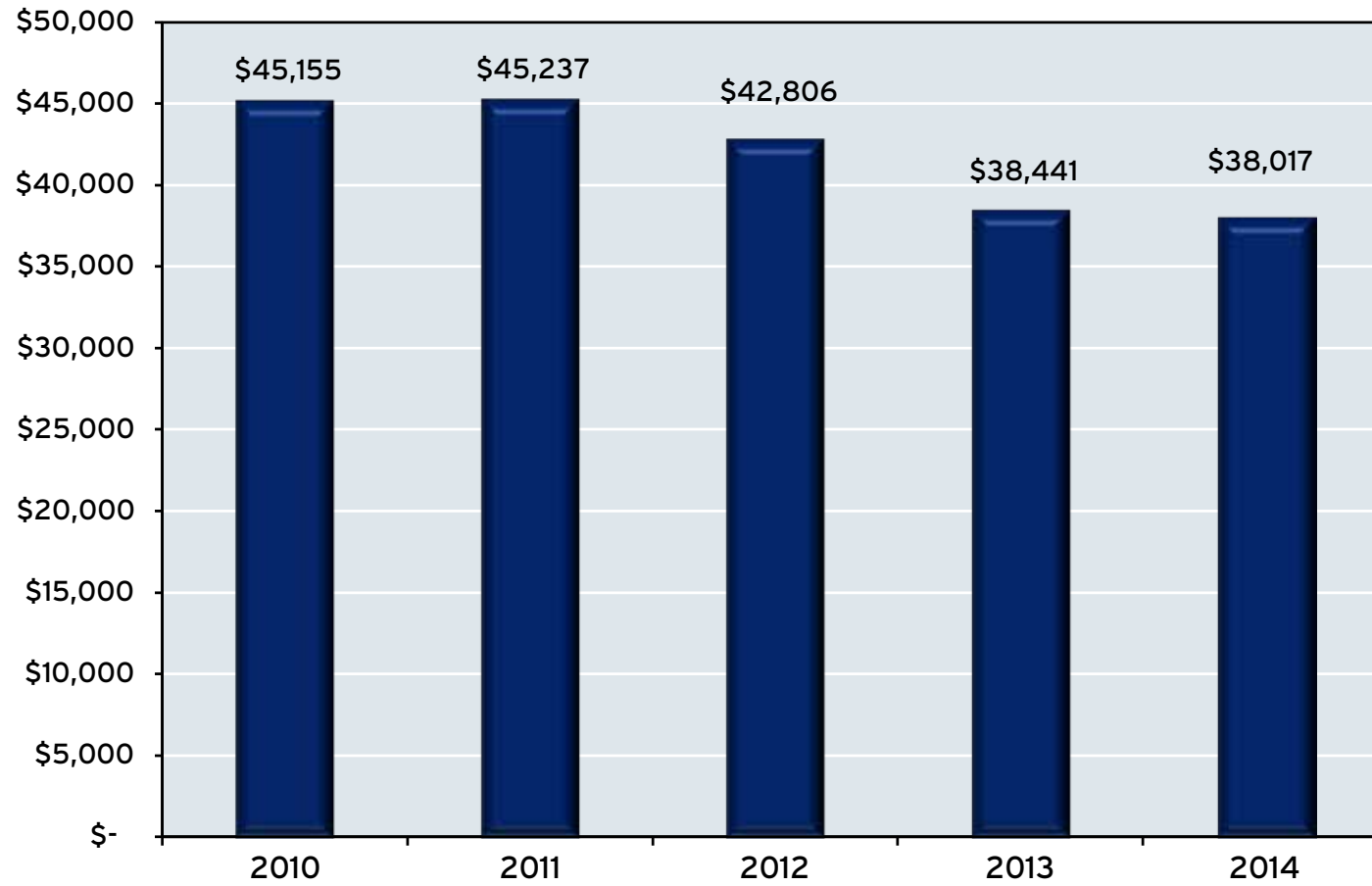
COMPARING RATES OF UNEMPLOYMENT: NORTHERN VIRGINIA, WASHINGTON, D.C., METROPOLITAN AREA, UNITED STATES, 2008-2015



Sources: Bureau of Labor Statistics and the GMU Center for Regional Analysis

GRAPH 9

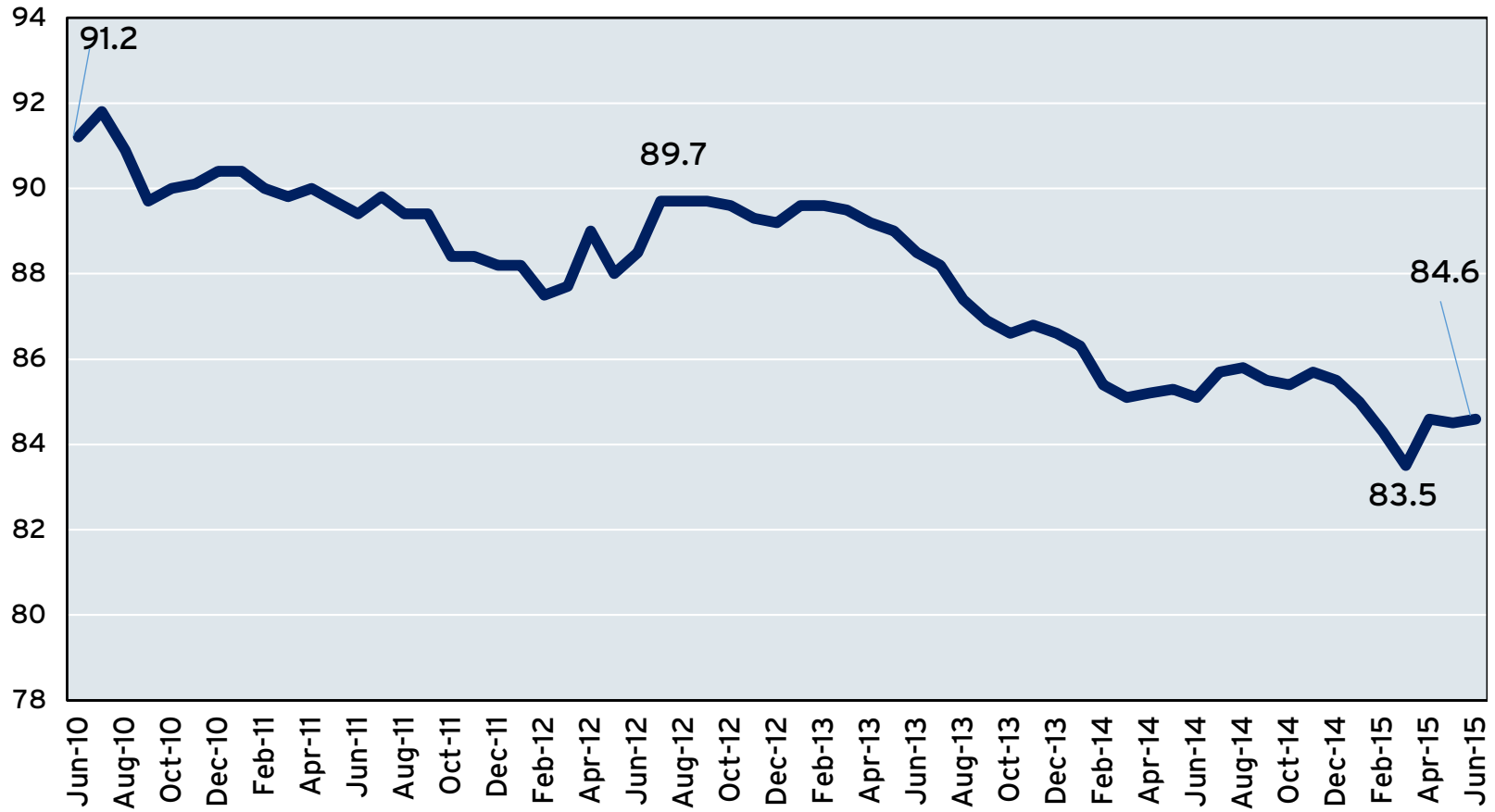
FEDERAL PROCUREMENT SPENDING IN NORTHERN VIRGINIA, 2010-2014 (MILLIONS OF \$)



Source: www.usaspending.gov

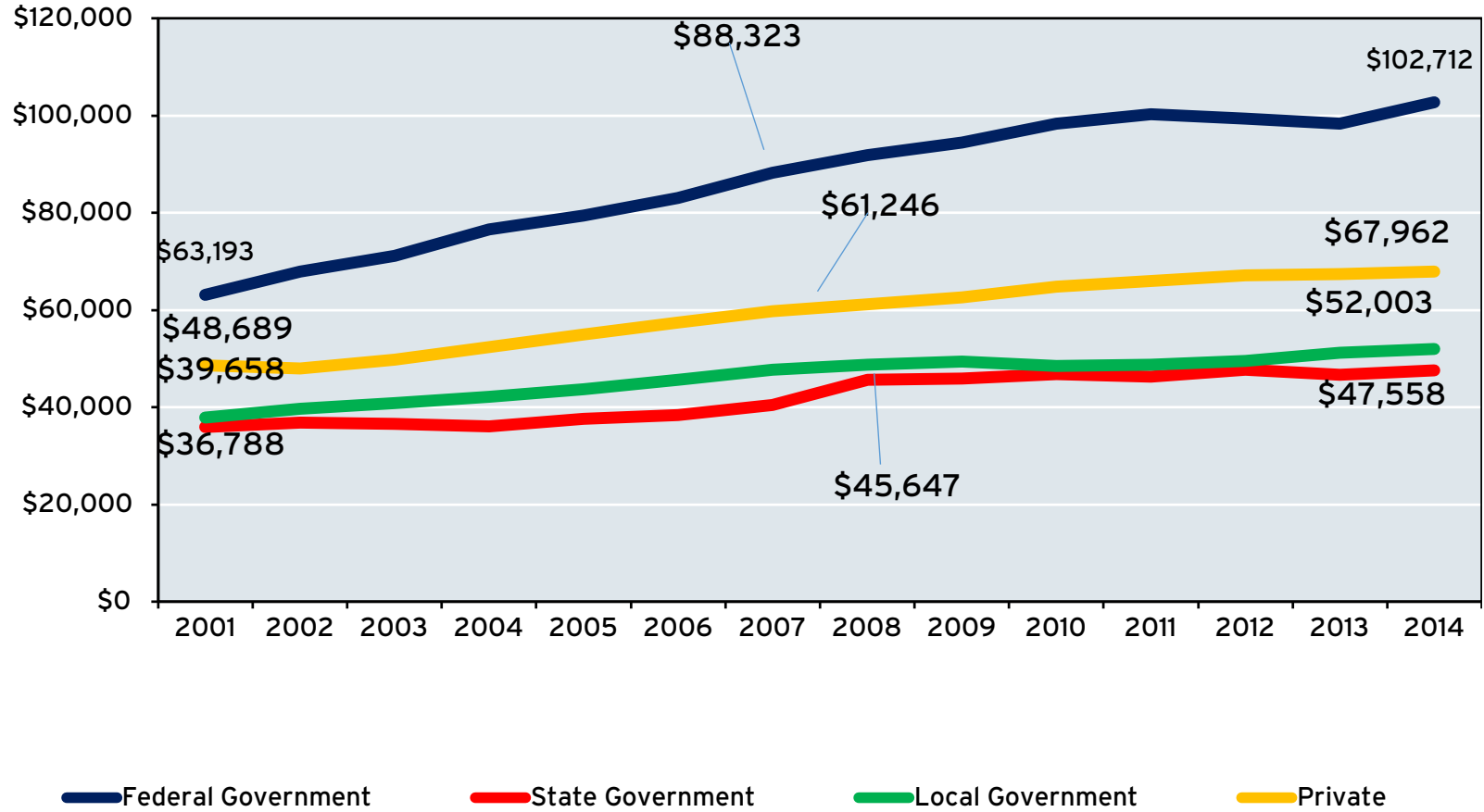
GRAPH 10

FEDERAL GOVERNMENT JOBS IN NORTHERN VIRGINIA, 2010-2015 (IN THOUSANDS)



GRAPH 11

AVERAGE WAGES PER JOB IN NORTHERN VIRGINIA BY EMPLOYMENT SECTOR, 2001-2014



Source: Bureau of Labor Statistics

DISSECTING EMPLOYMENT CHANGES IN NORTHERN VIRGINIA

The post-recession economy for Northern Virginia, much like the Washington, D.C., metropolitan area, can be characterized as one in which high-wage jobs often have been traded for jobs with more modest earnings. For example, one can see in Table 1 that the largest absolute sectoral loss in employment in Northern Virginia between 2010 and 2014 was in professional, scientific and technical services, where the average 2014 wage was a healthy \$110,918. On the other hand, the largest absolute sectoral gain occurred in accommodation and food services, where the average wage in 2014 was only \$21,110. The lesson is clear – while respectable numbers of new jobs have appeared in Northern Virginia in 2014 and 2015, these jobs often have been concentrated in industries characterized by lower than average wage rates.

Some job losses that have occurred in Northern Virginia reflect fundamental changes in supply-and-demand relationships in the American economy rather than the effects of recession (see Table 2).

Consider the information industry, which historically in Northern Virginia was dominated by the presence of America Online (AOL) and other early Internet companies that co-located in the Dulles corridor. While AOL remains a significant employer, the “dial-up” Internet access model that propelled its growth no longer is dominant and, in any case, AOL now is headquartered in New York City.

Against this, the growth of data centers has been a boon for some Northern Virginia jurisdictions and has provided a significant boost to local commercial property values. Even so, data centers typically have not turned out to be large employers.

The finance services and insurance sector presents a less attractive picture. Even with the headquarters of Capital One, and some recent job recovery, employment in the finance and insurance sector still is only about one-third the size of its pre-recession peak.

Table 2 also reveals that the construction sector remains depressed. Employment in the construction sector in Northern Virginia in 2014 still was 27,267 below its pre-recession peak in 2006.

As this is written, it appears that there will have been significant new job creation in Northern Virginia in 2015. Graph 12 demonstrates that between June 2014 and June 2015, there was significant positive job growth in the subregion’s staple — professional and business services — and the leisure and hospitality sector continued its strength. Leisure and hospitality jobs may not confer high incomes, but they are critical in terms of reducing the rate of unemployment.

TABLE 1

CHANGES IN EMPLOYMENT IN VARIOUS ECONOMIC SECTORS IN NORTHERN VIRGINIA, 2010-2014

FASTEST-GROWING EMPLOYMENT SECTORS, 2010-2014

INDUSTRY	2010	2014	JOB CHANGE	% CHANGE	AVERAGE WAGE ('14)
Accommodation and Food Services	99,995	113,552	13,557	13.6%	\$ 21,110
Health Care and Social Assistance	114,675	124,326	9,651	8.4%	\$ 51,017
Administration and Waste Management	73,022	81,298	8,276	11.3%	\$ 47,068
Retail Trade	133,371	140,606	7,235	5.4%	\$ 31,555
Educational Services	111,411	115,846	4,435	4.0%	\$ 48,161
Other Services	56,750	60,261	3,511	6.2%	\$ 52,736
Transportation and Warehousing	41,259	43,156	1,897	4.6%	\$ 58,876
Finance and Insurance	41,742	43,637	1,895	4.5%	\$ 104,292

LARGEST LOSSES BY INDUSTRY, 2010-2014

INDUSTRY	2010	2014	JOB CHANGE	% CHANGE	AVERAGE WAGE ('14)
Professional, Scientific and Technical Services	252,164	248,847	(3,317)	-1.3%	\$110,918
Manufacturing	26,077	25,003	(1,074)	-4.1%	\$72,686
Wholesale Trade	28,072	27,205	(867)	-3.1%	\$95,854
Information	42,354	41,816	(538)	-1.3%	\$113,149
Management of Companies and Enterprises	26,794	26,272	(522)	-1.9%	\$147,531
Data, Real Estate, Leasing	20,582	20,284	(298)	-1.4%	\$63,396
Arts, Entertainment and Recreation	23,901	23,706	(195)	-0.8%	\$33,062

Sources: Bureau of Labor Statistics and the GMU Center for Regional Analysis

TABLE 2

INDUSTRIES IN DECLINE IN NORTHERN VIRGINIA, 2010-2014

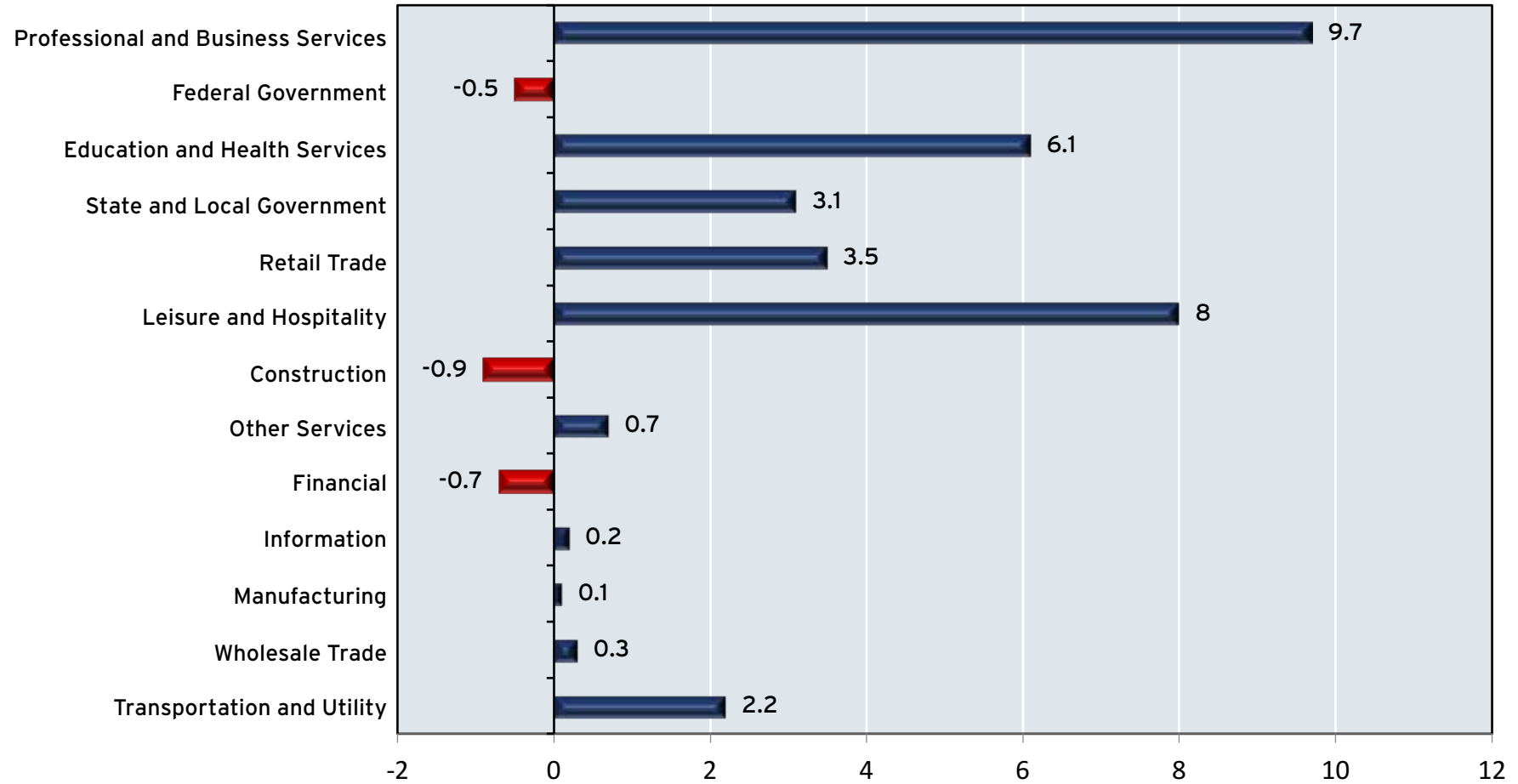
INDUSTRY	2014 JOBS	% CHANGE 2010-2014	PEAK EMPLOYMENT	PEAK EMPLOYMENT YEAR	JOB CHANGE SINCE PEAK
Information	41,816	-1.3%	75,895	2001	(34,079)
Finance and Insurance	43,637	4.5%	75,385	2006	(31,748)
Construction	68,277	1.2%	95,544	2006	(27,267)
Manufacturing	25,003	-4.1%	33,157	2001	(8,154)
Wholesale Trade	27,205	-3.1%	32,639	2005	(5,434)
Transportation and Warehousing	43,156	4.6%	48,498	2001	(5,342)
Data, Real Estate, Leasing	20,284	-1.4%	23,168	2005	(2,884)

Sources: Bureau of Labor Statistics and the GMU Center for Regional Analysis



GRAPH 12

SOURCES OF JOB GROWTH AND CONTRACTION IN NORTHERN VIRGINIA, JUNE 2014 TO JUNE 2015



Sources: Bureau of Labor Statistics (not seasonally adjusted) and the GMU Center for Regional Analysis

POPULATION CHANGES

Despite its economy-related challenges, Northern Virginia has continued to see population growth. Between 2010 and 2014, its population increased by an impressive 200,000 residents. The subregion's population growth in any time period can be divided into four parts: (1) births, (2) deaths, (3) in-migration into Northern Virginia and (4) out-migration from Northern Virginia. During this period, international in-migration became a key component of regional population growth (see Table 3).

Northern Virginia has experienced declining domestic migration in recent years (see Table 3). As the impacts of federal spending cuts and declining federal employment took hold, net domestic migration into Northern Virginia declined from 2013 to 2014.

On the other hand, Northern Virginia has continued to act as a magnet for international immigrants (see Graph 13). Between 2013 and 2014, for example, the subregion attracted 21,177 international immigrants. This continued a long-term trend such that in Fairfax County, more than 30 percent of its residents are foreign-born, and more than half of all public elementary school students speak a language other than English at home (Tom Gjelten, "A Nation of Nations," Simon & Schuster, 2015).



TABLE 3

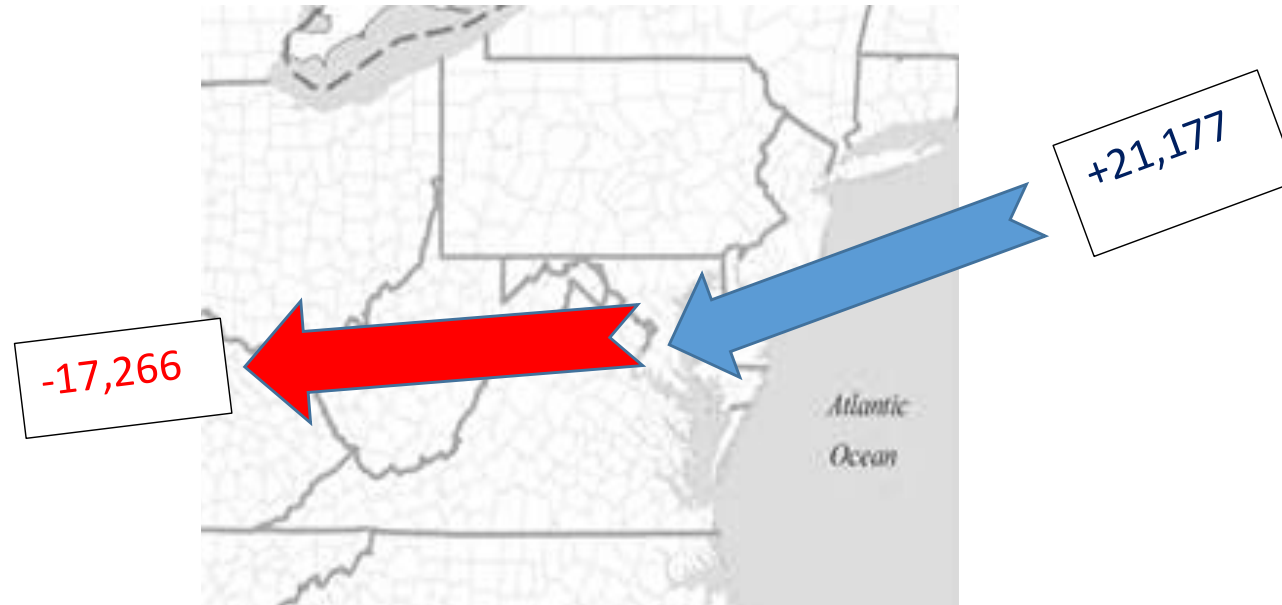
ANALYZING NORTHERN VIRGINIA POPULATION CHANGE, 2010-2014

POPULATION CHANGES, NATURAL INCREASE AND MIGRATION				
2014 Population (estimated)	2,895,219			
2010 Population (estimated)	2,695,005			
Change	200,214			
Natural Increase	109,070			
Births	159,896			
Deaths	50,826			
Domestic Migration (estimated)	8,731			
International Migration	82,413			
POPULATION CHANGE BY COMPONENT, 2010-2014				
	2010-2011	2011-2012	2012-2013	2013-2014
Natural Change (Births-Deaths)	27,259	27,523	27,324	26,964
International Migration	19,143	20,786	21,307	21,177
Domestic Migration	17,409	6,318	2,270	(17,266)
Total Change	63,811	54,627	50,901	30,875

Sources: U.S. Census Bureau - Population Estimates and the GMU Center for Regional Analysis

GRAPH 13

DOMESTIC AND INTERNATIONAL MIGRATION INTO AND OUT OF NORTHERN VIRGINIA



Note: Red indicates net domestic out-migration, while blue indicates net international in-migration.

Source: GMU Center for Regional Analysis

HOUSING

In Northern Virginia, few things draw as much attention as housing market conditions. Declining employment in many higher-wage sectors of the economy, the uncertainty generated by the federal shutdown and sequestration, plus new regulations and mortgage-lending standards imposed after the financial crisis together have put a damper on the residential real estate market in Northern Virginia. This market, while improving, still is struggling in some submarkets. However, the broad trends are positive.

One of the most visible and frequently cited measures of the health of residential housing markets is the median price paid for existing, single-family homes. **Graph 14 reveals that the median price of existing, single-family homes in Northern Virginia has rebounded dramatically. The median sale price of these homes rose 67.7 percent between March 2008 and March 2015.** Meanwhile, as one can see in Graph 15, the average number of days a home was listed before selling fell from 120 in January 2008 to 47 in March 2015. On the other hand, the number of active listings for sales of homes in Northern Virginia, while more than double its December 2012 low, still is less than half of its June 2006 high (see Graph 16). “Reality has returned to the housing market,” remarked one veteran Northern Virginia housing developer.

In general, households are thought to experience housing-based financial stress when the cost of their housing exceeds 30 percent of their income. The U.S. Census Bureau’s American Community Survey reports that during the 2009-13 period, there were 1.39 million reportable households in Northern Virginia; 63.6 percent of these homes were owner occupied and 36.4 percent were occupied by renters. **Fully 38.32 percent of the renters and 21.98 percent of the homeowners were paying more than 30 percent of their income in order to meet their housing costs.** Almost one-quarter of all renters were paying more than 40 percent of their income in rent. Table 4 reports these data.

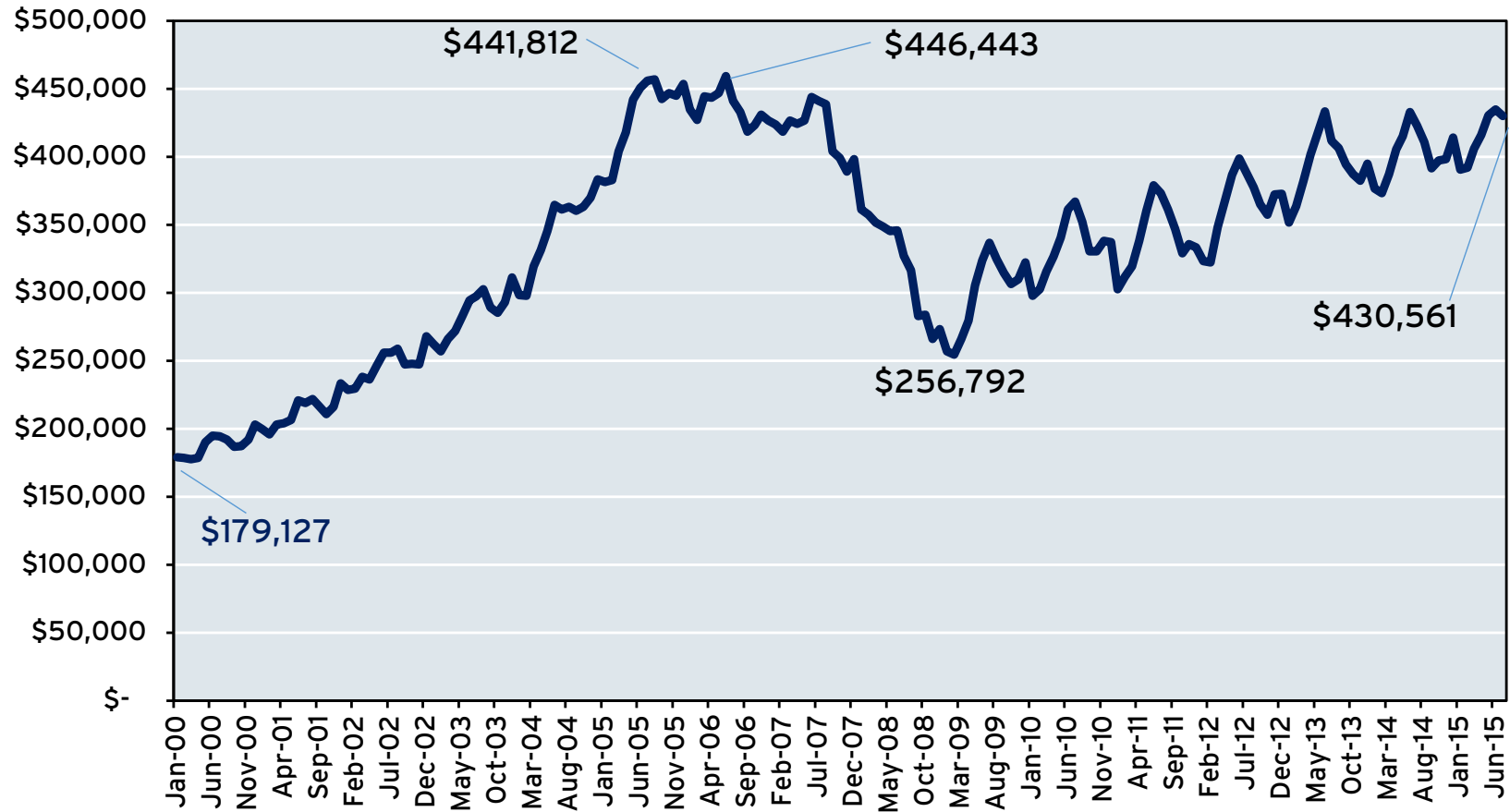
The net effect of this housing stress has been to push more Northern Virginia households to locate in outlying suburban communities where housing prices are not so high, or to push more of them into multiple-family and multiple-generation households. In the former case, this requires many

householders to undertake increasingly arduous commutes. Unfortunately, metropolitan Washington, D.C., recently was ranked as the worst city in the United States for traffic congestion – not the “We’re No. 1” chant boosters want to hear (Jonathan Chew, *Fortune*, Aug. 26, 2015). If quality of life characteristics gain prominence in business site location decisions, then Northern Virginia may find itself disadvantaged when such decisions are made.

Yes, building additional transportation infrastructure would help address traffic congestion challenges in the short run, but the story of development in Northern Virginia often has been, “If you build it, they will come.” New roads attract drivers and drivers alter their commuting paths until an equilibrium is reached, such that no specific commuting path from one site to another ordinarily is superior to any other. It is the textbook competitive economic model with minimal barriers to entry in operation.

GRAPH 14

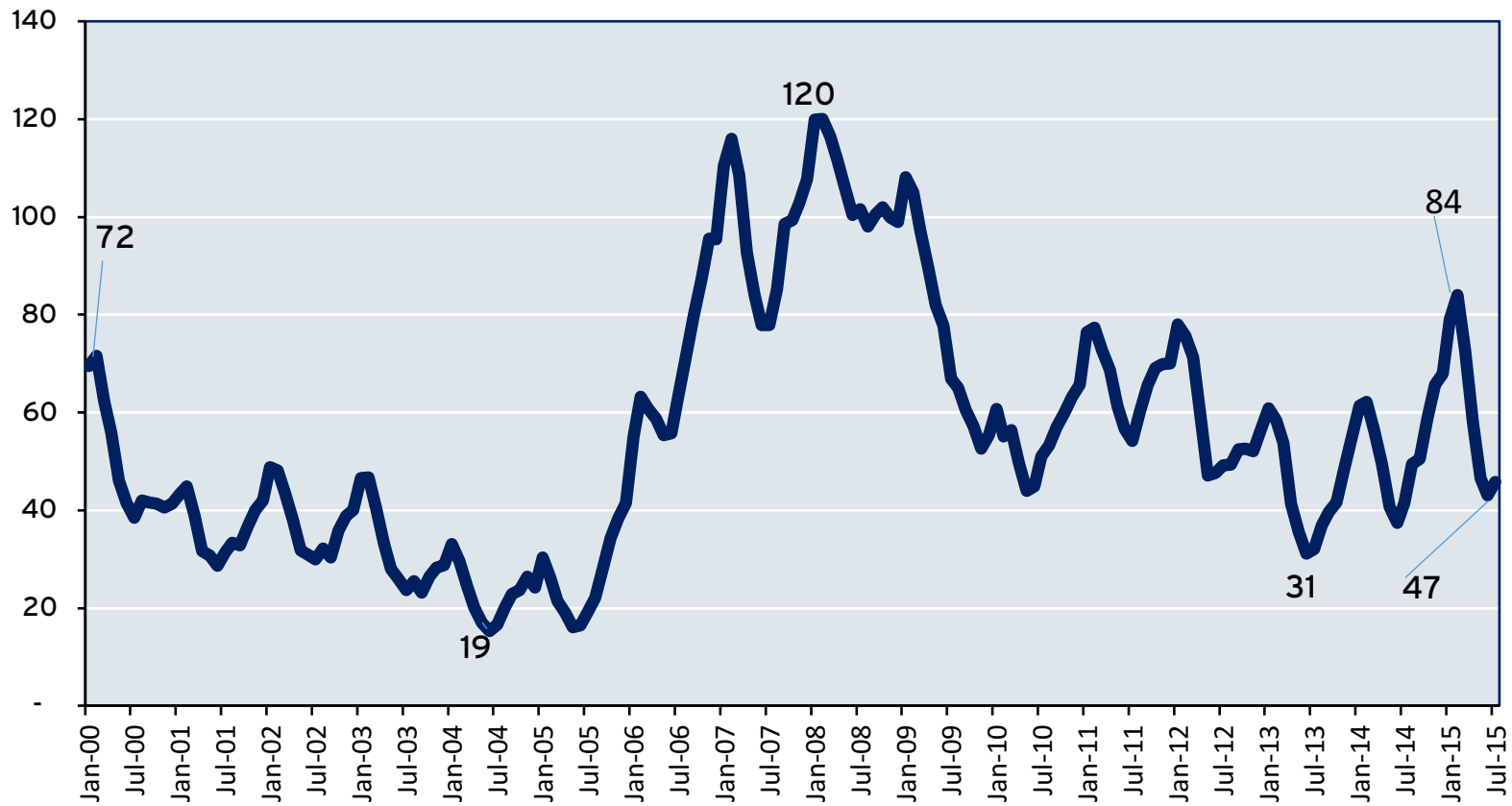
MEDIAN SALES PRICE OF EXISTING HOMES IN NORTHERN VIRGINIA



Sources: RealEstate Business Intelligence, LLC, Metropolitan Regional Information Systems and the GMU Center for Regional Analysis

GRAPH 15

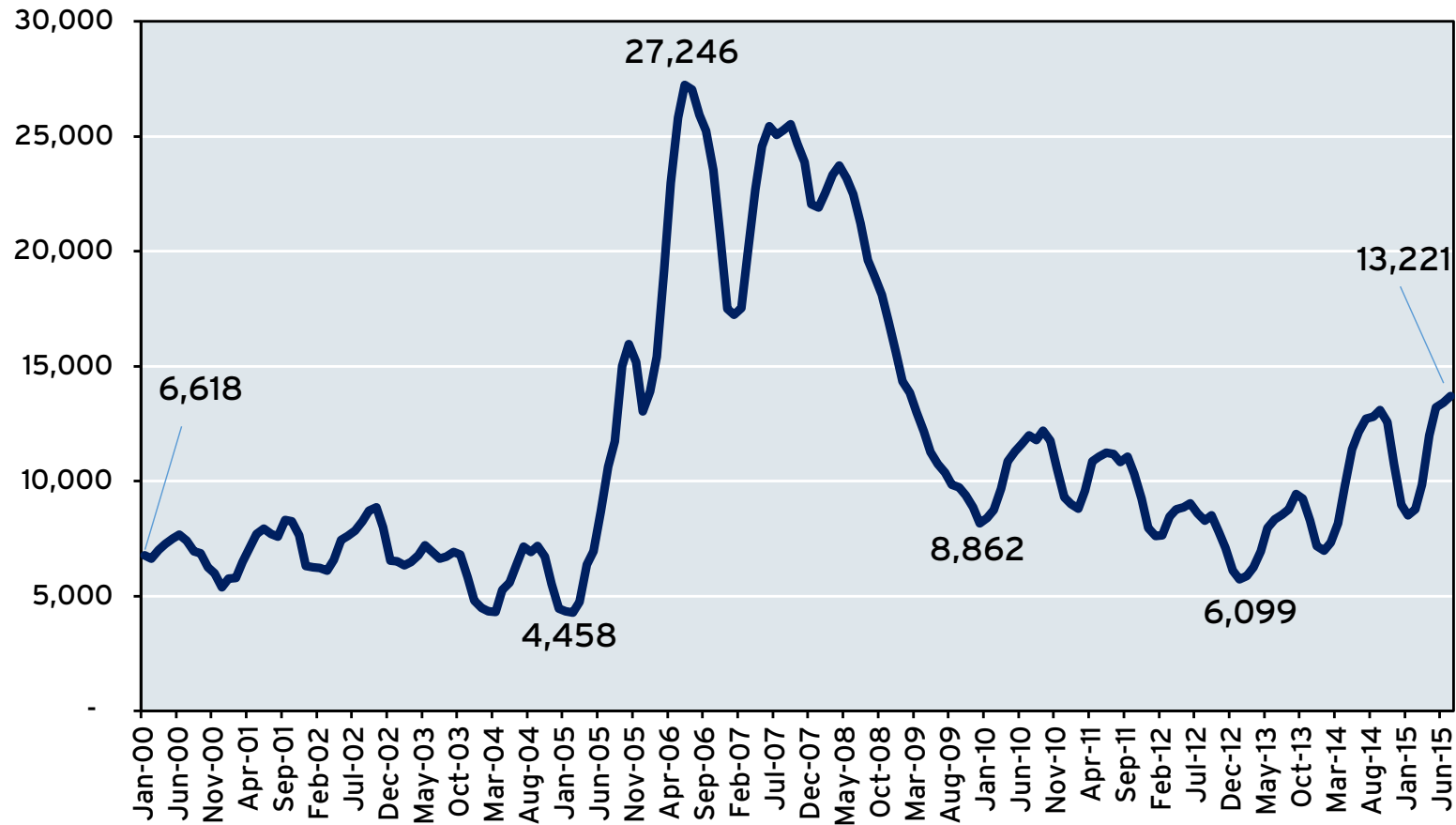
AVERAGE DAYS A HOME IS ON THE MARKET PRIOR TO SALE IN NORTHERN VIRGINIA, 2000-2015



Sources: RealEstate Business Intelligence, LLC, Metropolitan Regional Information Systems and the GMU Center for Regional Analysis

GRAPH 16

NUMBER OF ACTIVE LISTINGS OF HOMES IN NORTHERN VIRGINIA, 2000-2015



Sources: RealEstate Business Intelligence, LLC, Metropolitan Regional Information Systems and the GMU Center for Regional Analysis

TABLE 4

AVERAGE SHARES OF HOUSEHOLD INCOME SPENT ON RENTAL OR OWNER COSTS IN NORTHERN VIRGINIA, 2009-2013

PERCENTAGE OF HOUSEHOLDS	CUMULATIVE RENTING PERCENTAGE	CUMULATIVE OWNING PERCENTAGE
± 9.9%	2.66%	5.85%
10.0-14.9%	10.58%	19.53%
15.0-19.9%	24.30%	38.44%
20.0-24.9%	38.89%	55.98%
25.0-29.9%	52.01%	69.30%
30.0-34.9%	61.67%	78.02%
35.0-39.9%	68.35%	83.62%
40.0-49.9%	76.98%	89.67%
50.0%+	96.05%	99.76%
Not Computed	99.99%	100.00%

Sources: Bureau of Labor Statistics (not seasonally adjusted) and the GMU Center for Regional Analysis

What's Next?

The quarterly Leading Economic Index (LEI) of the George Mason University Center for Regional Analysis for the Washington, D.C., metropolitan area is designed to provide information on how the regional economy is likely to perform in the succeeding six months, though it also has use beyond that time horizon. The index generally has been rising over the past 18 months; however, one can see in Graph 17 that a 12-month moving average of the index has flattened a bit as 2015 closes out. This is given credence by softer job reports for the most recent reporting period.

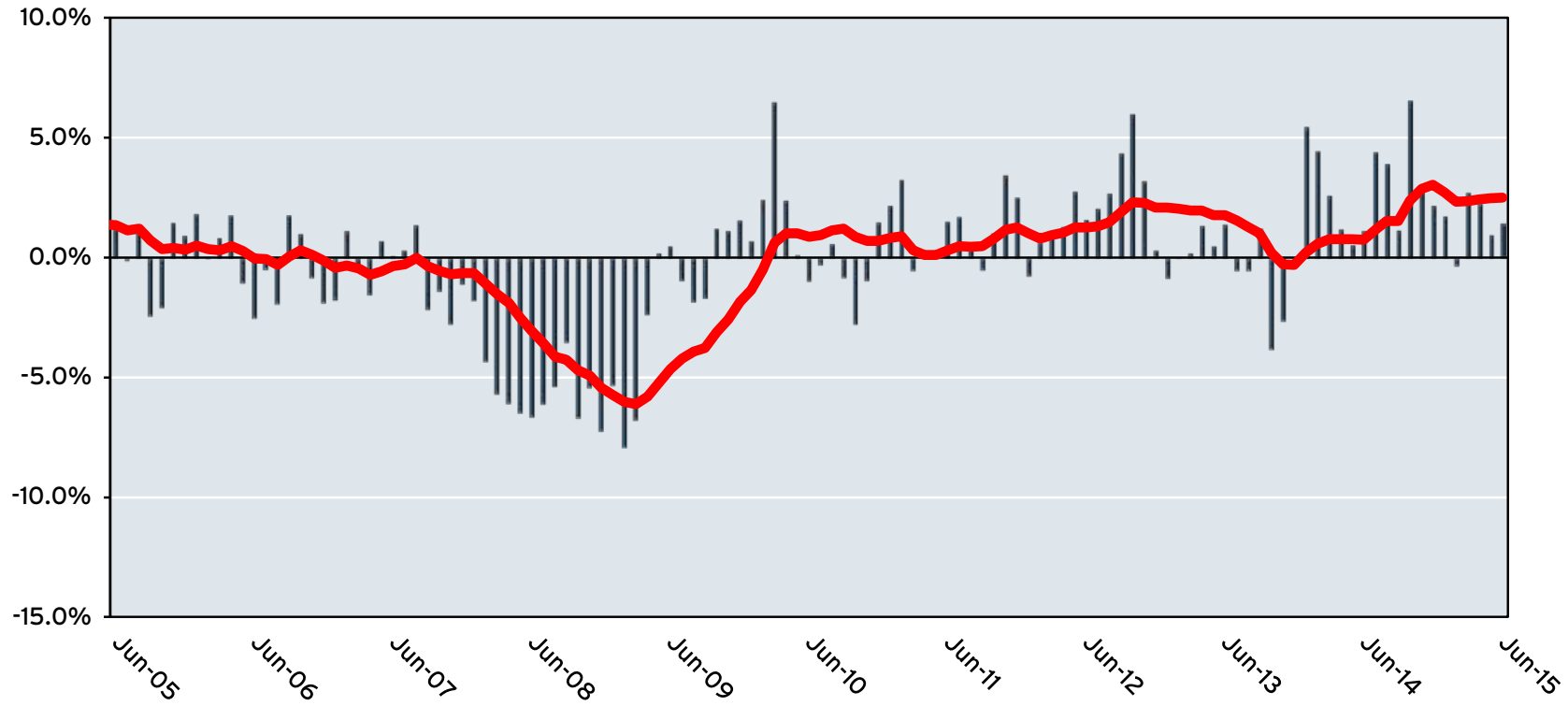
Longer term, the outlook for economic growth in Northern Virginia is quite favorable. The nexus of governmental/political/military/biotechnical/human capital/university resources that propelled Northern Virginia forward in recent decades will not have disappeared. By all odds, Northern Virginia is superbly located. Intermediate term, the subregion will have to adjust to less-rapid rates of growth in federal expenditures.

In any case, if necessity is indeed the mother of invention, then stagnant federal spending will encourage, if not force, Northern Virginia firms and organizations to develop new products, approaches and markets. In fact, the current interregnum in governmental expansion already has had a disciplining effect on Northern Virginia firms and organizations. They have been forced to cut costs, become more efficient and think about the world through new, more competitive, lenses. In fact, though there has been some undeniable pain involved in the economic adjustments Northern Virginia has had to make in recent years, it has been positioning itself for better things in the future.



GRAPH 17

WASHINGTON, D.C., MSA LEADING ECONOMIC INDEX, MONTH-OVER-YEAR PERCENTAGE CHANGE (WITH 12-MONTH MOVING AVERAGE)



Sources: IHS Economics and the GMU Center for Regional Analysis

