The Current Performance and Near-Term Outlook for The U.S. and Washington Region’s Economies

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Schar School of Policy and Government
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U.S. GDP and Washington MSA GRP
2007 – 2015 – 2021
(Baseline Forecast, Annual % Change)

Sources: U.S. Bureau of Economic Analysis, IHS Economics (March 2017), The Stephen S. Fuller Institute at the Schar School, GMU
How is the U.S. economy performing and what is the outlook for 2018?

Recession Recovery Patterns of GDP
Past Four Recessions

*In 1992 or 2009 Chained Dollars
**Quarters 26+ include the 2009 Recession
Sources: Bureau of Economic Analysis, The Stephen S. Fuller Institute at the Schar School, GMU
U.S. Annual Change in Payroll Jobs
Month-Over-The-Year

Oct = +2.0 M

Sources: U.S. Bureau of Labor Statistics (Not Seasonally Adjusted), The Stephen S. Fuller Institute at the Schar School, GMU

U.S. Payroll Job Change by Sector
October 2016 – October 2017
 Ranked by Size in 2016
Total = +2,073
Sources: U.S. Bureau of Labor Statistics (Not Seasonally Adjusted), The Stephen S. Fuller Institute at the Schar School, GMU
U.S. Unemployment Rate
October 2009 – October 2017

Sources: U.S. Bureau of Labor Statistics (Seasonally Adjusted), IHS Economics (September 2017), The Stephen S. Fuller Institute at the Schar School, GMU

IHS Forecast
17 – 4.4
18 – 4.1
19 – 4.0
20 – 4.1
21 – 4.2

Brent Crude Spot Price
$ per barrel

Sources: IHS Economics (September 2017), The Stephen S. Fuller Institute at the Schar School, GMU
U.S. Consumer Confidence
September 2010 – September 2017

Sources: The Conference Board, The Stephen S. Fuller Institute at the Schar School, GMU

U.S. Consumer Prices
Percent Change, 2001 - 2021

Sources: U.S. Bureau of Labor Statistics, IHS Economics (September 2017), The Stephen S. Fuller Institute at the Schar School, GMU
U.S. Growth in Total Consumption Outlays

Sources: U.S. Bureau of Economic Analysis, IHS Economics (September 2017), The Stephen S. Fuller Institute at the Schar School, GMU

U.S. Gross Domestic Product
Quarterly Change: 2007 – 2018

Sources: U.S. Bureau of Economic Analysis, IHS Economics (September 2017), The Stephen S. Fuller Institute at the Schar School, GMU
The Washington Region’s key Economic Challenges

Dependence on federal spending to drive economic growth;
job growth and mix since 2010 has favored lower-value added sectors;
non-federally dependent clusters are underperforming;
high cost-of-living has made region less competitive;
population growth is slowing with net domestic outmigration; and,
the region’s economy is underperforming its peers.
The Changing Structure of the Washington Region Economy

2010
- Local Serving Activities: 34.8%
- Fed Wages & Salaries: 10.0%
- Procurement: 19.1%
- Other Federal: 10.7%
- Non-Local Serving Business: 12.0%
- Total Federal: 39.8%

2021
- Local Serving Activities: 38.3%
- Fed Wages & Salaries: 19.1%
- Procurement: 12.8%
- Other Federal: 7.7%
- Non-Local Serving Business: 12.0%
- Total Federal: 27.2%

Other Federal: 7.7%
Procurement: 12.8%
Fed Wages & Salaries: 19.1%
Non-Local Serving Business: 12.0%
Local Serving Activities: 38.3%

Source: The Stephen S. Fuller Institute at the Schar School, GMU; Forecast January 2017

Federal Employment in the Washington Region, 1950-2016

Source: U.S. Bureau of Labor Statistics (Not Seasonally Adjusted), The Stephen S. Fuller Institute at the Schar School, GMU
Federal Procurement in the Washington Region, 1980-2016

Source: US Census, Consolidated Federal Funds Report and USAspending.gov, The Stephen S. Fuller Institute at the Schar School, GMU

Washington Region Job Change: Private Sector
The Great Recession and Recovery

Sources: U.S. Bureau of Labor Statistics (Not Seasonally Adjusted), The Stephen S. Fuller Institute at the Schar School, GMU
The GRP* Effects of Private Sector Job Change in the Washington Region ~2007 to July 2017 (in 2014 $s)

<table>
<thead>
<tr>
<th>Job Change</th>
<th>Average GRP* Value</th>
<th>Total GRP* Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>-180,300</td>
<td>$160,233</td>
<td>-$28,890,059,000</td>
</tr>
<tr>
<td>+411,500</td>
<td>$109,916</td>
<td>+$45,230,434,000</td>
</tr>
<tr>
<td>+231,700</td>
<td></td>
<td>+$16,340,375,000</td>
</tr>
</tbody>
</table>

*Gross Regional Product
Source: The Stephen S. Fuller Institute at the Schar School, GMU

GRP Per Worker in the Washington Region Annual Percent Change (Real GRP)

Sources: U.S. Bureau of Economic Analysis, The Stephen S. Fuller Institute at the Schar School, GMU
Growth Rates of the Washington Region’s Advanced Industrial Clusters
March 2014 to March 2017, Annualized Growth

Median Household Income: Top 15 U.S. Counties

2010
* Loudoun, VA
* Fairfax, VA
Howard, MD
Hunterdon, NJ
*Arlington, VA
Douglas, CO
*Stafford, VA
Somerset, NJ
*Prince William, VA
Morris, NJ
Nassau, NY
*Montgomery, MD
*Calvert, MD
St. Mary’s, MD
*Charles, MD

2016
* Loudoun, VA
Howard, MD
*Arlington VA
Douglas, CO
San Mateo, CA
*Arlington VA
Santa Clara, CA
*Arlington VA
Williamson, TN
Nassau, NY
Somerset, NJ
Marin, CA
San Francisco, CA
Delaware, OH

*within Washington Metropolitan Statistical Area

Sources: American Community Survey (2010 1-Year and 2016 1-Year surveys), The Stephen S. Fuller Institute at the Schar School, GMU
# Cost-of-Living Ranking for 15 Largest Metros

<table>
<thead>
<tr>
<th>2008</th>
<th>2015</th>
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<tbody>
<tr>
<td>SF-Oakland</td>
<td>SF-Oakland</td>
</tr>
<tr>
<td>New York</td>
<td>New York</td>
</tr>
<tr>
<td>Washington</td>
<td>Washington</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>Los Angeles</td>
</tr>
<tr>
<td>Boston</td>
<td>Boston</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>Seattle</td>
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<tr>
<td>Seattle</td>
<td>Miami</td>
</tr>
<tr>
<td>Chicago</td>
<td>Philadelphia</td>
</tr>
<tr>
<td>Miami</td>
<td>Chicago</td>
</tr>
<tr>
<td>Phoenix</td>
<td>Minneapolis</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>Houston</td>
</tr>
<tr>
<td>Dallas</td>
<td>Dallas</td>
</tr>
<tr>
<td>Houston</td>
<td>Phoenix</td>
</tr>
<tr>
<td>Detroit</td>
<td>Detroit</td>
</tr>
<tr>
<td>Atlanta</td>
<td>Atlanta</td>
</tr>
</tbody>
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Sources: U.S. Bureau of Economic Analysis, The Stephen S. Fuller Institute at the Schar School, GMU

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## Population Growth By Component Change

Washington Region (in 000s)

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<tbody>
<tr>
<td>Net Domestic Migration</td>
<td>23.0</td>
<td>37.7</td>
<td>36.7</td>
<td>40.1</td>
<td>42.2</td>
<td>40.6</td>
</tr>
<tr>
<td>Net International Migration</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Natural Increase</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(26.4)</td>
<td>(29.4)</td>
<td>(31.0)</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Total Increase: +1.9% +1.6% +1.5% +1.1% +1.0% +0.9%

Sources: U.S. Census Bureau (v2016 Population Estimates); The Stephen S. Fuller Institute at the Schar School, GMU
How is the Washington Region’s economy currently performing?
Annual Job Change, 2002-2017
Washington Region

Annual Change

Annual Month-Over-Year Change

Sep 17 = +44.5

15 Largest U.S. Job Markets
Job Change: September 2016 – September 2017

Sources: U.S. Bureau of Labor Statistics (Not Seasonally Adjusted), The Stephen S. Fuller Institute at the Schar School, GMU
15 Largest U.S. Job Markets
Job Change: September 2016 – September 2017

Washington: +1.4%

Washington MSA Job Change by Sector
September 2016 – September 2017

Sources: U.S. Bureau of Labor Statistics (Not Seasonally Adjusted), The Stephen S. Fuller Institute at the Schar School, GMU
What is the Washington Region’s economic near-term outlook?
Employment Change by Sub-State Area
Baseline Forecast (000s)

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</tr>
</thead>
<tbody>
<tr>
<td>D.C.</td>
<td>5.2</td>
<td>15.9</td>
<td>13.0</td>
<td>10.4</td>
<td>9.2</td>
<td>8.1</td>
<td>6.2</td>
<td>5.5</td>
</tr>
<tr>
<td>Sub. MD</td>
<td>10.2</td>
<td>12.5</td>
<td>14.4</td>
<td>22.8</td>
<td>16.6</td>
<td>16.2</td>
<td>13.1</td>
<td>12.3</td>
</tr>
<tr>
<td>No. VA</td>
<td>0.8</td>
<td>29.8</td>
<td>31.0</td>
<td>19.8</td>
<td>20.4</td>
<td>20.8</td>
<td>15.1</td>
<td>13.0</td>
</tr>
<tr>
<td>REGION</td>
<td>18.6</td>
<td>57.7</td>
<td>55.6</td>
<td>53.0</td>
<td>46.2</td>
<td>45.1</td>
<td>34.4</td>
<td>30.8</td>
</tr>
</tbody>
</table>

Average Annual Change 1990-2010 = 36,300

Source: BLS, IHS Economics, The Stephen S. Fuller Institute at the Schar School, GMU (forecast as of September 2017)

NOTE: The regional totals include Jefferson, WV.

Washington MSA and Sub-State Areas
Economic Outlook (GRP), 2007-2021
(Baseline Forecast, Annual % Change)

Sources: The Stephen S. Fuller Institute at the Schar School, GMU
U.S. GDP and Washington MSA GRP
2007 – 2015 – 2021
(Baseline Forecast, Annual % Change)

Sources: U.S. Bureau of Economic Analysis, IHS Economics (March 2017), The Stephen S. Fuller Institute at the Schar School, GMU

Thank You & Questions

For monthly reports on the Washington region’s economic performance go to:
sfullerinstitute.gmu.edu