



2019 Midyear Economic Forecast

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Strome College of Business
Old Dominion University

May 21, 2019





Agenda for Today

I will cover economic conditions in the United States and Virginia and the challenges to growth.

My colleague, Vinod Agarwal, will examine economic conditions in Hampton Roads and the prospects for growth in 2019.

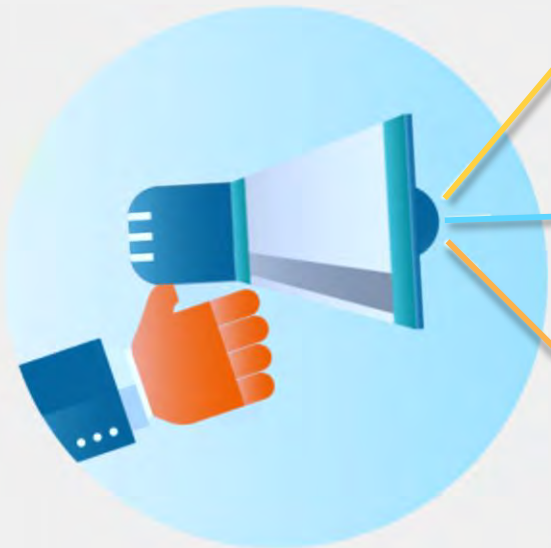
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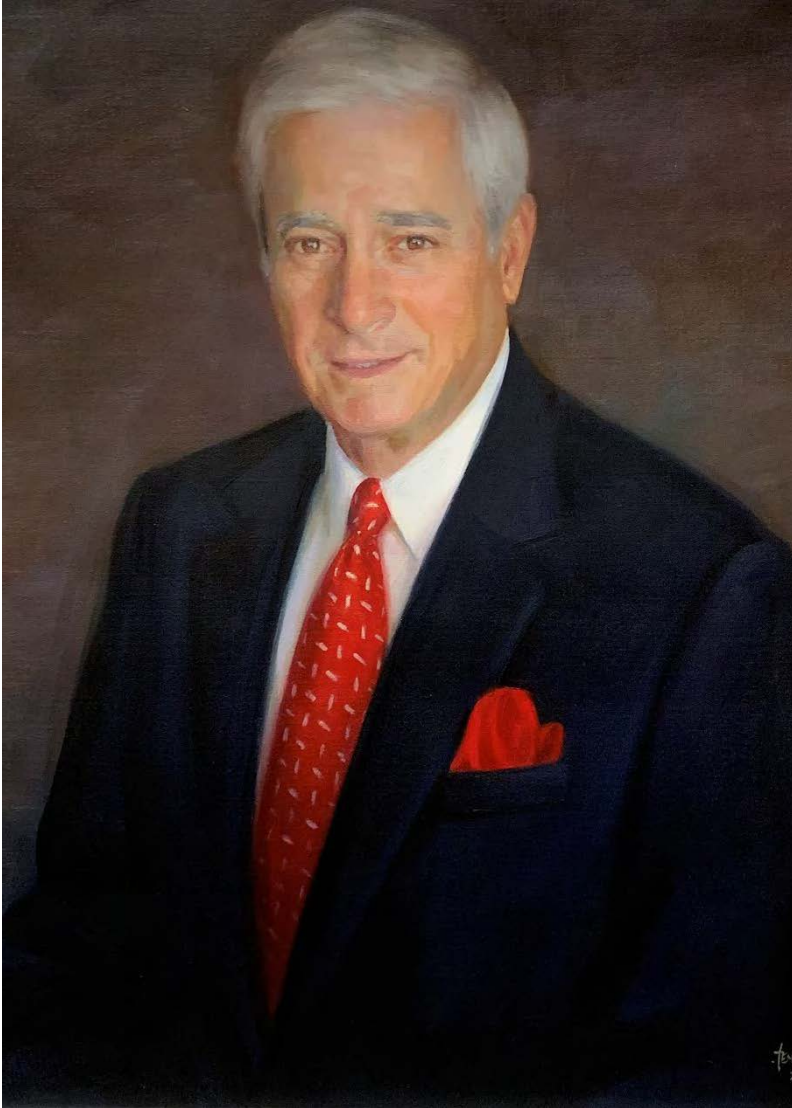


Our forecasts and commentary do not constitute official viewpoints of Old Dominion University, its President, John R. Broderick, the Board of Visitors, the Strome College of Business, or the generous donors who support the activities of the Dragas Center for Economic Analysis and Policy.

The data in this presentation are subject to revision. To our knowledge, all data used are accurate at the time of the presentation.



In Memoriam



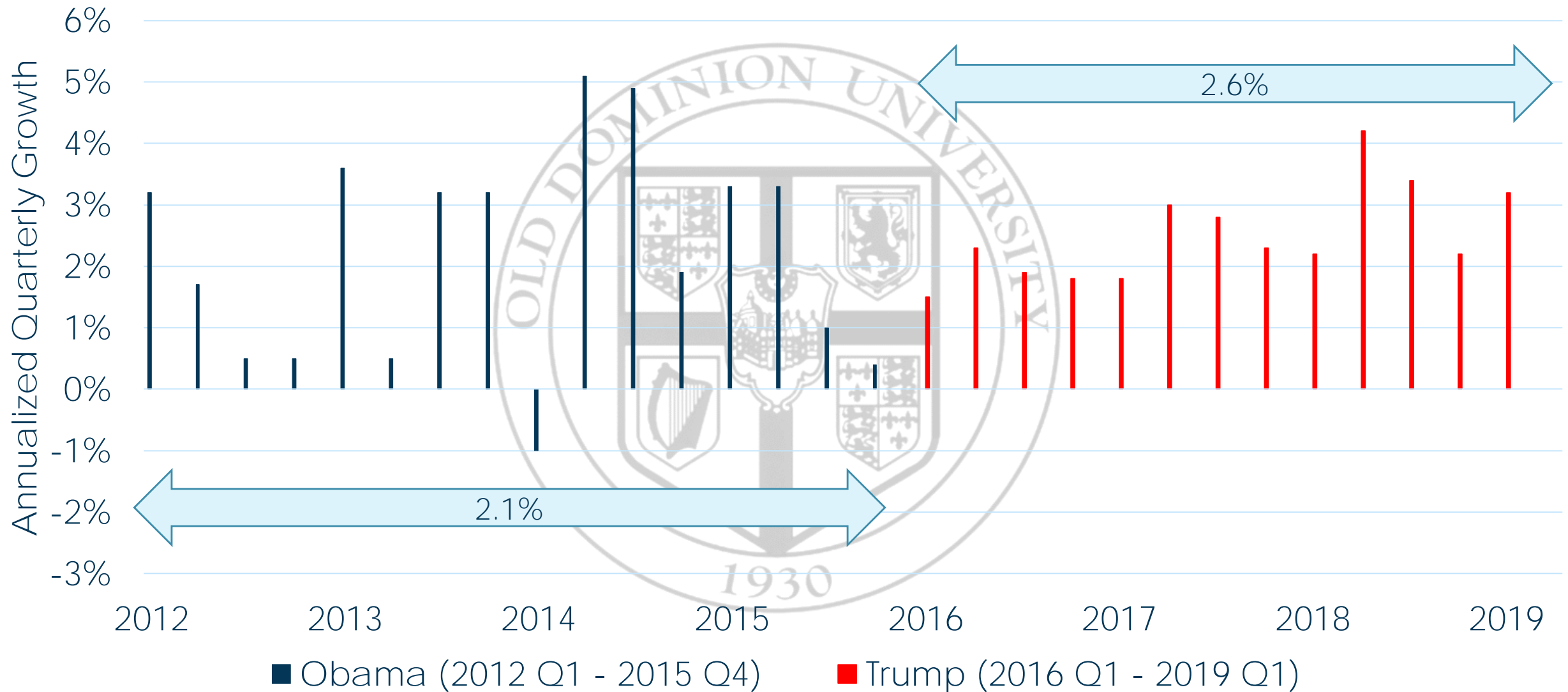
- We honor the memory of George Dragas, a tireless supporter of the activities of the Dragas Center.
- Mr. Dragas, seeking to improve the lives of all in Hampton Roads, was the primary genesis of the State of the Region Report.



Growth Continues

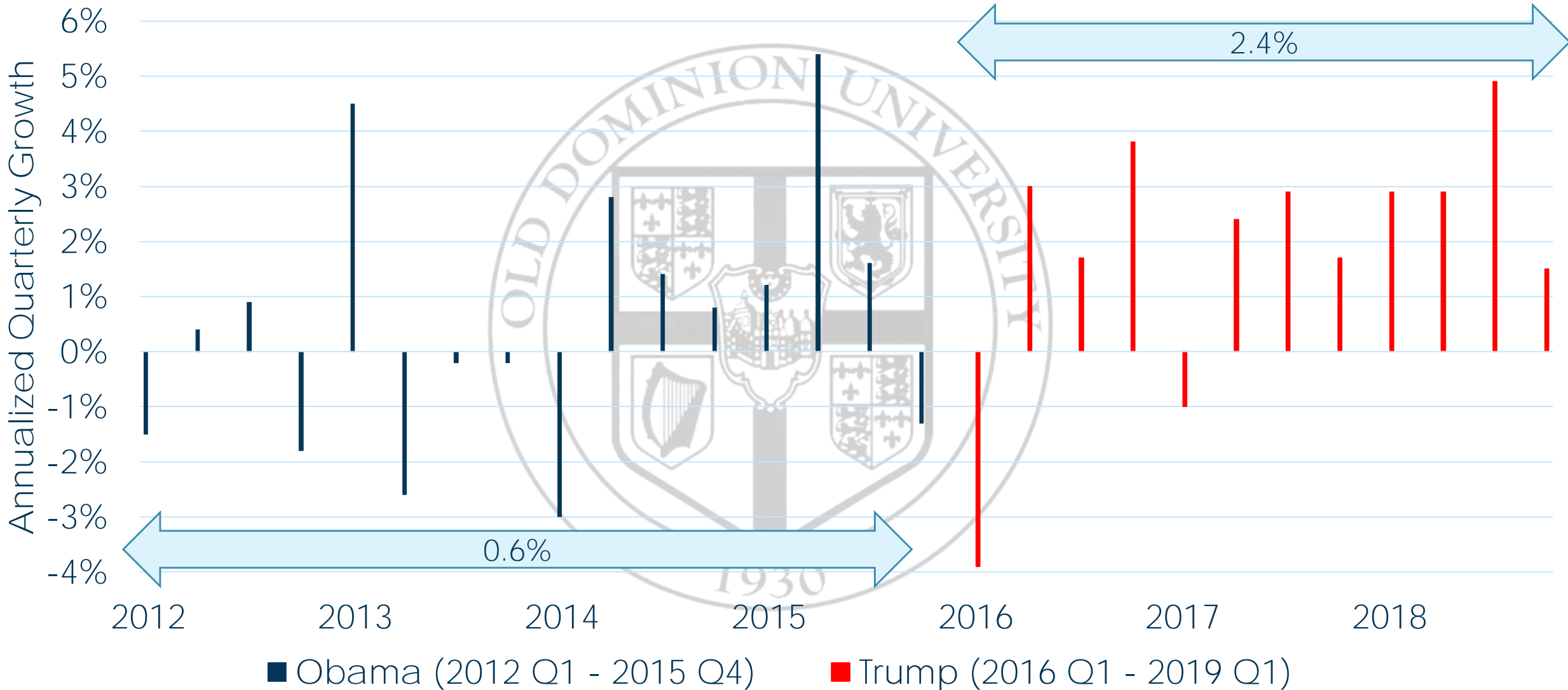
CLINT EASTWOOD MARIANNE KOCH CIAN MARIA VOLONTE
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JOSE CALVO MARGARITA LOZANO MARIO BREGA
DIRECTED BY SERGIO LEONE MUSIC BY ENNIO MORRICONE

Growth in Real Gross Domestic Product United States, 2012 Q1 - 2019 Q1



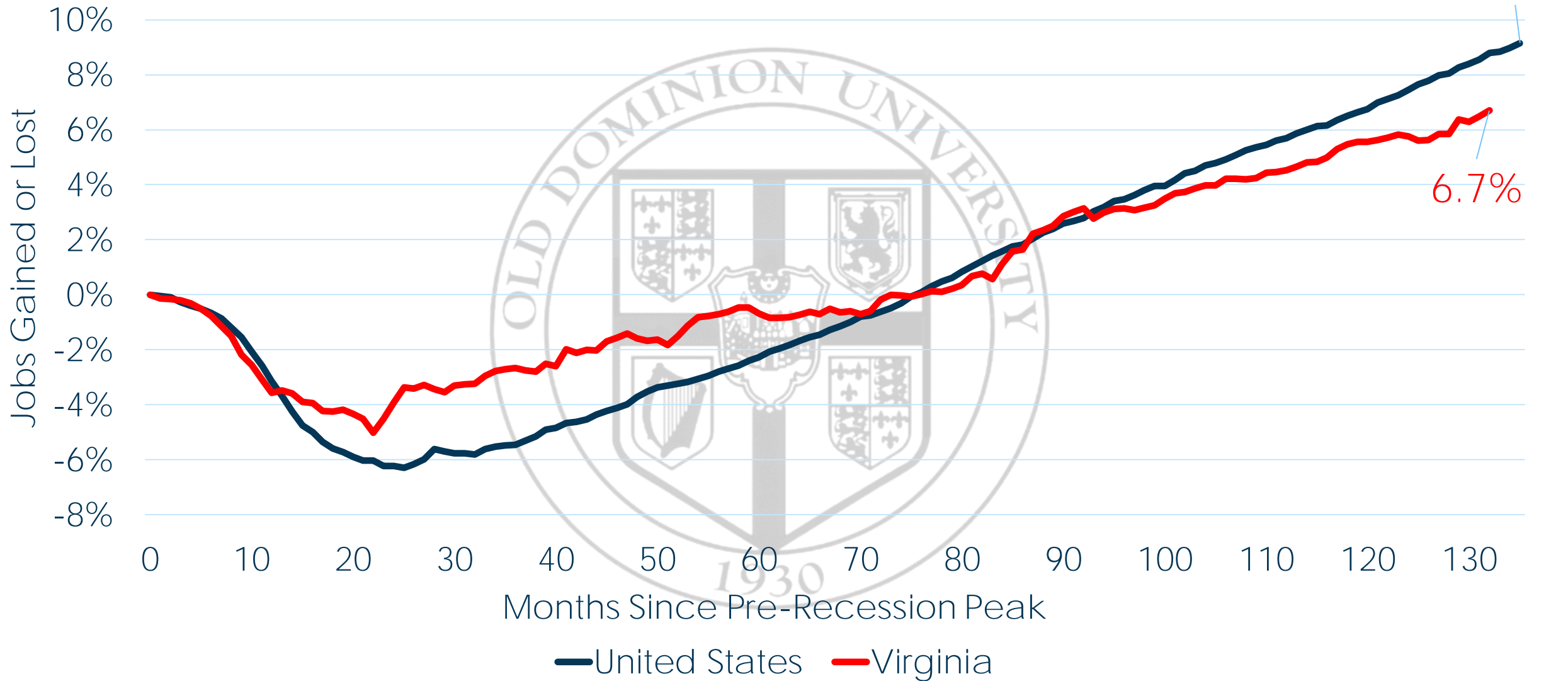
Sources: Bureau of Economic Analysis and Dragas Center for Economic Analysis and Policy. Data on GDP incorporate latest BEA revisions in April 2019. Data for 2019 Q1 are the advance estimate. CAGR GDP growth in horizontal bars. CAGR Obama = 2.1%, CAGR Trump = 2.6%.

Growth in Real Gross Domestic Product Virginia, 2012 Q1 - 2018 Q4



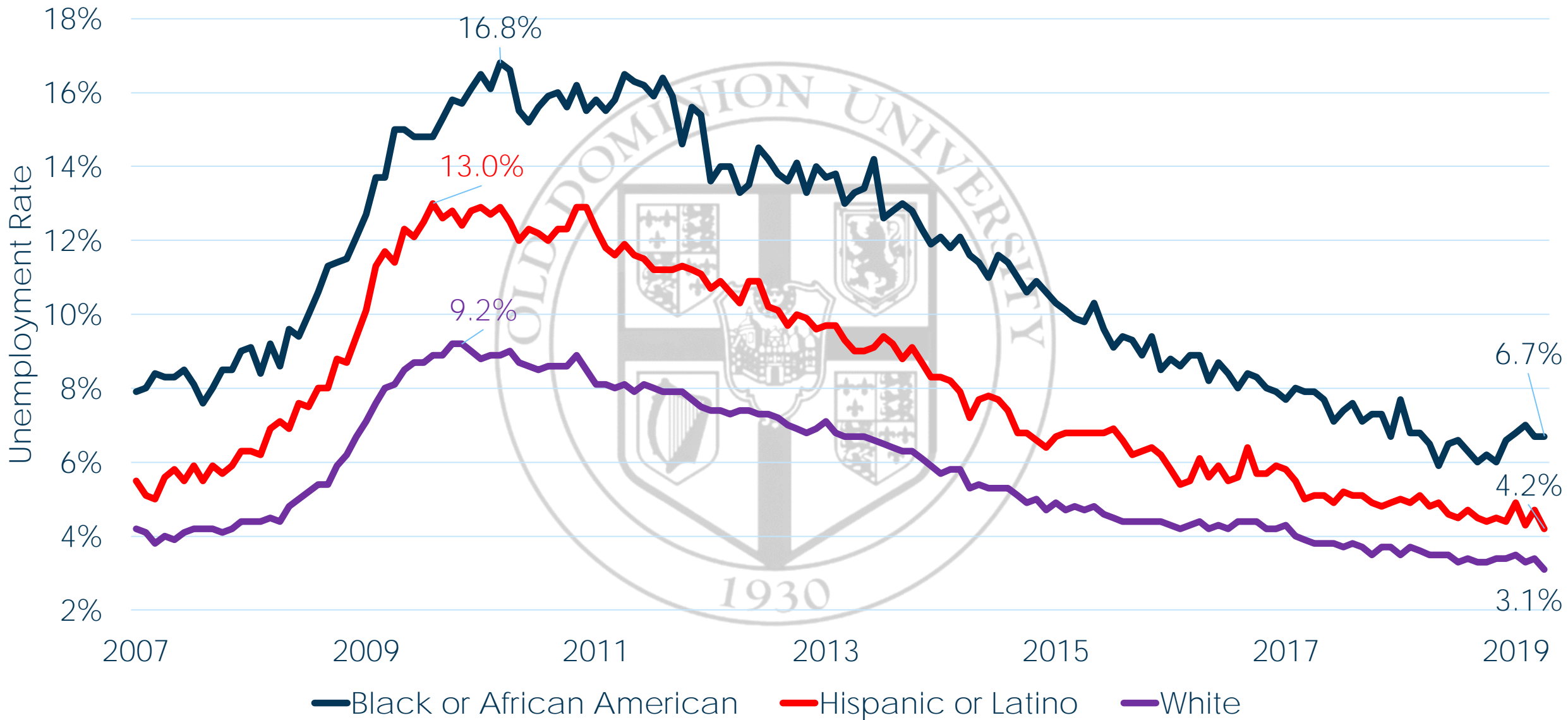
Sources: Bureau of Economic Analysis and Dragas Center for Economic Analysis and Policy. Data on GDP incorporate latest BEA revisions in May 2019. Data for 2018 Q4 are the advance estimate. CAGR GDP growth in horizontal bars.

Recovery from the Great Recession Measured in Total Jobs Restored, 2008-2019*



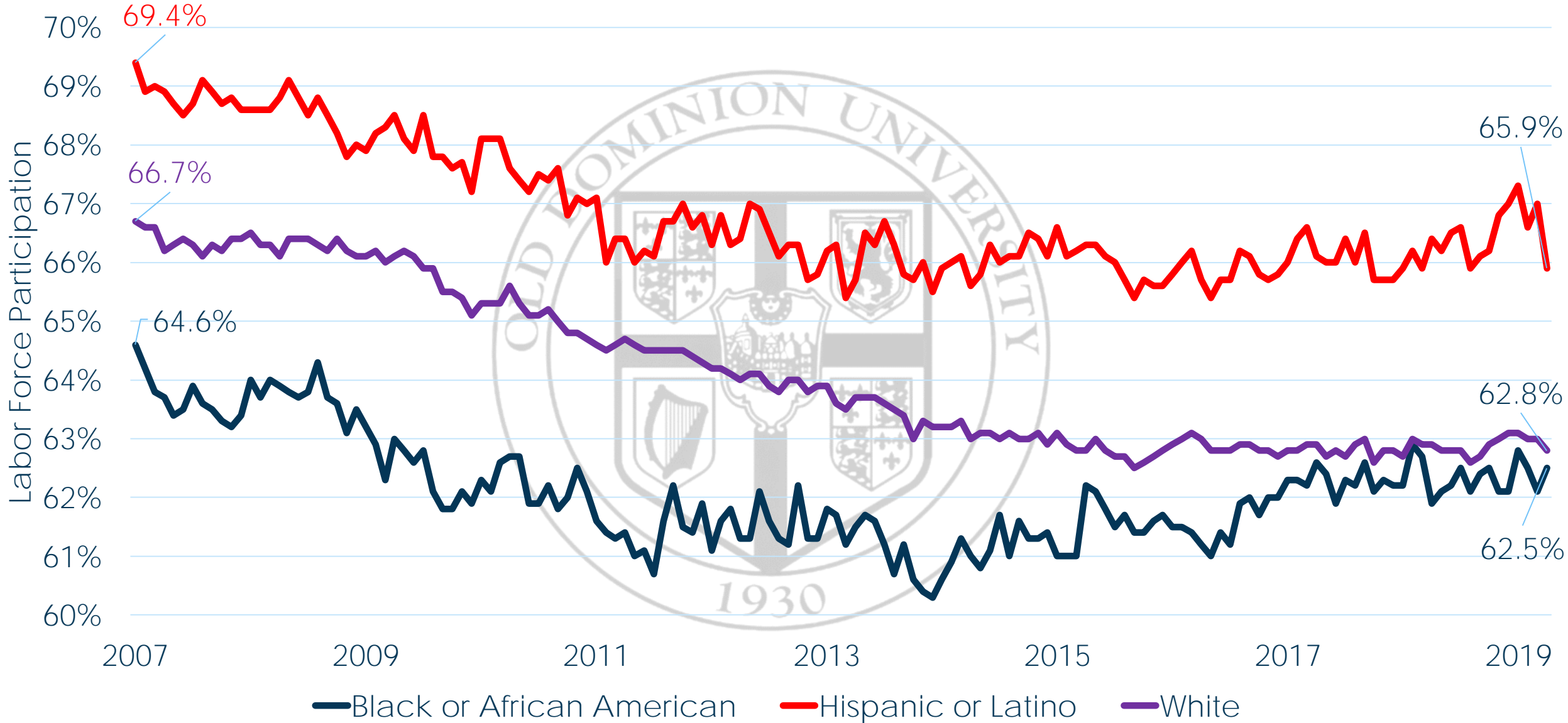
Sources: Bureau of Labor Statistics and Dragas Center for Economic Analysis and Policy. Peak Pre-Recession Dates are January 2008 (United States), and April 2008 (Virginia). *Data through April 2019 for Virginia and the United States. US data are preliminary the last two months. Virginia data are preliminary for the last month. Seasonally adjusted data.

Unemployment Rate, United States January 2007 – April 2019



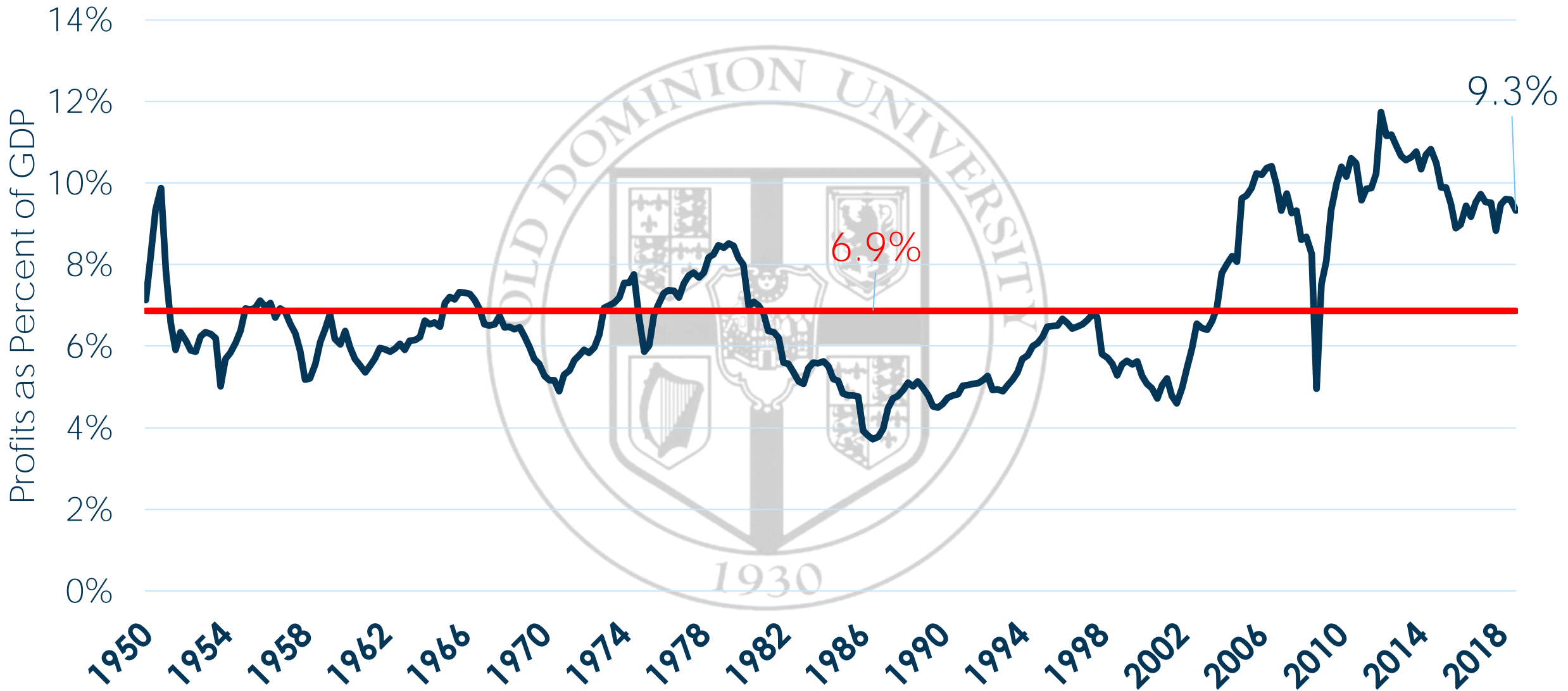
Labor Force Participation Rate, United States

January 2007 – April 2019



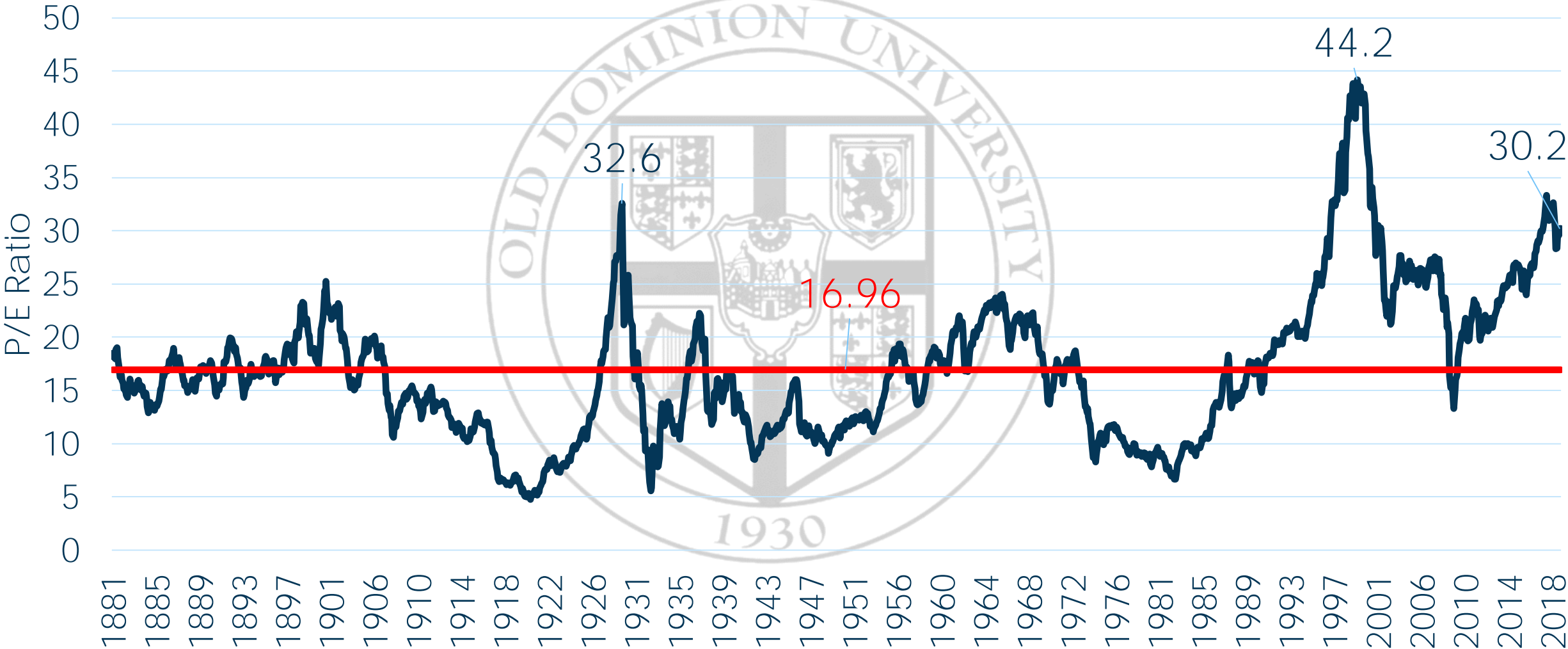
Corporate Profits as Percent of GDP

United States, 1950 - 2018



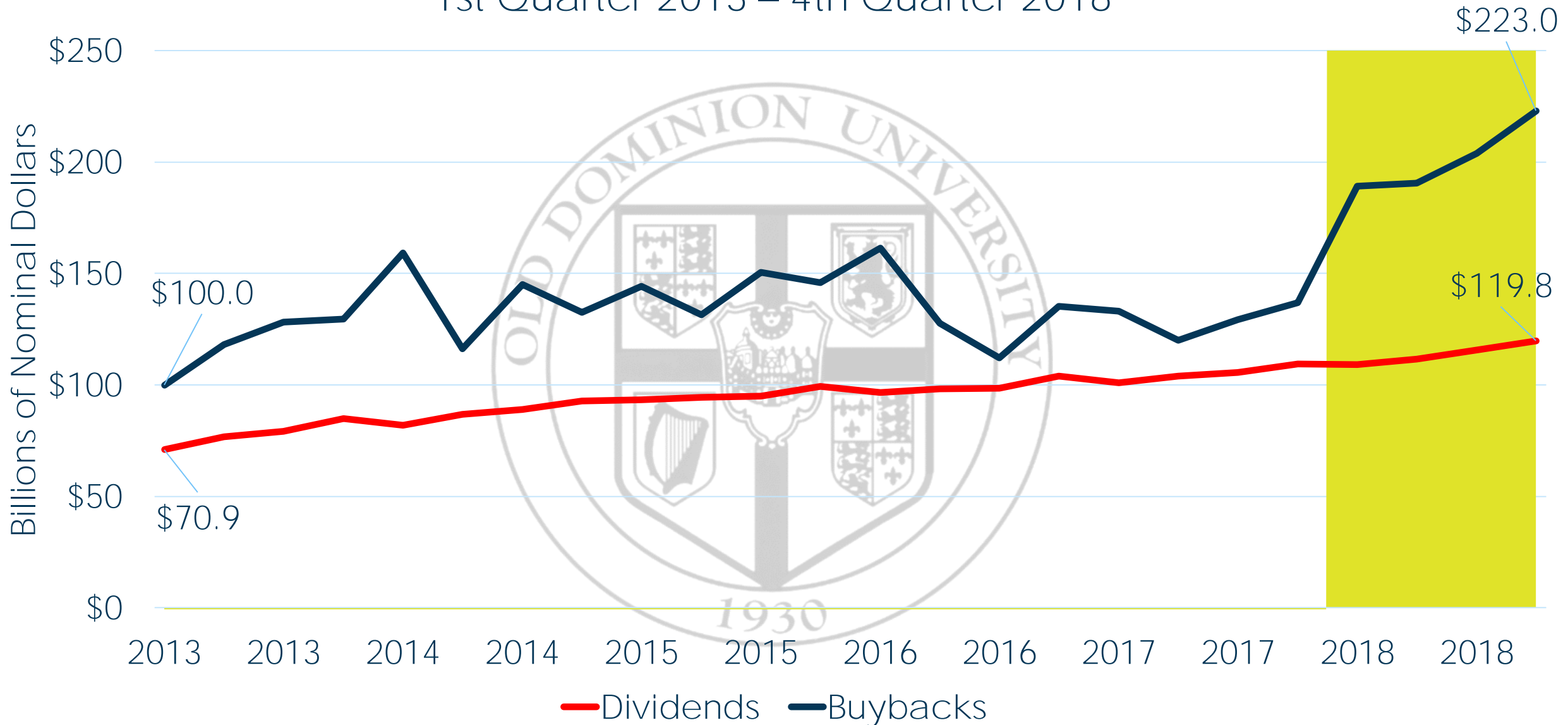
Cyclically Adjusted Price/Earnings Ratio Standard and Poor's Composite Price Index

January 1881 – May 2019*



Source: Robert Schiller, *Irrational Exuberance*. Prices and earnings are in January 2000 dollars. *Data as May 6, 2019 market close. Average P/E ratio = 16.96 over the period.

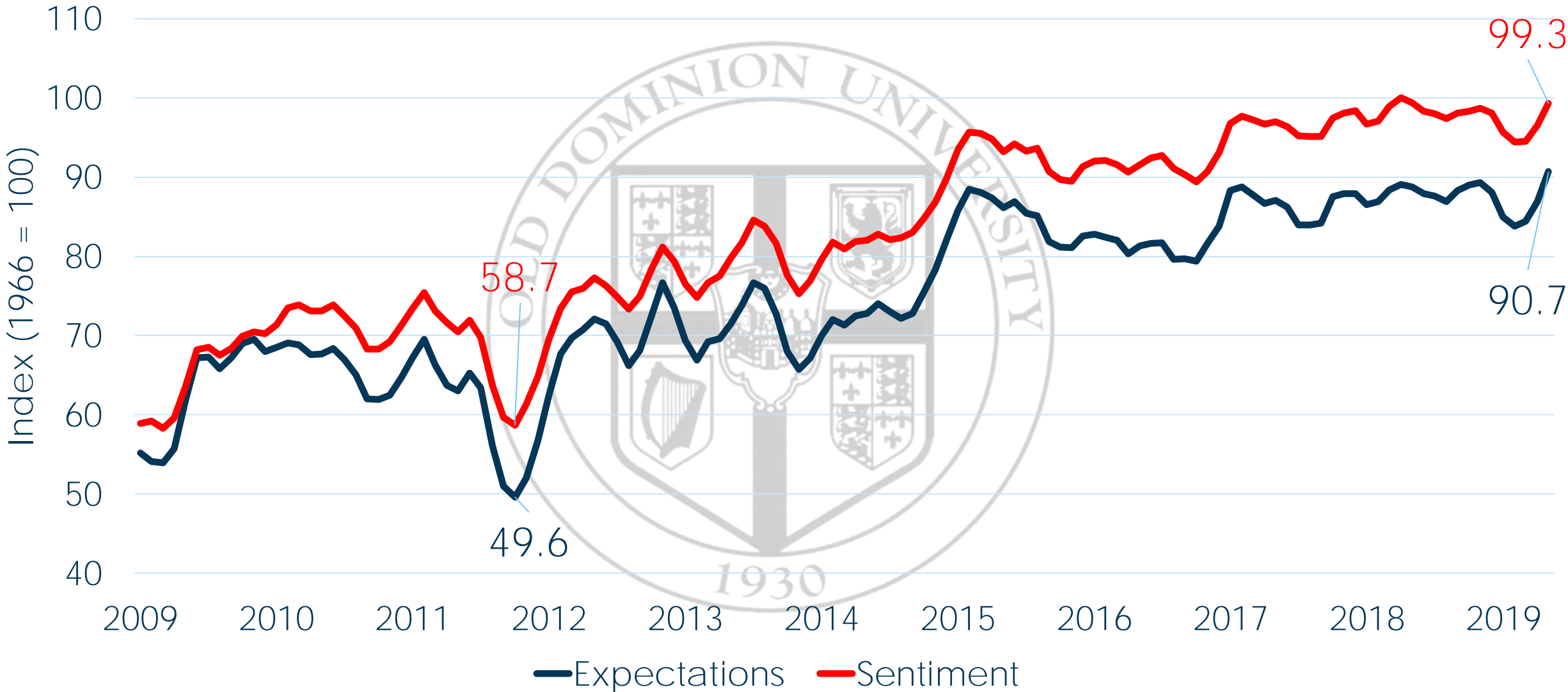
Reported Dividends and Buybacks for S&P 500 Corporations 1st Quarter 2013 – 4th Quarter 2018



Source: S&P Dow Jones Indices, March 2019. The yellow bar represents the period after the passage of the Tax Cuts and Jobs Act of 2017. 4th quarter 2018 buybacks are the current historical record. 2018 share buybacks were 55.6% higher than 2017.

University of Michigan, Consumer Sentiment and Expectations

January 2009 – May 2019*



Source: University of Michigan, Survey of Consumer Sentiment, May 2019. *Three-month moving average

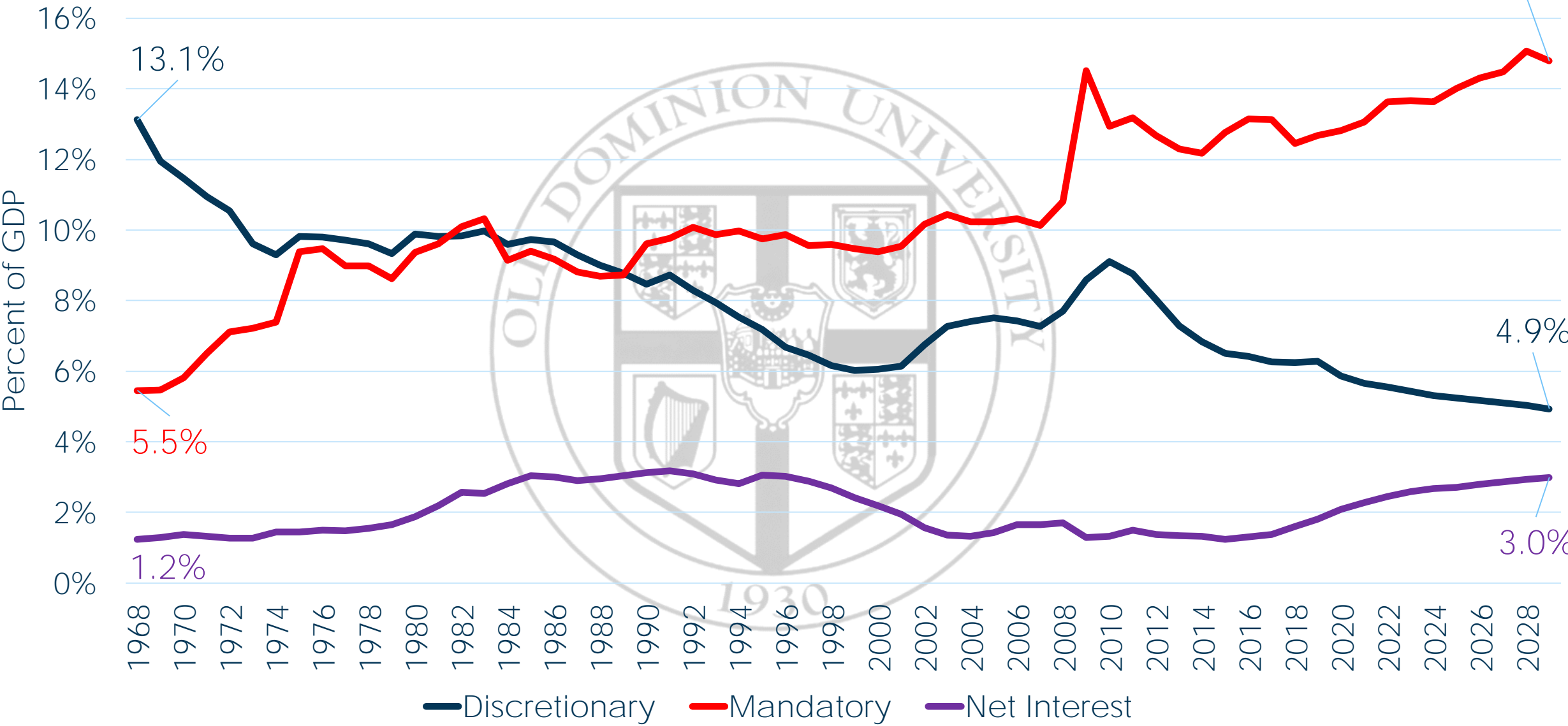
2018-2019: The Good

- **Price and wage inflation** remain moderate, and interest rates continue to be historically low.
- Consumer sentiment and expectations are high, however, consumer spending shows signs of slowing.
- The 2017 Tax Cuts and Jobs Act increased share buybacks and dividends, boosting equity prices and per-share performance.
- **Increases in federal discretionary spending** increased growth in Virginia, especially in Northern Virginia and Hampton Roads.



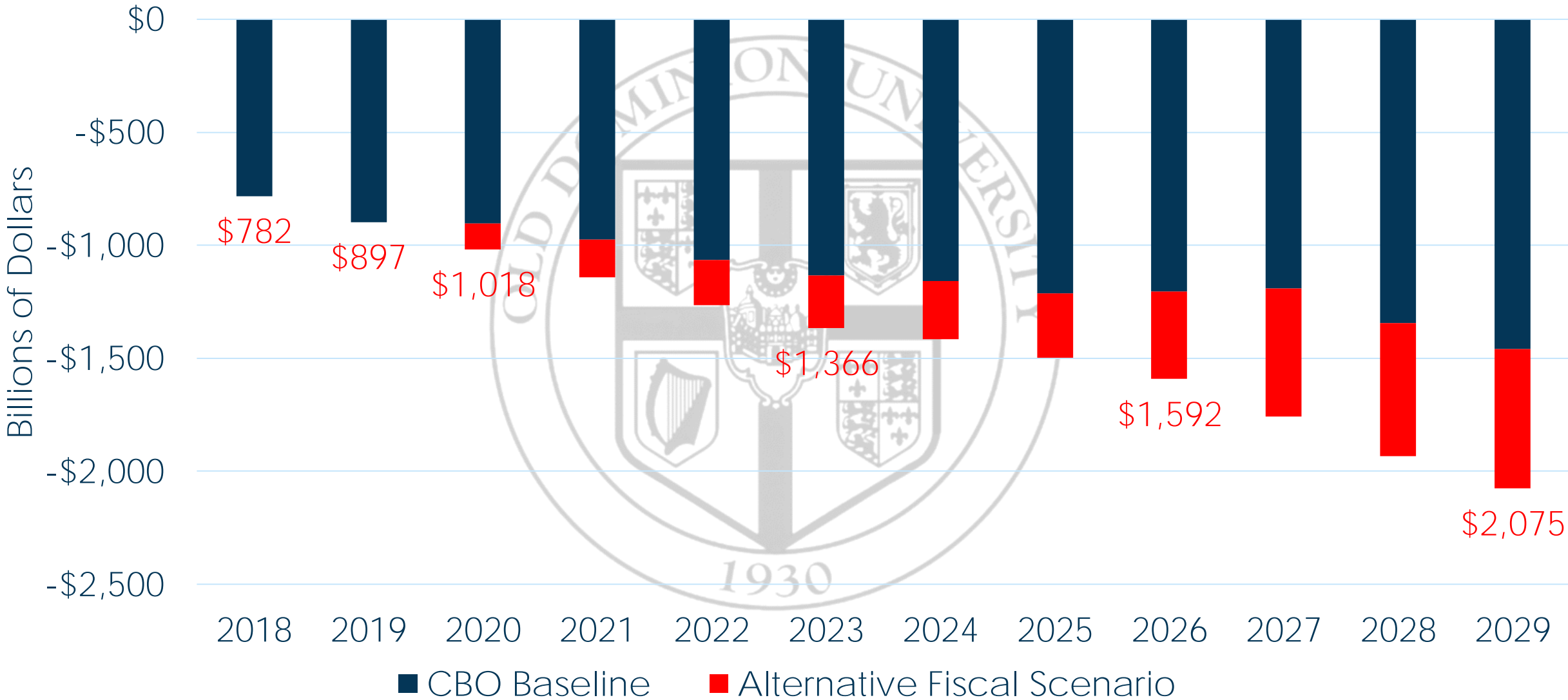
Federal Spending

Federal Outlays as Percent of GDP 1968 - 2029



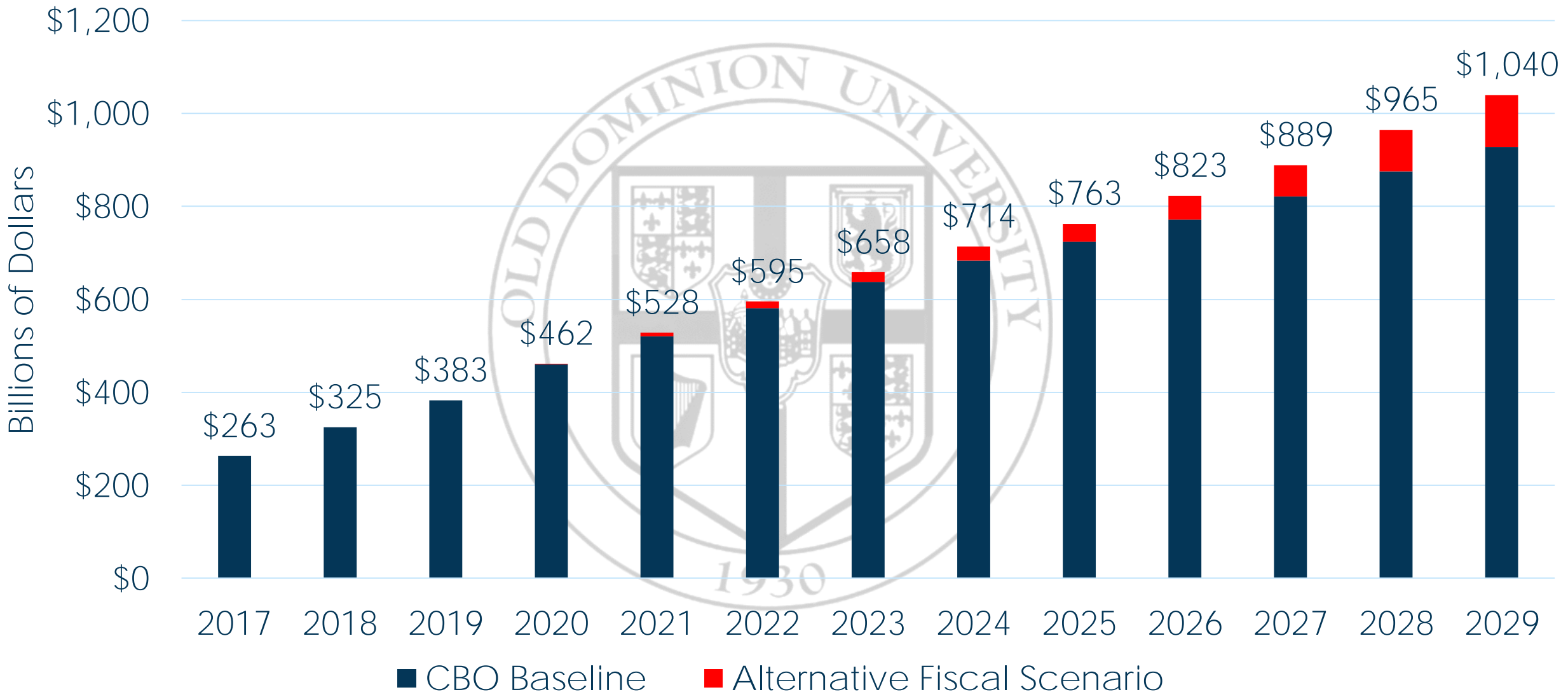
Sources: Congressional Budget Office (2019), Budget and Economic Output: 2019 to 2029 and Dragas Center for Economic Analysis and Policy.

Congressional Budget Office: Projected Federal Deficit FY 2018 - FY 2029



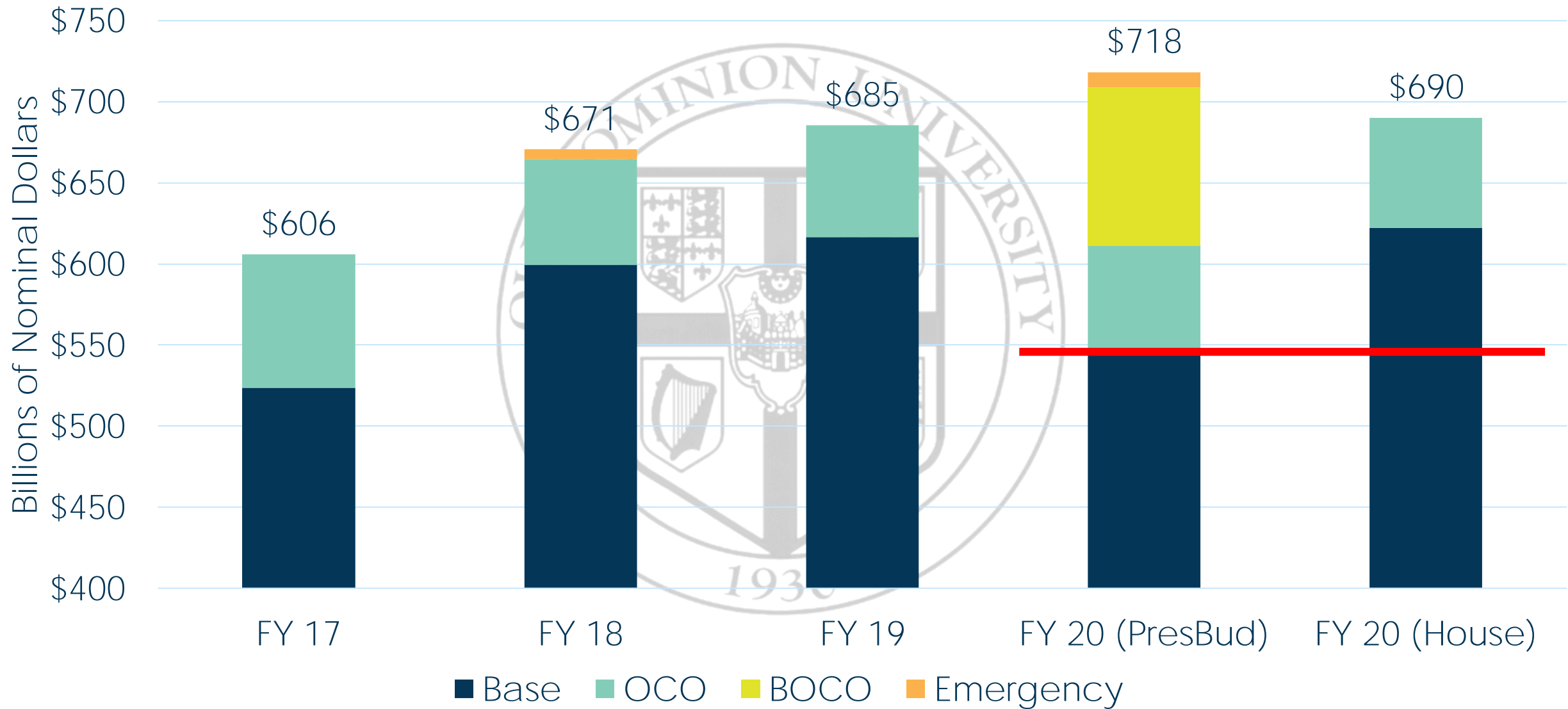
Source: Congressional Budget Office (2018), Budget and Economic Output: 2018 to 2029 and Dragas Center for Economic Analysis and Policy. Federal deficits in nominal dollars. The alternative fiscal scenario assumes that appropriations are not constrained by the Budget Control Act of 2011, and many provisions of the 2017 tax law become permanent.

Net Interest Expenditures on Federal Debt United States, FY 2017 – FY 2029

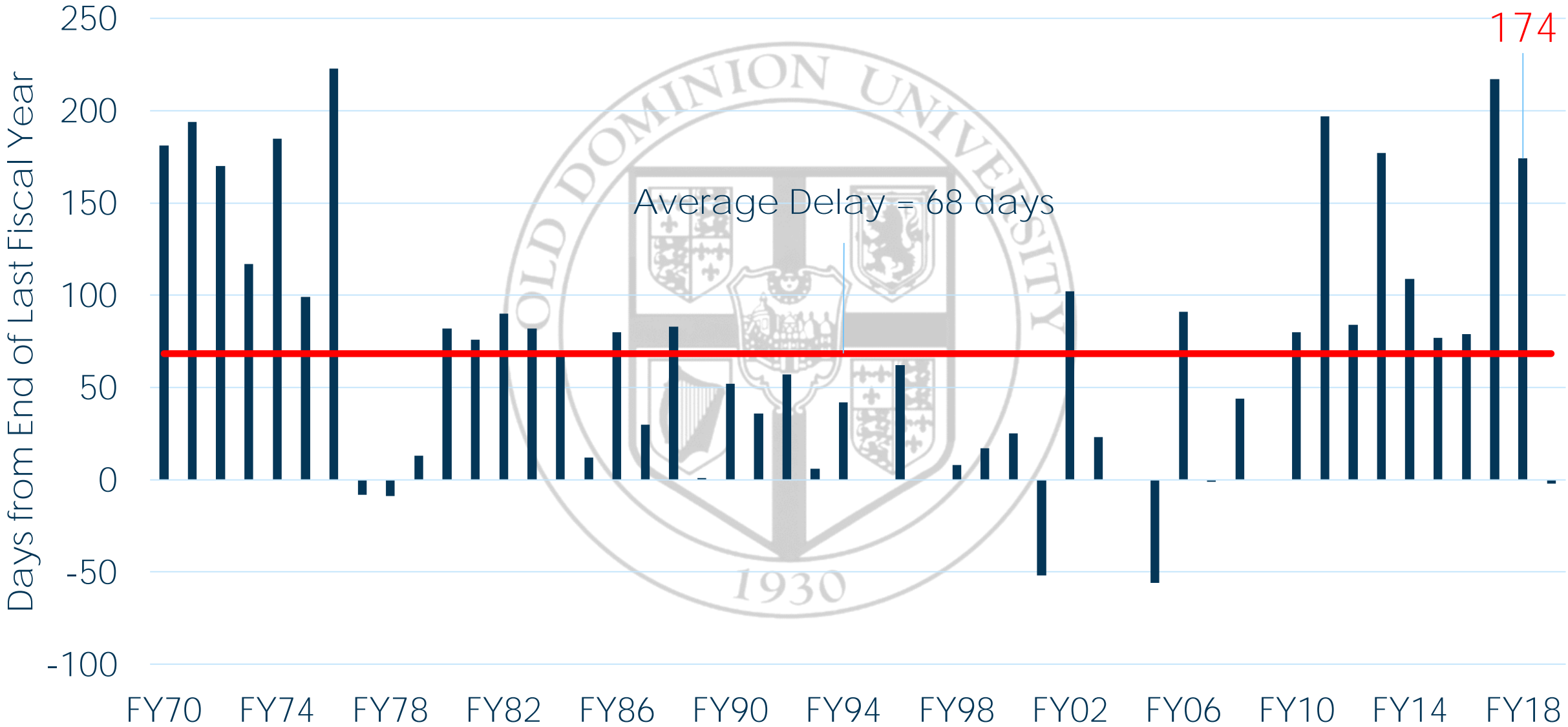


Source: Congressional Budget Office (2018), Budget and Economic Output: 2018 to 2029 and Dragas Center for Economic Analysis and Policy. Federal deficits in nominal dollars. The alternative fiscal scenario assumes that appropriations are not constrained by the Budget Control Act of 2011, and many provisions of the 2017 tax law become permanent.

Department of Defense Appropriations FY 17 – FY 20



Delays in Department of Defense Appropriations FY 1970 – FY 2019



Sources: Center for Strategic and International Studies, Todd Harrison, and Dragas Center for Economic Analysis and Policy. FY 19 appropriations passed prior to start of FY 19.

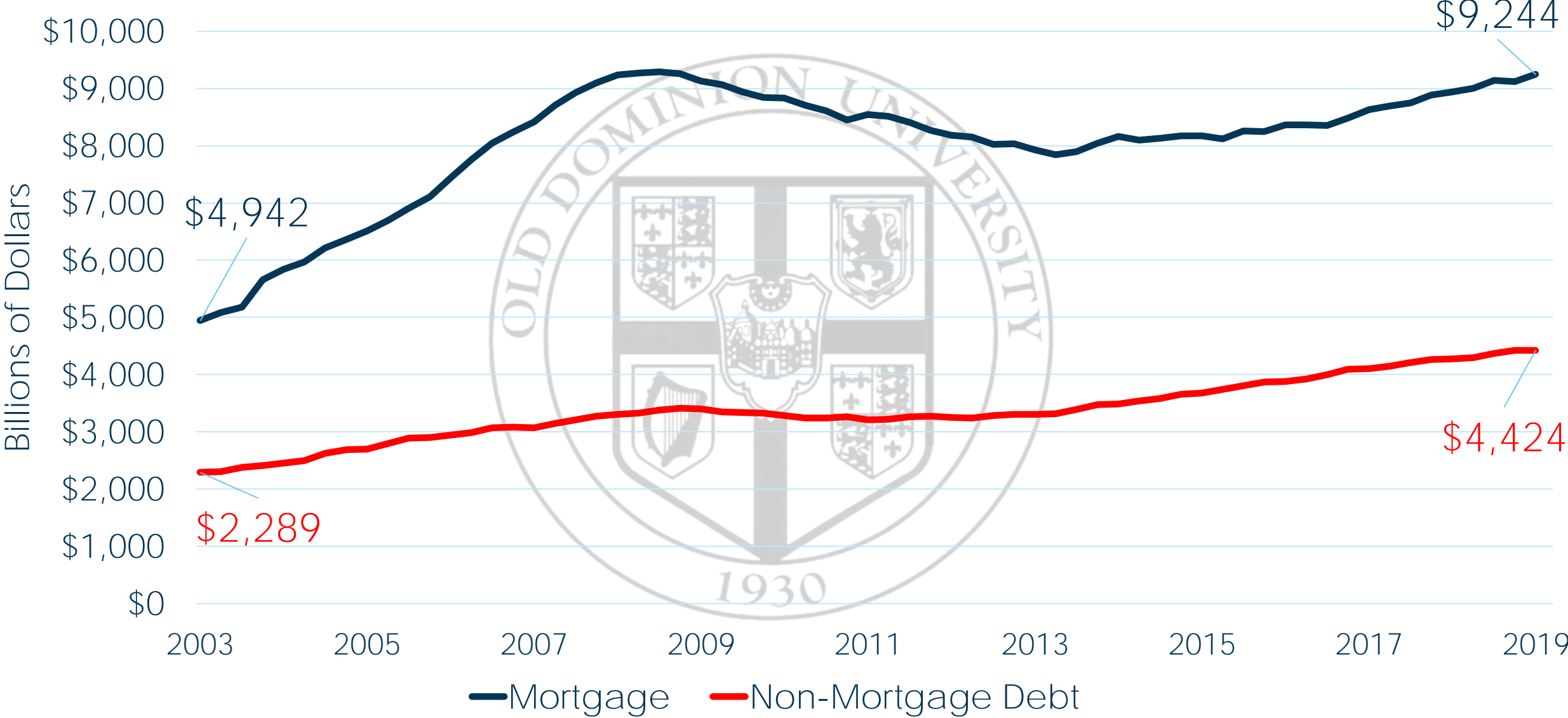
2018-2019: The Bad

- There are several upcoming fiscal speedbumps in 2019
 - Debt Ceiling (Spring-Summer)
 - National Flood Insurance Program (May 31)
 - Discretionary Spending Caps (October 1)
 - Paid Family Leave Credit Expires (December 31)
 - Affordable Care Act Taxes are Reinstated (December 31)
- The defense environment is quickly evolving
 - Sea-level rise will threaten DoD infrastructure in Virginia
 - Anti-access/area-denial strategies are eroding the carrier advantage
 - Asymmetry in costs poses a fiscal and military challenge to the U.S.
 - **Future wars will be “hot, urban, and complex”**
 - **“Cheaper, Better, Faster, Now” versus current model of “Best in Class”**



The Ugly

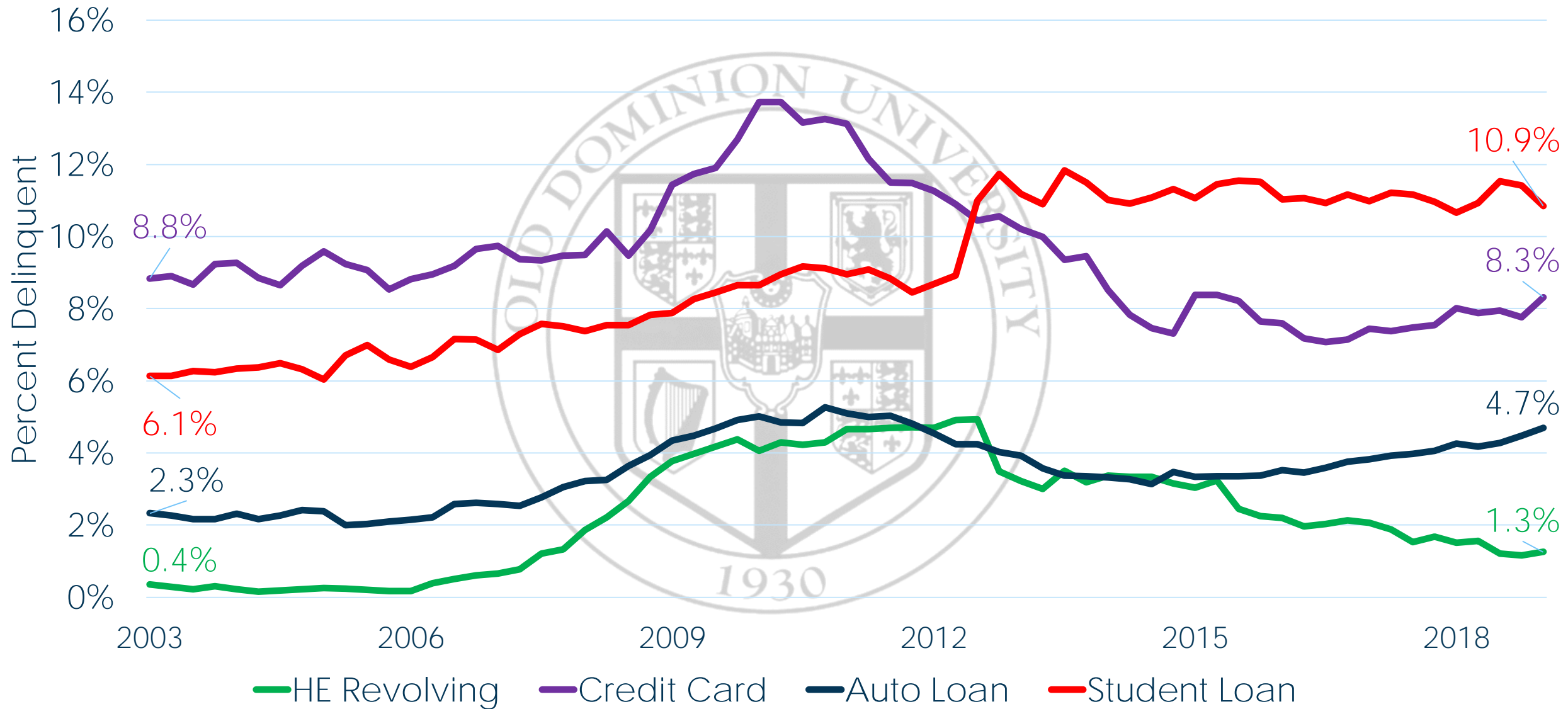
Household Debt in Billions of Dollars 2nd Quarter 2003 – 1st Quarter 2019



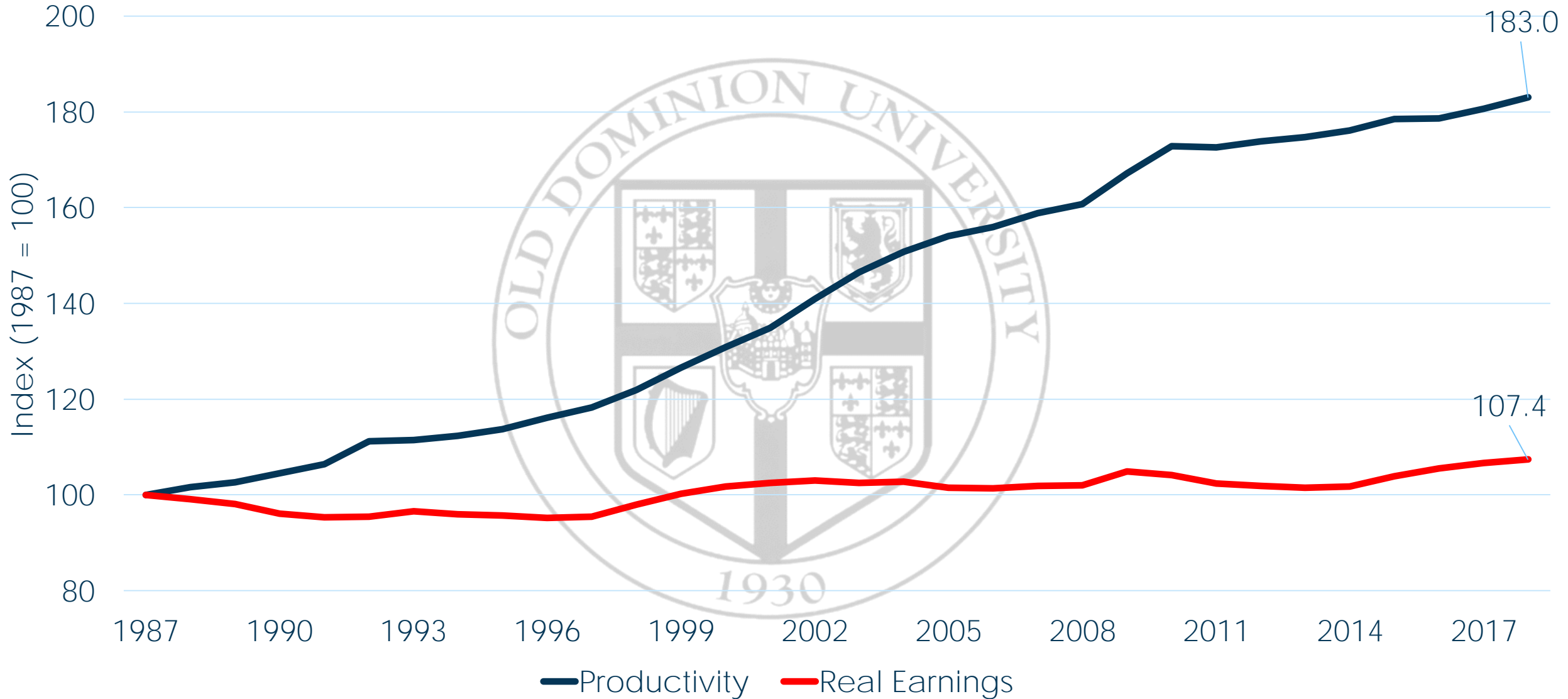
Sources: Center for Microeconomic Data, Federal Reserve Bank of New York and Dragas Center for Economic Analysis and Policy. Total estimated household debt was \$13.67 trillion for 1st quarter 2019.

Percent of Balances 90-Plus Days Delinquent by Loan Type

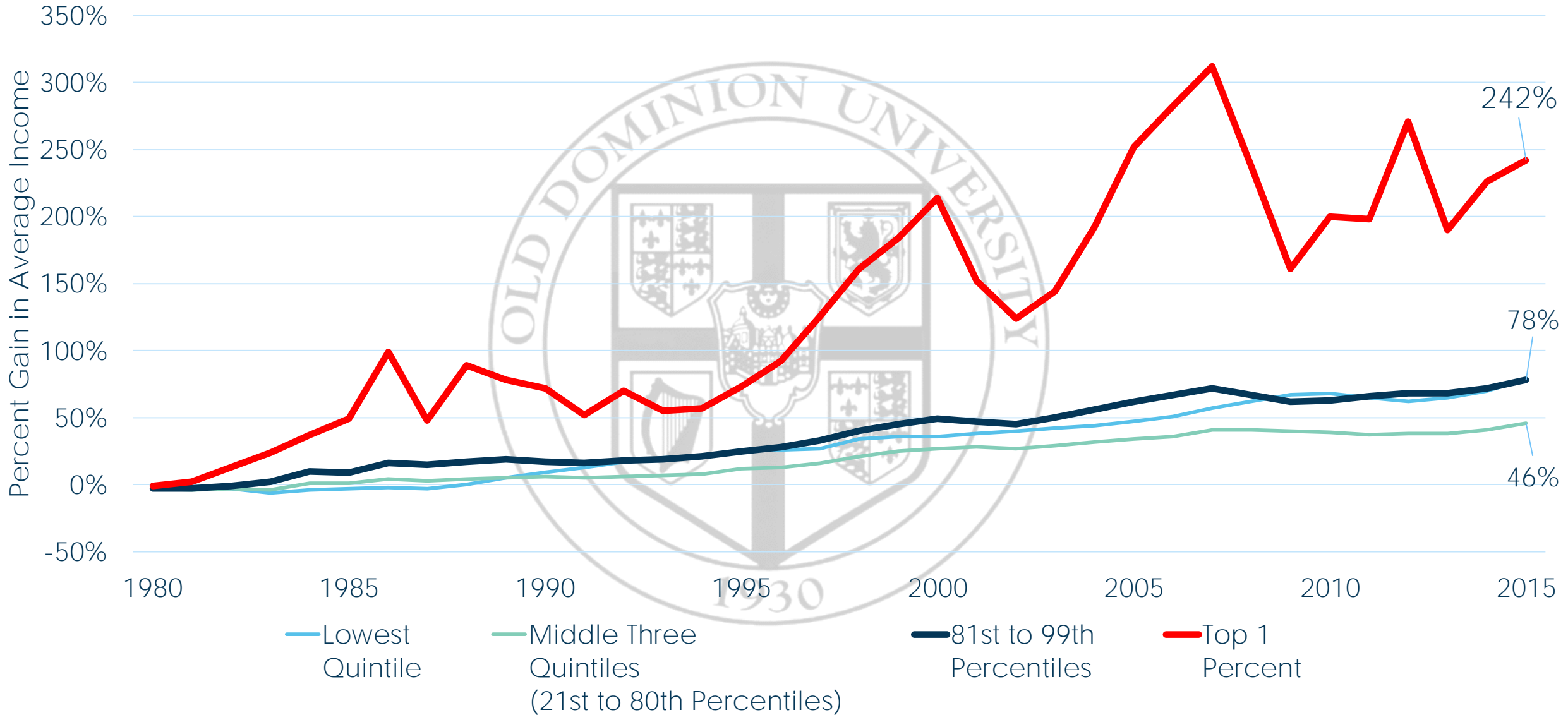
2nd Quarter 2003 – 1st Quarter 2019



Non-Farm Labor Productivity and Median Real Weekly Earnings United States, 1987-2018



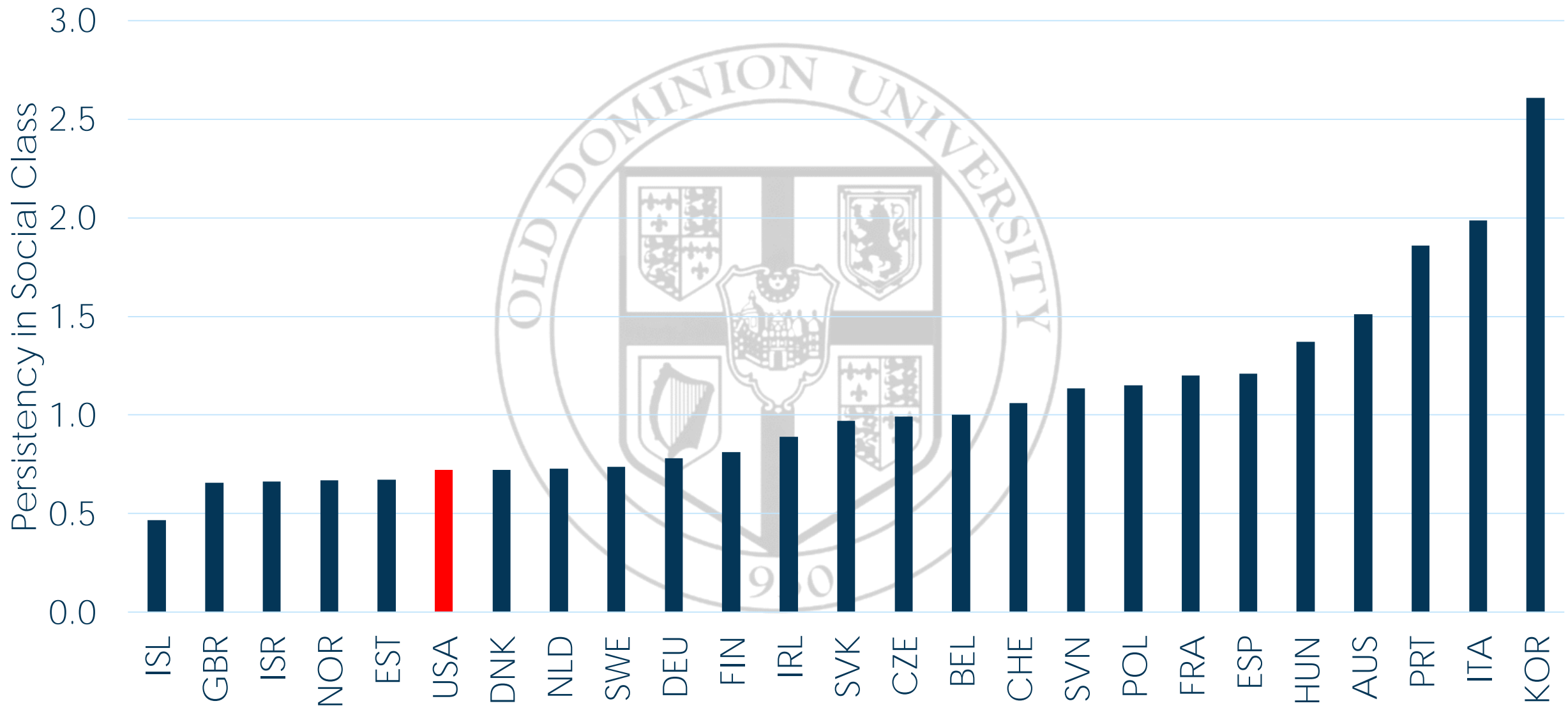
Cumulative Growth in Average Income After Transfers and Taxes United States, 1979 to 2015



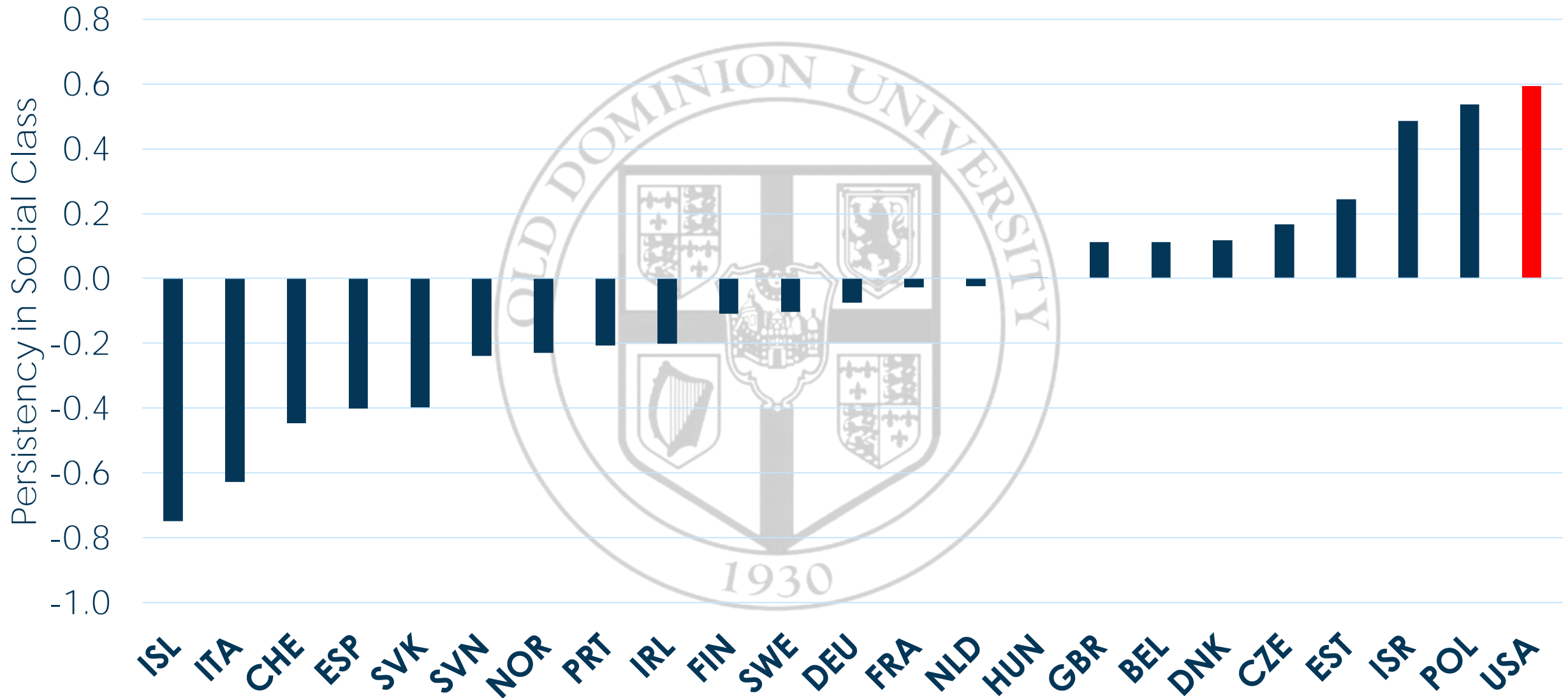
Sources: Congressional Budget Office and Dragas Center for Economic Analysis and Policy. Private non-farm labor productivity. Median usual weekly real earnings for wage and salary workers 16 years and older.

Persistence in Social Class

Organization for Economic Cooperation and Development



Change in Persistence in Social Class 1945-1959 Cohort vs 1960-1974 Cohort



Source: OECD (2018), A Broken Social Elevator? How to Promote Social Mobility. The data represent the relative strength of association between parents and children for 7 social classes, standardized to a value of 1 with respect to the country with the average value (Belgium). A decline in persistency implies greater social mobility, while an increase in persistency implies less social mobility.

2019-2020: The Good, Bad, and the Ugly

- We are in a **“Goldilocks' moment”** with low unemployment, low inflation, low interest rates, high consumer sentiment, and continued returns on equities and real estate.
- **Debt continues to increase** for the federal government, corporations, and households.
- **Is a trade war inevitable?** Tariffs and counter-tariffs may create enough damage to stall economic growth and spark inflation.
- **Income and wealth inequality** is increasing, and social mobility is declining. Is the middle class hollowing out?
- **A lack of fiscal, political, and social space** suggests the end of this expansion will be difficult to manage.

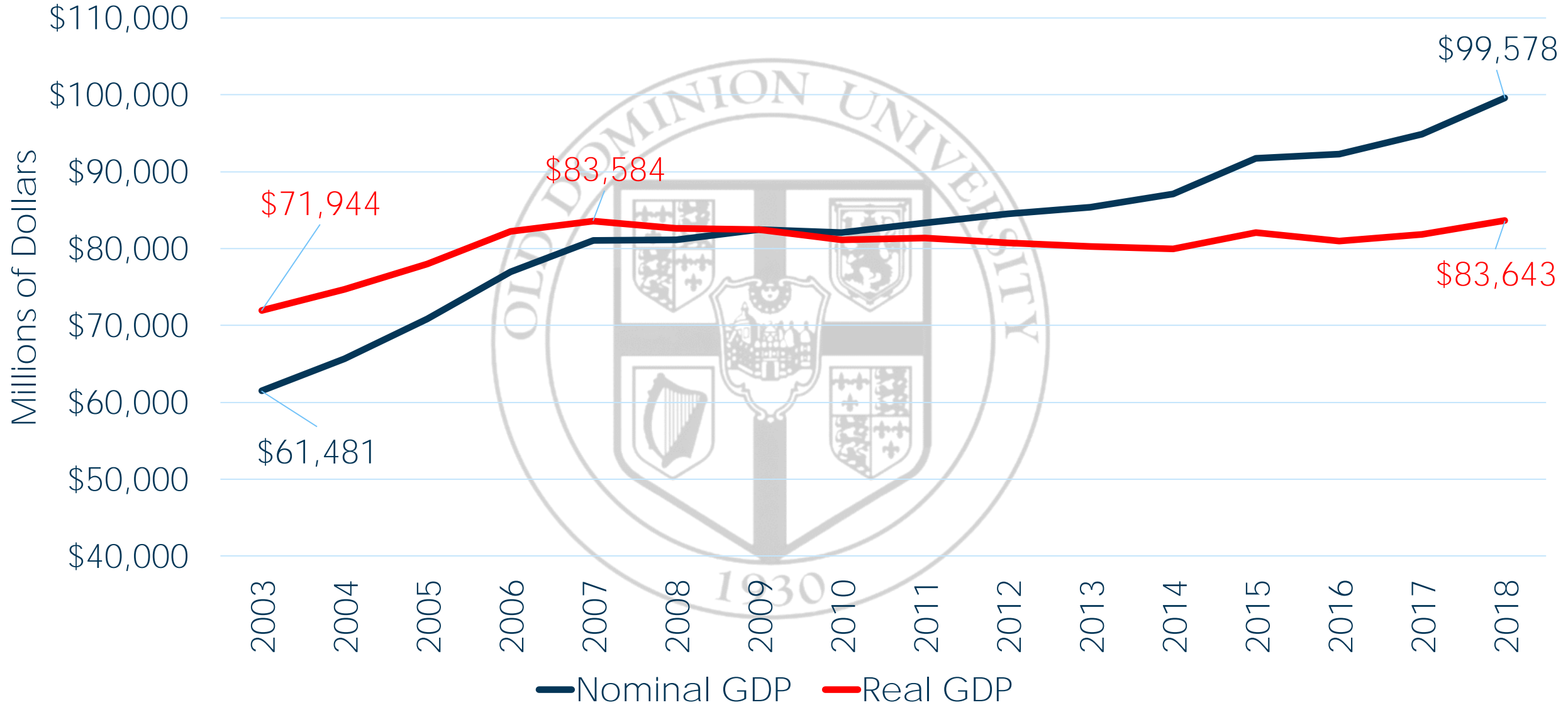
	2017 Actual	2018 Forecast (May)	2018 Actual	2019 Forecast (May)
U.S. Real Gross Domestic Product	2.3%	3.1%	3.0%	2.5%
Civilian Job Growth	1.2%	1.2%	1.6%	1.5%
Unemployment Rate	4.1%	3.6%	3.9%	3.7%
Consumer Price Index	2.2%	3.0%	2.4%	2.7%
Core Consumer Price Index	1.7%	2.3%	2.1%	2.3%
3-month Treasury Bill	1.4%	2.1%	2.4%	2.5%
10-year Treasury Bill	2.4%	3.3%	2.9%	2.9%
30-year Treasury Bill	2.8%	3.6%	3.1%	3.3%
30-year Conventional Mortgage	4.0%	5.0%	4.5%	4.6%
Federal Deficit	-\$666 Billion	-\$825 Billion	-\$779 Billion	-\$900 Billion
Virginia Real GDP	2.0%	2.7%	2.8%	2.7%
Virginia Employment Growth	1.4%	1.5%	1.1%	1.4%

2019 Hampton Roads Midyear Economic Forecast

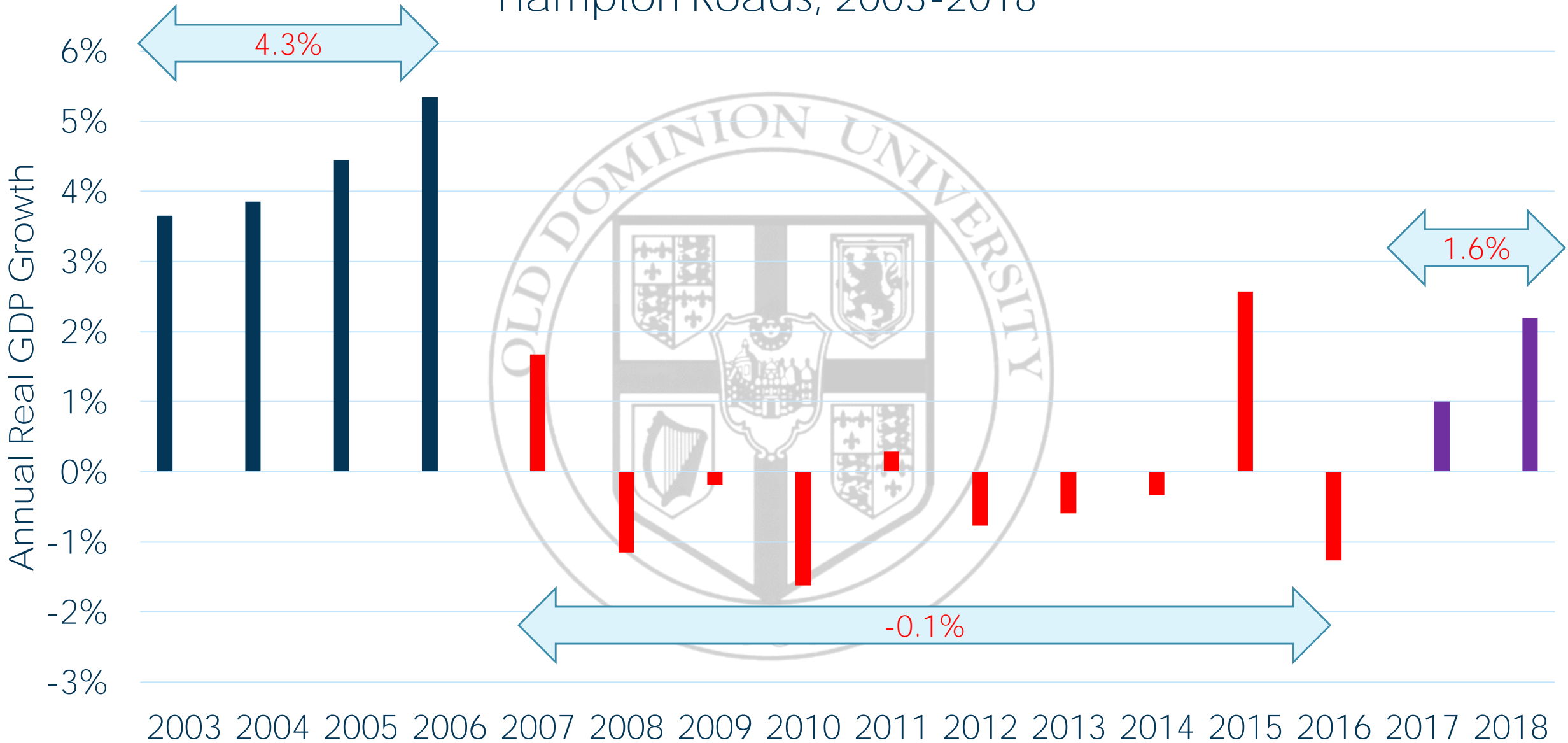
Improving prospects,
challenges remain



Nominal and Real Gross Domestic Product (GDP) Hampton Roads, 2003 – 2018*



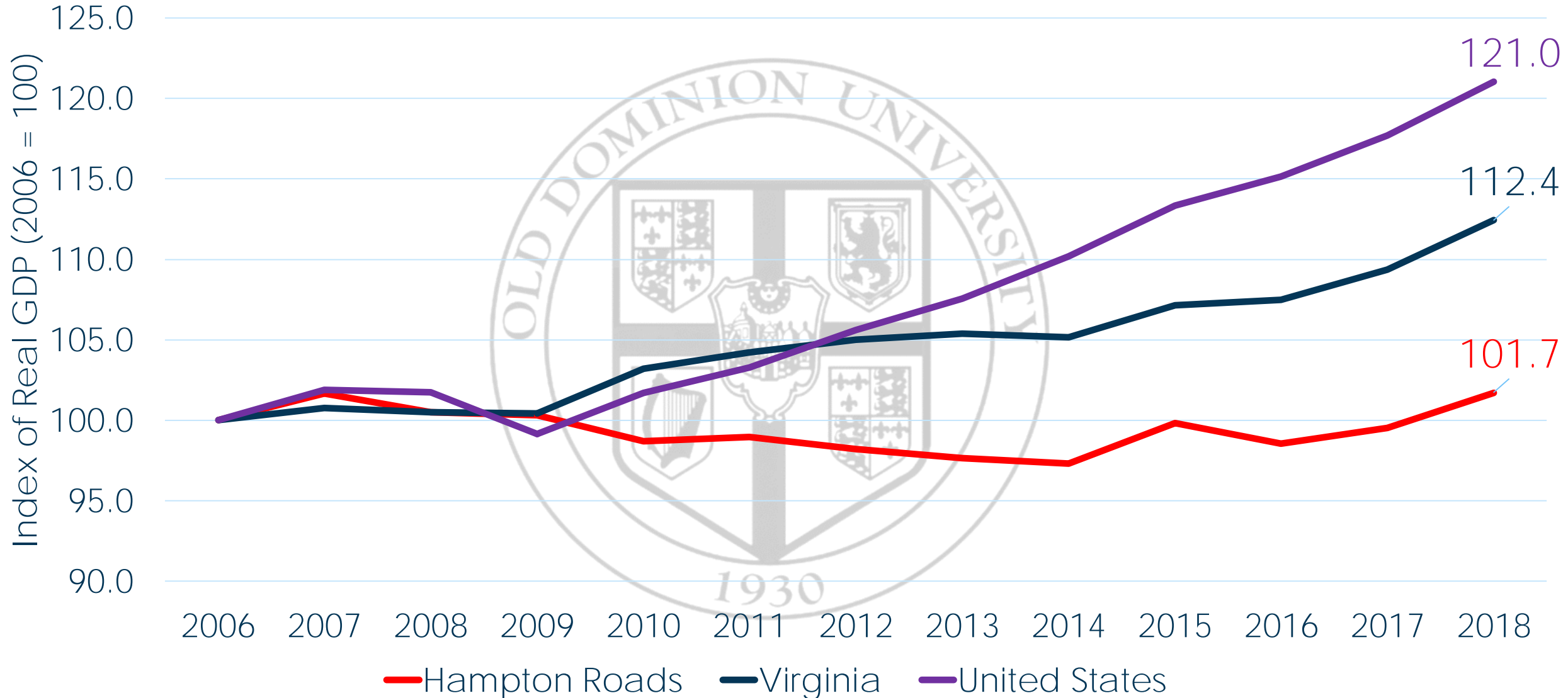
Growth in Real Gross Domestic Product Hampton Roads, 2003-2018*



Sources: Bureau of Economic Analysis and Dragas Center for Economic Analysis and Policy. Data on GDP incorporates latest BEA revisions in September 2018. Data for 2017 for Hampton Roads are the advance estimates. *Data for 2018 represent our forecast. CAGR GDP growth in horizontal bars.

Index of Real GDP, 2006 – 2018*

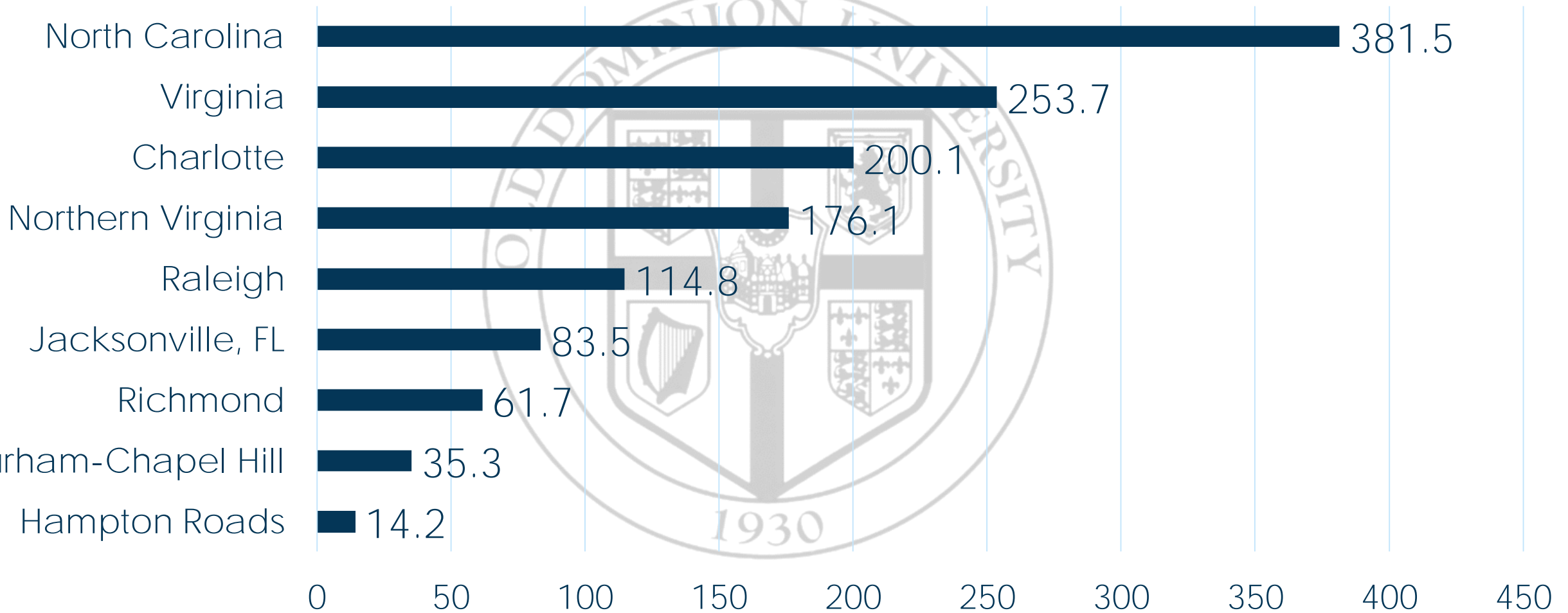
Hampton Roads, Virginia, and the United States



Net New Civilian Jobs Gained or Lost

Selected Metropolitan Areas, Virginia, and North Carolina

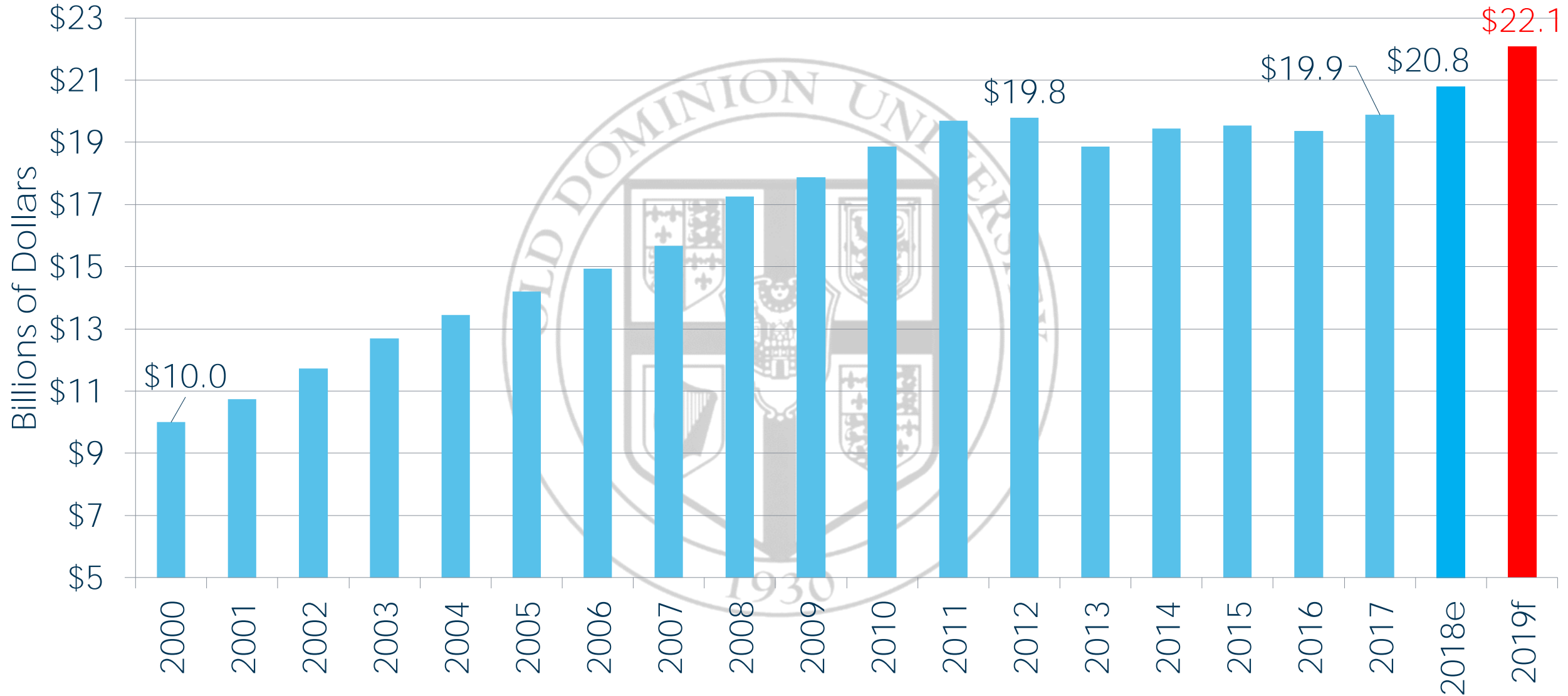
Peak Pre-Recession Employment to April 2019 (thousands)





Defense Spending in Hampton Roads

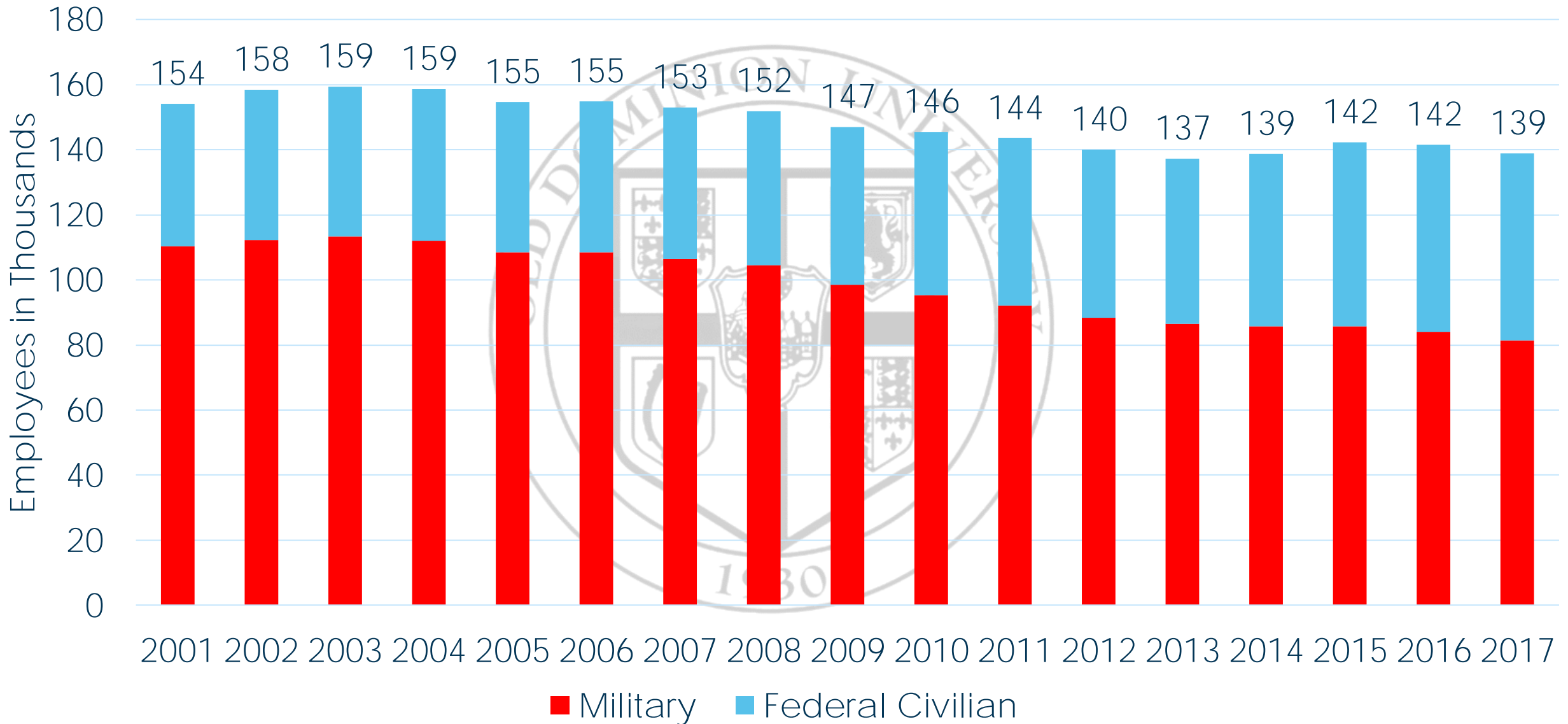
Estimated Direct Department of Defense Spending Hampton Roads, 2000 to 2019*



Sources: U.S. Department of Defense and Dragas Center for Economic Analysis and Policy. Includes Federal Civilian and Military Personnel and Procurement.

*Data for 2018 are estimates while 2019 is our forecast.

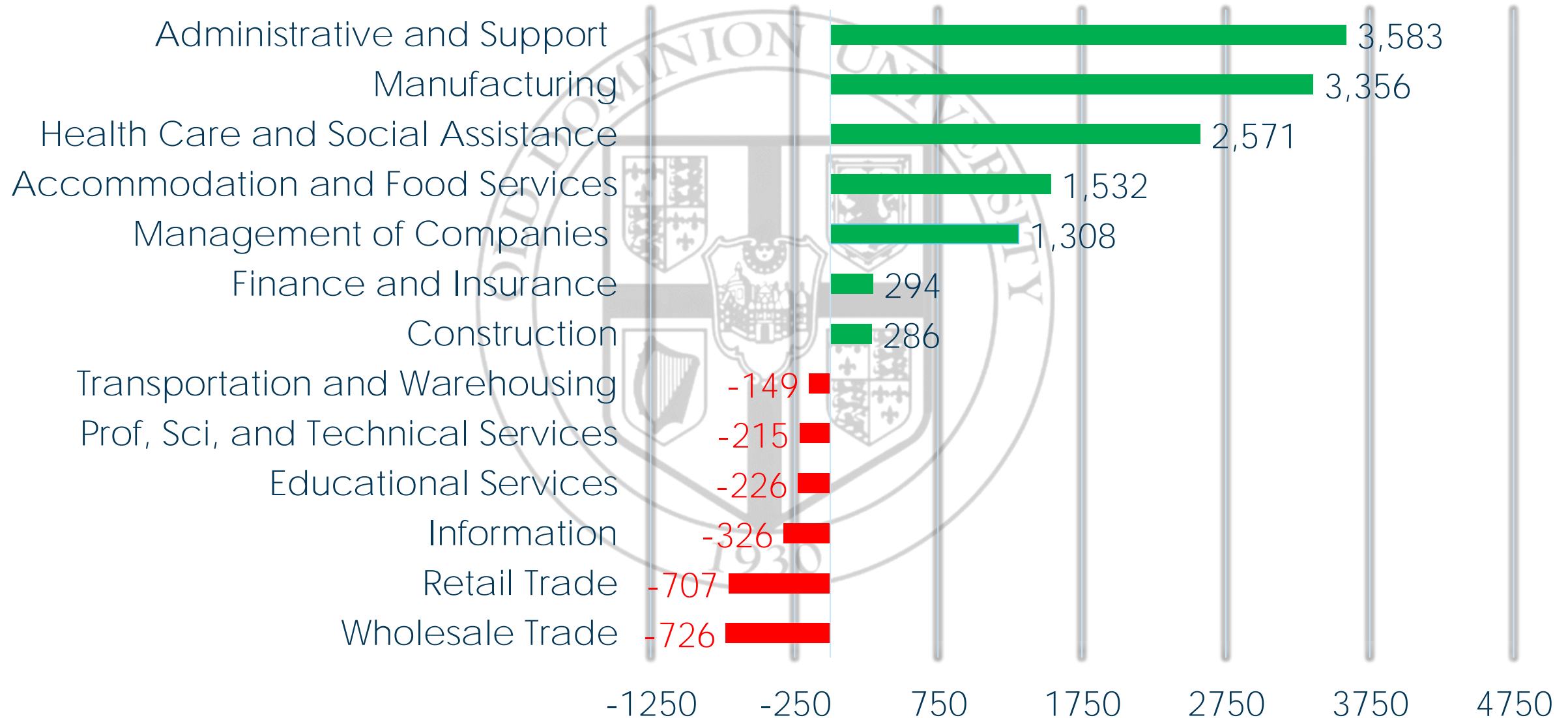
Military and Federal Civilian Employment Hampton Roads, 2001 - 2017



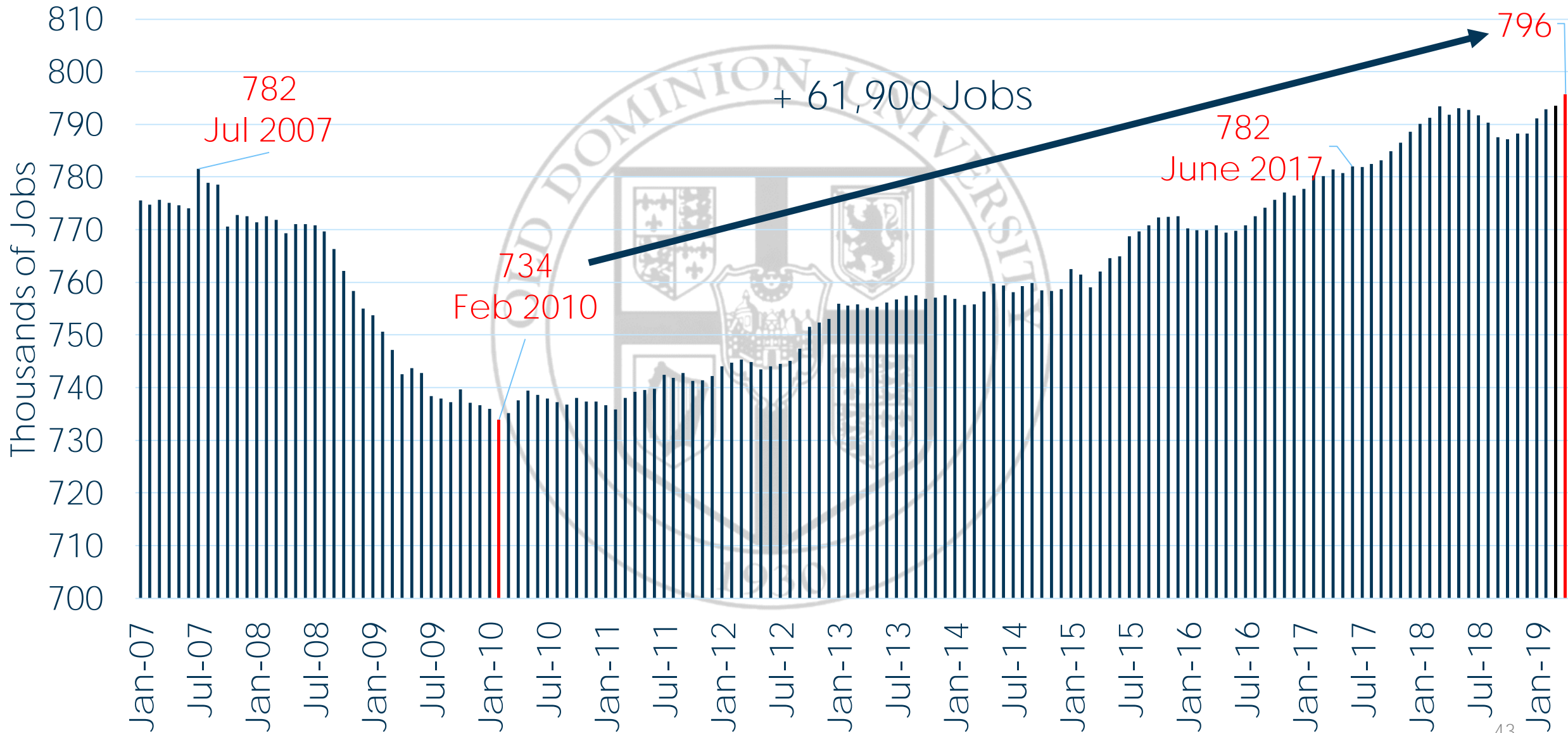


More Jobs and
Employment
(Steadily Growing)

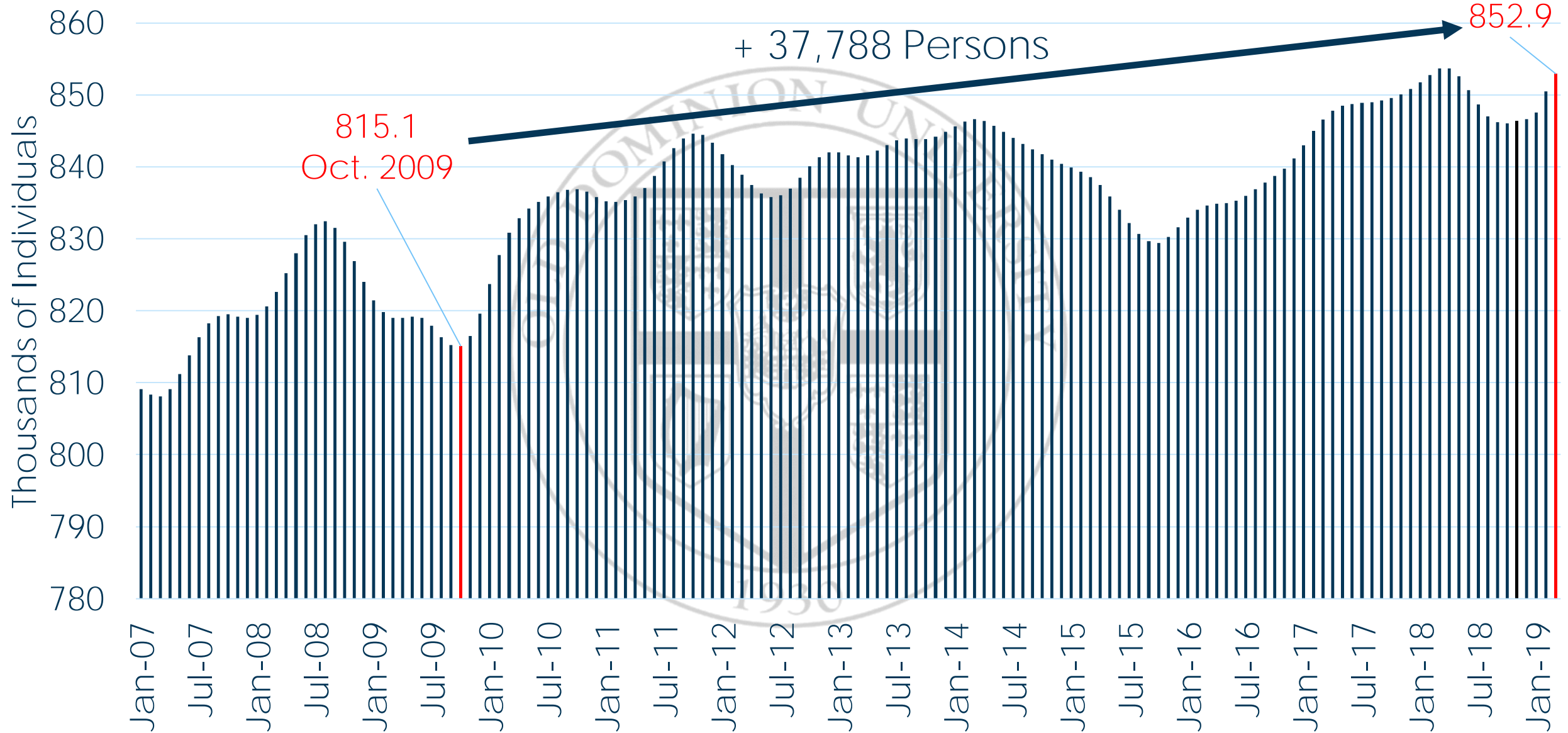
Change in Employment: Selected Industries in Hampton Roads, 2017 Q1 to 2018 Q1



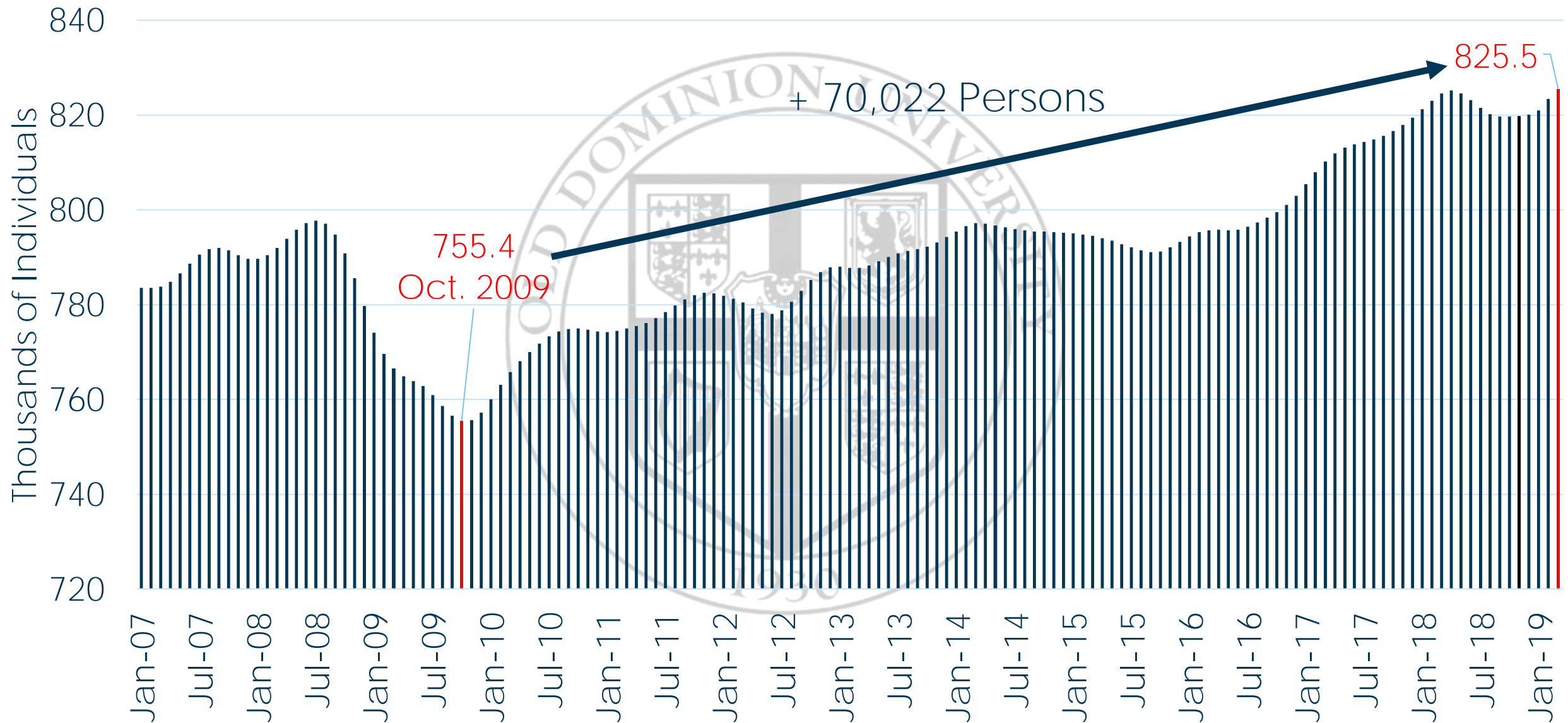
Total Nonfarm Employment (Jobs) Hampton Roads, January 2007 – April 2019



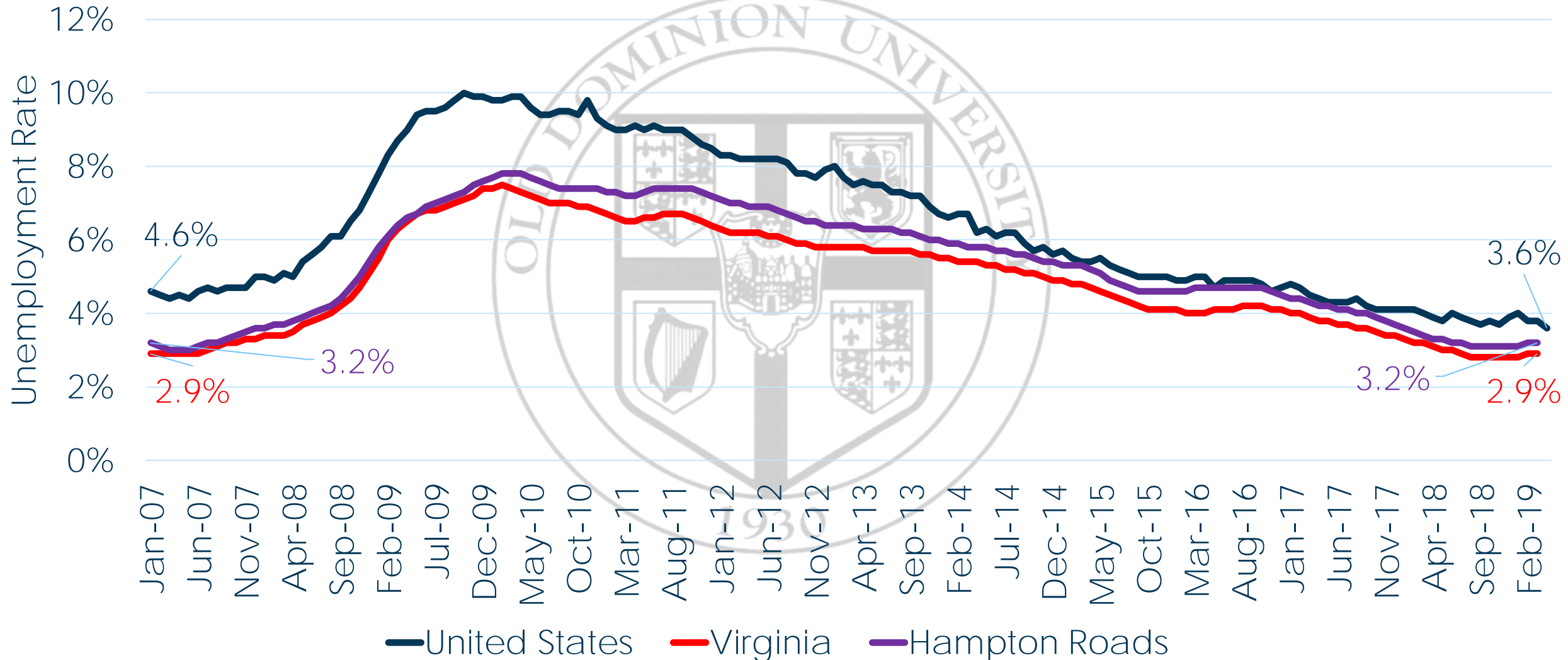
Civilian Labor Force Hampton Roads, January 2007 – March 2019



Employment of Individuals Hampton Roads, January 2007 – March 2019



Headline Unemployment Rate (U3) United States, Virginia, and Hampton Roads January 2007 – March 2019



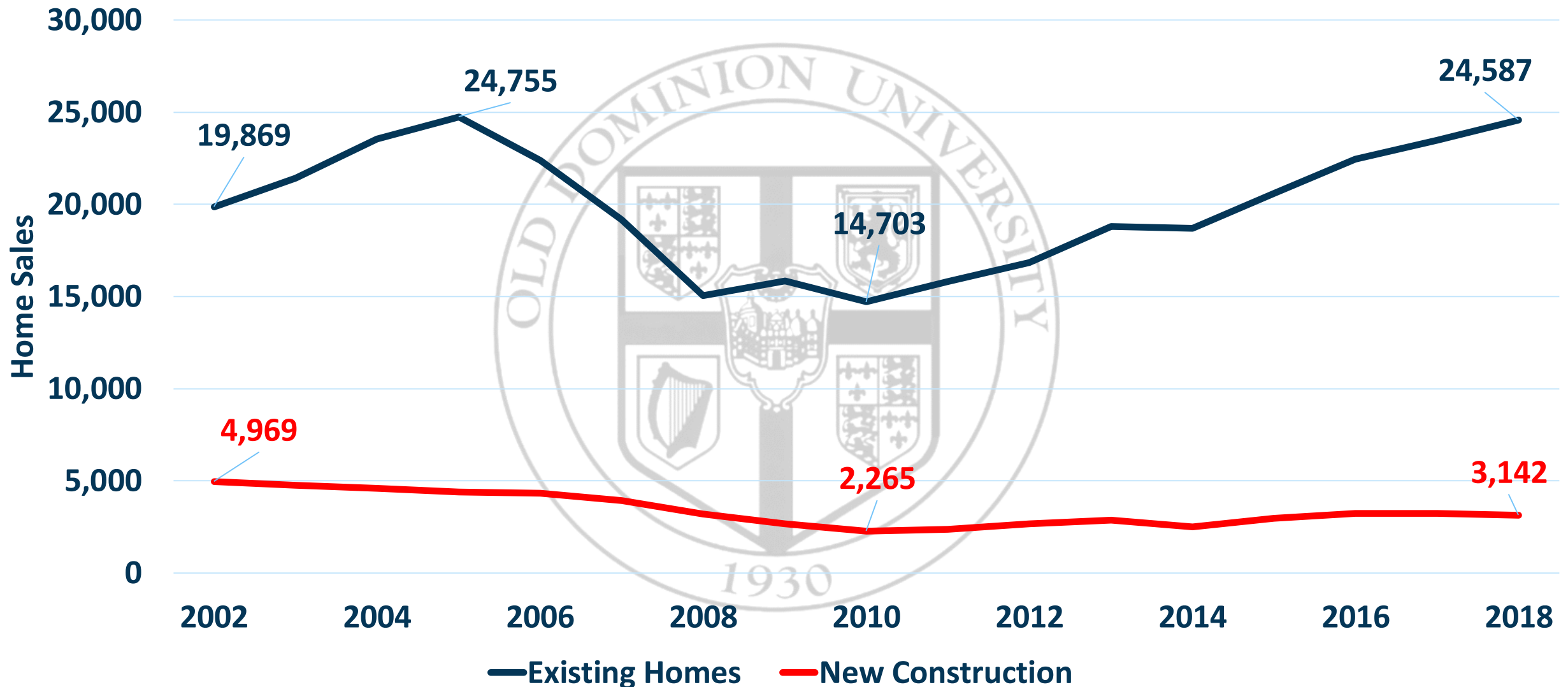
Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. Seasonally adjusted unemployment rates. Virginia and Hampton Roads data are through March while US data are through April 2019.

- Good news: **Increases in defense spending** in FY 19 will help **raise economic growth**. Huntington Ingalls has a record \$41 billion backlog of work.
- An immediate challenge: Finding the **right labor at the right time** for employers.
- The opportunity: **Improving collaborative efforts among cities** to retain/attract businesses.
- Position Hampton Roads **now** to win in the coming **BRAC** round.



Residential Housing is Moving On Up

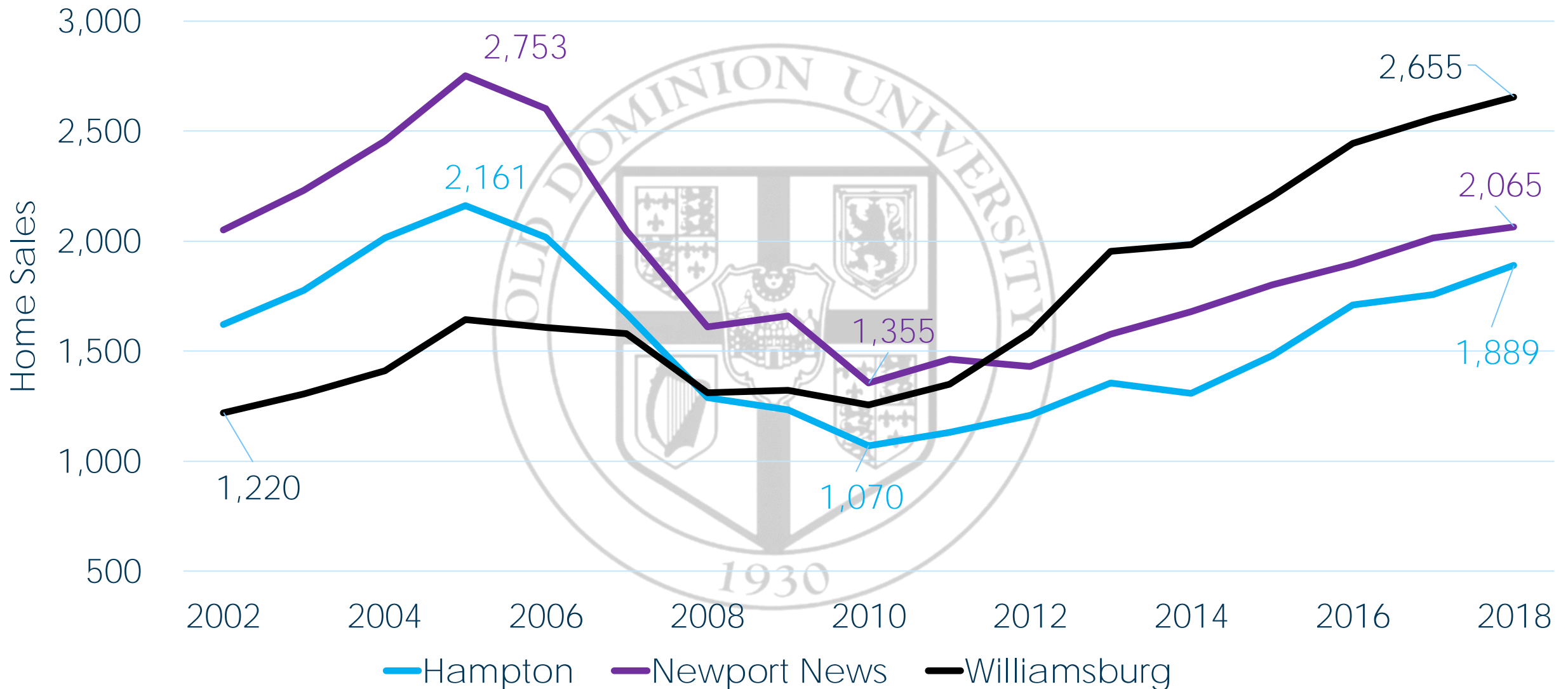
Existing and New Construction Home Sales Hampton Roads, 2002-2018



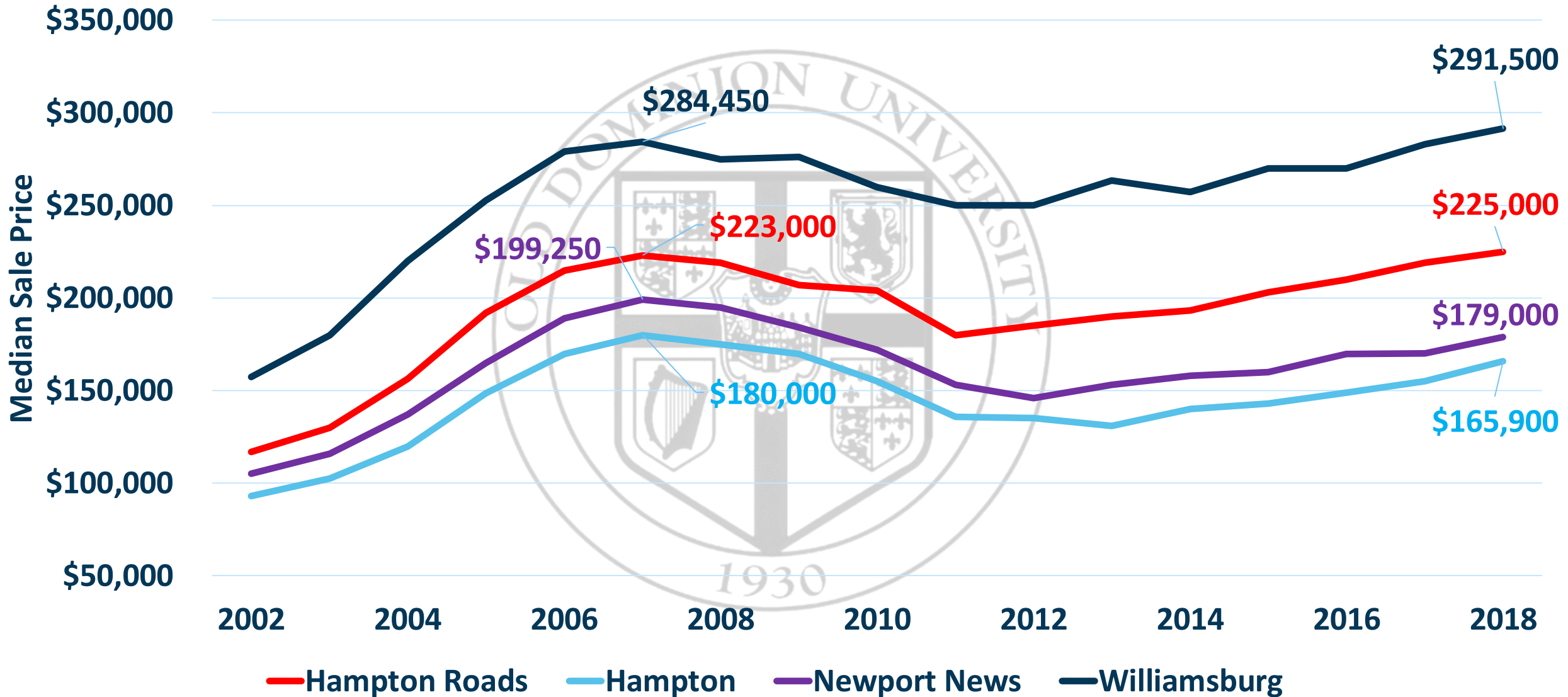
Existing and New Construction Homes Sold Selected Cities in Hampton Roads, 2018

<u>City</u>	Total Homes Sold	Existing Homes Sold	New Construction Homes Sold	Percent New Construction
Hampton	2,008	1,889	119	5.9%
Newport News	2,154	2,065	89	4.1%
Williamsburg*	3,066	2,655	411	13.4%
Chesapeake	4,564	3,590	974	21.3%
Norfolk	3,237	2,959	278	8.6%
Portsmouth	1,748	1,614	134	7.7%
Suffolk	1,714	1,319	395	23.1%
Virginia Beach	7,549	7,097	452	6.0%
Hampton Roads	27,729	24,587	3,142	11.3%

Existing Home Sales in Selected Markets 2002-2018



Median Sale Price of Existing Homes Selected Markets, 2002 - 2018

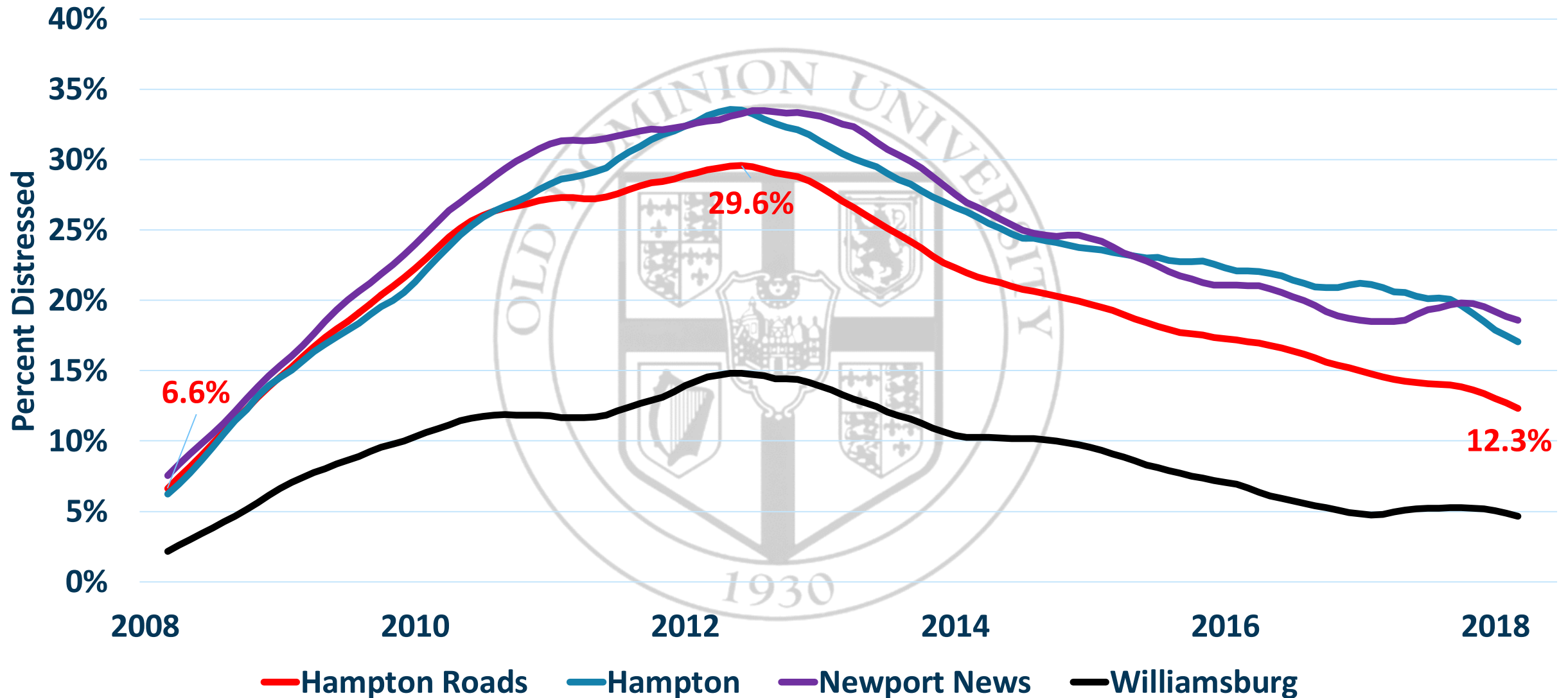


Sources: Real Estate Information Network and Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed. Figures reported here represent only those properties that are listed through REIN by REIN members and may not represent all new construction activity in our region.

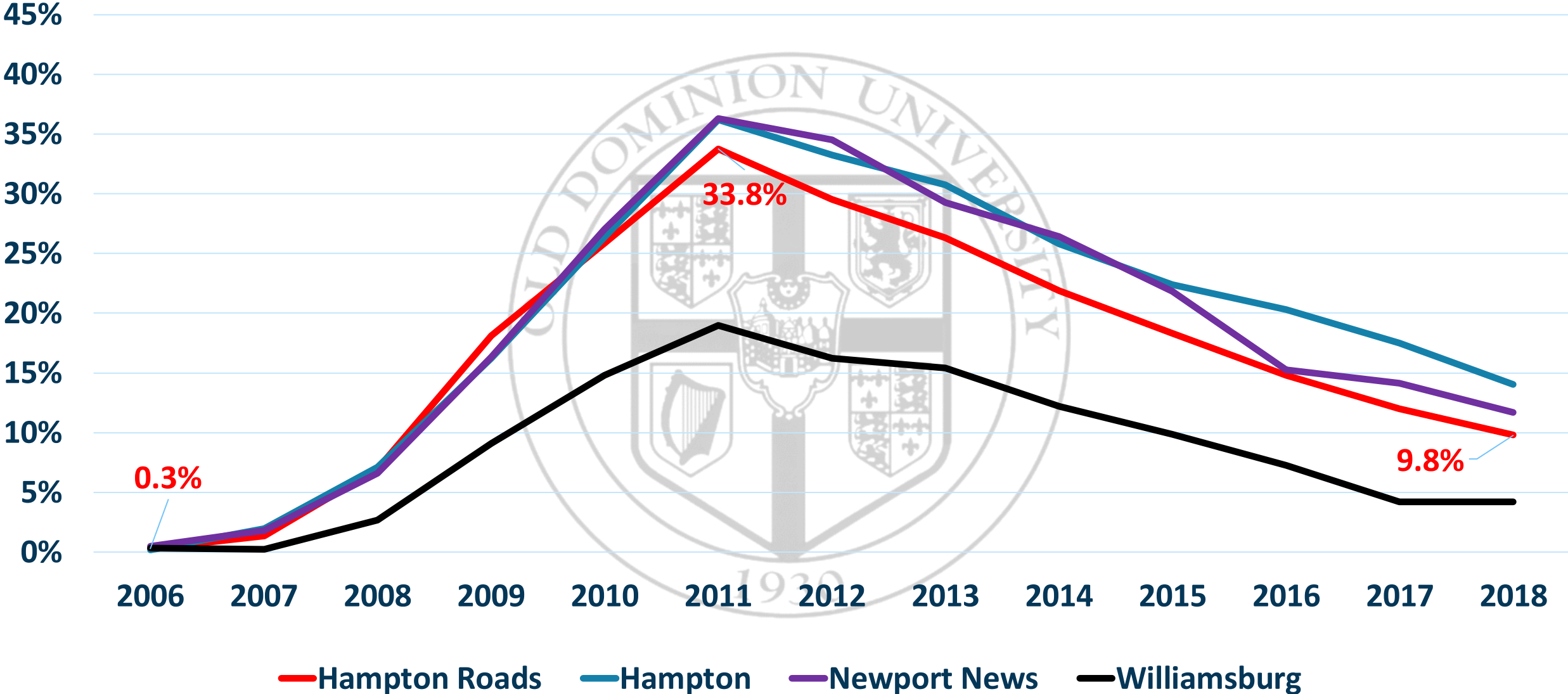
Market Performance of Existing Homes Since 2011

- Inventories, days on market, and estimated supply have declined since 2011.
- Number of existing homes sold has steadily increased over time.
- Mortgage rates continue to be at historically low levels.
- The median price of homes has not increased significantly this decade.
- Probable explanation lies in distressed market— short sales and bank-owned homes (REOs).

Distressed Listings as a Percentage of Active Listings of Existing Homes December 2008 - December 2018

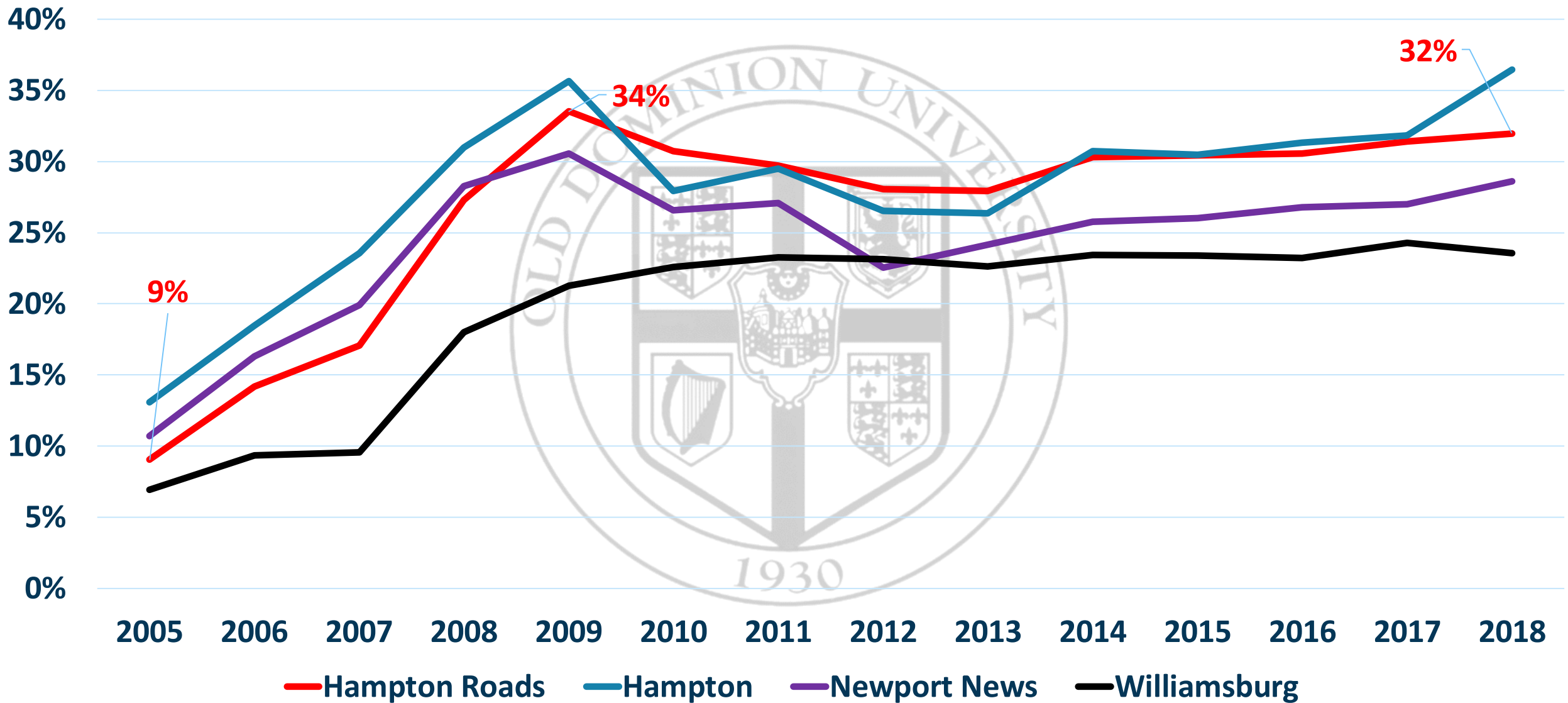


Annual Average Distressed Sales Percentage of Existing Homes Sold, 2006 - 2018



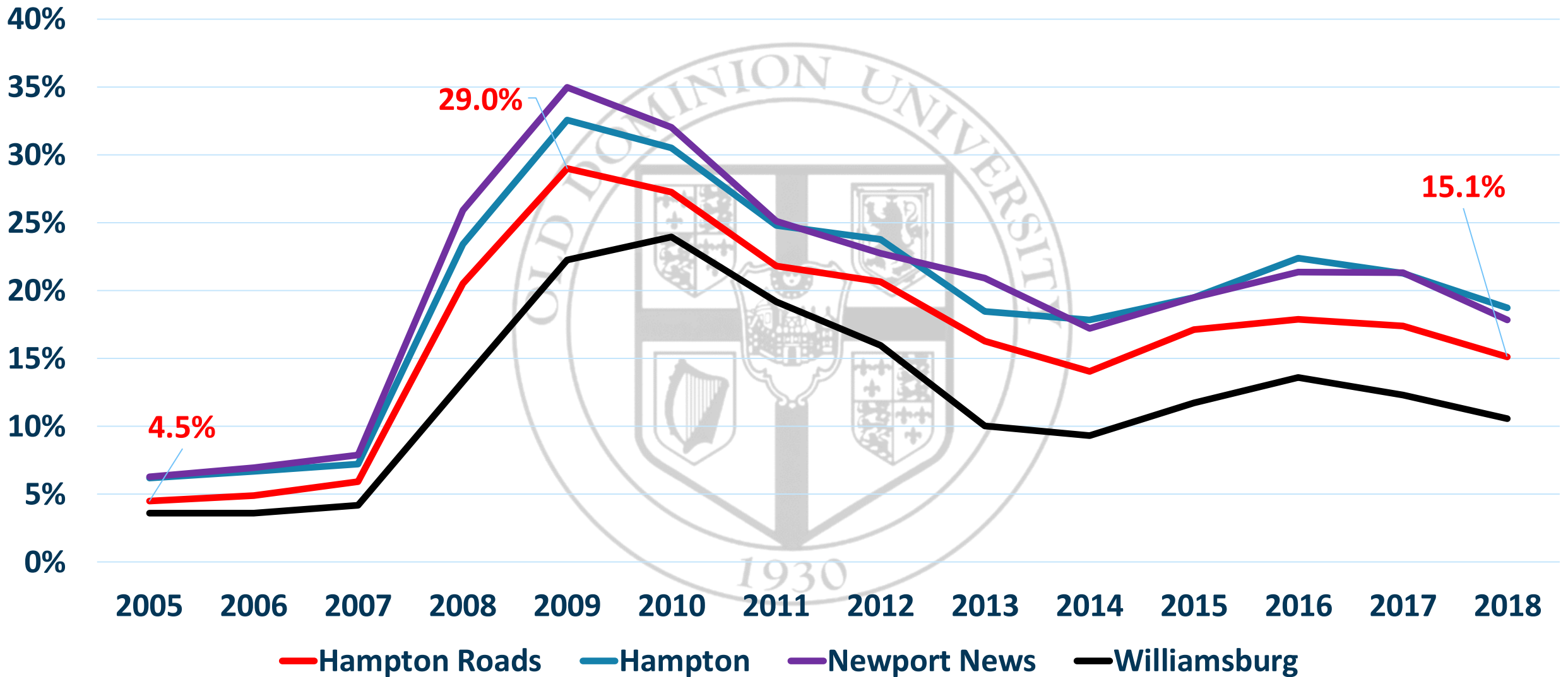
Sources: Real Estate Information Network and Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed. Figures reported here represent only those properties that are listed through REIN by REIN members and may not represent all new construction activity in our region.

Homes Financed by VA Loans as a Percentage of Existing Homes Sold 2005-2018



Sources: Real Estate Information Network and Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed. Figures reported here represent only those properties that are listed through REIN by REIN members and may not represent all new construction activity in our region.

Homes Financed by FHA Loans as a Percentage of Existing Homes Sold 2005-2018

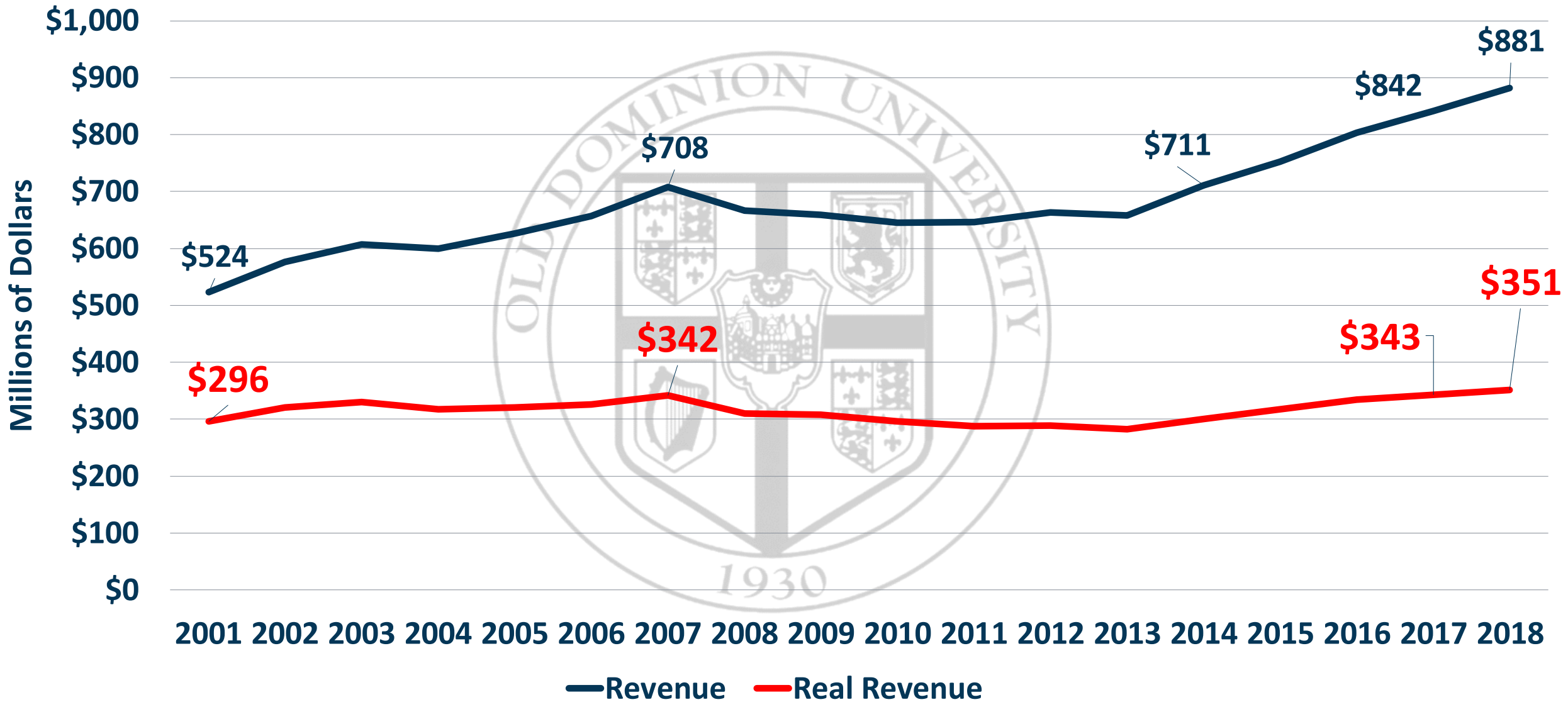


Sources: Real Estate Information Network and Old Dominion University Economic Forecasting Project. Information deemed reliable but not guaranteed. Figures reported here represent only those properties that are listed through REIN by REIN members and may not represent all new construction activity in our region.

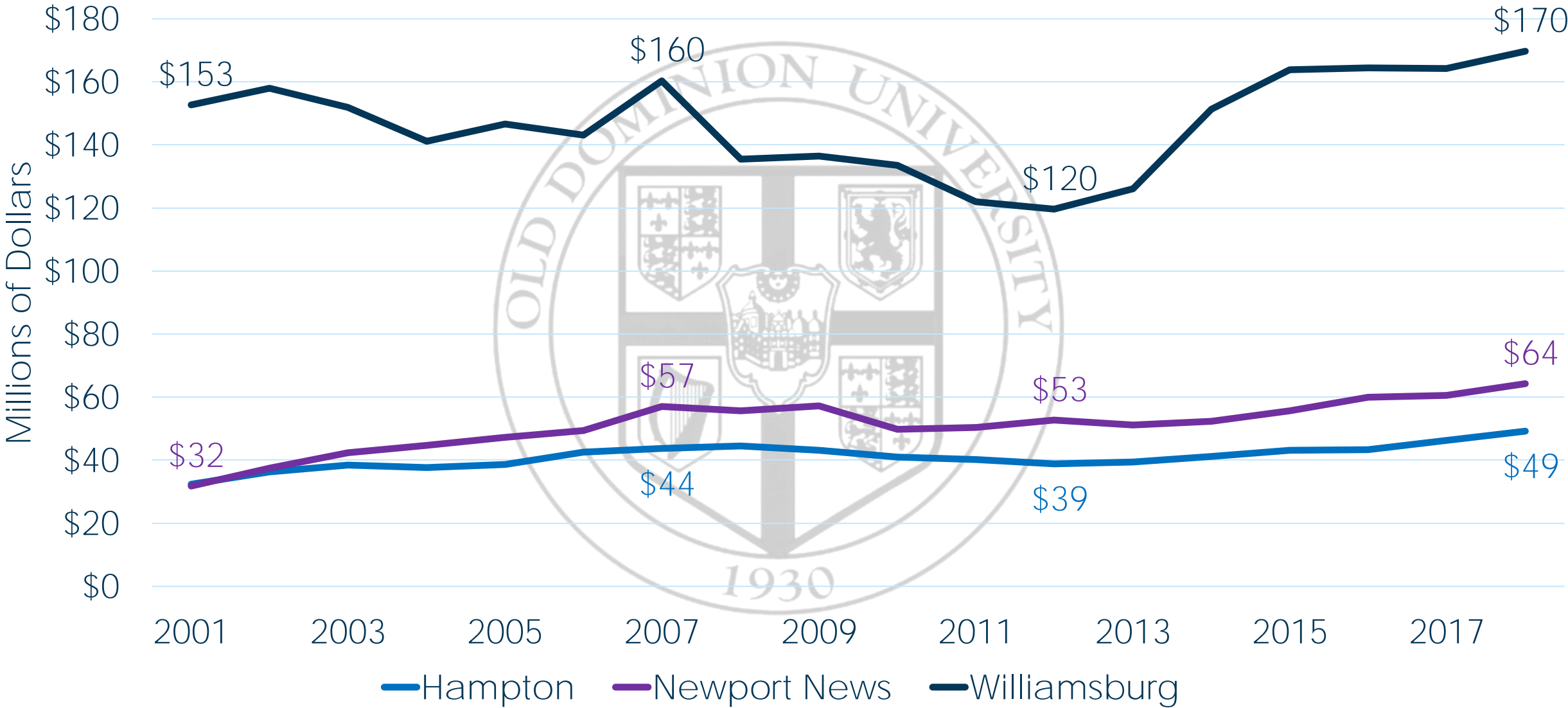


Hotel Industry

Nominal and Real (Inflation-Adjusted) Hotel Revenue Hampton Roads, 2001-2018



Nominal Hotel Revenue in Selected Markets 2001 – 2018

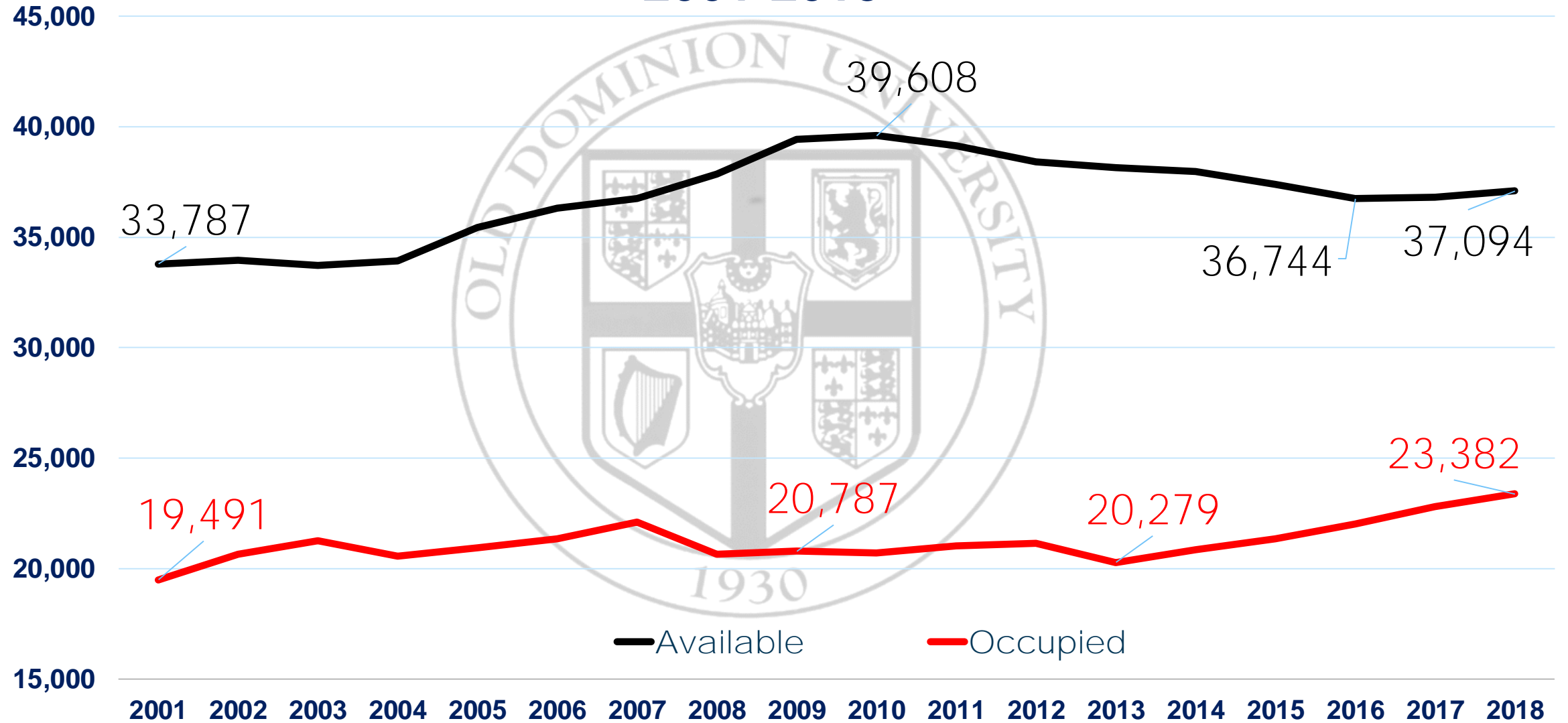


Sources: STR Trend Report January 2019 and the Dragas Center for Economic Analysis and Policy, Economic Forecasting Project.

RevPAR in Selected Markets, 2007 and 2018

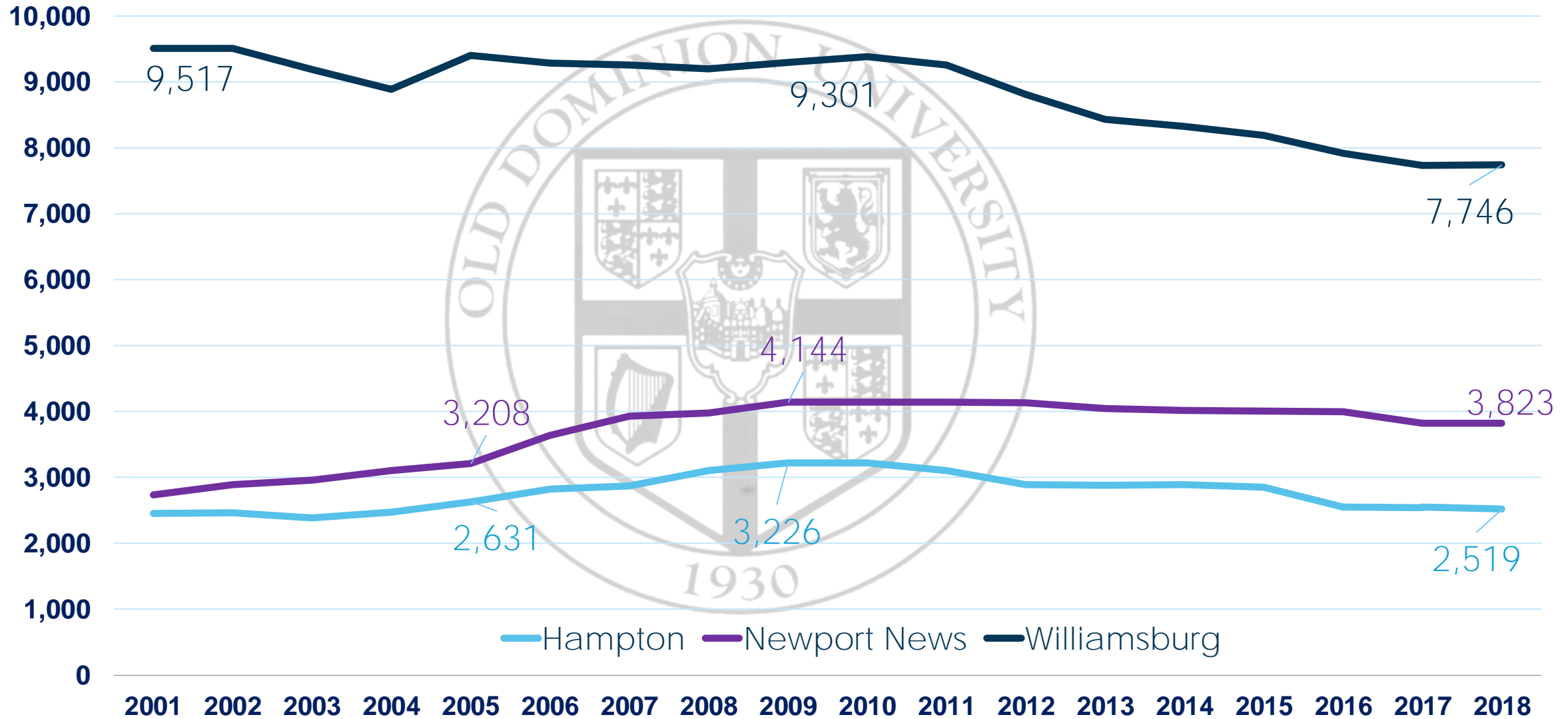
	<u>2007</u>	<u>2018</u>	<u>Percent Change</u>	<u>Real Percent Change</u>
USA	\$65.54	\$85.96	+31.2%	+8.3%
Virginia	\$61.91	\$71.24	+15.1%	-5.0%
Hampton Roads	\$52.78	\$65.03	+23.2%	+1.7%
Hampton	\$41.71	\$53.58	+28.5%	+6.1%
Newport News	\$39.69	\$46.05	+16.0%	-4.2%
Williamsburg	\$47.47	\$60.03	+26.5%	+4.4%
Chesapeake/Suffolk	\$52.90	\$56.95	+7.7%	-11.1%
Norfolk/Portsmouth	\$54.05	\$64.34	+19.0%	-1.7%
Virginia Beach	\$64.29	\$82.44	+28.2%	+5.9%

Number of Available and Occupied Hotel Rooms in Hampton Roads: 2001-2018

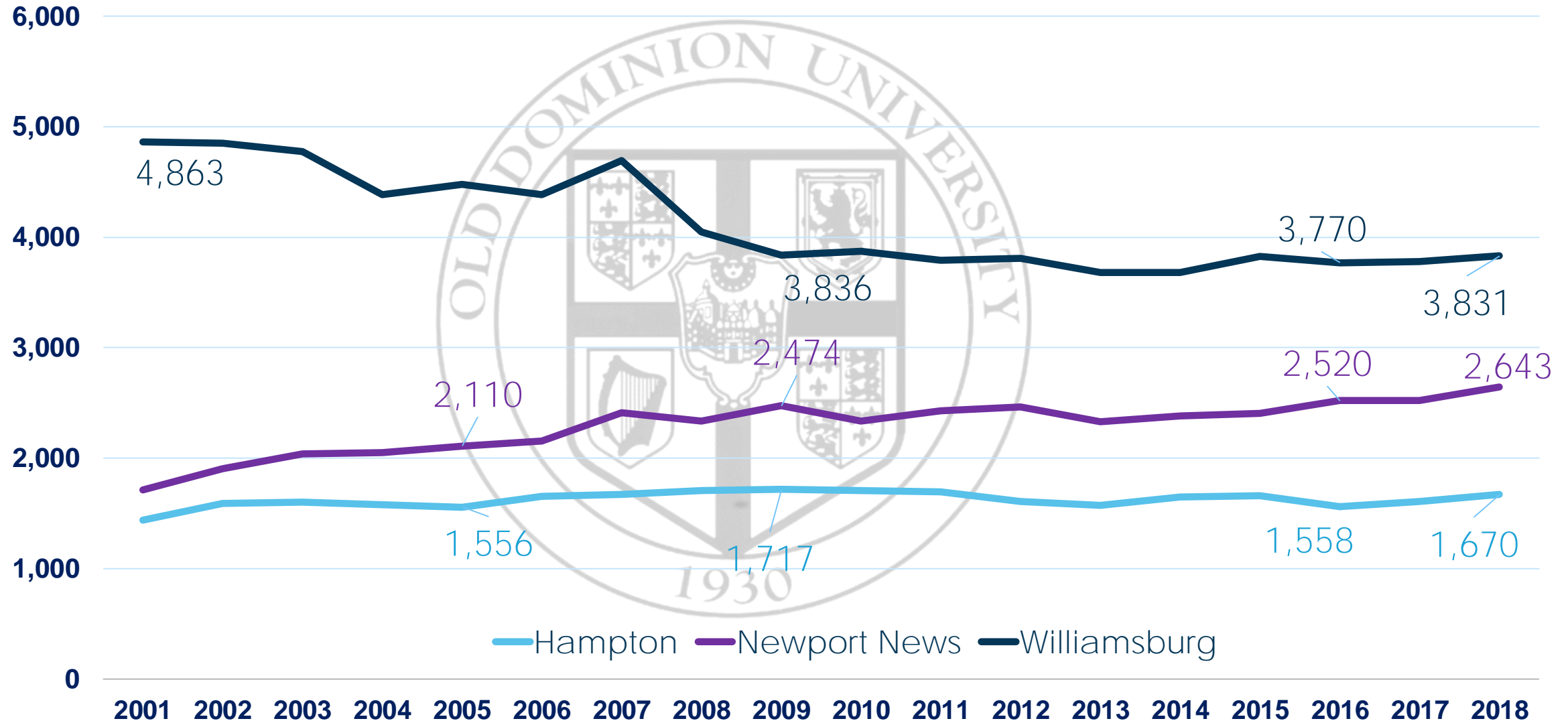


Source: STR Global and Old Dominion University Economic Forecasting Project.

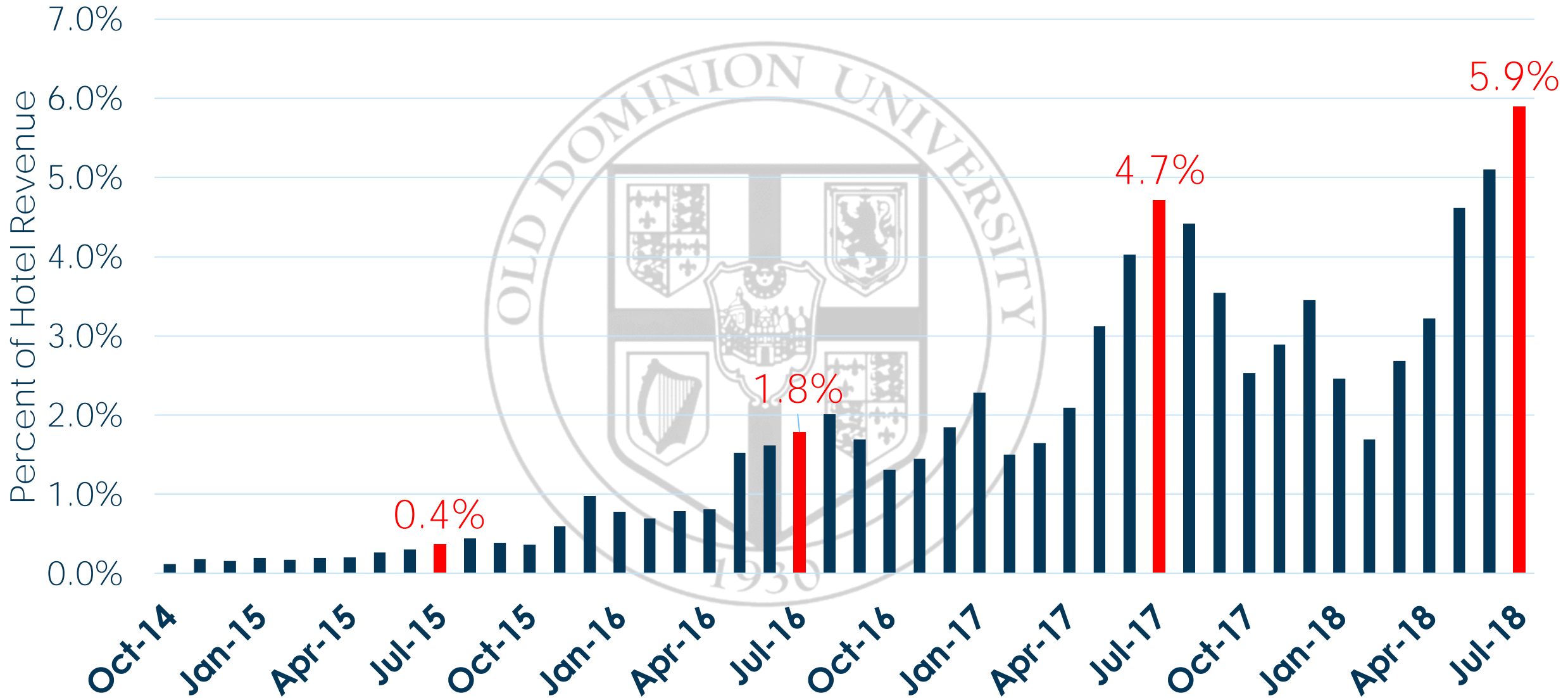
Number of Available Hotel Rooms Selected Markets: 2001-2018



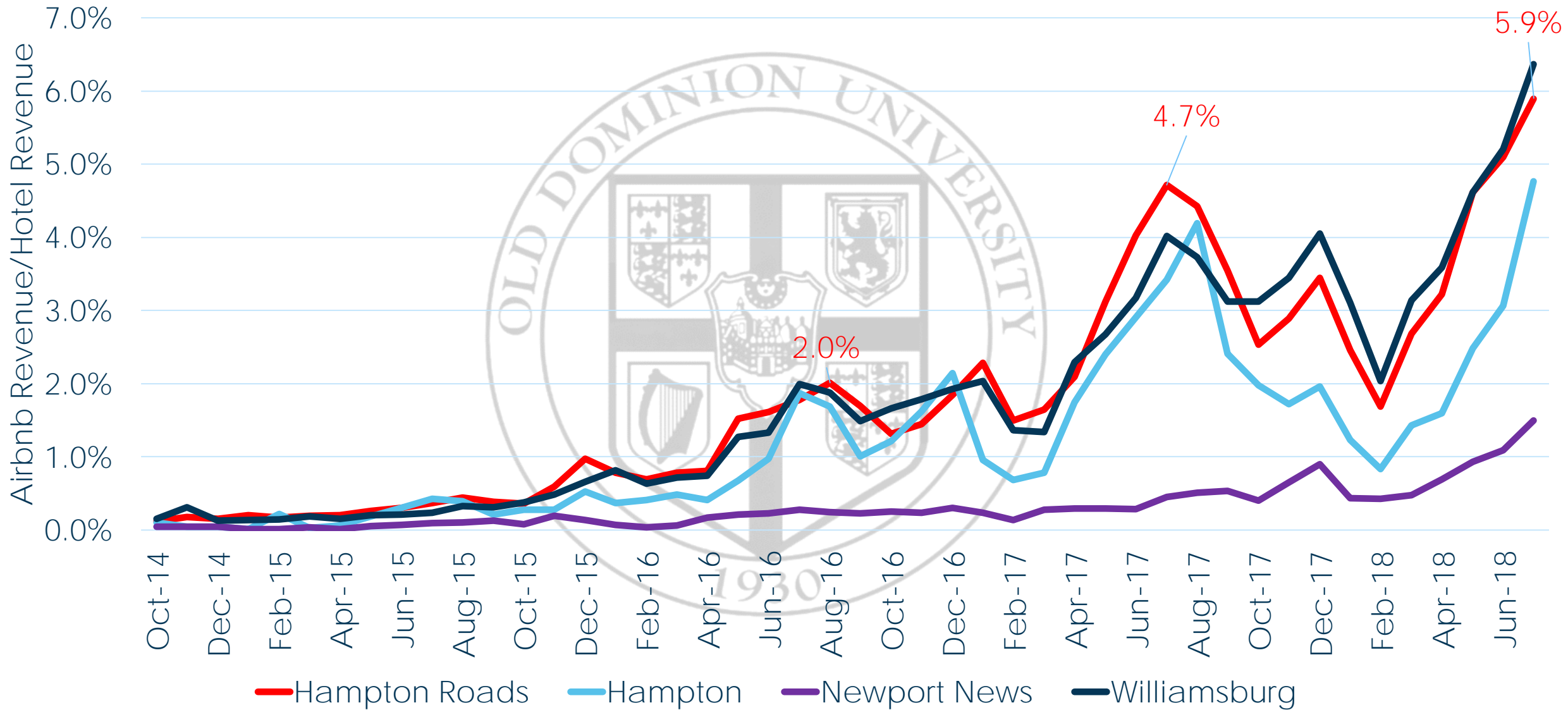
Number of Occupied Hotel Rooms Selected Markets: 2001-2018



Airbnb Revenue as Percentage of Total Hotel Revenue Hampton Roads, October 2014 to July 2018



Airbnb Revenue as Percent of Hotel Revenue Selected Markets, October 2014 to July 2018



Performance of the Hampton Roads Economy: Year to Date March 2018 and Year to Date March 2019

	YTD March 2018	YTD March 2019	Percentage Change
Civilian Labor Force	846,193	849,633	+0.41%
Employment	815,196	819,976	+0.59%
Number Unemployed	30,997	29,657	-4.32%
Unemployment Rate	3.66%	3.49%	--
Civilian Nonfarm Payrolls**	782,975	784,650	+0.21%
Taxable Sales	\$5.28 Billion	\$5.35 Billion	+1.30%

Performance of the Hampton Roads Economy: Year to Date March 2018 and Year to Date March 2019


	YTD March 2018	YTD March 2019	Percentage Change
Hotel Revenue**	\$213.19 Million	\$223.12 Million	+4.66%
General Cargo Tonnage**	7.39 Million	7.40 Million	+0.14%
TEU Containers**	910,772	954,230	+4.77%
Number of 1 Unit Housing Permits	1,102	846	-23.23%
Value of 1 Unit Housing Permits	\$236.31 Million	\$169.46 Million	-28.29%
Number of Existing Homes Sold**	6,865	7,129	+3.85%
Distressed Sales as Percentage of Existing Homes Sold**	12.34%	9.37%	--
Median Price of Existing Homes Sold**	\$216,900	220,0900	+1.43%

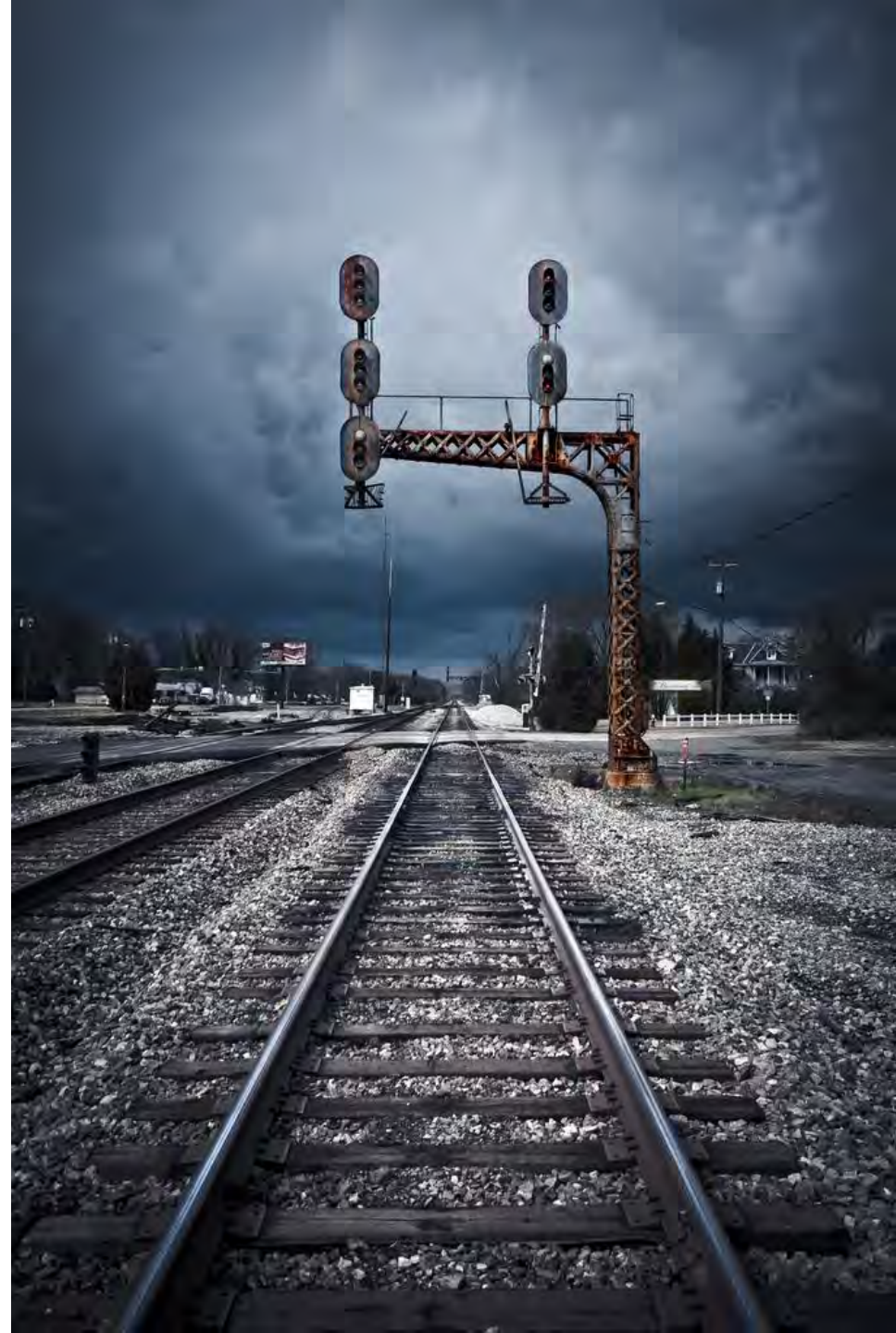
	2018 Forecast	2018 Actual	2019 Forecast
Hampton Roads Real Gross Domestic Product	2.2%	--	2.4%
Civilian Job Growth	0.5%	0.8%	0.8%
Unemployment Rate	3.9%	3.3%	3.1%
Taxable Sales	3.0%	3.4%	3.3%
Hotel Revenue	3.9%	4.7%	3.8%
General Cargo Tonnage	2.8%	0.0%	2.0%
General Cargo TEUs	4.0%	0.5%	3.6%
One Unit Housing Permit Value	2.4%	2.8%	2.0%

Source: 2018 data reflects the annual rate of growth. Dragas Center forecast current as of May 2019.

2019: Accelerating growth in Hampton Roads

- Regional GDP growth in 2019 is forecasted to be greater than the growth observed in 2018 and 2017.
- **Defense**, port, health-care industries, and tourism are likely to **help the region's moderate economic expansion in 2019**.
- Single-family home prices in 2019 are likely to continue to increase at a moderate pace. Months of supply of existing homes are lower than their historic average.
- **Going forward, uncertainty in Washington** will be a major concern.

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