



CHMURA
Economics & Analytics

Current and Future Issues in Virginia Higher Education: State of the Economy

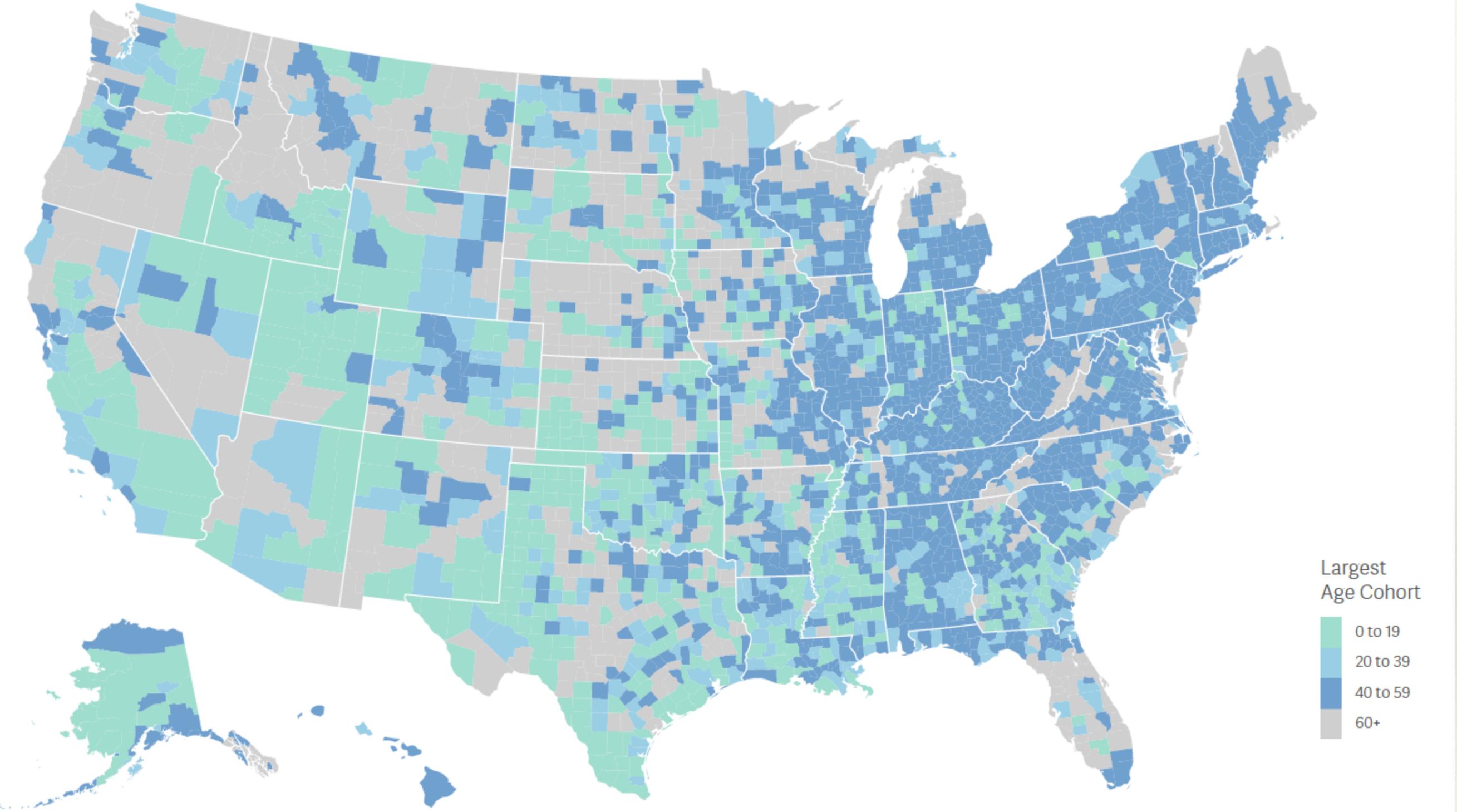
SCHEV Boards of Visitors Orientation

October 21, 2015

What Drives Demand for Curriculum?

- ▮ Students?
- ▮ Businesses and technological change
 - ▮ National drivers
 - ▮ Global drivers
 - ▮ Local drivers create gaps between occupation/skill supply and demand by region
- ▮ Demographics play a role in the number of students

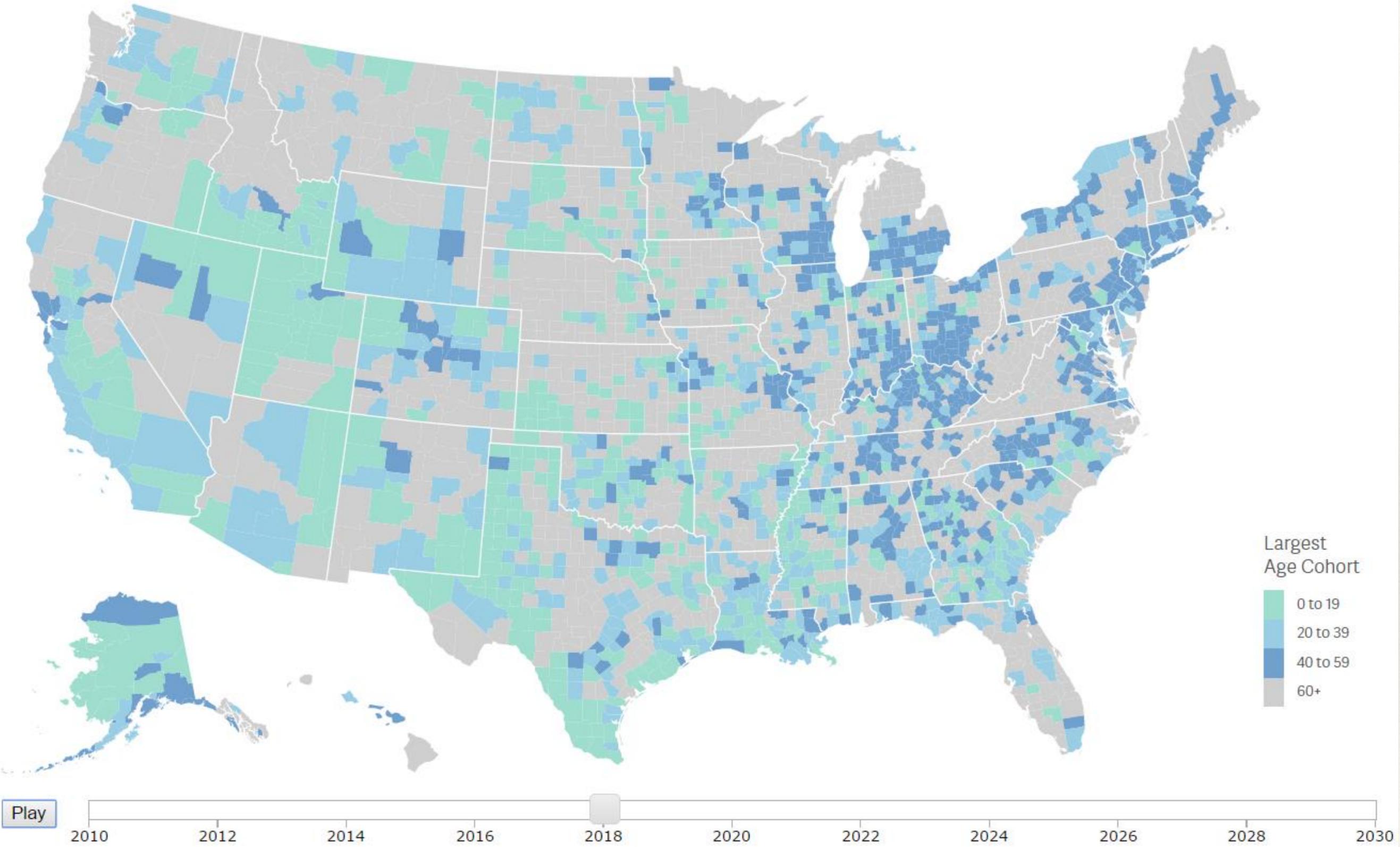
Largest Age Cohort by County, 2010-2030



Play 2010 2012 2014 2016 2018 2020 2022 2024 2026 2028 2030

Source: [Chmura Economics & Analytics](#), [JobsEQ](#)

Largest Age Cohort by County, 2010-2030



Source: Chmura Economics & Analytics, JobsEQ

Demographic Trends

- ▮ National growth through 2020

- ▮ > 13 million

- ▮ 0.8% per year

- ▮ Virginia growth through 2020

- ▮ 403,585 gain in population

- ▮ 1.0% per year

- ▮ Prime college-attending age 18 -24 (about 58% of college student population)

- ▮ Peaked in U.S. in 2013 at 31.5 million

- ▮ Trough in 2020 (30.6 million; down 2.1% from 2015)

- ▮ Drop in Virginia from 2015 – 2020 expected to be 1.0%

National Growth: Modest But Unemployment Rate not as Low as it Seems

HOUSEHOLD DATA

Table A-15. Alternative measures of labor underutilization
[Percent]

Measure	Not seasonally adjusted			Seasonally adjusted					
	Sept. 2014	Aug. 2015	Sept. 2015	Sept. 2014	May 2015	June 2015	July 2015	Aug. 2015	Sept. 2015
U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force.....	2.7	2.1	2.0	2.8	2.4	2.2	2.1	2.2	2.1
U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force.....	2.7	2.5	2.2	2.9	2.7	2.6	2.6	2.6	2.5
U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate).....	5.7	5.2	4.9	5.9	5.5	5.3	5.3	5.1	5.1
U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers.....	6.2	5.6	5.3	6.3	5.8	5.7	5.7	5.5	5.4
U-5 Total unemployed, plus discouraged workers, plus all other persons marginally attached to the labor force, as a percent of the civilian labor force plus all persons marginally attached to the labor force.....	7.1	6.3	6.0	7.3	6.6	6.4	6.4	6.2	6.2
U-6 Total unemployed, plus all persons marginally attached to the labor force, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all persons marginally attached to the labor force.....	11.3	10.3	9.6	11.7	10.8	10.5	10.4	10.3	10.0

NOTE: Persons marginally attached to the labor force are those who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the past 12 months. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not currently looking for work. Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule. Updated population controls are introduced annually with the release of January data.

Modest Growth But Unemployment Rate not as Low as it Seems

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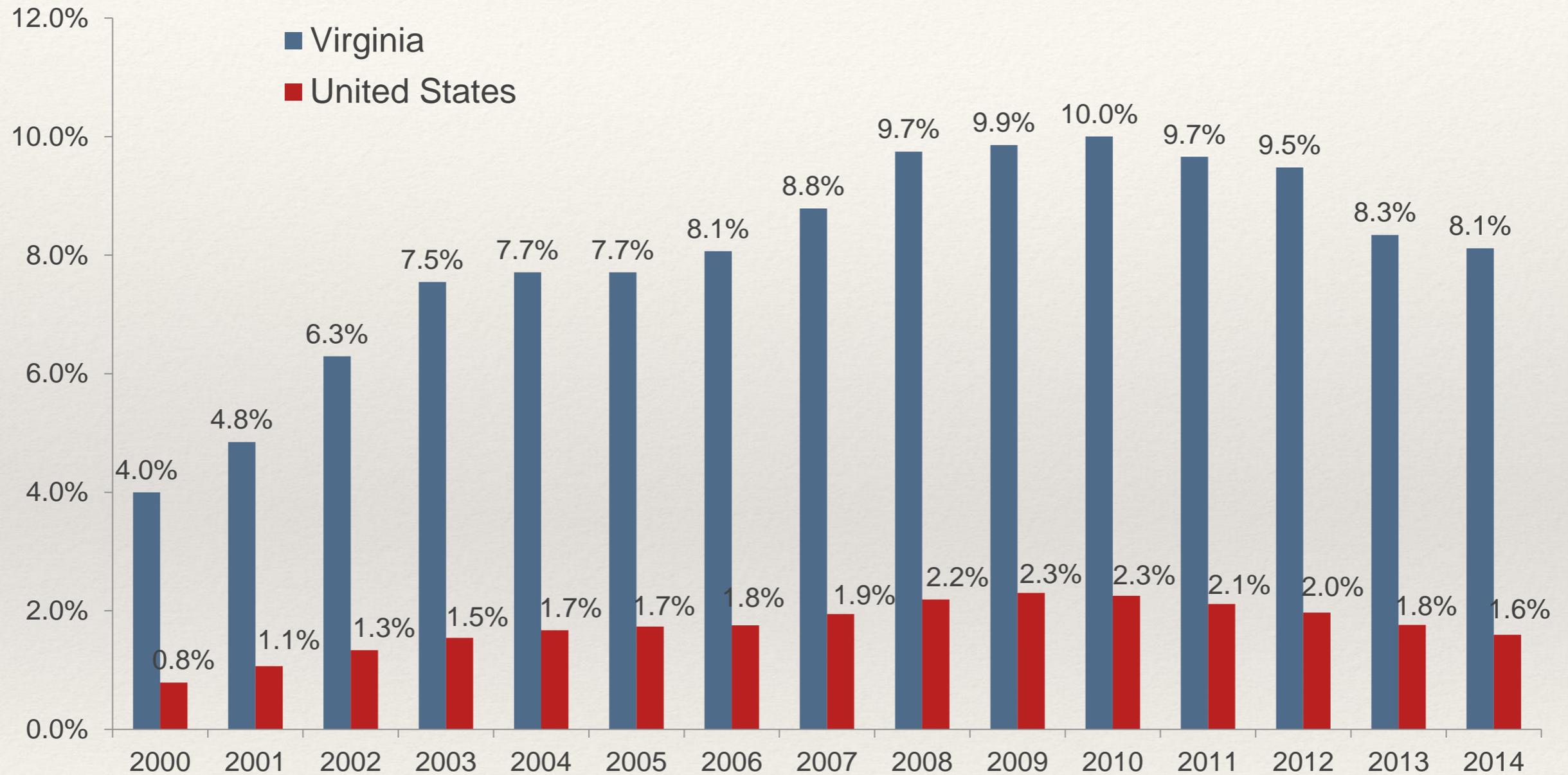
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Reduction will Impact Virginia Economy

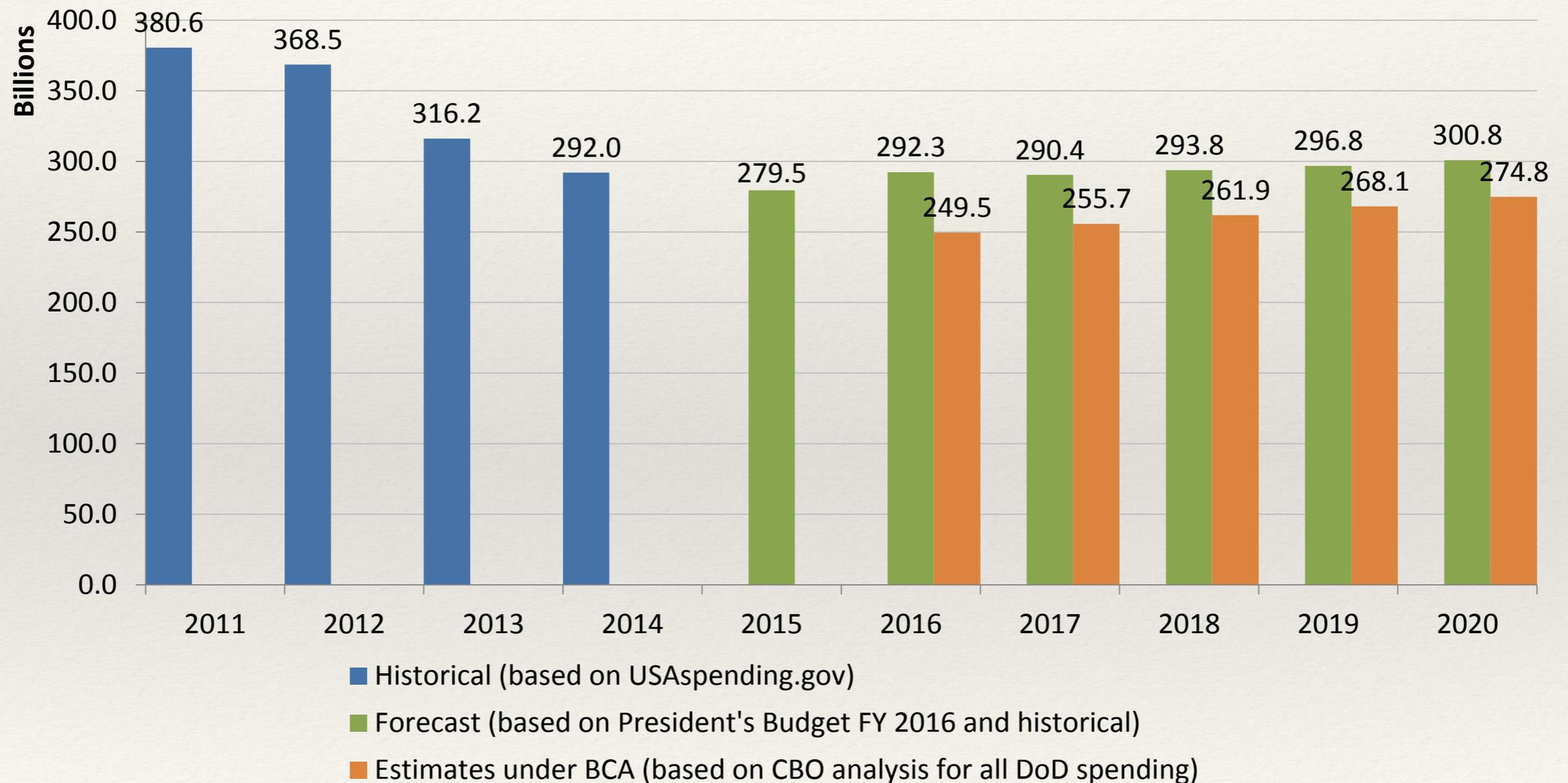
DoD Contract Spending as a Percentage of Gross Domestic Product



Source: Chmura Economics & Analytics and the Bureau of Economic Analysis

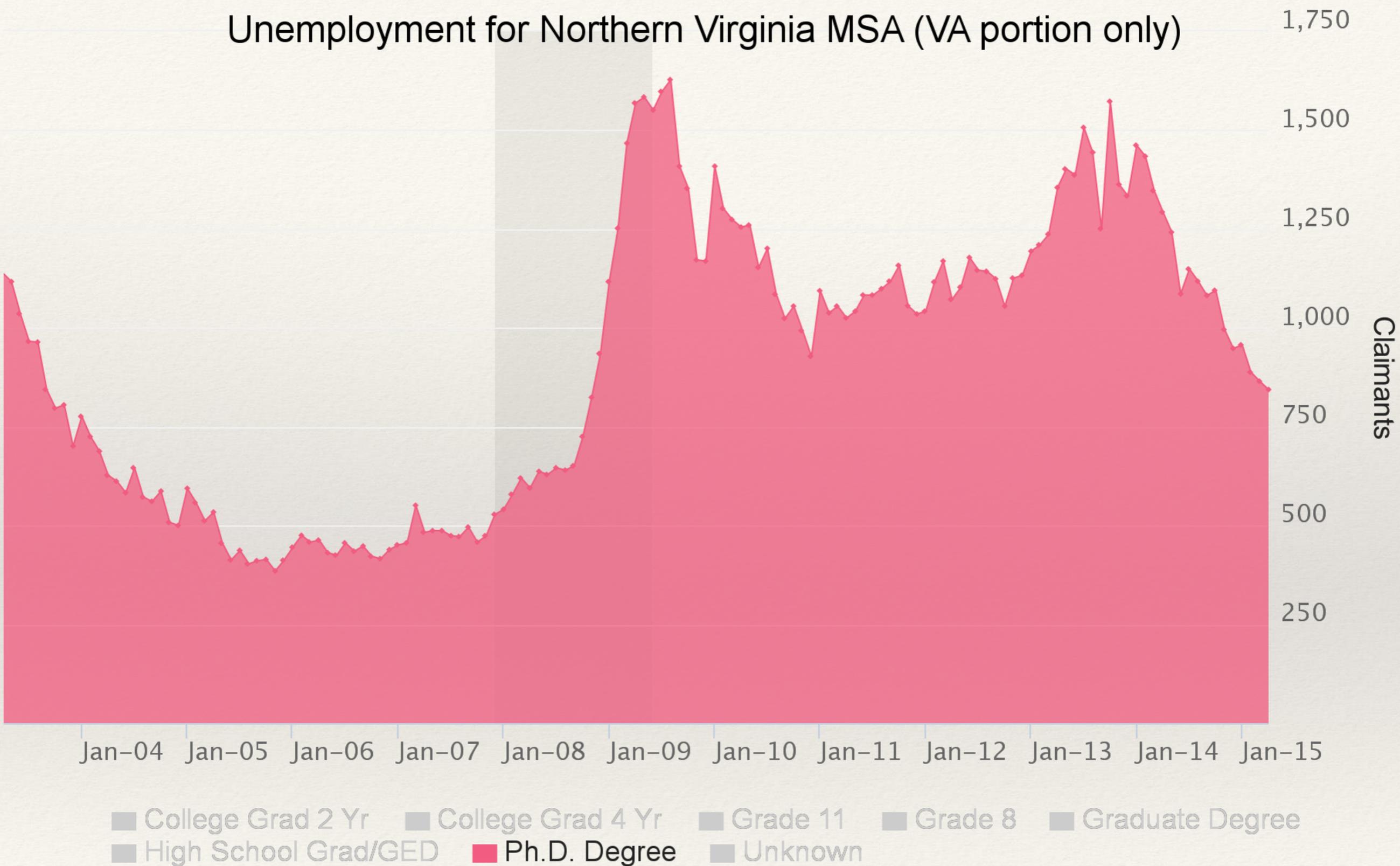
Downward Pressure from Defense Contract Forecast: +8% over 5 years (Nominal)

Historical and Forecast DoD Contract Spending



Source: President's Budget FY2016, USAspending.gov, and Chmura

Unemployment for Northern Virginia MSA (VA portion only)



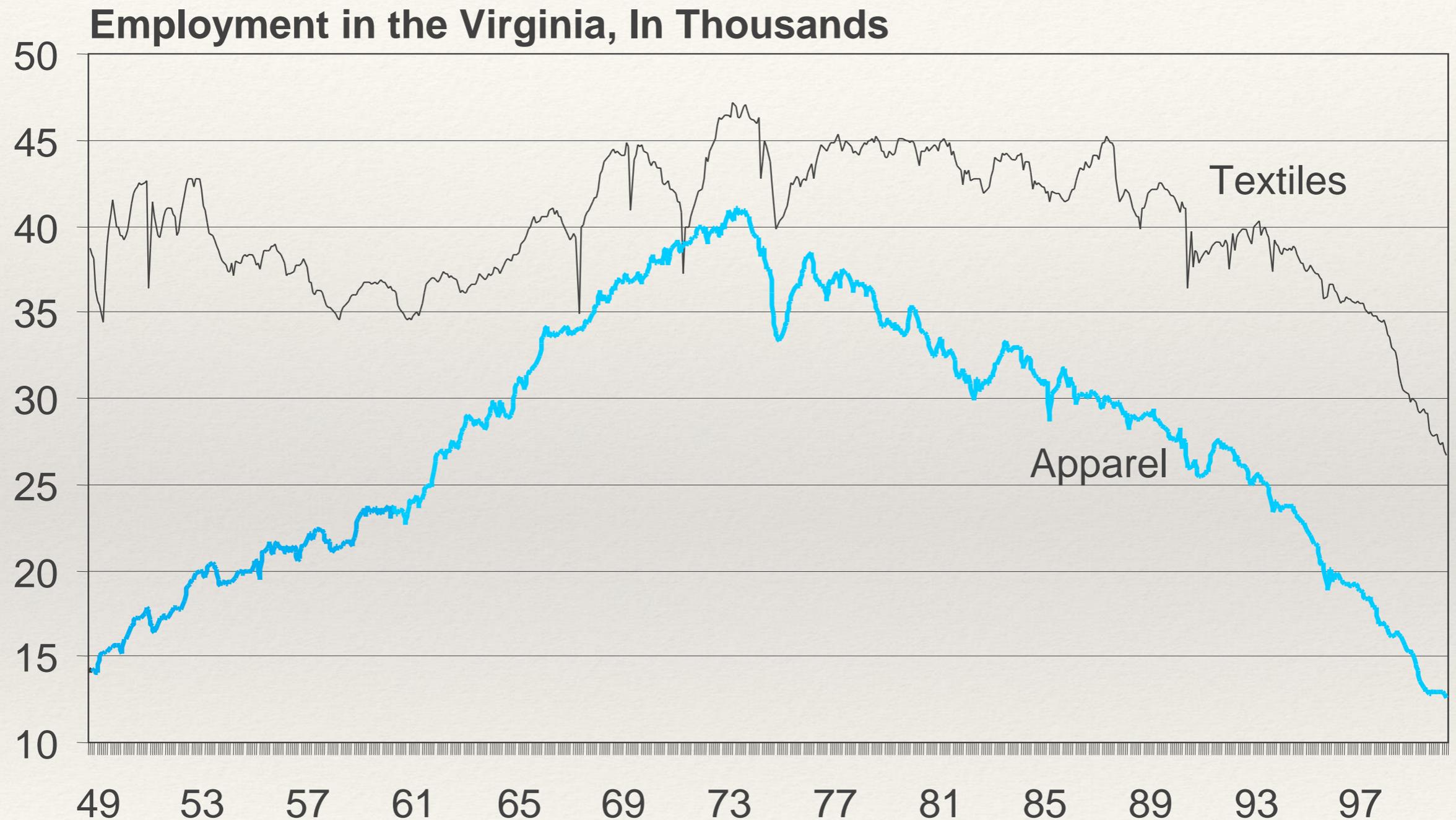
Source: JobsEQ®, Data as of Apr 2015

Local Industry Clusters Impact Regional Growth....

Employment in the Virginia, In Thousands



Industry Clusters are Important... But there is Always Churn



Data through August 2000.

Virginia Employment Lagging U.S.: More Educated Workforce Transitions Quicker than Low-Skilled

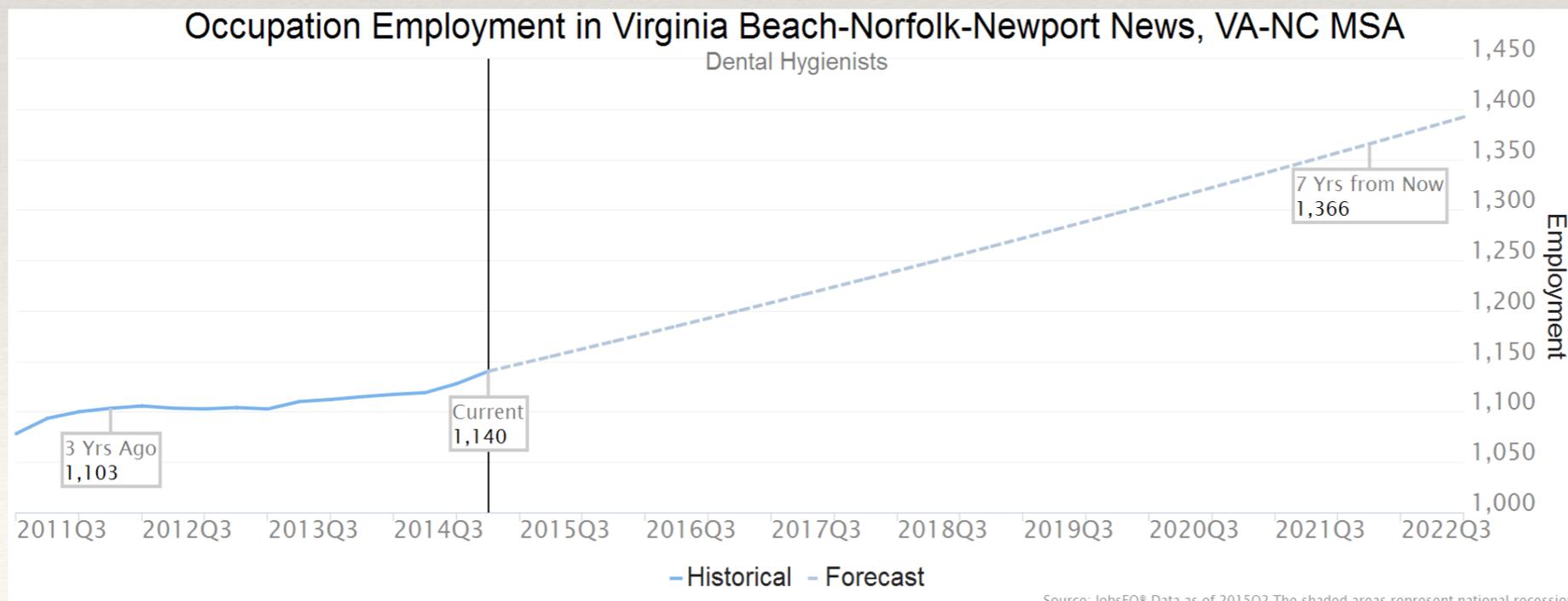


Significant Variation by Region

Northern Virginia MSA					Danville MSA				
Title	Current		Forecast		Title	Current		Forecast	
	Four Quarters Ending with 2015q2		Over the Next 10 Years			Four Quarters Ending with 2015q2		Over the Next 10 Years	
	Empl	Avg. Annual Wages ¹	Total Repl Demand	Total Growth Demand		Empl	Avg. Annual Wages ¹	Total Repl Demand	Total Growth Demand
Customer Service Representatives	24,802	\$38,500	6,953	4,361	Laborers and Freight, Stock, and Material Movers, Hand	853	\$24,100	257	26
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	22,917	\$41,500	2,864	4,275	Registered Nurses	766	\$55,600	144	90
General and Operations Managers	22,338	\$141,400	4,390	4,514	Personal Care Aides	699	\$16,900	52	294
Software Developers, Applications	18,971	\$107,300	2,631	6,598	Customer Service Representatives	593	\$25,800	155	21
Accountants and Auditors	16,635	\$87,100	5,393	2,846	Team Assemblers	549	\$25,200	85	-19
Bookkeeping, Accounting, and Auditing Clerks	16,523	\$45,200	1,644	2,859	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	544	\$26,500	63	26
Management Analysts	14,921	\$100,900	3,092	3,816	General and Operations Managers	509	\$91,800	91	10
Business Operations Specialists, All Other	14,809	\$92,100	2,089	1,769	Nursing Assistants	501	\$22,100	94	68
Registered Nurses	14,040	\$73,900	2,768	2,995	Heavy. Tractor-Trailer Truck Drivers	406	\$33,600	66	4
Computer Systems Analysts	13,599	\$101,000	2,377	5,123	Sales Representatives, Wholesale & Mfg, Except Technical & Scientific Products	403	\$78,000	75	-27

Consider Demand....

Occupation Snapshot of Dental Hygienists in Virginia Beach-Norfolk-Newport News, VA-NC MSA									
Current					Historical		Forecast		
Four Quarters Ending with 2015q2			2015q2		Total Change over the Last 3 Years	Avg Ann % Chg in Empl 2012q2-2015q2	Over the Next 7 Years		
Empl	Avg. Annual Wages ¹	Location Quotient	Unempl	Unempl Rate	Empl	Virginia Beach-Norfolk-Newport News, VA-NC MSA	Total Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
1,140	\$72,500	1.10	25	2.1%	37	1.1%	192	226	2.6%



Source: JobsEQ®, Data as of 2015Q2, The shaded areas represent national recessions.

Source: [JobsEQ®](#)
Data as of 2015Q2

Relative to 'Pipeline' Supply

	Annual Awards - Virginia Beach-Norfolk-Newport News, VA-NC MSA		
Title/School	Certificates and 2yr Degrees	4yr Degrees	Postgraduate Degrees
51.0602 Dental Hygiene/Hygienist			
Old Dominion University	0	65	3
Thomas Nelson Community College	9	0	0
Total			
Total	9	65	3

Data as of the 2013-2014 academic year

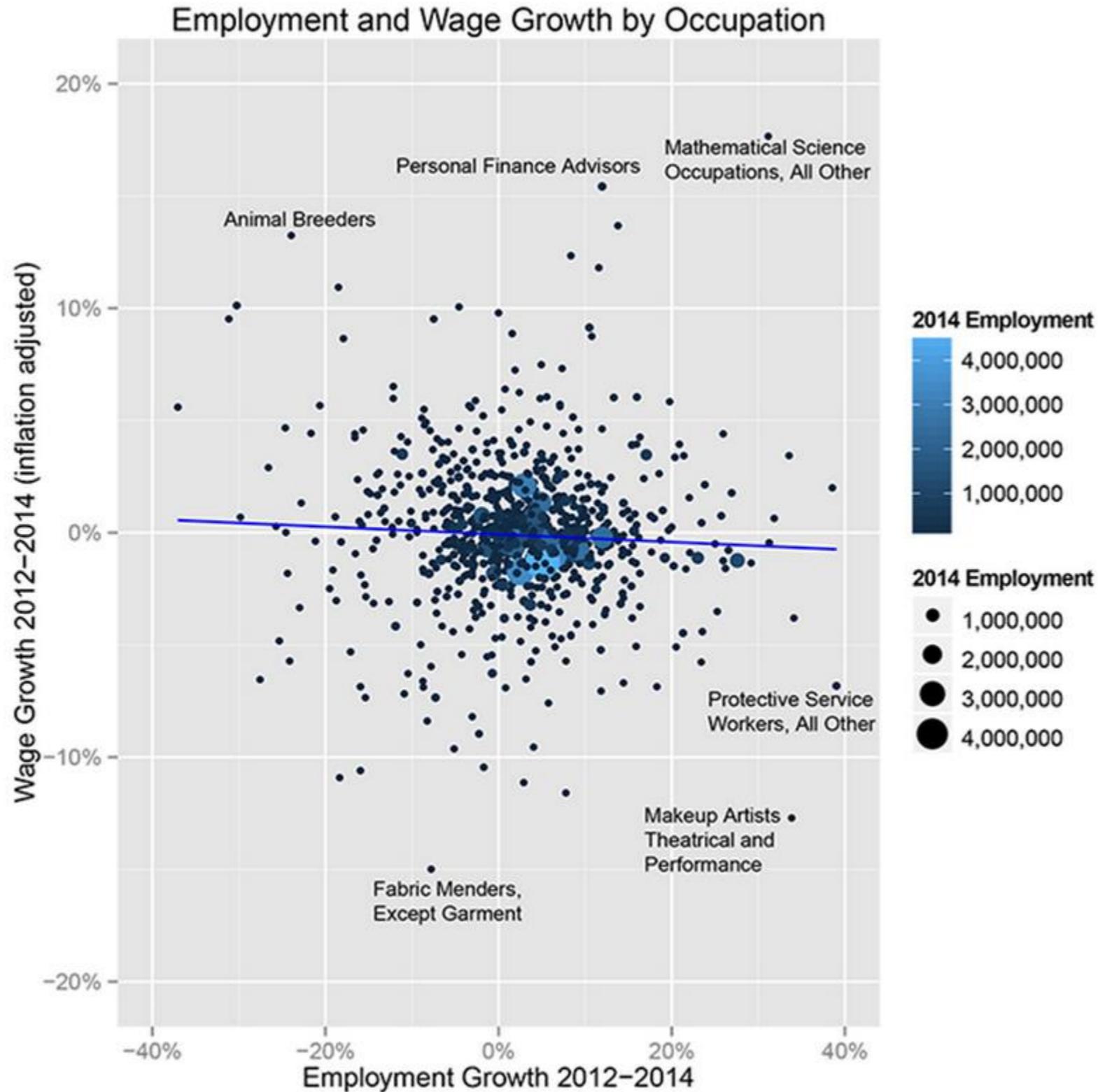
Awards data are per the National Center for Education Statistics (NCES) and JobsEQ for the academic year.

Any programs shown here have been identified as being linked with the occupation being analyzed. Other existing programs may also provide training in the region for this occupation but have not been so identified by the program-occupation crosswalk (see the FAQ section at the end of this report for more details). Furthermore, any programs shown here reflect only data reported to the NCES; reporting is required of all schools participating in any federal finance assistance program authorized by Title IV of the Higher Education Act of 1965, as amended—other training providers in the region that do not report data to the NCES are not reflected in the above.

Concluding Comments

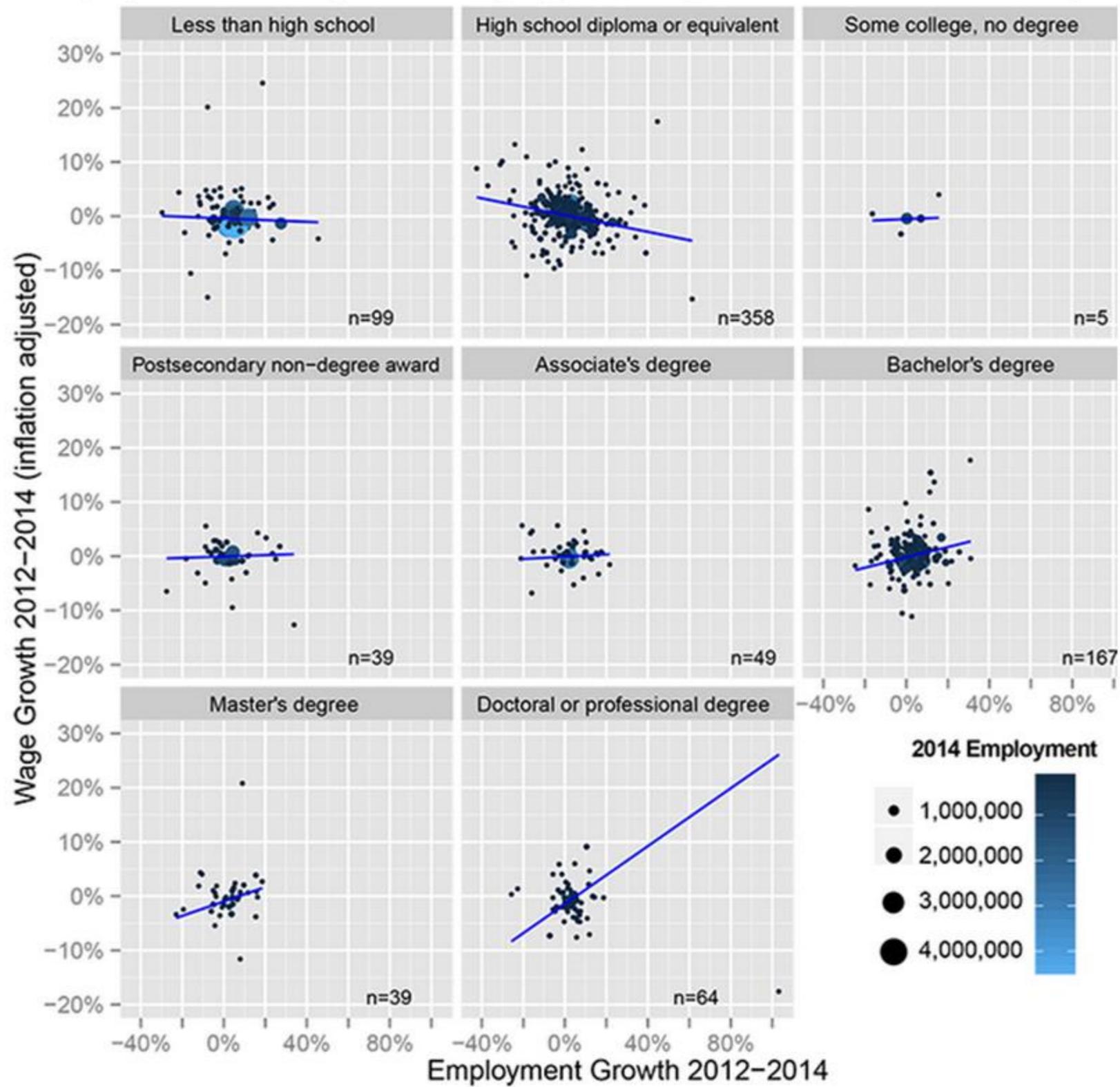
- ❖ Industries and clusters of industries are regional; they need to be identified at a regional level
- ❖ State-level demand will be misleading
- ❖ Education providers need to understand local industry needs
 - ❖ Rolls Royce
 - ❖ Thomas Nelson Community College and Newport News Shipbuilding
- ❖ Supporting education/training that leads to transferable skills is a good policy

Wages are not Growing



<http://www.chmuraecon.com/blog/?author=Chris+Chmura>

Employment and Wage Growth by Typical Entry-Level Education for Occupat



<http://www.chmuraecon.com/blog/?author=Chris+Chmura>