COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

VTrans Update

Joint Annual Planning and Programming and MPO Quarterly Coordination Meeting

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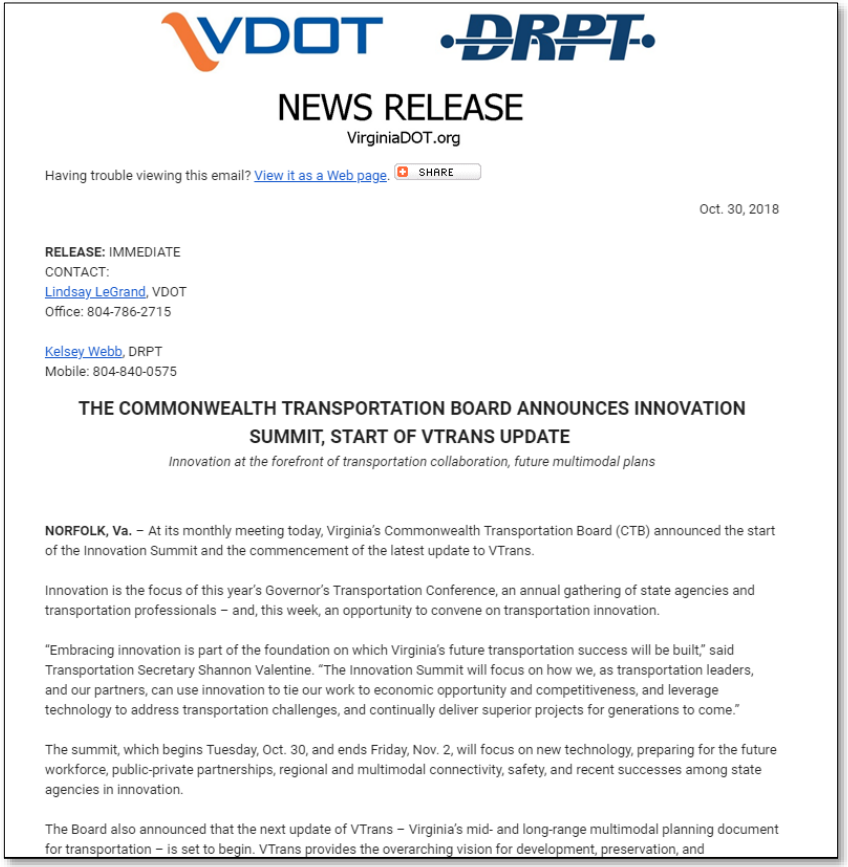
March 13, 2019

OUTLINE

- Review of VTrans Kickoff
- Upcoming stakeholder engagement and key milestones
- Update on key task – Demographic Trends

VTRANS KICKOFF

Commonwealth Transportation Board official kickoff on October 29, 2018



VDOT DRPT

NEWS RELEASE

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Oct. 30, 2018

RELEASE: IMMEDIATE
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THE COMMONWEALTH TRANSPORTATION BOARD ANNOUNCES INNOVATION SUMMIT, START OF VTRANS UPDATE

Innovation at the forefront of transportation collaboration, future multimodal plans

NORFOLK, Va. – At its monthly meeting today, Virginia's Commonwealth Transportation Board (CTB) announced the start of the Innovation Summit and the commencement of the latest update to VTrans.

Innovation is the focus of this year's Governor's Transportation Conference, an annual gathering of state agencies and transportation professionals – and, this week, an opportunity to convene on transportation innovation.

"Embracing innovation is part of the foundation on which Virginia's future transportation success will be built," said Transportation Secretary Shannon Valentine. "The Innovation Summit will focus on how we, as transportation leaders, and our partners, can use innovation to tie our work to economic opportunity and competitiveness, and leverage technology to address transportation challenges, and continually deliver superior projects for generations to come."

The summit, which begins Tuesday, Oct. 30, and ends Friday, Nov. 2, will focus on new technology, preparing for the future workforce, public-private partnerships, regional and multimodal connectivity, safety, and recent successes among state agencies in innovation.

The Board also announced that the next update of VTrans – Virginia's mid- and long-range multimodal planning document for transportation – is set to begin. VTrans provides the overarching vision for development, preservation, and

VTRANS KICKOFF

9 Fall Transportation Meetings

- October - November 2018
- Attended meeting in each District

VTRANS KICKOFF

19 presentations to MPO and PDC technical and policy committees

- November 2018 - March 2019
- Attended meeting in all MPO areas and multiple PDC's

STAKEHOLDER INVOLVEMENT

- With MPO's and PDC's:
  - Winter 2018/2019:
    - Kick-off/Approach ✓
  - April - June 2019:
    - Discuss Needs Identification Methodology
  - September - October 2019:
    - Review Draft Mid-Term Needs

STAKEHOLDER INVOLVEMENT

- With the Public:
  - April - May 2019
    - Spring Transportation Meetings in all nine Districts
  - Active online and social media presence
    - www.vtrans.org
    - Facebook - @vtransvirginia
    - Instagram - @vtransvirginia

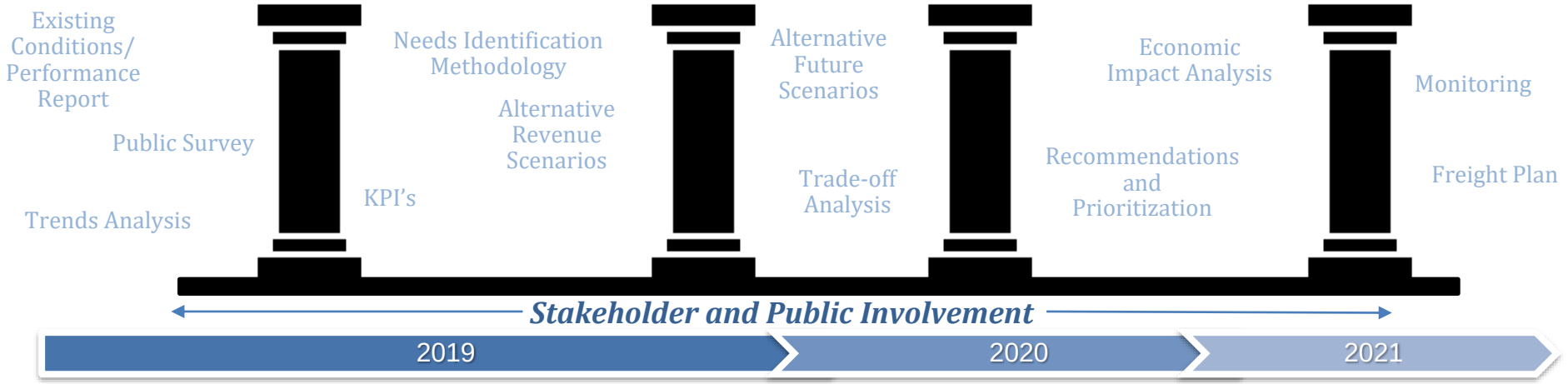
KEY MILESTONES

CTB's Vision, Goals and Objectives

Mid-term Needs Identification

Long Term Needs Identification

Strategic Actions



Key Task Update (Demographic Trends)

- Work is underway, led by Haritha Bhairavabhatla, Amy O'Leary, Maddie Gasse, and John Miller at the Virginia Transportation Research Council

- Presenter: John Miller

Key Task Update (Demographic Trends)

1. Determine the "appropriate geography" for reporting socioeconomic characteristics.
2. Obtain current values and forecast values for socioeconomic characteristics:
3. Report on the accuracy of previous efforts to generate such forecasts—*and tell us where we've been*
4. Repeat—but with different sources of forecasts

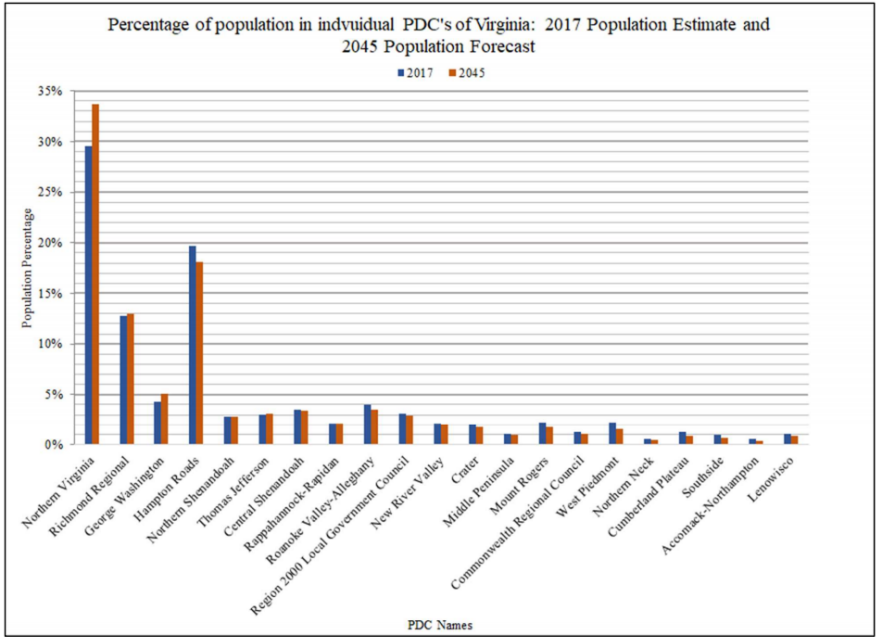
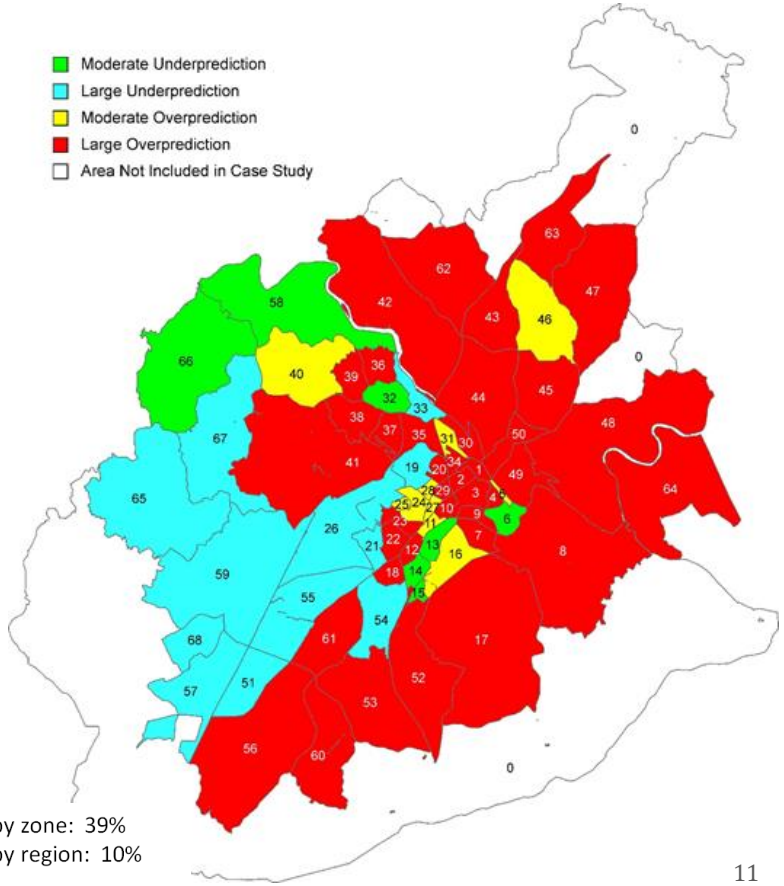


Figure 6. Population Forecasts and Population Estimates for Virginia Regions. Drawn based on data from the Weldon Cooper Center for Public Service (2017a, 2018).

Key Task Update (Demographic Trends)

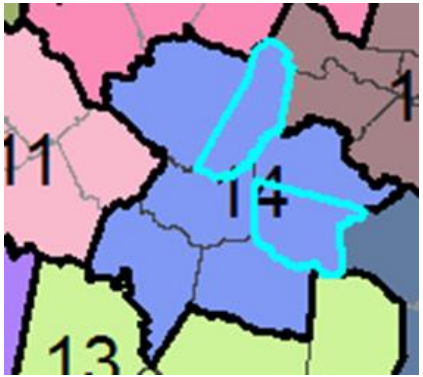
- Aggregate Forecasts by Modified Regional Planning District Commission
  - Give us a way of categorizing results at the state level (21 PDCs vs. 133 cities and counties)
  - Use planning boundaries that VDOT district and MPO planners recognize
  - Provide a reasonable tradeoff between accuracy and specificity

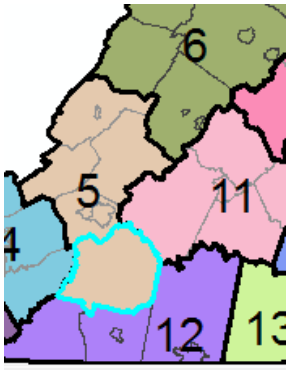


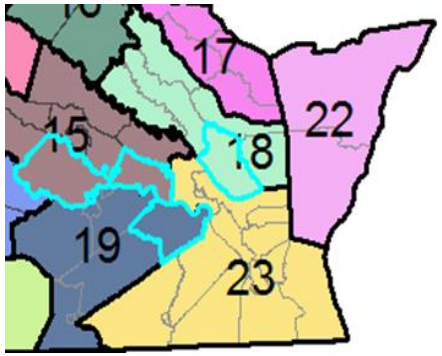
- 1980-2000 population forecast accuracy by zone: 39%
- 1980-2000 population forecast accuracy by region: 10%

Key Task Update (Demographic Trends)

- Aggregate Forecasts by Modified Regional Planning District Commission - Use Modified Planning District Commissions
  - Two counties not in any PDC (place in Commonwealth Regional Council)
    - Nottoway
    - Cumberland
  - Three other southern counties in two PDCs
    - Chesterfield and Charles City: Richmond Regional
    - Gloucester: Middle Peninsula
    - Surry: Crater
  - Place Franklin County in Roanoke Valley Alleghany Regional Commission

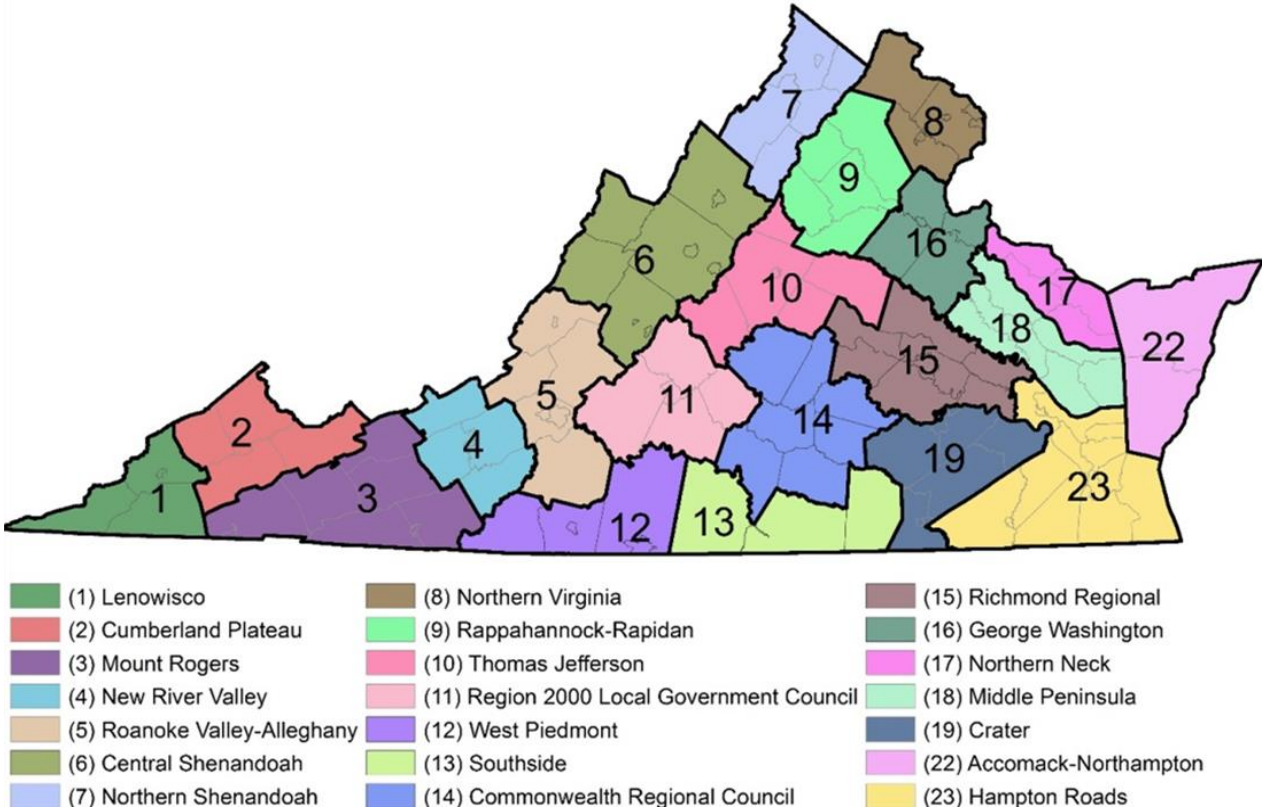






Key Task Update (Demographic Trends)

Virginia's 21 Modified Planning District Commissions



Key Task Update (Demographic Trends)

- Key Takeaways:
  - Three (3) PDCs account for almost two-thirds of Virginia's current population
  - Ten cities and counties account for half of Virginia's current population

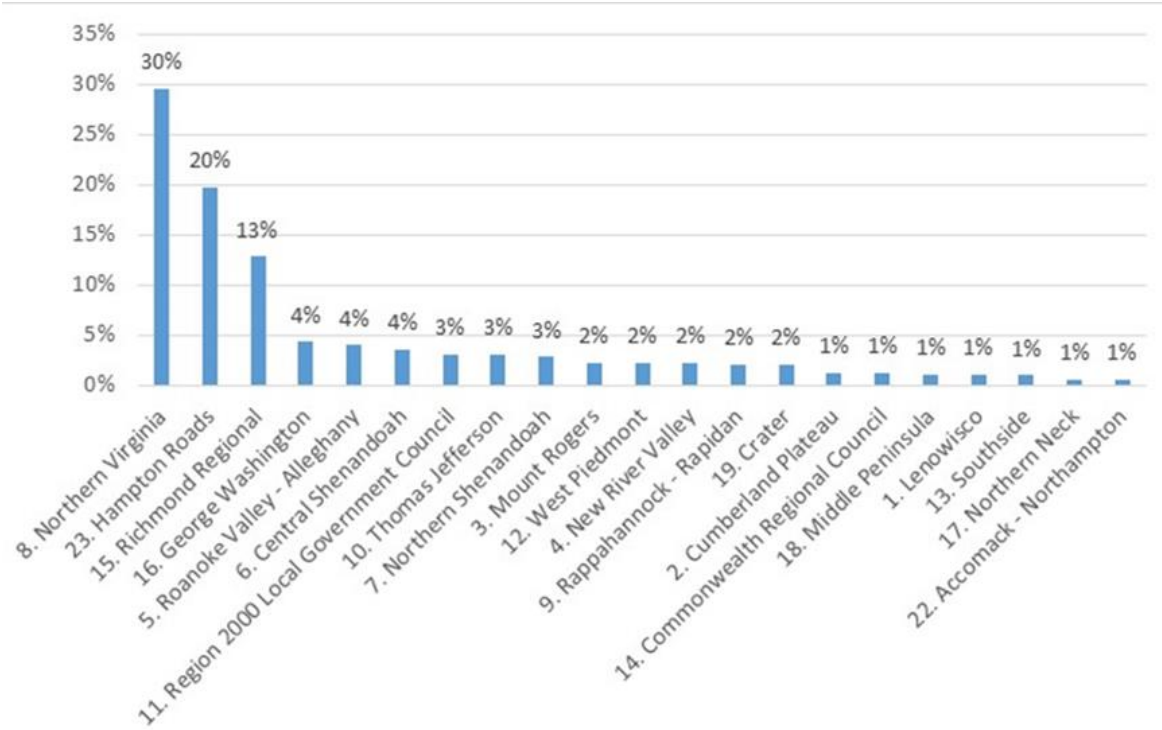
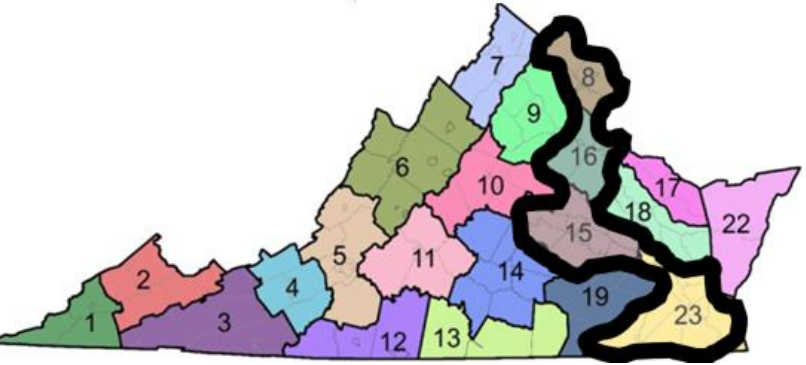
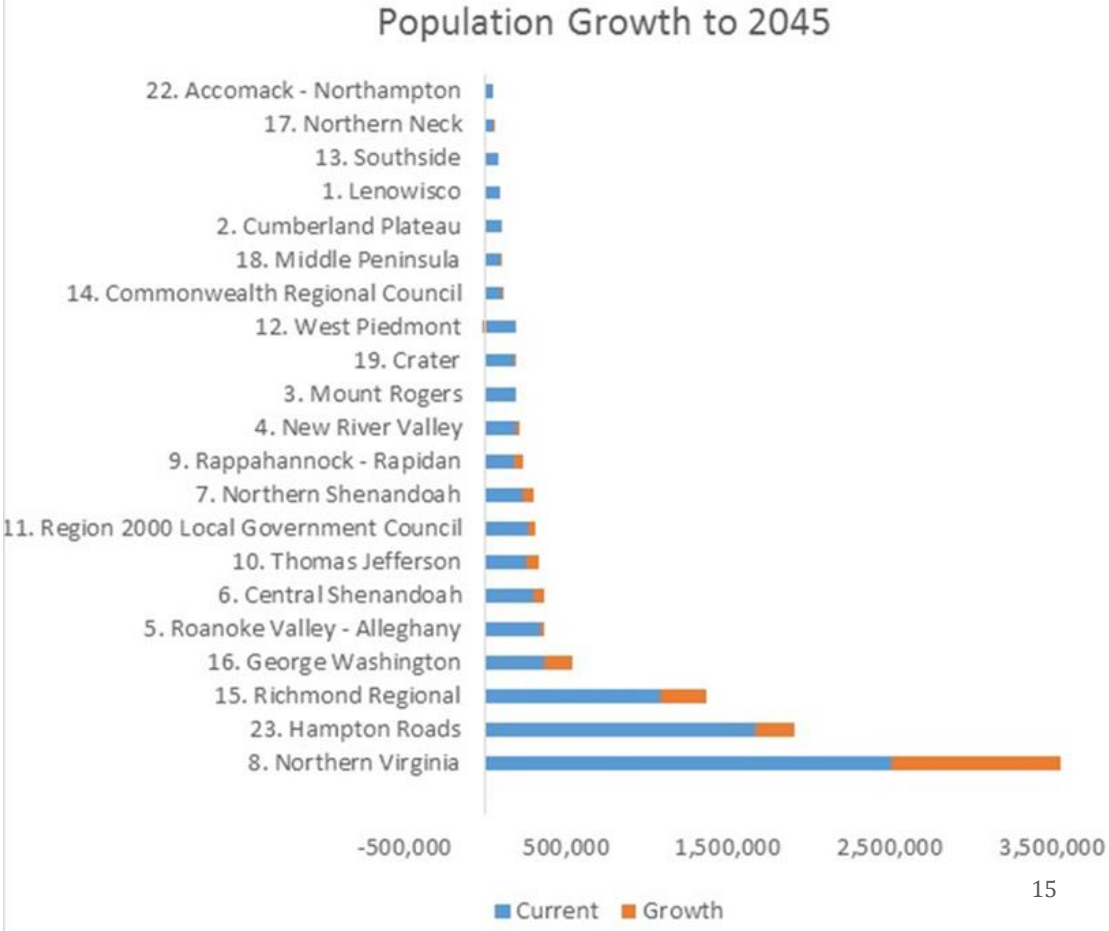


Figure: PDC's Population as a Percent of Virginia's Population

Key Task Update (Demographic Trends)

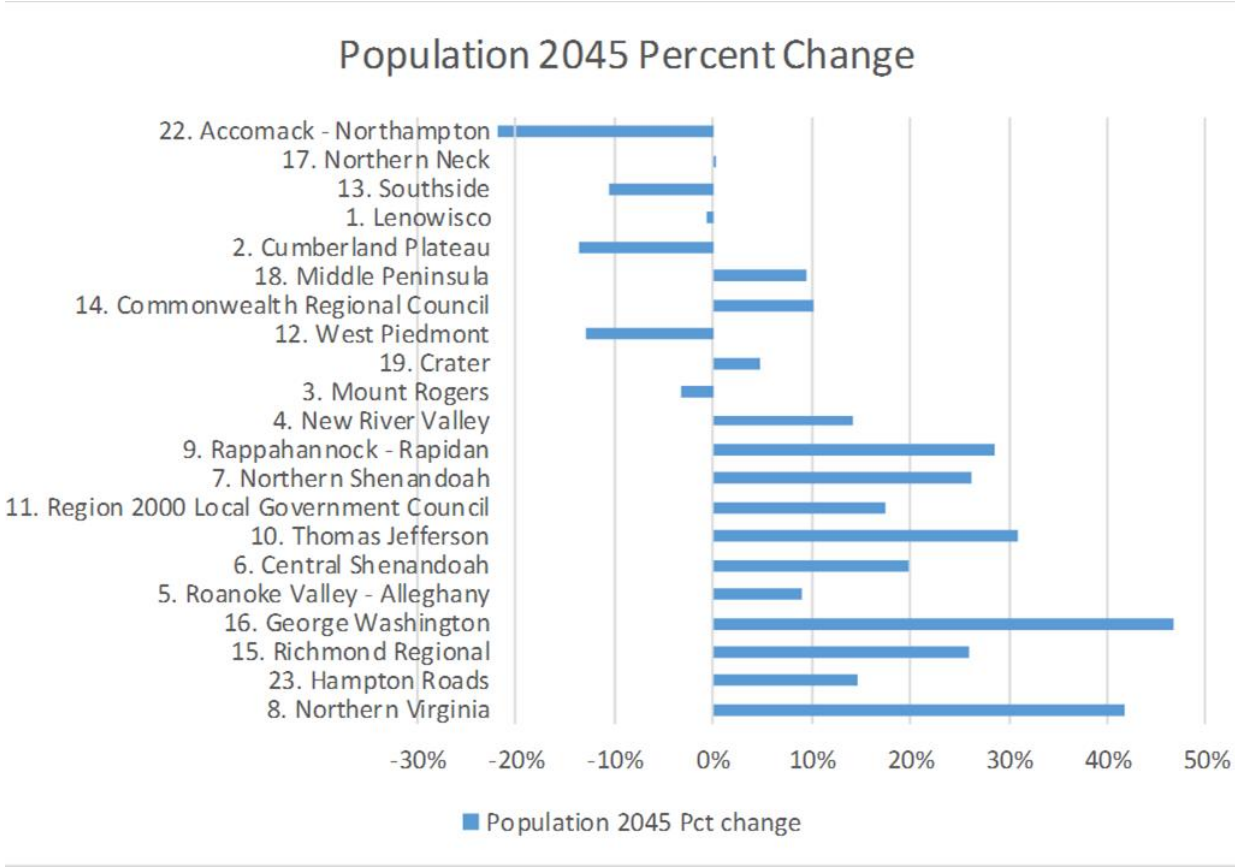
- Key Takeaways:
  - 84% of the population growth is forecasted in four (4) PDCs





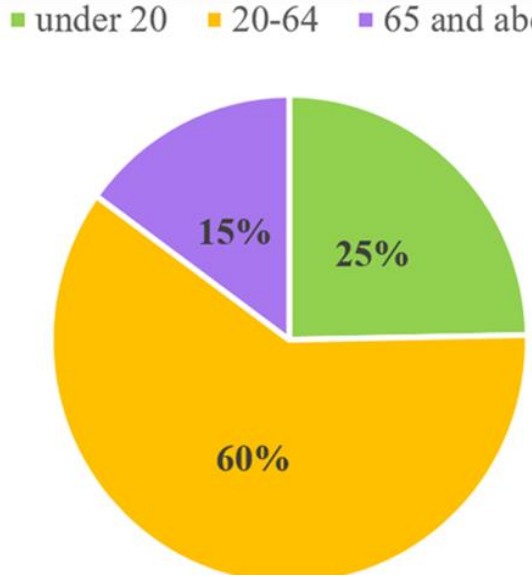
Key Task Update (Demographic Trends)

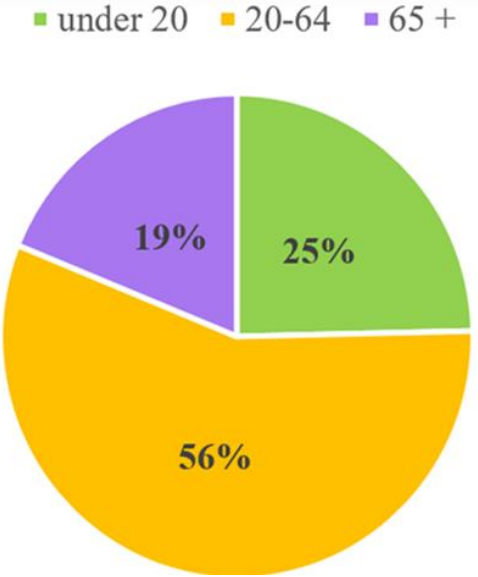
- Key Takeaways:
  - About a third (7) of the PDCs are forecast to see population declines or negligible growth
  - High growth in some newly urbanized PDCs such as Rappahannock Rapidan, Northern Shenandoah, and Thomas Jefferson



Key Task Update (Demographic Trends)

- Key Takeaways:
  - Virginia is getting older!

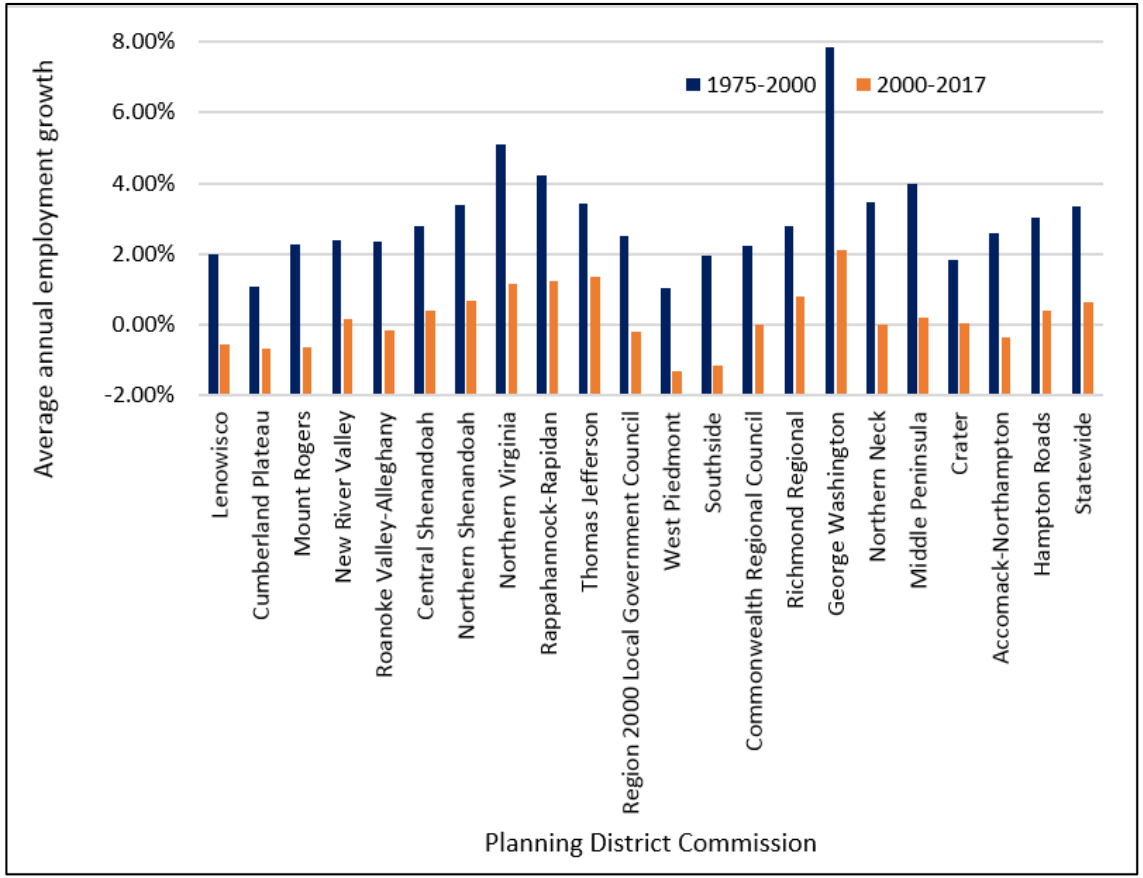




Key Task Update (Demographic Trends)

- **Key Takeaway: Forecast for Changes in Age are Uneven**
  - Statewide
    - The number of Virginians age 65+ is forecast to grow by 51%, from 1.27 to 1.93 million
    - The number of Virginians age 75+ is forecast to grow by 98%, from 0.51 to 1.01 million
  - By region
    - Persons age 65+ are forecast to double in George Washington (98%) and Northern Virginia PDCs (83%)
    - Persons age 65+ are expected to increase slightly in Northern Neck (3%), Accomack-Northampton (4%), and Southside (8%)

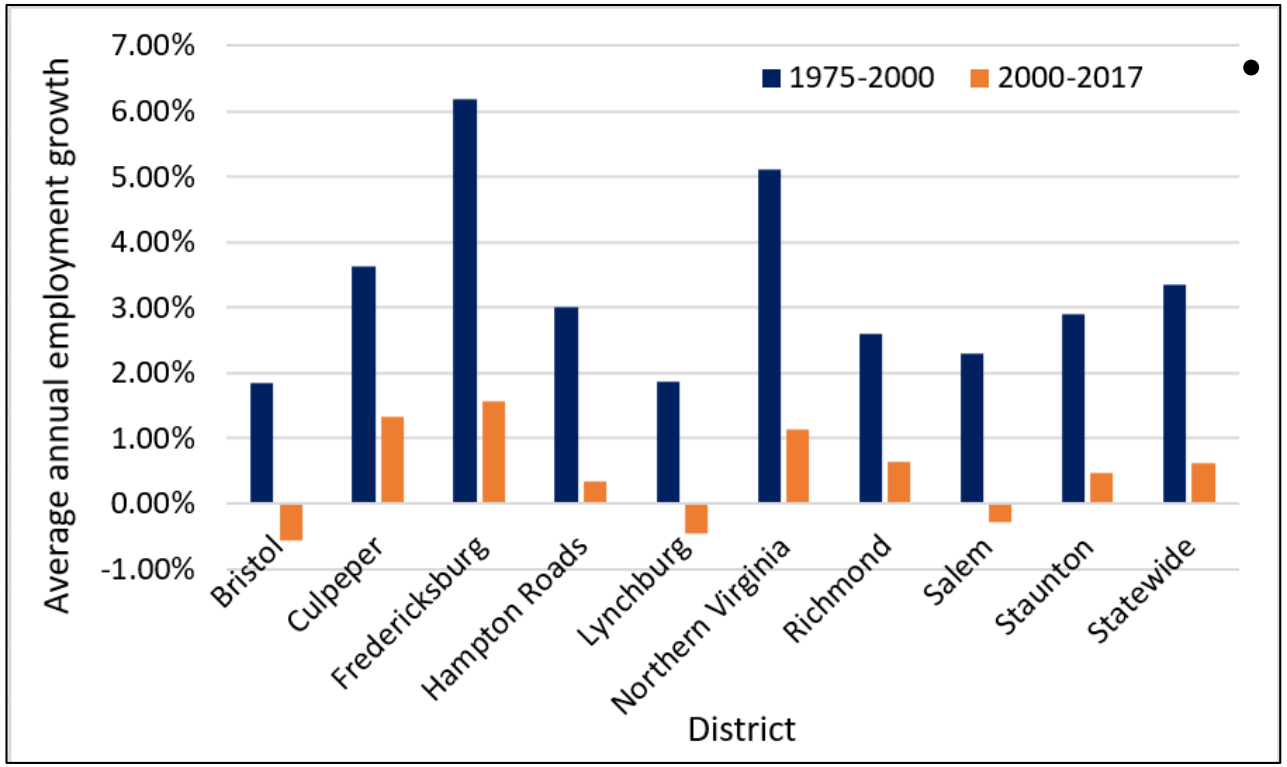
Key Task Update (Demographic Trends)



- Key Takeaways:
  - Employment growth changed substantially after 2000
  - Employment has become more concentrated

Source: Bureau of Labor Statistics

Key Task Update (Demographic Trends)



- Key Takeaway:
  - Could we have forecast, back in 1975, these changes?
  - Let's look at forecast accuracy

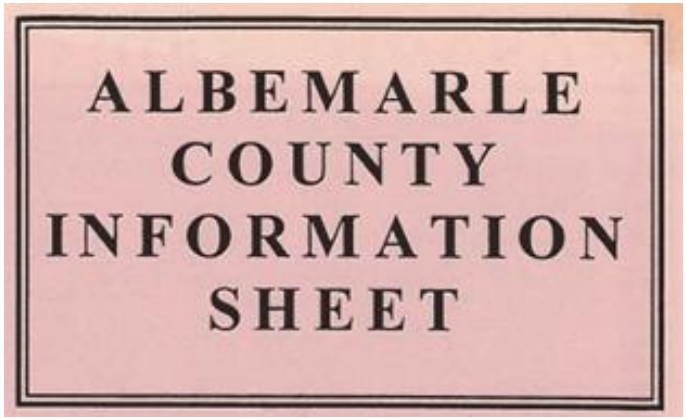
Source: Bureau of Labor Statistics

Key Task Update (Demographic Trends)

- **7,451,158**: Population forecast made by VEC in 1990 for Virginia in 2010
- **8,001,024**: Observed value from the U.S. Census Bureau in 2010

596,866: Error (number)

7.4%: Error (percent)



Key Task Update (Demographic Trends)

- Forecast error tends to grow if the entity is smaller

Location	2010 Projection	2010 Observed	Error
Spotsylvania	134,163	122,397	9.6%
Fredericksburg	22,371	24,286	7.9%
Both	156,534	146,683	6.7%

Sources: 10 year forecast from the Stafford County Comprehensive Plan, 2010 and observed values based on U.S. Census Bureau data (2010)

Key Task Update (Demographic Trends)

- Forecast error tends to grow if the entity is changing rapidly

Which locality do you think had the larger error in 2010?

Year	Population	Annual growth	Population	Annual growth
1990	68,172	2.0 %	40,341	0.1 %
2000	79,081	1.5 %	40,817	0.1 %
2010	90,148	1.3 %	41,225	0.1 %
	Locality A		Locality B	
	9%		5%	

Key Task Update (Demographic Trends)

- Forecast error is affected by unanticipated changes

Year of Comprehensive Plan	2000 Projection	2000 Census	Percent Error [b]
1981	11,200	11,998	7%

Source: City of Williamsburg Planning Department. Williamsburg Comprehensive Plan: Appendix A1 – Past Comprehensive Plans, 2013.

Key Task Update (Demographic Trends)

- Utilize different sources of data
  - Present forecasts at the regional level - not at the county level (also comply with proprietary data requirements)
  - Present forecasts as a range
  - Explain the differences (e.g. growth in Northern Virginia vs. Maryland suburbs or definitions in employment

2045 Population Forecast for Arlington County + Alexandria City

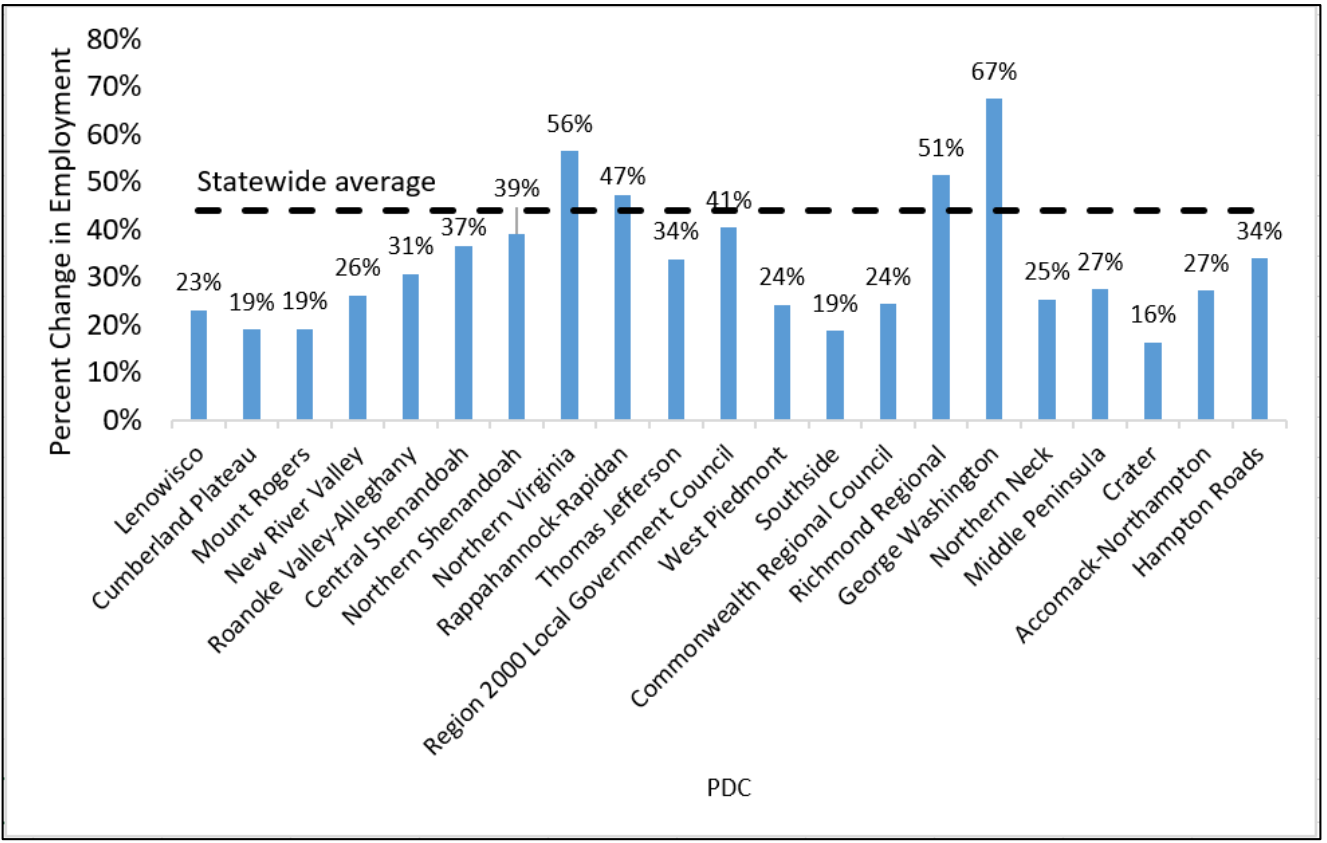
Source	Forecast
Weldon Cooper Center for Public Service (2017)	548,405
Metropolitan Washington Council of Governments (2018)	509,618
Woods & Poole (2018)	442,444

Key Task Update (Demographic Trends)

- Utilize different sources of data
  - Expected data sources

Source	What it Provides
Weldon Cooper Center for Public Service	Population (2045)
Woods & Poole	Population, Employment, Income (to 2050)
Moody's Analytics	Population, Employment, Income, Real estate (to 2047)
IHS Markit	Employment (to 2047)

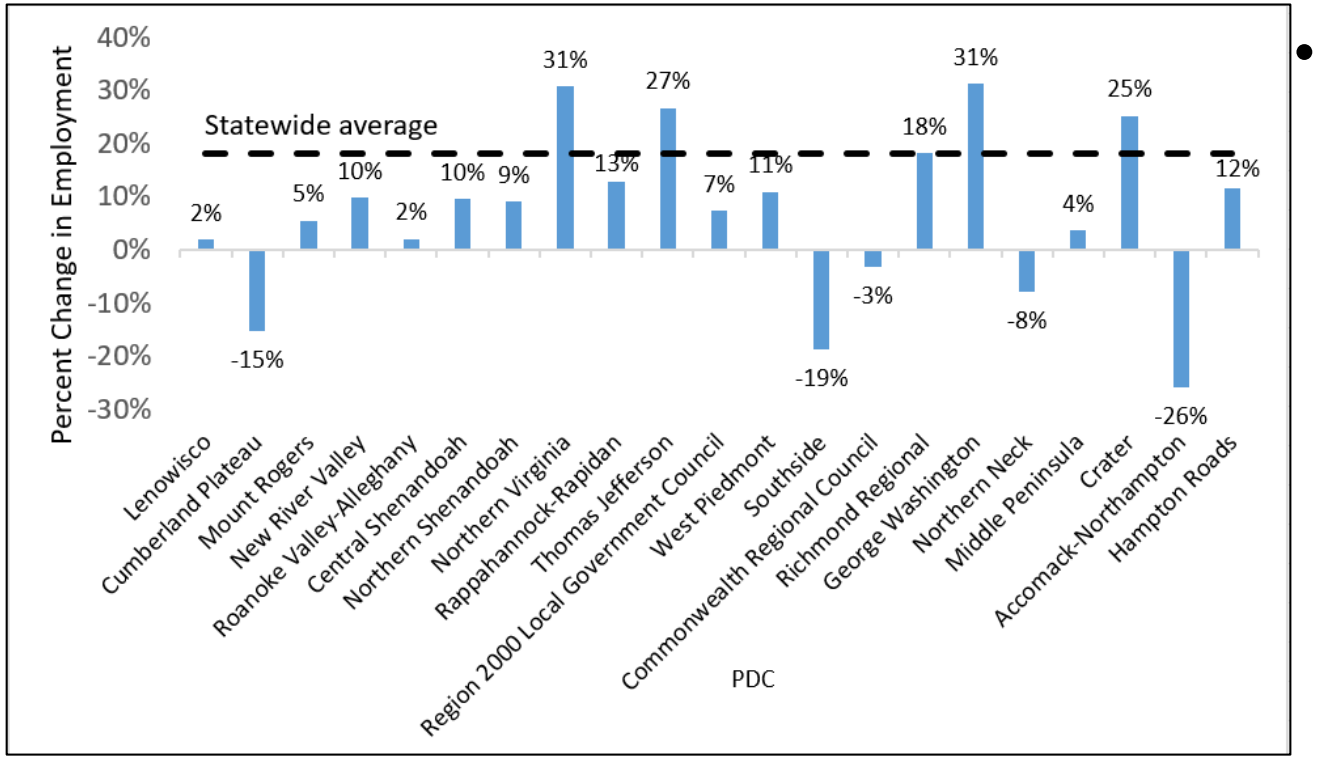
Key Task Update (Demographic Trends)



- Key Takeaways:
  - Most growth rates are below average!
  - Employment is forecast to grow in **all PDCs**

Source: Woods & Poole

Key Task Update (Demographic Trends)



- Key Takeaways:
  - Employment is forecast to grow in **most PDCs**

Source: IHS Markit

Key Task Update (Demographic Trends)

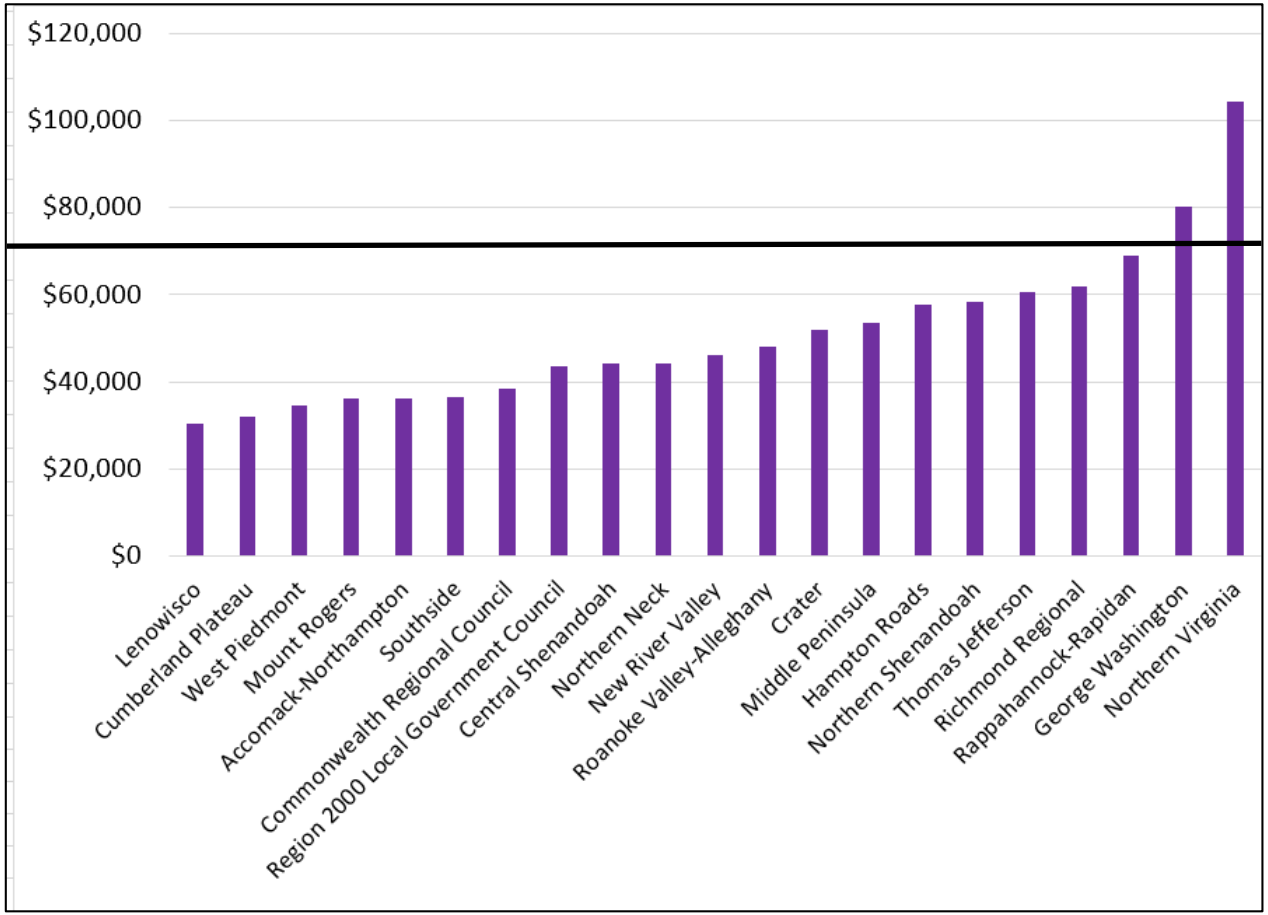
- Why Might Employment Forecasts Differ? (Year 2017)
  - Bureau of Labor Statistics: 3.73 million
  - IHS Markit: 4.02 million
  - Woods & Poole: 5.28 million

- Examples of jobs not included in BLS
  - Proprietors
  - Unincorporated self-employed
  - Some domestic workers

- Examples of jobs explicitly cited in Woods & Poole
  - Proprietors and military workers
  - Full and part time

Key Task Update (Demographic Trends)

Statewide median household income



Source: Moody's Analytics

Key Task Update (Demographic Trends)

- Population growth rates have decreased since 2000, with 1975-2000 showing greater average annual growth rates for most (8 of 9) districts and most (19 of 21) PDCs than 2000-2017.
- Virginia's population is forecast to grow between 24% and 33% between 2017 to 2045—and we are getting older
- Since 1975, employment has become more concentrated in fewer PDCs.
- Forecasts vary by source. Example: employment may grow
  - From 5,275,247 to 7,601,370 (44.1%)
  - From 4,017,630 to 4,750,031 (18.2%)
- Given the large size of Northern Virginia, it is possible for a majority of locations to be below the statewide average

Key Task Update (Demographic Trends)

- The easier stuff: current and forecast values for
  - Population
  - Employment
  - Household income
  - And in the past, how accurate have we been?

- The harder stuff: so what? Examples are:
  - What are the transportation needs of older persons?
  - How might the trends in population and employment affect demand for transportation?

Thank you

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