



COMMONWEALTH *of* VIRGINIA
Office of the
SECRETARY *of* TRANSPORTATION

VTrans Update

Charlottesville/Albemarle MPO
Technical Advisory Committee

Chris Wichman, OIPI

Tuesday, May 21, 2019



FEEDBACK REQUESTS CHECKLIST

- Share performance measures to be used for Needs Identification (today's meeting)
- Confirm activity centers (ongoing & July regional workshop)
- Confirm presence of UDAs and UDA contacts (ongoing with localities)

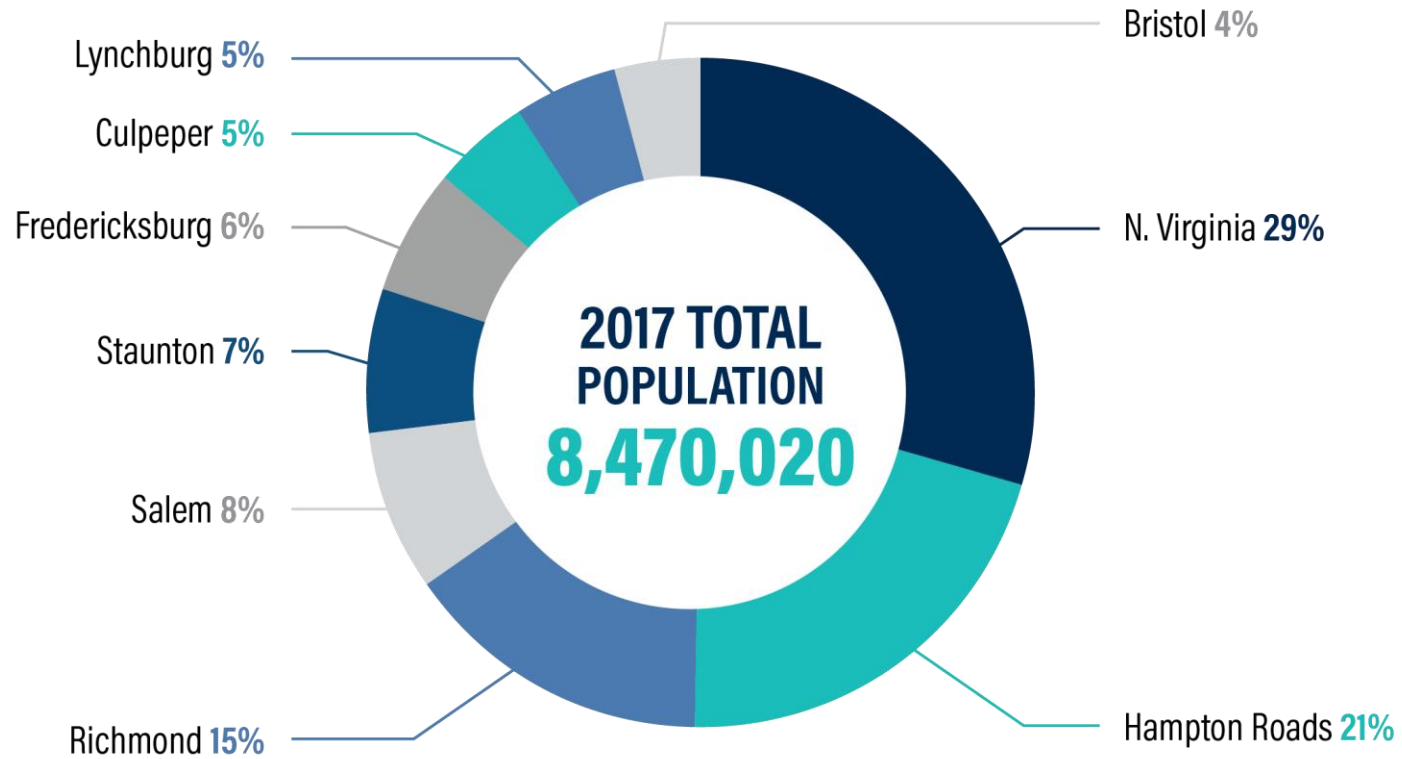


TRANSPORTATION'S ROLE IN ECONOMY

- Population and employment trends provide insight to transportation demand:
 - Economic model is changing – some businesses are choosing locations based on quality of life (workers prefer walkable places to live and work)
 - Different industry clusters have different transportation modal demand
 - Transportation plays an important role in attracting future workforce
 - Generational values/expectations guide where people choose to live and work

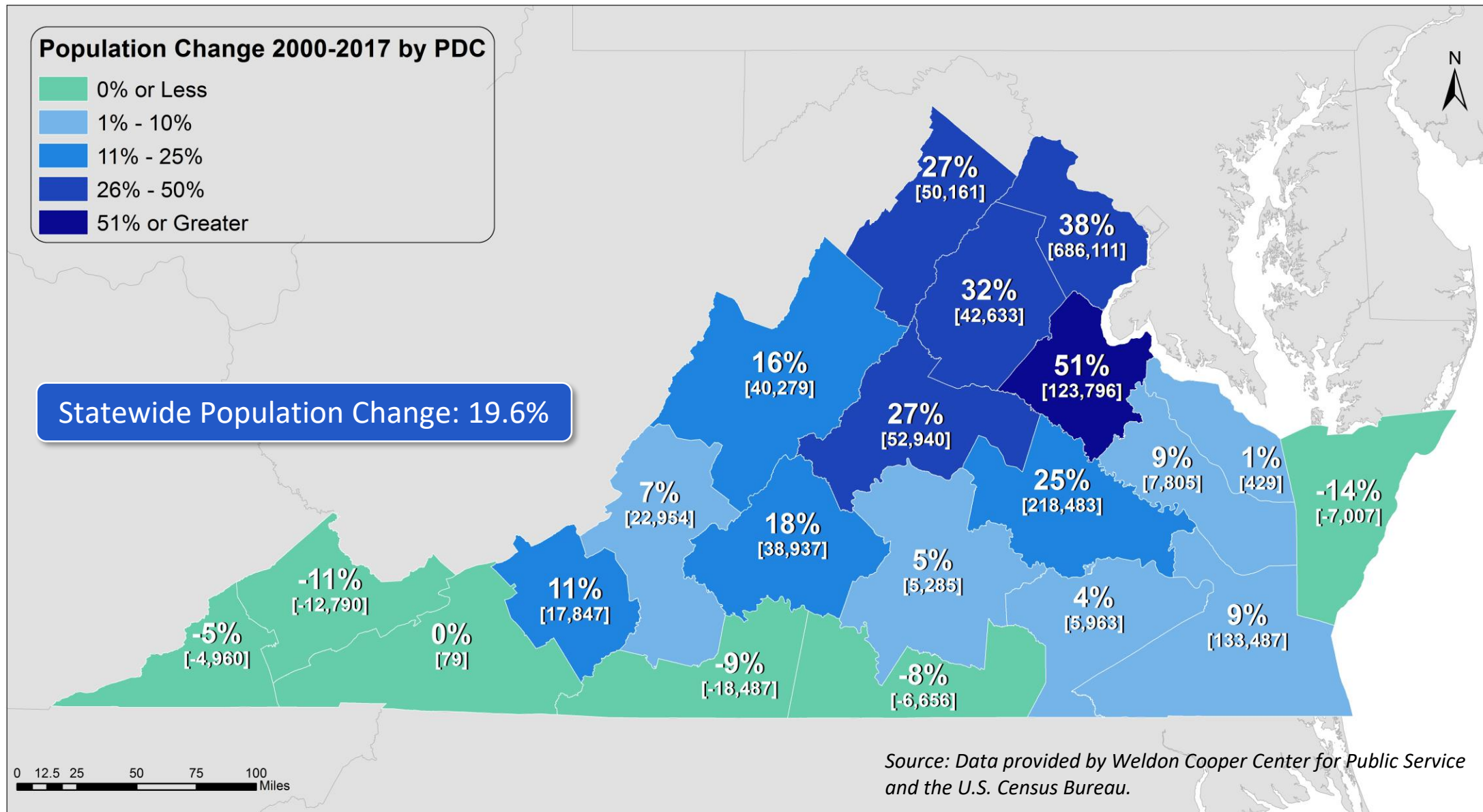


Percentage of Population (By CTB District)



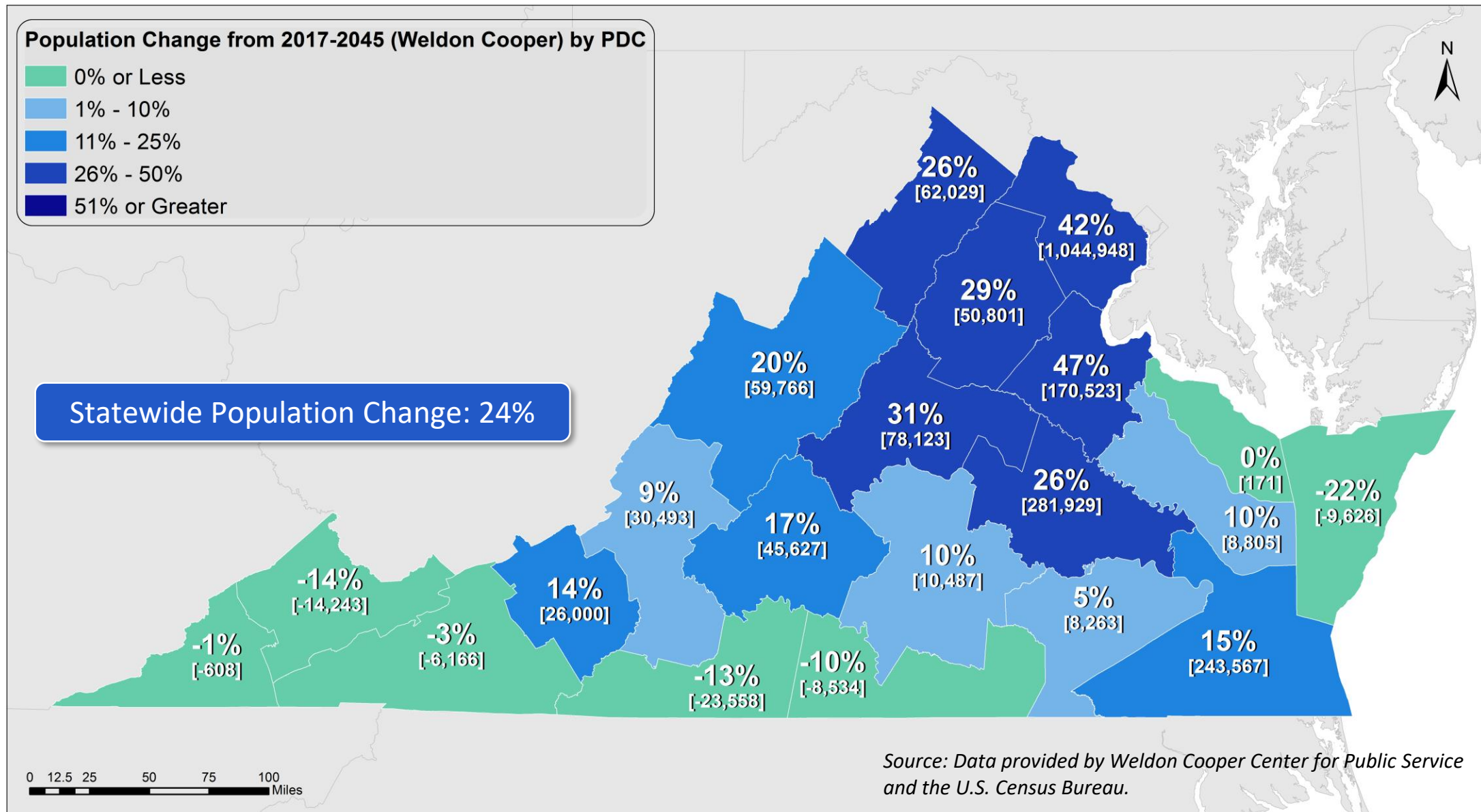
HISTORICAL POPULATION CHANGE BY PDC – 2000-2017

Note: This slide from the original presentation was updated on 6/18/2019



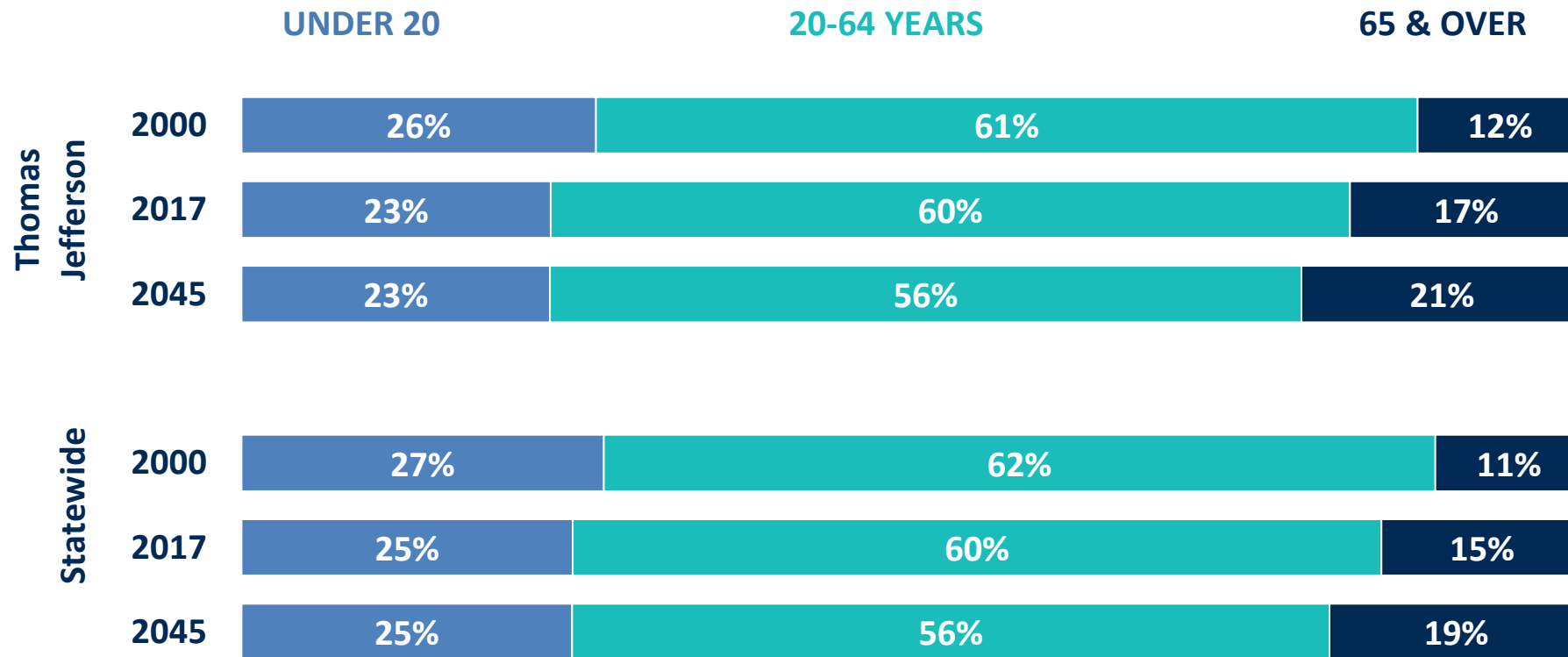
POPULATION FORECAST CHANGE BY PDC – 2017-2045

Note: This slide from the original presentation was updated on 6/18/2019

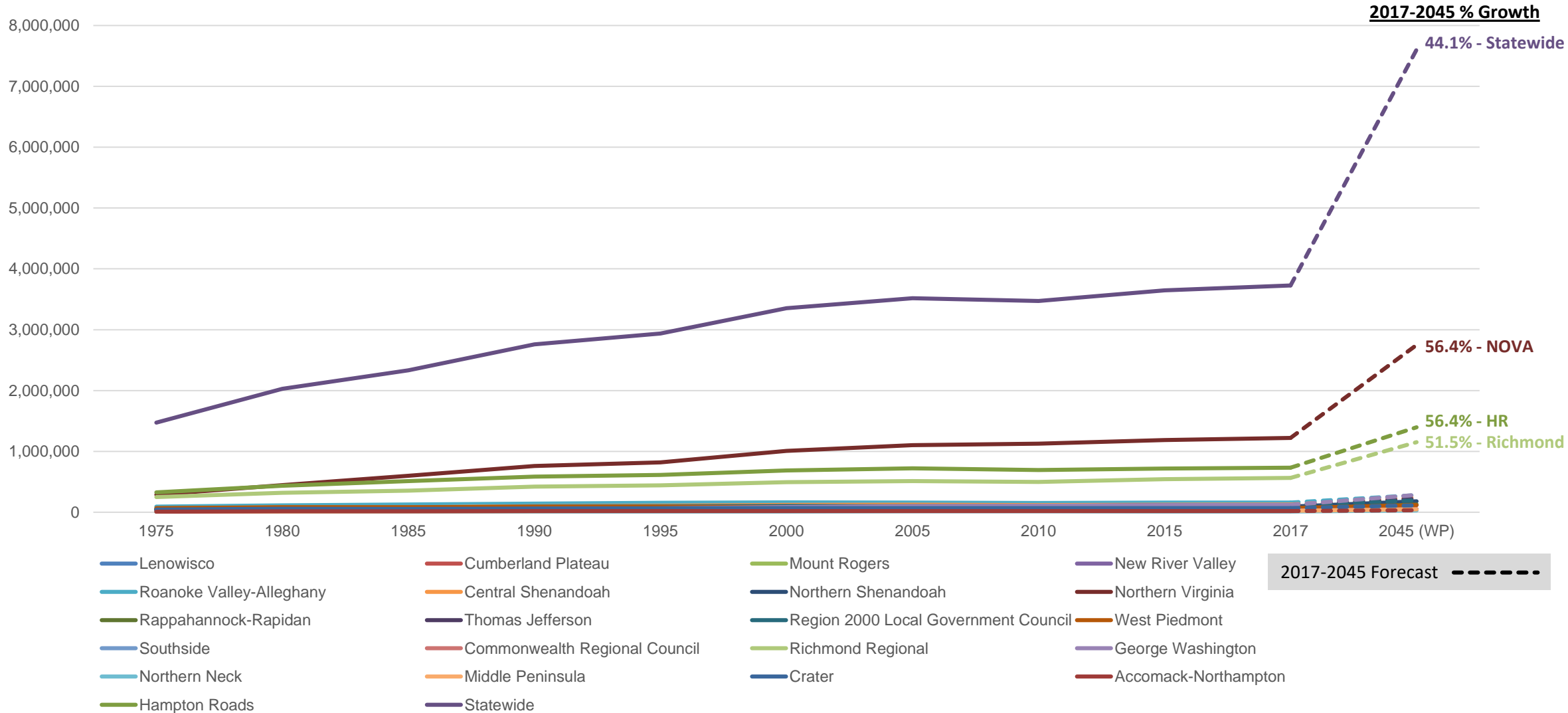


DEMOGRAPHIC TRENDS: AGE DISTRIBUTION BY PDC

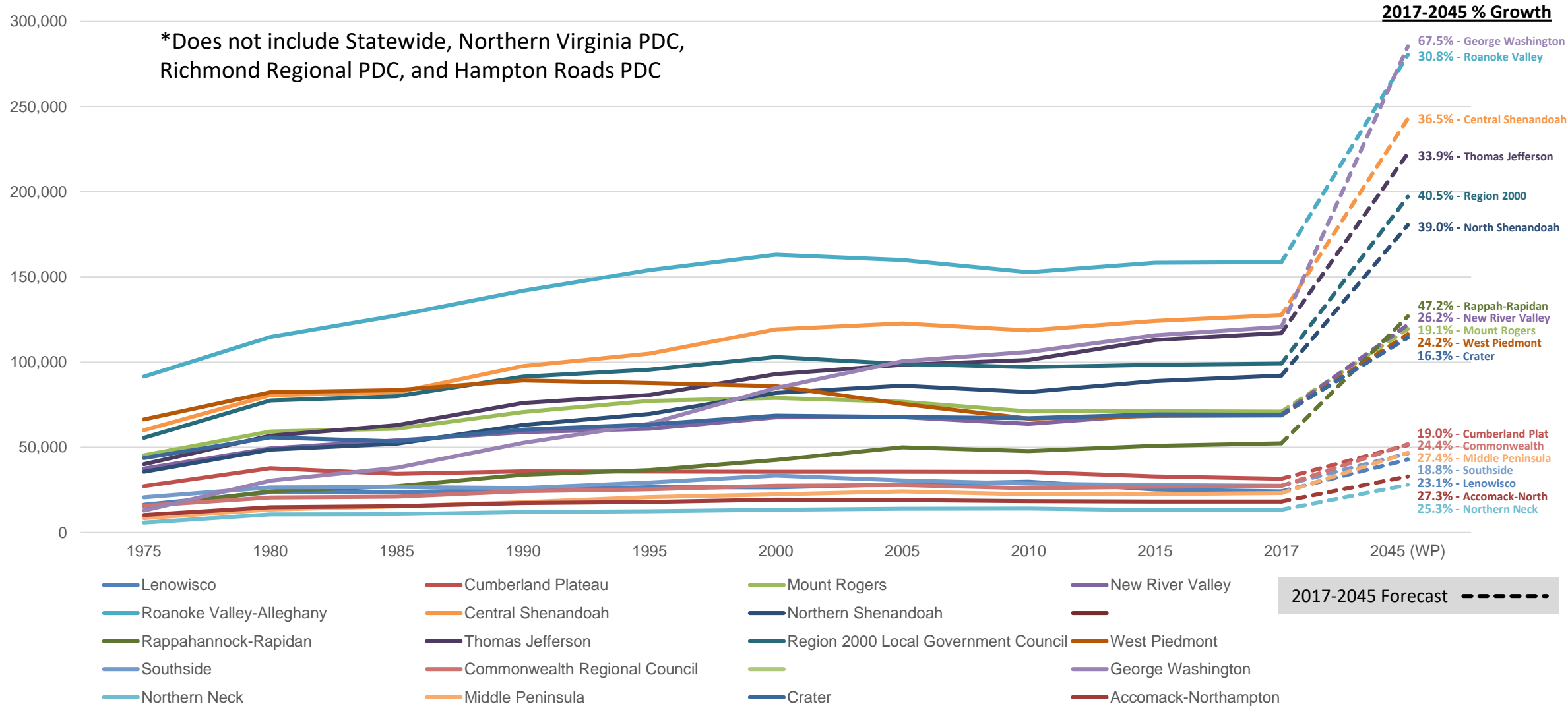
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DEMOGRAPHIC TRENDS: EMPLOYMENT BY PDC – 1975 TO 2045

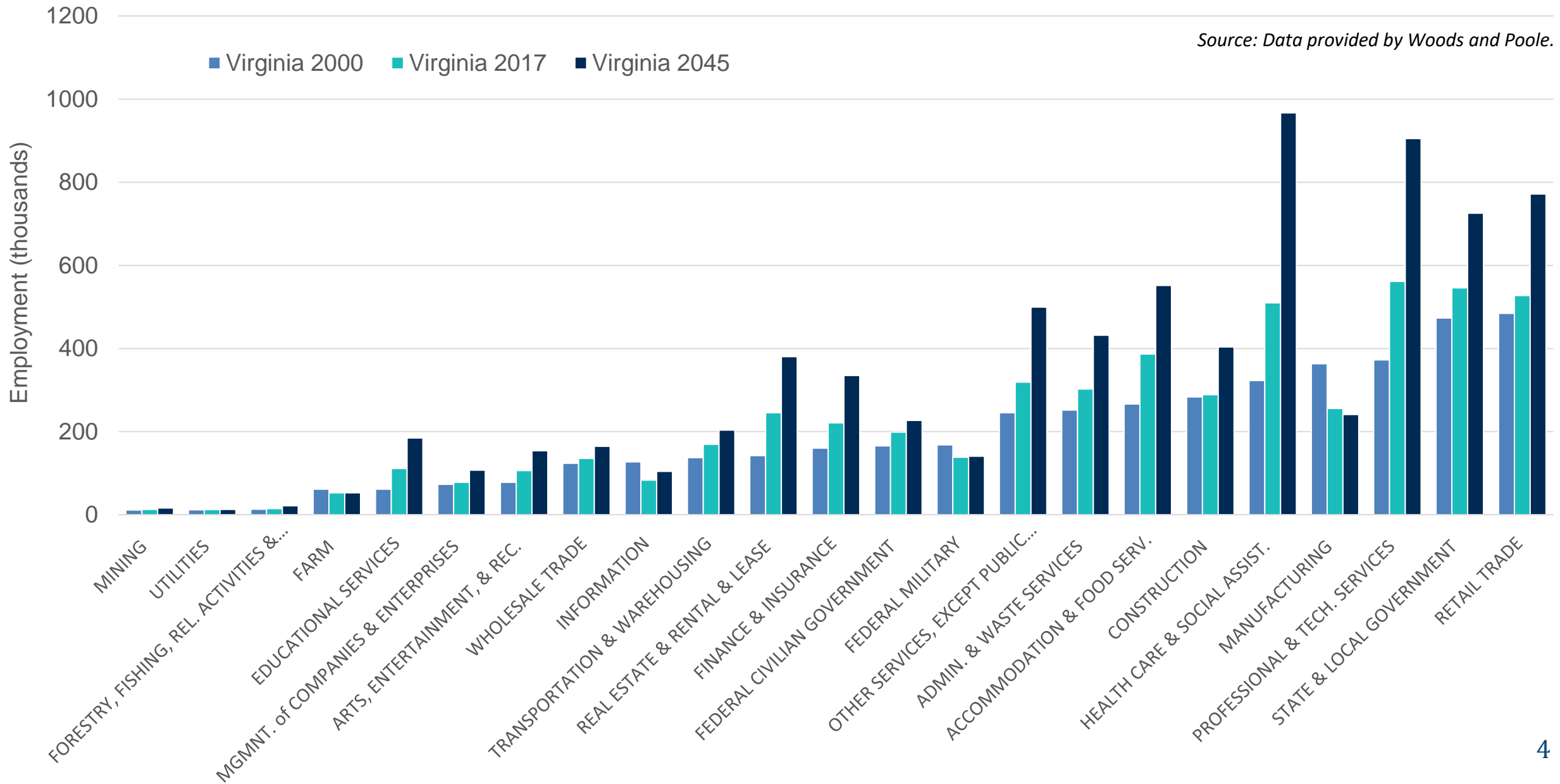


DEMOGRAPHIC TRENDS: EMPLOYMENT BY PDC – 1975 TO 2045*



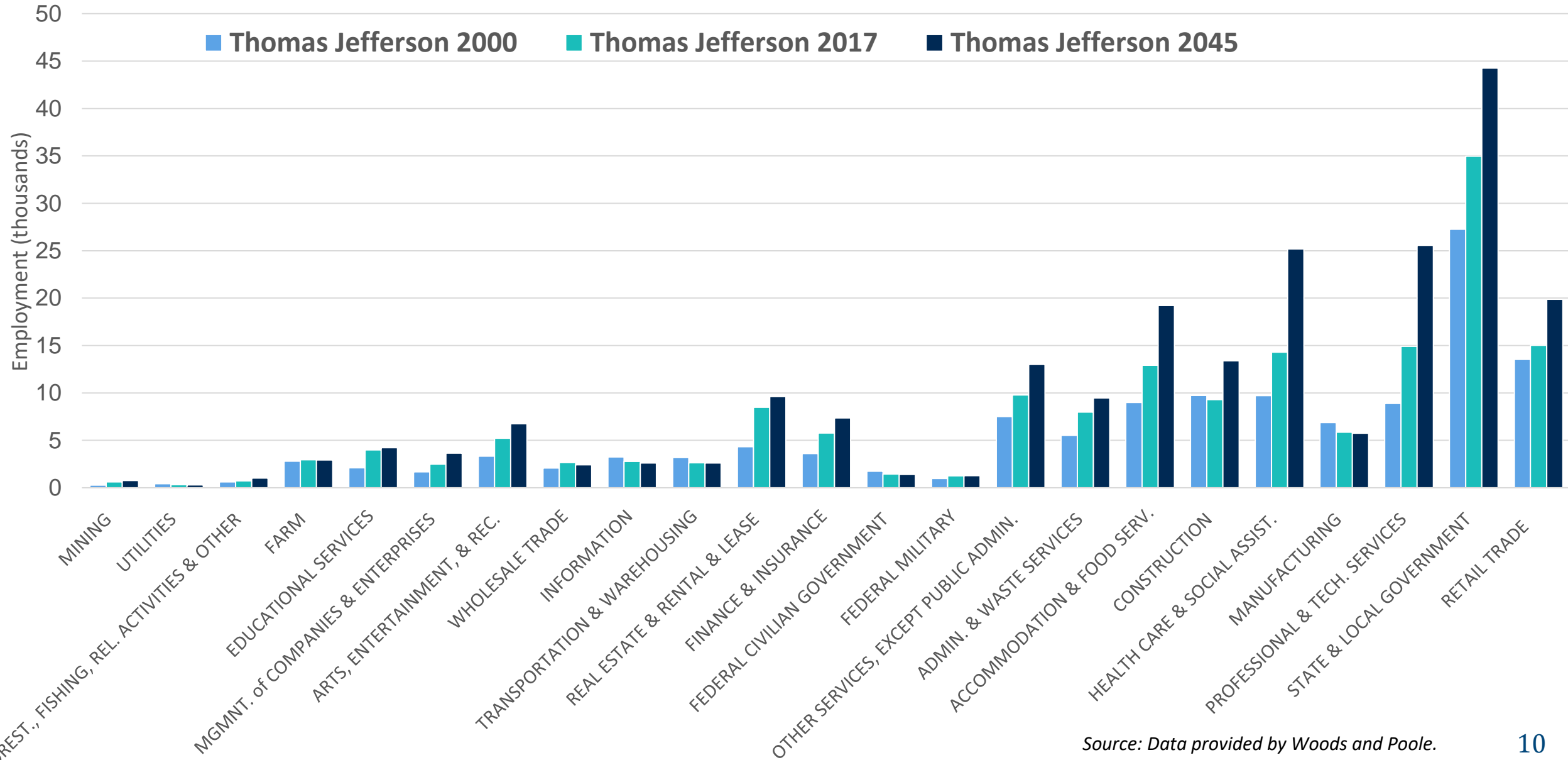
DEMOGRAPHIC TRENDS: STATEWIDE EMPLOYMENT BY INDUSTRY

Note: This slide from the original presentation was updated on 6/18/2019



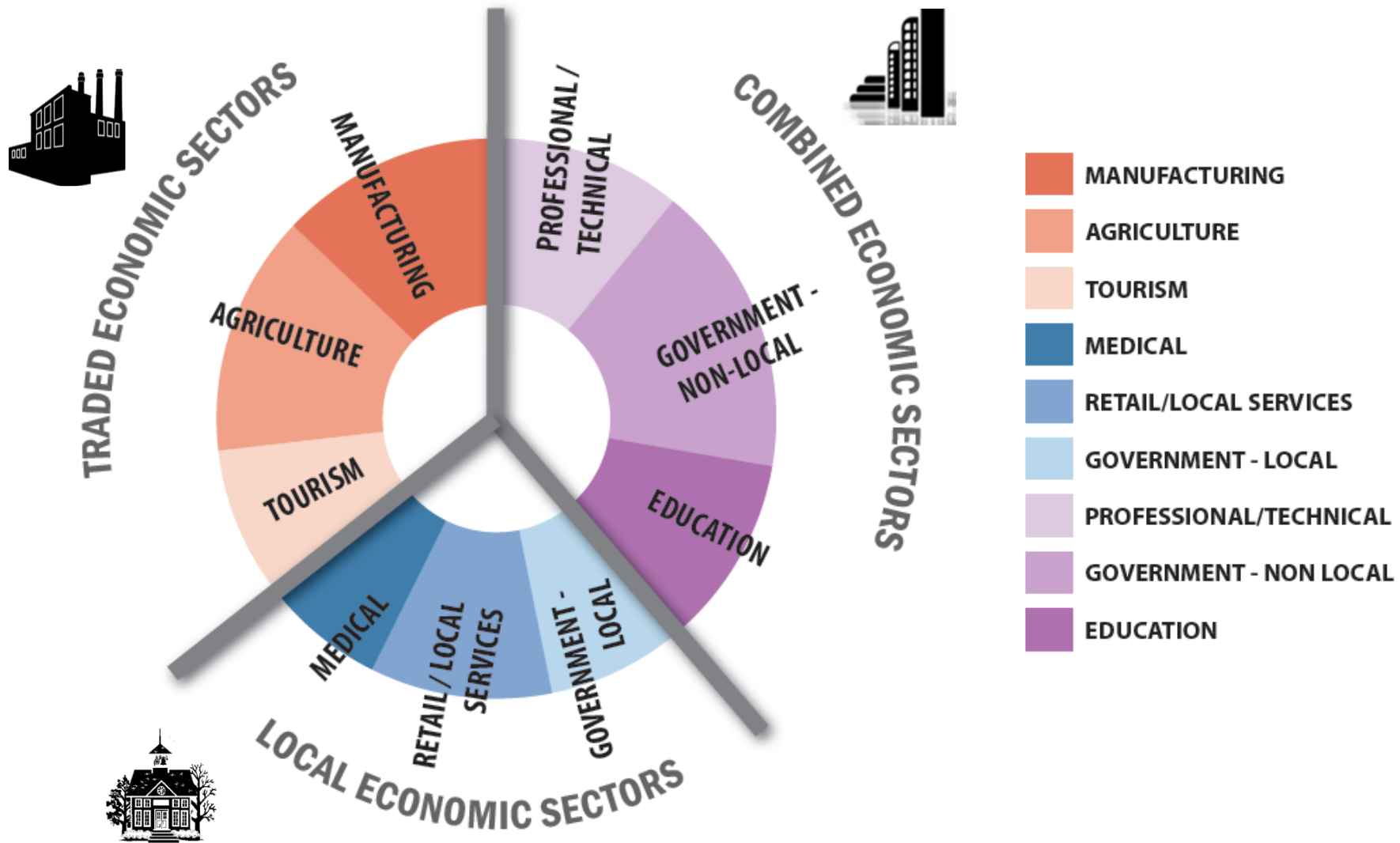
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Note: This slide from the original presentation was updated on 6/18/2019



Source: Data provided by Woods and Poole.

ECONOMIC-TRANSPORTATION LINKAGES | INDUSTRY CLUSTERS



ECONOMIC-TRANSPORTATION LINKAGES | TRANSPORTATION

Different industry clusters have different *Needs*, *Opportunities* and *Constraints* for efficient transportation



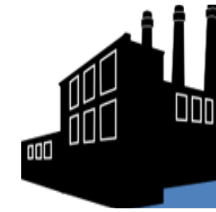
Knowledge-Based

- Mixed-use development
- Walking between destinations
- Traditional peak commute times
- Airport access



Local Serving

- Different peak commute times
- Customer traffic
- Trip-chaining destinations
- Truck deliveries



Freight Dependent

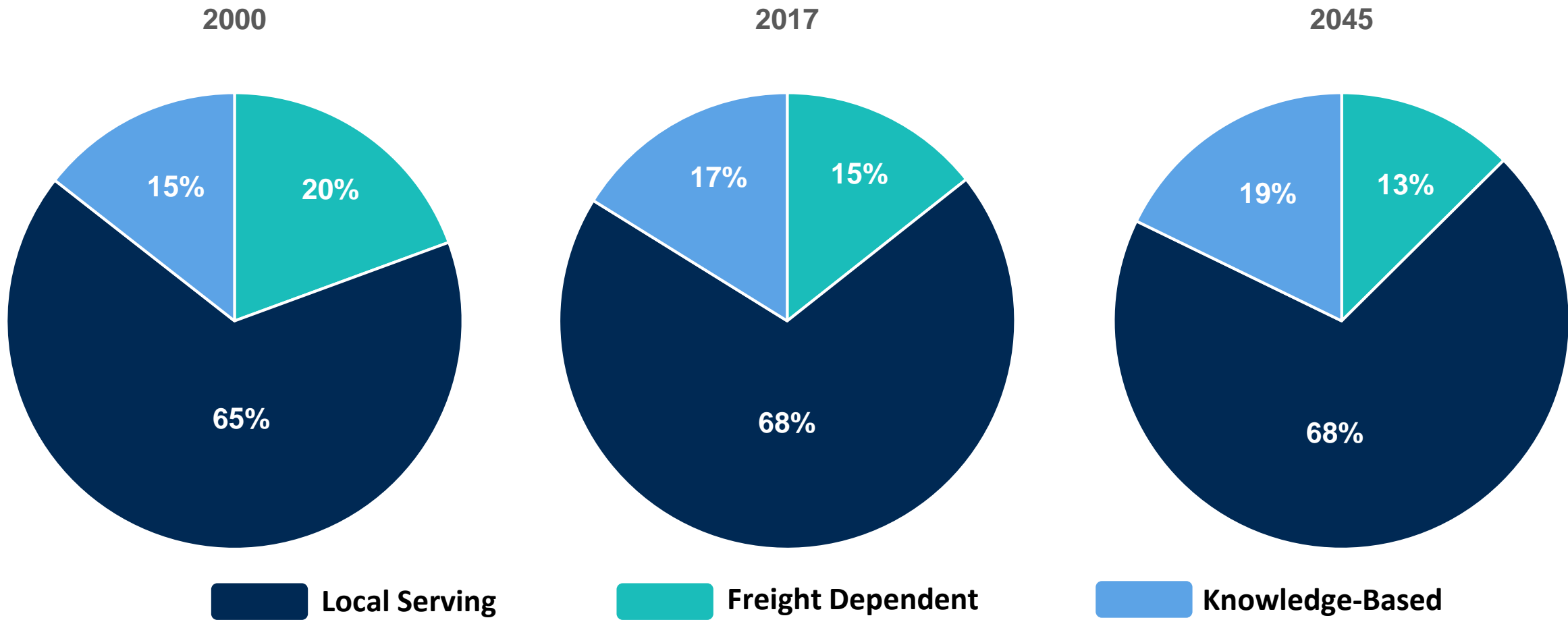
- Shift hours
- Truck origins and destinations
- Rail, port and/or airport access
- Remote locations



DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Note: This slide from the original presentation was updated on 6/18/2019

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TRAVEL MARKETS OVERVIEW

- **Corridors of Statewide Significance (CoSS)** [Code of Virginia [§ 33.2-35](#)]
 - Serve inter-regional travel
- **Regional Networks** [Code of Virginia in in [§ 33.2-353](#)]
 - Serve commuters, intra-regional, and local travel
- **Urban Development Areas (UDA)** [Code of Virginia [§ 33.2-353](#) and [§ 15.2-2223.1](#)]
 - Designated by local governments
 - Intended to promote walkable development and traditional neighborhood design

Corridors of Statewide Significance*

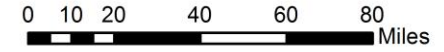
- Coastal Corridor
- Crescent Corridor
- East-West Corridor
- Eastern Shore Corridor
- Heartland Corridor
- North Carolina to West Virginia Corridor
- North-South Corridor
- Northern Virginia Corridor
- Seminole Corridor
- Southside Corridor
- Washington to North Carolina Corridor
- Western Mountain Corridor

*Thin lines of same color represent Corridor Component Facilities

-  Airports
-  Ports
-  Rail Network

Travel Markets:

Corridors of Statewide Significance serve inter-regional travel.



Mid-Term Needs Approach:

- Validate and build upon needs identified in VTrans2040
- Introduce new/improved data sources and new measures in line with federal performance reporting requirements
- Tie measures to VTrans Goals and Objectives
- Coordinate with regional and local stakeholders to update needs

Mid-Term Needs Approach by Travel Markets:

- CoSS – more data-driven, smaller segments than last time
- RN – build on VTrans2040, verify, update, confirm/revise
- UDA – build on VTrans2040, verify, update, confirm/revise
- Safety – Potential for Safety Improvements (PSI)

TRAVEL MARKETS & MID-TERM NEEDS ANALYSIS








| | CoSS | Regional Networks | UDA | Safety (Statewide) |
|--|--|---|---|--|
| Starting Point | Full Analysis of CoSS | VTrans2040 RN needs | VTrans2040 UDA needs | Full analysis of PSI locations |
| How will measures be used? | Identification of new needs | Validation of previously identified needs and identification of new needs | Needs must support UDA legislative requirements (§ 15.2-2223.1) | Identification of new needs |
| Stakeholder engagement required | Review and comment on identified needs | Regional workshops for needs identification with MPOs, PDCs, and localities | Survey/Needs questionnaire with localities | Review and comment on identified needs |

VTRANS GOALS

VTrans2040
Goals



DRAFT - MID-TERM NEEDS IDENTIFICATION MEASURES

| Goal | Mid-Term Needs Measures | CoSS | Regional Network | UDA | Safety |
|--|---|------|------------------|-----|--------|
|  A | Throughput | ✓ | | | |
|  A | Travel Time | ✓ | ✓* | | |
|  A | Person Delay During Unreliable Conditions (PDDUC)** | ✓ | | | |
|  A | Interstate: Heavy/medium truck*** vehicle hours of delay per lane mile | ✓ | | | |
|  B | [Accessibility measures – to be determined] | | ✓ | | |
|  B | Disadvantaged communities beyond ¼ mile access to transit | | ✓ | | |
|  C | PSI – Potential for safety improvements, (top X percentile and with minimum of Y crashes) | ✓ | ✓ | | ✓ |












* Based on availability of data

** Multiply the volume by the travel time beyond the 50th percentile for segment and time period

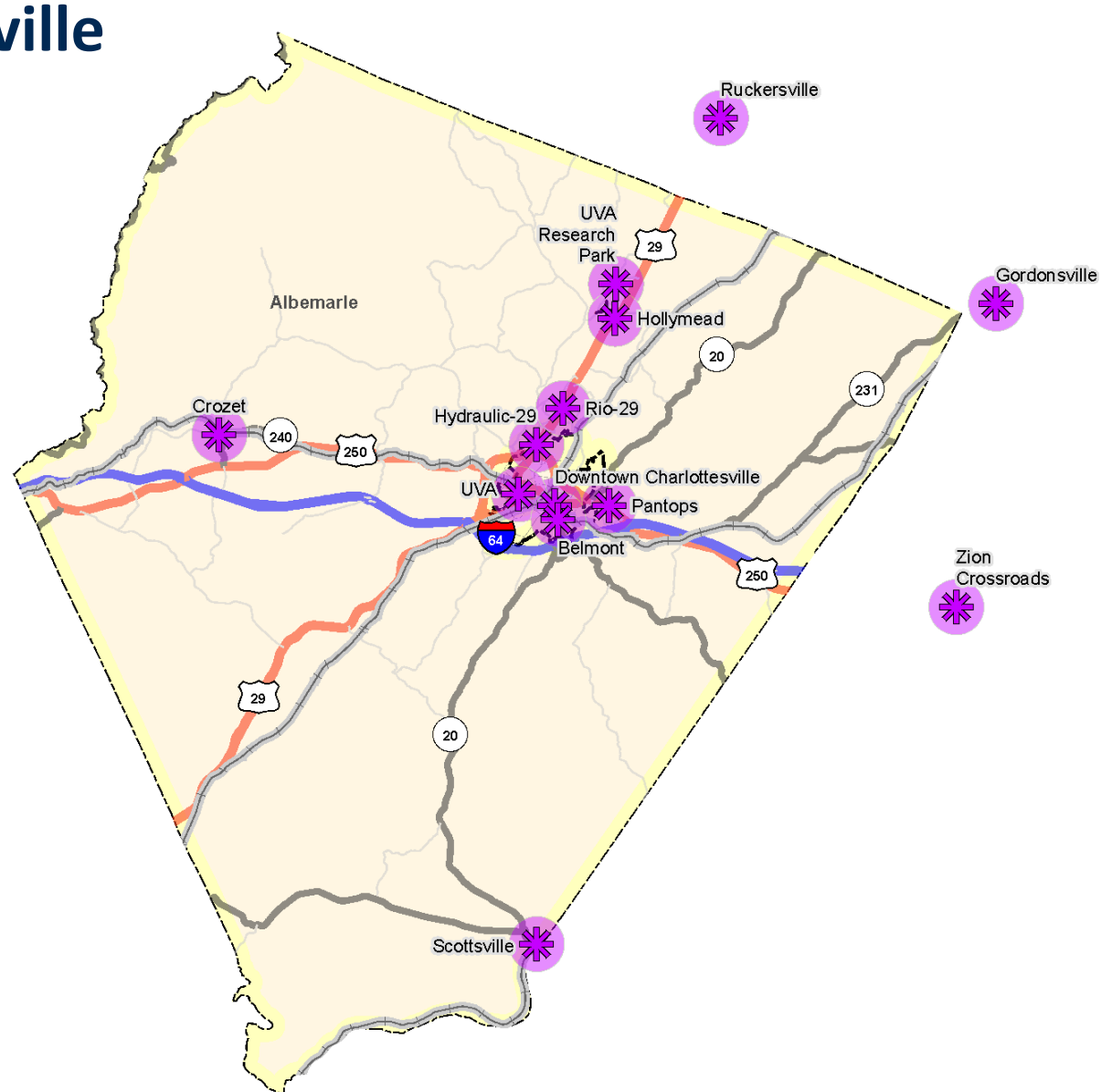
*** Vehicles defined in federal vehicle classification scheme as Class 5 or greater

REGIONAL NETWORKS | ACTIVITY CENTERS

Legend

-  2040 Activity Centers
-  Airports
-  Ports
-  Rail Network
-  Interstate
-  U.S. Route
-  State Route
-  Frontage Road
-  Secondary Route
-  Urban Road
-  Virginia Counties











Charlottesville Region



URBAN DEVELOPMENT AREAS

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Legend






















-  Airports
-  Ports
-  Rail Network
-  Virginia Counties
-  Interstate
-  U.S. Route
-  State Route
-  Frontage Road
-  Secondary Route
-  Urban Road

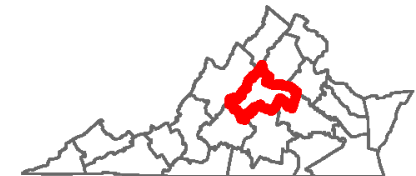


0 3 6 12 18 24 Miles



UDA Boundaries as of February 2019

-  Albemarle County - Crozet
-  Albemarle County - Hollymeade
-  Albemarle County - Neighborhood 1
-  Albemarle County - Neighborhood 2
-  Albemarle County - Pantops
-  Albemarle County - Piney Mountain
-  Albemarle County - Places 29 South
-  Albemarle County - Rivanna
-  Albemarle County - Southern/Western Neighborhoods
-  Charlottesville City-Cherry Avenue Corridor
-  Charlottesville City-Downtown and W Main St
-  Charlottesville City-Preston Avenue Corridor
-  Fluvanna County-Columbia
-  Fluvanna County-Fork Union
-  Fluvanna County-Lake Monticello
-  Fluvanna County-Palmyra
-  Fluvanna County-Scottsville
-  Fluvanna County-Zion Crossroads
-  Greene County-Corner Store
-  Greene County-Ruckersville
-  Greene County-Stanardsville



UDA NEEDS UPDATE PROCESS OVERVIEW

- If you have or plan to have a UDA:
 - Verify UDA Contact Name and info
 - Verify UDA list
 - Verify UDA boundaries
 - Submit updated UDA boundary shapefiles (if needed)
 - Submit new UDA boundary shapefiles
 - Complete UDA Needs Questionnaire

PSI-BASED SAFETY NEEDS APPROACH

- Historic crash data being transferred to VDOT's current linearly-referenced network
- Thresholds under review
- Desire to update to focus on “worst of the worst”
- Discussing need/desire to harmonize HSIP & SMART SCALE/VTrans measures
- CTB will approve SMART SCALE measure



MPO PARTICIPATION TIMELINE

| Date | VTrans Task | MPO Role |
|-------------------|---|---|
| May-early June | Presentations to MPO's | Provide feedback at MPO meetings |
| Mid May | Webinar - same as presentation to MPOs | Provide feedback at MPO meetings; PDC role - profile feedback |
| Early June | Webinar on UDA methodology and Instructions to Localities | Watch webinar, ask questions as needed and be able to provide assistance to UDA locality contacts as needed |
| Mid June | | Provide feedback on needs measures and methodology |
| July-early August | Presentations to MPO's | Attend your area presentation |



MPO PARTICIPATION TIMELINE, CONT'D

| Date | VTrans Task | MPO Role |
|--|---|----------|
| Mid-July | Webinar - same as presentations to MPOs | Attend |
| Before September 1 st | Draft Mid-Term Needs will be sent out to MPO's (and made available publicly as well) | Review |
| September 1 st to early October | OIPI Staff will go out to MPO's to discuss the draft Mid-Term Needs | Attend |
| October 16 th | October CTB meeting: Present draft needs and any feedback we've heard | N/A |
| December 11 th | December CTB Meeting: CTB makes final approval on Vision, Goals, Objectives, measures, needs methodology, and Mid-term Needs list | N/A |
| Before end of 2019 | OIPI will publish final approved list of Mid-Term Needs | N/A |

FEEDBACK REQUESTS CHECKLIST

- Share performance measures to be used for Needs Identification (today's meeting)
- Confirm activity centers (ongoing & July regional workshop)
- Confirm presence of UDAs and UDA contacts (ongoing with localities)



QUESTIONS/DISCUSSION

OIPI Staff Contact Information:

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|----------------------|--------------|--|
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