VTrans Update: Needs Assessment Overview

Webinar Presentation

Jitender Ramchandani, OIPI

Thursday, May 30th, 2019
Feedback Requests Checklist

- Share performance measures to be used for Needs Identification (today’s webinar)
- Confirm activity centers (ongoing & July regional workshops)
- 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)

2017 TOTAL POPULATION: 8,470,020

- N. Virginia: 30%
- Hampton Roads: 21%
- Staunton: 7%
- Salem: 8%
- Richmond: 15%
- Fredericksburg: 6%
- Culpeper: 5%
- Lynchburg: 5%
- Bristol: 4%

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: POPULATION CHANGE BY PDCs – 2000-2017

Statewide Population Change: 16.4%

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: POPULATION CHANGE BY PDCS – 2017-2045

Statewide Population Change: 24.3%

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
### Demographic Trends: Example Age Distribution by PDC

<table>
<thead>
<tr>
<th></th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern Virginia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>65%</td>
<td>7%</td>
</tr>
<tr>
<td>2017</td>
<td>26%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2045</td>
<td>26%</td>
<td>59%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Northern Neck</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>22%</td>
<td>55%</td>
<td>23%</td>
</tr>
<tr>
<td>2017</td>
<td>18%</td>
<td>52%</td>
<td>29%</td>
</tr>
<tr>
<td>2045</td>
<td>19%</td>
<td>51%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Statewide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: EMPLOYMENT BY PDC – 1975 TO 2045

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
**DEMOGRAPHIC TRENDS: EMPLOYMENT BY PDC – 1975 TO 2045**

*Does not include Statewide, Northern Virginia PDC, Richmond Regional PDC, and Hampton Roads PDC

**2017-2045 % Growth**

- Roanoke Valley: 67.5%
- George Washington: 67.5%
- Central Shenandoah: 36.5%
- Thomas Jefferson: 33.9%
- Central Virginia: 40.5%
- North Shenandoah: 39.0%
- Rappahannock-Rapidan: 47.2%
- New River Valley: 26.2%
- Mount Rogers: 19.1%
- West Piedmont: 24.2%
- Crater: 16.3%
- Cumberland Plateau: 24.4%
- Commonwealth: 27.4%
- Middle Peninsula: 18.8%
- Southside: 23.1%
- Lenowisco: 27.3%
- Accomack-North: 25.3%
- Northern Neck: 25.3%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: STATEWIDE EMPLOYMENT BY INDUSTRY

Employment (thousands)

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: EXAMPLE PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: EXAMPLE PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
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: EXAMPLE PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council and OIPI.
TRAVEL MARKETS OVERVIEW

- **Corridors of Statewide Significance (CoSS)** [Code of Virginia § 33.2-35]
  - Serve inter-regional travel

- **Regional Networks** [Code of Virginia 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.
Corridors of Statewide Significance serve inter-regional travel.

Regional Networks serve commuters, intra-regional and local travel.
**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

**Travel Markets:**
Corridors of Statewide Significance serve inter-regional travel.

**Regional Networks serve commuters, intra-regional and local travel.**

**Urban Development Areas are designated by local governments and are intended to promote walkable development and traditional neighborhood design.**
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

<table>
<thead>
<tr>
<th></th>
<th>CoSS</th>
<th>Regional Networks</th>
<th>UDA</th>
<th>Safety (Statewide)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starting Point</strong></td>
<td>Full Analysis of CoSS</td>
<td>VTrans2040 RN needs</td>
<td>VTrans2040 UDA needs</td>
<td>Full analysis of PSI locations</td>
</tr>
<tr>
<td><strong>How will measures be used?</strong></td>
<td>Identification of new needs</td>
<td>Validation of previously identified needs and identification of new needs</td>
<td>Needs must support UDA legislative requirements (<a href="#">§ 15.2-2223.1</a>)</td>
<td>Identification of new needs</td>
</tr>
<tr>
<td><strong>Stakeholder engagement required</strong></td>
<td>Review and comment on identified needs</td>
<td>Regional workshops for needs identification with MPOs, PDCs, and localities</td>
<td>Survey/Needs questionnaire with localities</td>
<td>Review and comment on identified needs</td>
</tr>
</tbody>
</table>
VTrans Goals

Goal A: Economic Competitiveness and Prosperity

Goal B: Accessible and Connected Places

Goal C: Safety for All Users

Goal D: Proactive System Management

Goal E: Healthy Communities and Sustainable Transportation Communities
# DRAFT - MID-TERM NEEDS IDENTIFICATION MEASURES

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

* 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 | Example Activity Centers

Hampton Roads Region

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

Legend
- 🌟 2040 Activity Centers
- 🛩 Airports
- ✈️ Ports
- 🚆 Rail Network
- ⛦ Interstate
- 🟠 U.S. Route
- 🟣 State Route
- 🟡 Frontage Road
- 🔴 Secondary Route
- 🟠Urban Road
- 🇺🇸 Virginia Counties
EXAMPLE URBAN DEVELOPMENT AREAS

Northern Virginia
EXAMPLE URBAN DEVELOPMENT AREAS

Middle Peninsula PDC

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

UDA Boundaries as of February 2019
- Gloucester County-Courthouse
- Gloucester County-Poind / Hayes Village
- King William County-Central Garde

Middle Peninsula
• 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
• 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
<table>
<thead>
<tr>
<th>Date</th>
<th>VTrans Task</th>
<th>MPO Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-early June</td>
<td>Presentations to MPO’s</td>
<td>Provide feedback at MPO meetings</td>
</tr>
<tr>
<td>May 30th</td>
<td><strong>Webinar - same as presentation to MPOs</strong></td>
<td><strong>Provide feedback at MPO meetings; PDC role - profile feedback</strong></td>
</tr>
<tr>
<td>June 14th</td>
<td><strong>Webinar on UDA methodology and Instructions to Localities</strong></td>
<td><strong>Watch webinar, ask questions as needed and be able to provide assistance to UDA locality contacts as needed</strong></td>
</tr>
<tr>
<td>Mid June</td>
<td></td>
<td><strong>Provide feedback on needs measures and methodology</strong></td>
</tr>
<tr>
<td>July-early August</td>
<td>Presentations to MPO’s</td>
<td><strong>Coordinate with MPO’s as needed</strong></td>
</tr>
<tr>
<td>Date</td>
<td>VTrans Task</td>
<td>MPO Role</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Mid-July</td>
<td>Webinar - same as presentations to MPOs</td>
<td>Attend</td>
</tr>
<tr>
<td>Before September 1st</td>
<td>Draft Mid-Term Needs will be made available</td>
<td>Review</td>
</tr>
<tr>
<td>September 1st to early October</td>
<td>OIPI Staff will go out to MPO’s to discuss the draft Mid-Term Needs</td>
<td>Attend</td>
</tr>
<tr>
<td>October 16th</td>
<td>October CTB meeting: Present draft needs and any feedback we’ve heard</td>
<td>N/A</td>
</tr>
<tr>
<td>December 11th</td>
<td>December CTB Meeting: CTB makes final approval on Vision, Goals, Objectives, measures, needs methodology, and Mid-term Needs list</td>
<td>N/A</td>
</tr>
<tr>
<td>Before end of 2019</td>
<td>OIPI will publish final approved list of Mid-Term Needs</td>
<td>N/A</td>
</tr>
</tbody>
</table>
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)
VTtrans Designated Points of Contact

Legend

VTtrans Primary Contact:
- Light green: Chris Wichman
- Blue: Katie Schwing
- Green: Chris Wichman (TJPDC)/Katie Schwing (RRRC)
OIP Staff Contact Information:

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jitender Ramchandani</td>
<td>804.786.0868</td>
<td><a href="mailto:Jitender.Ramchandani@oipi.Virginia.gov">Jitender.Ramchandani@oipi.Virginia.gov</a></td>
</tr>
<tr>
<td>Katie Schwing</td>
<td>804.786.2362</td>
<td><a href="mailto:Kathryn.Schwing@oipi.Virginia.gov">Kathryn.Schwing@oipi.Virginia.gov</a></td>
</tr>
<tr>
<td>Chris Wichman</td>
<td>804.786.2366</td>
<td><a href="mailto:Chris.Wichman@oipi.Virginia.gov">Chris.Wichman@oipi.Virginia.gov</a></td>
</tr>
</tbody>
</table>

Sign up for updates on the website (www.VTrans.org)
Like our Facebook Page (www.facebook.com/VTransVirginia)
Follow our Instagram Page (www.instagram.com/VTransVirginia)
THANK YOU!
APPENDIX

• Supplemental slides for more detailed PDC-specific information
### Demographic Trends: Age Distribution by PDC

#### Accomack-Northampton PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Under 20</th>
<th>20-64 Years</th>
<th>65 &amp; Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>26%</td>
<td>56%</td>
<td>18%</td>
</tr>
<tr>
<td>2017</td>
<td>22%</td>
<td>54%</td>
<td>24%</td>
</tr>
<tr>
<td>2045</td>
<td>20%</td>
<td>51%</td>
<td>29%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Under 20</th>
<th>20-64 Years</th>
<th>65 &amp; Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

**Source:** Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
# Demographic Trends: Age Distribution by PDC

## Central Shenandoah PDC

<table>
<thead>
<tr>
<th></th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Shenandoah</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>26%</td>
<td>60%</td>
<td>14%</td>
</tr>
<tr>
<td>2017</td>
<td>24%</td>
<td>58%</td>
<td>18%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>54%</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Statewide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
## Demographic Trends: Age Distribution by PDC

### Central Virginia PDC

<table>
<thead>
<tr>
<th>Region</th>
<th>2000</th>
<th>2017</th>
<th>2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Government Council</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDER 20</td>
<td>27%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>20-64 YEARS</td>
<td>59%</td>
<td>58%</td>
<td>54%</td>
</tr>
<tr>
<td>65 &amp; OVER</td>
<td>14%</td>
<td>18%</td>
<td>21%</td>
</tr>
</tbody>
</table>

| Statewide | | | |
| UNDER 20 | 27% | 25% | 25% |
| 20-64 YEARS | 62% | 60% | 56% |
| 65 & OVER | 11% | 15% | 19% |

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
### Demographic Trends: Age Distribution by PDC

#### Commonwealth Regional Council

<table>
<thead>
<tr>
<th>Year</th>
<th>Under 20</th>
<th>20-64 Years</th>
<th>65 &amp; Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>26%</td>
<td>58%</td>
<td>15%</td>
</tr>
<tr>
<td>2017</td>
<td>22%</td>
<td>58%</td>
<td>19%</td>
</tr>
<tr>
<td>2045</td>
<td>22%</td>
<td>55%</td>
<td>23%</td>
</tr>
</tbody>
</table>

#### Statewide

<table>
<thead>
<tr>
<th>Year</th>
<th>Under 20</th>
<th>20-64 Years</th>
<th>65 &amp; Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.*
Demographic Trends: Age Distribution by PDC

Crater PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>60%</td>
<td>13%</td>
</tr>
<tr>
<td>2017</td>
<td>24%</td>
<td>60%</td>
<td>16%</td>
</tr>
<tr>
<td>2045</td>
<td>22%</td>
<td>56%</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
# Demographic Trends: Age Distribution by PDC

## Cumberland Plateau PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>24%</td>
<td>62%</td>
<td>14%</td>
</tr>
<tr>
<td>2017</td>
<td>21%</td>
<td>58%</td>
<td>21%</td>
</tr>
<tr>
<td>2045</td>
<td>21%</td>
<td>54%</td>
<td>25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
Demographic Trends: Age Distribution by PDC

George Washington RC

### George Washington

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>32%</td>
<td>60%</td>
<td>8%</td>
</tr>
<tr>
<td>2017</td>
<td>28%</td>
<td>60%</td>
<td>12%</td>
</tr>
<tr>
<td>2045</td>
<td>27%</td>
<td>55%</td>
<td>17%</td>
</tr>
</tbody>
</table>

### Statewide

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
## Demographic Trends: Age Distribution by PDC

### Hampton Roads PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>24%</td>
<td>56%</td>
<td>19%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>61%</td>
<td>14%</td>
</tr>
<tr>
<td>2045</td>
<td>29%</td>
<td>60%</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
## Demographic Trends: Age Distribution by PDC

### Lenowisco PDC

<table>
<thead>
<tr>
<th></th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2017</td>
<td>21%</td>
<td>59%</td>
<td>20%</td>
</tr>
<tr>
<td>2045</td>
<td>21%</td>
<td>57%</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
## Demographic Trends: Age Distribution by PDC

### Middle Peninsula PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>26%</td>
<td>59%</td>
<td>15%</td>
</tr>
<tr>
<td>2017</td>
<td>21%</td>
<td>57%</td>
<td>21%</td>
</tr>
<tr>
<td>2045</td>
<td>22%</td>
<td>53%</td>
<td>26%</td>
</tr>
</tbody>
</table>

### Statewide

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: AGE DISTRIBUTION BY PDC

Mount Rogers PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>23%</td>
<td>60%</td>
<td>17%</td>
</tr>
<tr>
<td>2017</td>
<td>21%</td>
<td>57%</td>
<td>22%</td>
</tr>
<tr>
<td>2045</td>
<td>21%</td>
<td>52%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Statewide

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
# Demographic Trends: Age Distribution by PDC

## New River Valley RC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>25%</td>
<td>63%</td>
<td>12%</td>
</tr>
<tr>
<td>2017</td>
<td>23%</td>
<td>62%</td>
<td>16%</td>
</tr>
<tr>
<td>2045</td>
<td>24%</td>
<td>58%</td>
<td>18%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
Demographic Trends: Age Distribution by PDC

Northern Neck PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>22%</td>
<td>55%</td>
<td>23%</td>
</tr>
<tr>
<td>2017</td>
<td>18%</td>
<td>52%</td>
<td>29%</td>
</tr>
<tr>
<td>2045</td>
<td>19%</td>
<td>51%</td>
<td>30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
## Demographic Trends: Age Distribution by PDC

### Northern Shenandoah Valley RC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern Shenandoah</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>60%</td>
<td>14%</td>
</tr>
<tr>
<td>2017</td>
<td>24%</td>
<td>58%</td>
<td>18%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>53%</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statewide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.*
Demographic Trends: Age Distribution by PDC

Northern Virginia RC

<table>
<thead>
<tr>
<th></th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Virginia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>65%</td>
<td>7%</td>
</tr>
<tr>
<td>2017</td>
<td>26%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2045</td>
<td>26%</td>
<td>59%</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: AGE DISTRIBUTION BY PDC

Rappahannock-Rapidan RC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>28%</td>
<td>60%</td>
<td>13%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>57%</td>
<td>18%</td>
</tr>
<tr>
<td>2045</td>
<td>26%</td>
<td>52%</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
Demographic Trends: Age Distribution by PDC

Richmond Regional PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>28%</td>
<td>61%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>24%</td>
<td>61%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
# Demographic Trends: Age Distribution by PDC

**Southside PDC**

<table>
<thead>
<tr>
<th></th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Southside</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>24%</td>
<td>59%</td>
<td>17%</td>
</tr>
<tr>
<td>2017</td>
<td>21%</td>
<td>55%</td>
<td>24%</td>
</tr>
<tr>
<td>2045</td>
<td>21%</td>
<td>51%</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Statewide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
## Demographic Trends: Age Distribution by PDC

### Thomas Jefferson PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Under 20</th>
<th>20-64 Years</th>
<th>65 &amp; Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>26%</td>
<td>61%</td>
<td>12%</td>
</tr>
<tr>
<td>2017</td>
<td>23%</td>
<td>60%</td>
<td>17%</td>
</tr>
<tr>
<td>2045</td>
<td>23%</td>
<td>56%</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Under 20</th>
<th>20-64 Years</th>
<th>65 &amp; Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.
# Demographic Trends: Age Distribution by PDC

## West Piedmont PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>25%</td>
<td>59%</td>
<td>17%</td>
</tr>
<tr>
<td>2017</td>
<td>22%</td>
<td>56%</td>
<td>22%</td>
</tr>
<tr>
<td>2045</td>
<td>21%</td>
<td>51%</td>
<td>28%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>UNDER 20</th>
<th>20-64 YEARS</th>
<th>65 &amp; OVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27%</td>
<td>62%</td>
<td>11%</td>
</tr>
<tr>
<td>2017</td>
<td>25%</td>
<td>60%</td>
<td>15%</td>
</tr>
<tr>
<td>2045</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Weldon Cooper Center for Public Service. Analysis by the Virginia Transportation Research Council.

58
ACTIVITY CENTERS
Charlottesville Region
Regional Networks | Activity Centers

Danville Region
REGIONAL NETWORKS | ACTIVITY CENTERS

Fredericksburg Region
Hampton Roads Region

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

Regional Networks | Activity Centers
REGIONAL NETWORKS | ACTIVITY CENTERS

Harrisonburg Region
Roanoke Region
Accomack-Northampton PDC
Central Shenandoah PDC
URBAN DEVELOPMENT AREAS

Central Virginia PDC

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

UDA Boundaries as of February 2019
- Amherst County - Tyler Tracts
- Amherst Town - Amherst Town Development Area
- Bedford County - Bedford Area and Monroe Area
- Campbell County - Airport Area
- Campbell County - Brass Ford
- Campbell County - Liberty Ridge
- Campbell County - Greens Commerce Park
- Lynchburg City
- Town of Appomattox

Region 2000

VTRANS
VIRGINIA’S TRANSPORTATION PLAN
URBAN DEVELOPMENT AREAS

Commonwealth Regional Council
URBAN DEVELOPMENT AREAS

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

UDA Boundaries as of February 2019

Cumberland Plateau PDC
URBAN DEVELOPMENT AREAS

George Washington Regional Commission

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

George Washington Regional Commission

VTRANS VIRGINIA’S TRANSPORTATION PLAN
URBAN DEVELOPMENT AREAS

Hampton Roads
PDC (1)
HAMPTON ROADS PDC (2)

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

UDA Boundaries as of February 2019
- Hampton City Busines
- Hampton City Coliseum-Central
- Hampton City Downtown
- Hampton City Fort Monroe
- Hampton City Kings Dennon
- Hampton City North-King St
- Hampton City Phoebus
- James City County-Anderson’s Corner
- James City County-Fordham Conservation
- James City County-Grayson
- James City County-Hayes
- James City County-Lightfoot
- James City County-New Town
- James City County-Richmond
- James City County-Richmond Highway
- James City County-Treasure Drive
- James City County-Williamsburg Crossing
- Williamsburg City-High Street/Midtown Use
- Williamsburg City-Midtown Focus Area
- Williamsburg City-Northeast Triangle
- Williamsburg City-Quartermaster
- York County-Grafen Drive/Route 17 Corridor
- York County-Kearns Cupp-Barron
- York County-Lightfoot
- York County-McQus and Uptown
- York County-Route 17NA, 83rd St, Indian Soc., Intersection

HAMPTON ROADS

VIRGINIA’S TRANSPORTATION PLAN

84
URBAN DEVELOPMENT AREAS

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

Lenowisco PDC

VTRANS VIRGINIA'S TRANSPORTATION PLAN

85
URBAN DEVELOPMENT AREAS

Middle Peninsula PDC
URBAN DEVELOPMENT AREAS

Mount Rogers PDC

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

UDA Boundaries as of February 2019

Mount Rogers

VTRANS | VIRGINIA'S TRANSPORTATION PLAN
URBAN DEVELOPMENT AREAS

New River Valley RC

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

UDA Boundaries as of February 2019
- Blacksburg Town-UOA A
- Blacksburg Town-UOA B
- Blacksburg Town-UOA C
- Blacksburg Town-UOA D
- Blacksburg Town-UOA E
- Blacksburg Town-UOA F
- Blacksburg Town-UOA G
- Blacksburg Town-UOA H
- Christiansburg - Downtown Area
- Christiansburg - Institute
- Christiansburg - Mill Area
- Montgomery County - Montgomery County UDAs
- Montgomery County-Middle County
- Montgomery County-Route 177 Area
- Town of Narrows - UDA 1
URBAN DEVELOPMENT AREAS

Northern Neck PDC

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

UDA Boundaries as of February 2019

Northern Neck

VTRANS
VIRGINIA'S TRANSPORTATION PLAN
Northern Shenandoah Valley Regional Commission
URBAN DEVELOPMENT AREAS

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

Rappahannock-Rapidan Regional Commission

UDA Boundaries as of February 2010
URBAN DEVELOPMENT AREAS

Richmond Regional PDC

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

Richmond Regional

VTRANS
VIRGINIA'S TRANSPORTATION PLAN
URBAN DEVELOPMENT AREAS

Roanoke Valley-Alleghany Regional Commission
URBAN DEVELOPMENT AREAS

Southside PDC
URBAN DEVELOPMENT AREAS

Thomas Jefferson PDC
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Accomack-Northampton PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>56%</td>
<td>36%</td>
<td>8%</td>
</tr>
<tr>
<td>2017</td>
<td>56%</td>
<td>30%</td>
<td>9%</td>
</tr>
<tr>
<td>2045</td>
<td>65%</td>
<td>10%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
Demographic Trends: PDC Employment by Industry

Central Shenandoah PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>36%</td>
<td>8%</td>
<td>56%</td>
</tr>
<tr>
<td>2017</td>
<td>62%</td>
<td>9%</td>
<td>28%</td>
</tr>
<tr>
<td>2045</td>
<td>67%</td>
<td>9%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Central Virginia PDC

2000

- Local Serving: 57%
- Freight Dependent: 33%
- Knowledge-Based: 10%

2017

- Local Serving: 64%
- Freight Dependent: 25%
- Knowledge-Based: 12%

2045

- Local Serving: 67%
- Freight Dependent: 20%
- Knowledge-Based: 14%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
Demographic Trends: PDC Employment by Industry

Commonwealth Regional Council

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>58%</td>
<td>36%</td>
<td>6%</td>
</tr>
<tr>
<td>2005</td>
<td>65%</td>
<td>28%</td>
<td>9%</td>
</tr>
<tr>
<td>2045</td>
<td>68%</td>
<td>23%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Crater PDC

2000
- Local Serving: 70%
- Freight Dependent: 24%
- Knowledge-Based: 5%

2017
- Local Serving: 73%
- Freight Dependent: 20%
- Knowledge-Based: 7%

2045
- Local Serving: 74%
- Freight Dependent: 18%
- Knowledge-Based: 8%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Cumberland Plateau PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>59%</td>
<td>34%</td>
<td>7%</td>
</tr>
<tr>
<td>2017</td>
<td>64%</td>
<td>27%</td>
<td>10%</td>
</tr>
<tr>
<td>2045</td>
<td>64%</td>
<td>25%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
**Demographic Trends: PDC Employment by Industry**

**George Washington RC**

- **2000**
  - Local Serving: 66%
  - Freight Dependent: 20%
  - Knowledge-Based: 14%

- **2017**
  - Local Serving: 72%
  - Freight Dependent: 15%
  - Knowledge-Based: 13%

- **2045**
  - Local Serving: 76%
  - Freight Dependent: 13%
  - Knowledge-Based: 11%

*Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.*
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Hampton Roads PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>69%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>2017</td>
<td>72%</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>2045</td>
<td>74%</td>
<td>13%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
**Demographic Trends: PDC Employment by Industry**

### Lenowisco PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>60%</td>
<td>32%</td>
<td>8%</td>
</tr>
<tr>
<td>2017</td>
<td>68%</td>
<td>22%</td>
<td>9%</td>
</tr>
<tr>
<td>2045</td>
<td>69%</td>
<td>22%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

**Middle Peninsula PDC**

- **2000**:
  - Local Serving: 64%
  - Freight Dependent: 26%
  - Knowledge-Based: 10%

- **2017**:
  - Local Serving: 68%
  - Freight Dependent: 22%
  - Knowledge-Based: 11%

- **2045**:
  - Local Serving: 70%
  - Freight Dependent: 19%
  - Knowledge-Based: 10%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Mount Rogers PDC

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>53%</td>
<td>40%</td>
<td>7%</td>
</tr>
<tr>
<td>2017</td>
<td>61%</td>
<td>30%</td>
<td>9%</td>
</tr>
<tr>
<td>2045</td>
<td>65%</td>
<td>27%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

New River Valley RC

2000
- Local Serving: 61%
- Freight Dependent: 30%
- Knowledge-Based: 9%

2017
- Local Serving: 67%
- Freight Dependent: 23%
- Knowledge-Based: 11%

2045
- Local Serving: 70%
- Freight Dependent: 20%
- Knowledge-Based: 10%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
### Demographic Trends: PDC Employment by Industry

- **Source:** Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Northern Neck PDC

2000
- Local Serving: 63%
- Freight Dependent: 28%
- Knowledge-Based: 10%

2017
- Local Serving: 64%
- Freight Dependent: 25%
- Knowledge-Based: 11%

2045
- Local Serving: 66%
- Freight Dependent: 22%
- Knowledge-Based: 12%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Northern Shenandoah Valley RC

2000

- Local Serving: 54%
- Freight Dependent: 36%
- Knowledge-Based: 10%

2017

- Local Serving: 63%
- Freight Dependent: 26%
- Knowledge-Based: 11%

2045

- Local Serving: 68%
- Freight Dependent: 21%
- Knowledge-Based: 12%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
**Demographic Trends: PDC Employment by Industry**

**Northern Virginia RC**

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>29%</td>
<td>14%</td>
<td>57%</td>
</tr>
<tr>
<td>2017</td>
<td>28%</td>
<td>12%</td>
<td>60%</td>
</tr>
<tr>
<td>2045</td>
<td>29%</td>
<td>10%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Rappahannock-Rapidan RC

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Serving</th>
<th>Freight Dependent</th>
<th>Knowledge-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>58%</td>
<td>12%</td>
<td>30%</td>
</tr>
<tr>
<td>2017</td>
<td>63%</td>
<td>13%</td>
<td>24%</td>
</tr>
<tr>
<td>2045</td>
<td>69%</td>
<td>13%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Richmond Regional PDC

- **2000**
  - Local Serving: 61%
  - Freight Dependent: 18%
  - Knowledge-Based: 21%

- **2017**
  - Local Serving: 66%
  - Freight Dependent: 17%
  - Knowledge-Based: 18%

- **2045**
  - Local Serving: 68%
  - Freight Dependent: 18%
  - Knowledge-Based: 14%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
Demographic Trends: PDC Employment by Industry

Roanoke Valley-Alleghany RC

2000
- Local Serving: 57%
- Freight Dependent: 30%
- Knowledge-Based: 13%

2017
- Local Serving: 62%
- Freight Dependent: 25%
- Knowledge-Based: 13%

2045
- Local Serving: 66%
- Freight Dependent: 22%
- Knowledge-Based: 13%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Southside PDC

2000
- Local Serving: 53%
- Freight Dependent: 39%
- Knowledge-Based: 8%

2017
- Local Serving: 62%
- Freight Dependent: 29%
- Knowledge-Based: 10%

2045
- Local Serving: 66%
- Freight Dependent: 24%
- Knowledge-Based: 10%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.

[Bar chart showing employment trends by industry for Thomas Jefferson PDC 2000, 2017, and 2045]

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

Thomas Jefferson PDC

2000
- Local Serving: 66%
- Freight Dependent: 19%
- Knowledge-Based: 14%

2017
- Local Serving: 69%
- Freight Dependent: 16%
- Knowledge-Based: 14%

2045
- Local Serving: 70%
- Freight Dependent: 18%
- Knowledge-Based: 13%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.
DEMOGRAPHIC TRENDS: PDC EMPLOYMENT BY INDUSTRY

West Piedmont PDC

- **Local Serving**: 49%, 60%, 63%
- **Freight Dependent**: 42%, 12%, 15%
- **Knowledge-Based**: 8%, 28%, 22%

Source: Data provided by Woods and Poole. Analysis by the Virginia Transportation Research Council.