

## Chapter 4 – Patrick County

Figure 4.1 shows that Patrick County's population declined between the 2010 census and 2018, based on the 2014 - 2018 American Community Survey (ACS), dropping from 18,490 to 17,859; the University of Virginia's Weldon Cooper Center for Public Service projects a continued decline of the County's population to the year 2040. Figures 4.2 and 4.3 show that the compilation of the youngest age cohort (0 – 19) has experienced a decline, while the oldest, comprising the ages 65 years and over, has increased.

Figure 4.1

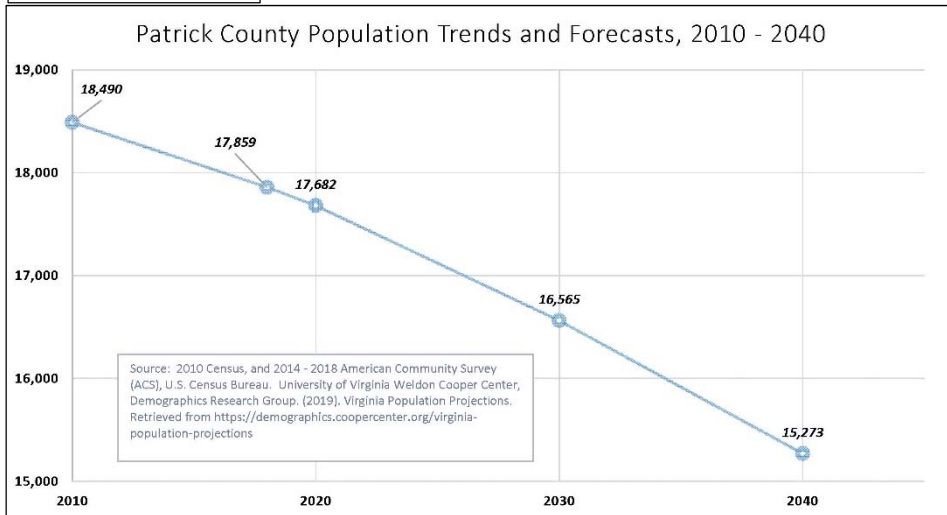


Figure 4.2

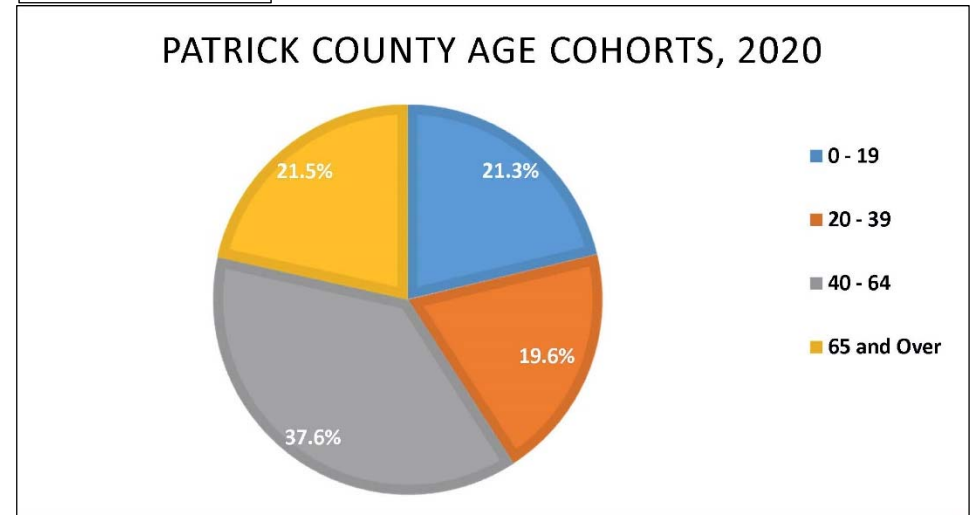


Figure 4.3

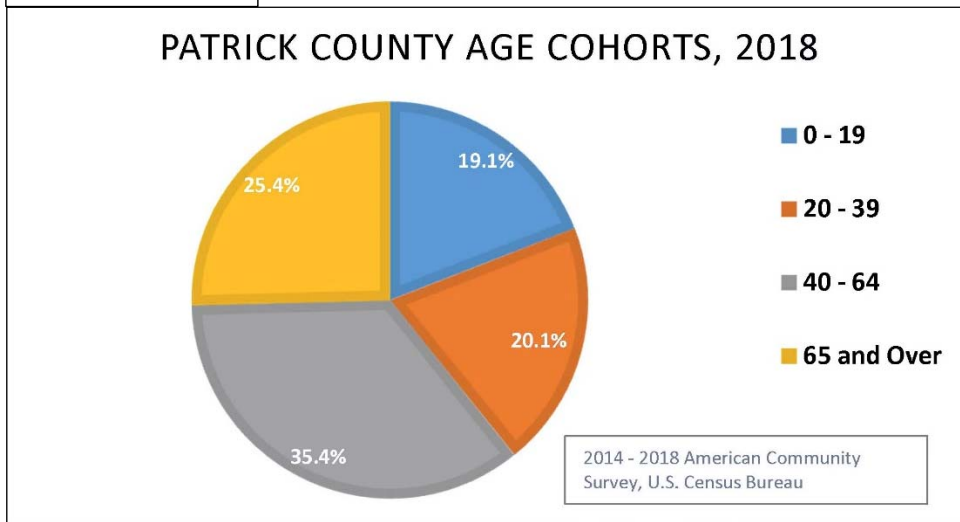


Figure 4.4

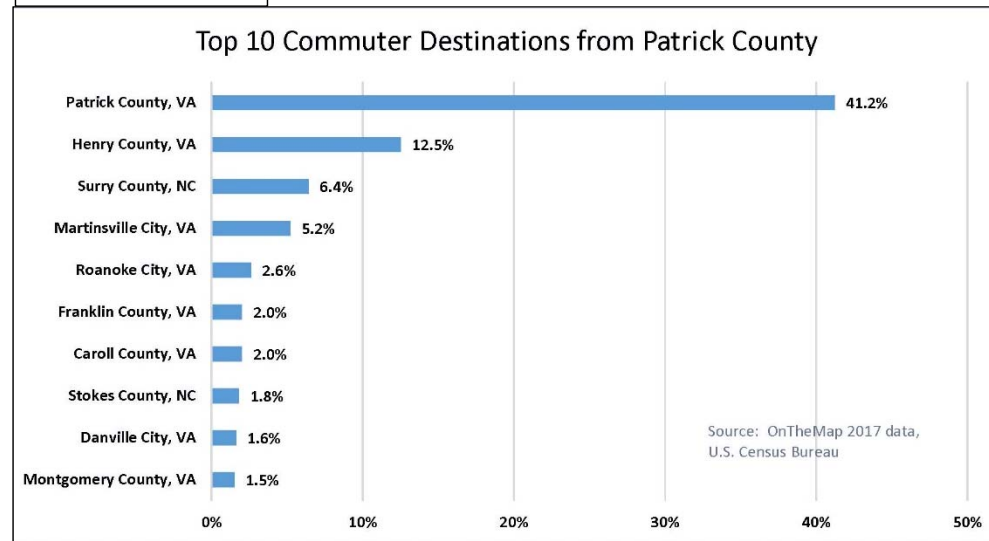


Figure 4.4 shows that most people who live in Patrick County also commute within the County for work. Other significant destinations to which residents of the County commute include Henry County; Surry County, NC; the City of Martinsville; the City of Roanoke; and Franklin County. Most commuters who work in Patrick County also live in Patrick County, according to Figure 4.5. Other localities representing subsequent shares of in-commuters to Patrick County include Henry County; Carroll County; Floyd County; and Stokes County, NC. In terms of socio-economic characteristics, represented by Figure 4.6, Patrick County represents significantly larger shares of the population than the Commonwealth of persons 65 years and over, those who have a disability, and those who are below poverty. Conversely, Patrick County's minority population is significantly lower than that of the State.

Figure 4.5

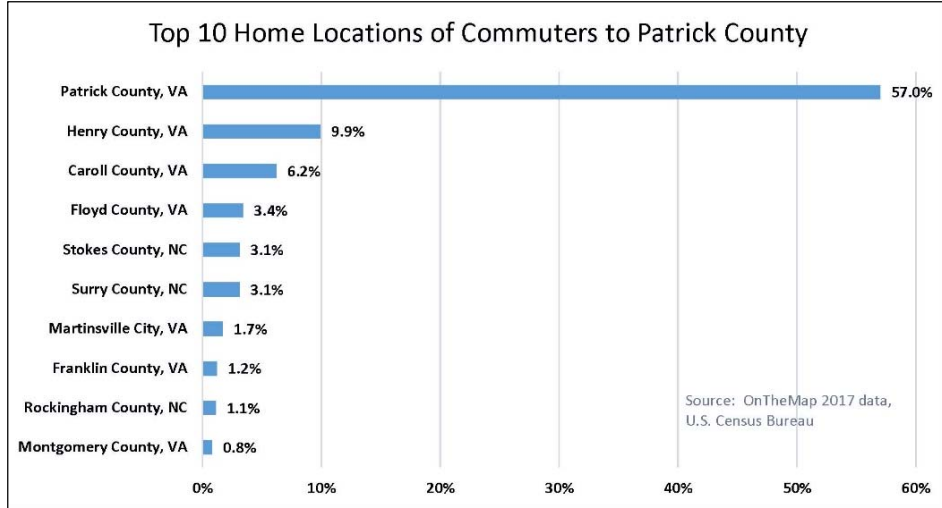
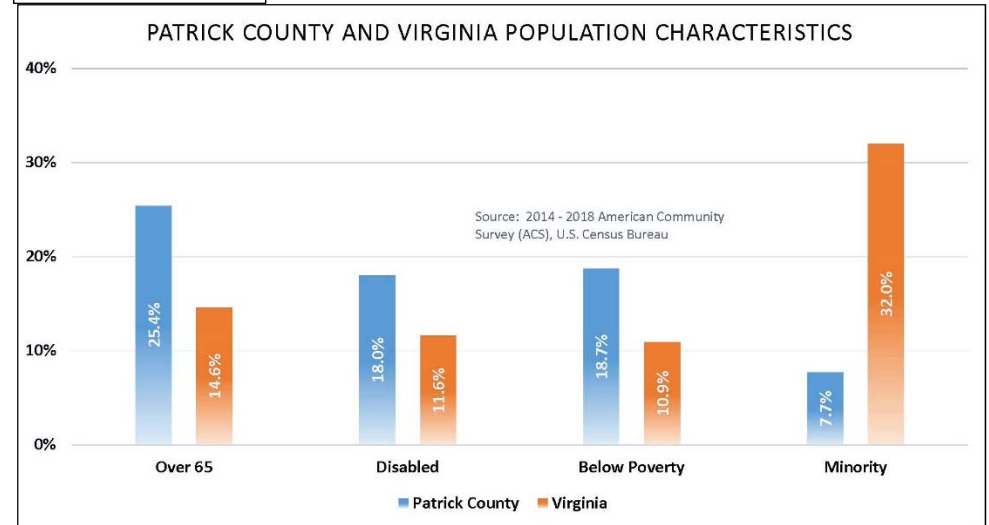


Figure 4.6



In terms of journey to work, the vast majority of commuters (87.1 percent) drive alone; 8.5 percent carpool; 3 percent work at home; 1.1 percent walk; and 0.3 percent utilize a taxicab, motorcycle, or other means. In terms of educational attainment, Figure 4.8 shows that the share of persons age 18 and above who hold bachelor's degrees and graduate or professional degrees in Patrick County are significantly lower than these degrees at the state level. Conversely, those who hold associate degrees represent a larger share in the County than for the State.

Figure 4.7

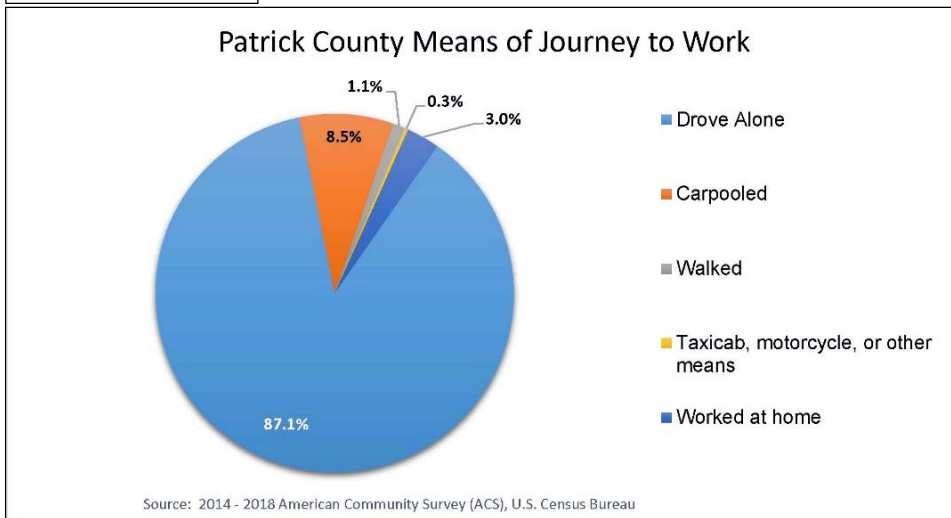
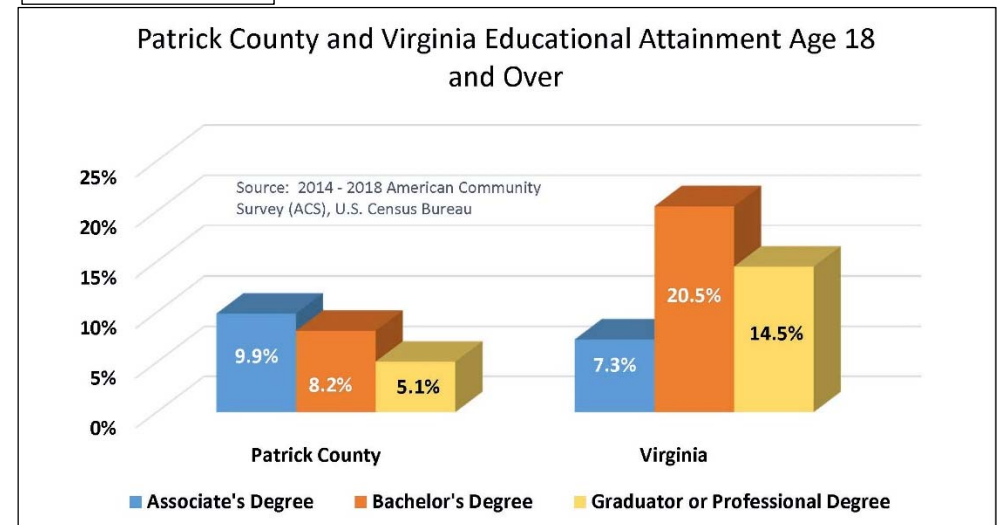


Figure 4.8



According to Figure 4.9, the median household income in Patrick County is significantly less than that of the State. In terms of employment, Figure 4.10 reveals that the County's share of manufacturing employment is about 3.5 times that of the State, revealing the County's reliance on this sector. The County's agricultural sector also represents a significantly larger share of employment than the State; this is no surprise, however, given the County's vast agricultural resources. Figure 4.11 illustrates the spatial distribution of employment in Patrick County. The figure shows that most employment is centered in and around the Town of Stuart, the County's main population center. Other employment concentrations in the County include the Woolwine area, as well as along U.S. Route 58 in Meadows of Dan.

Figure 4.9

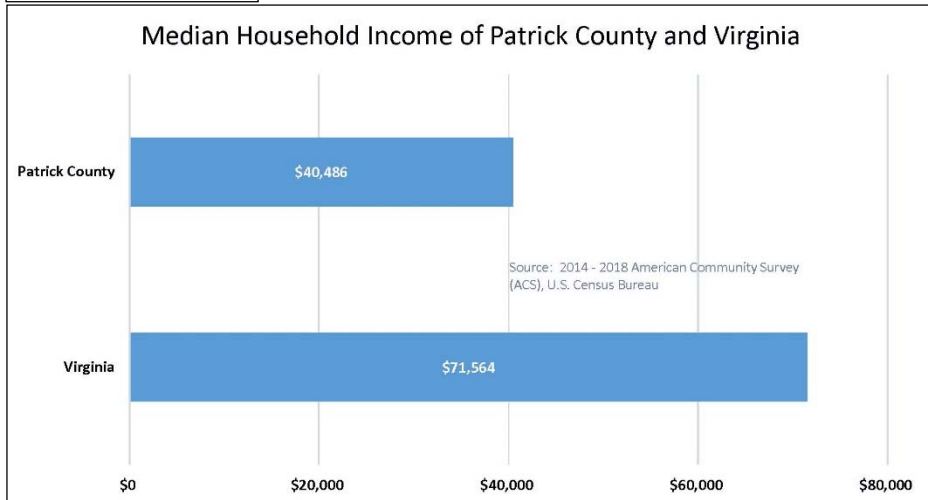


Figure 4.10

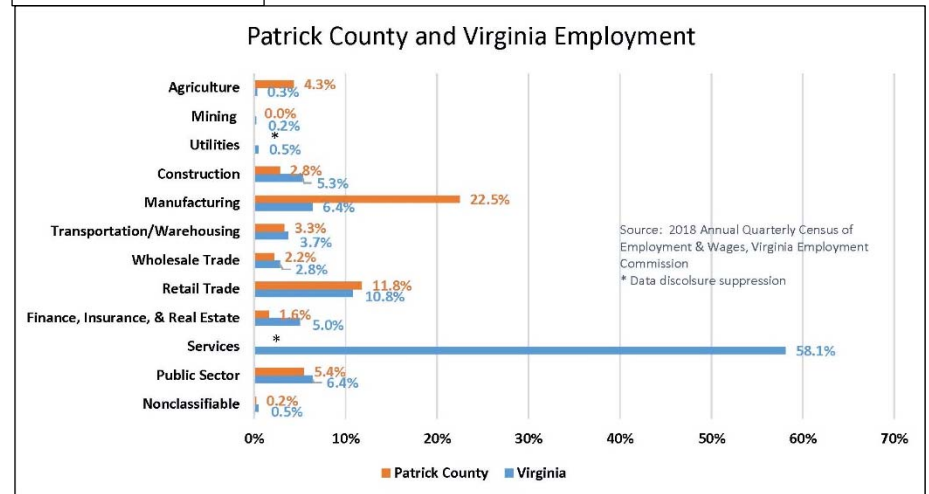
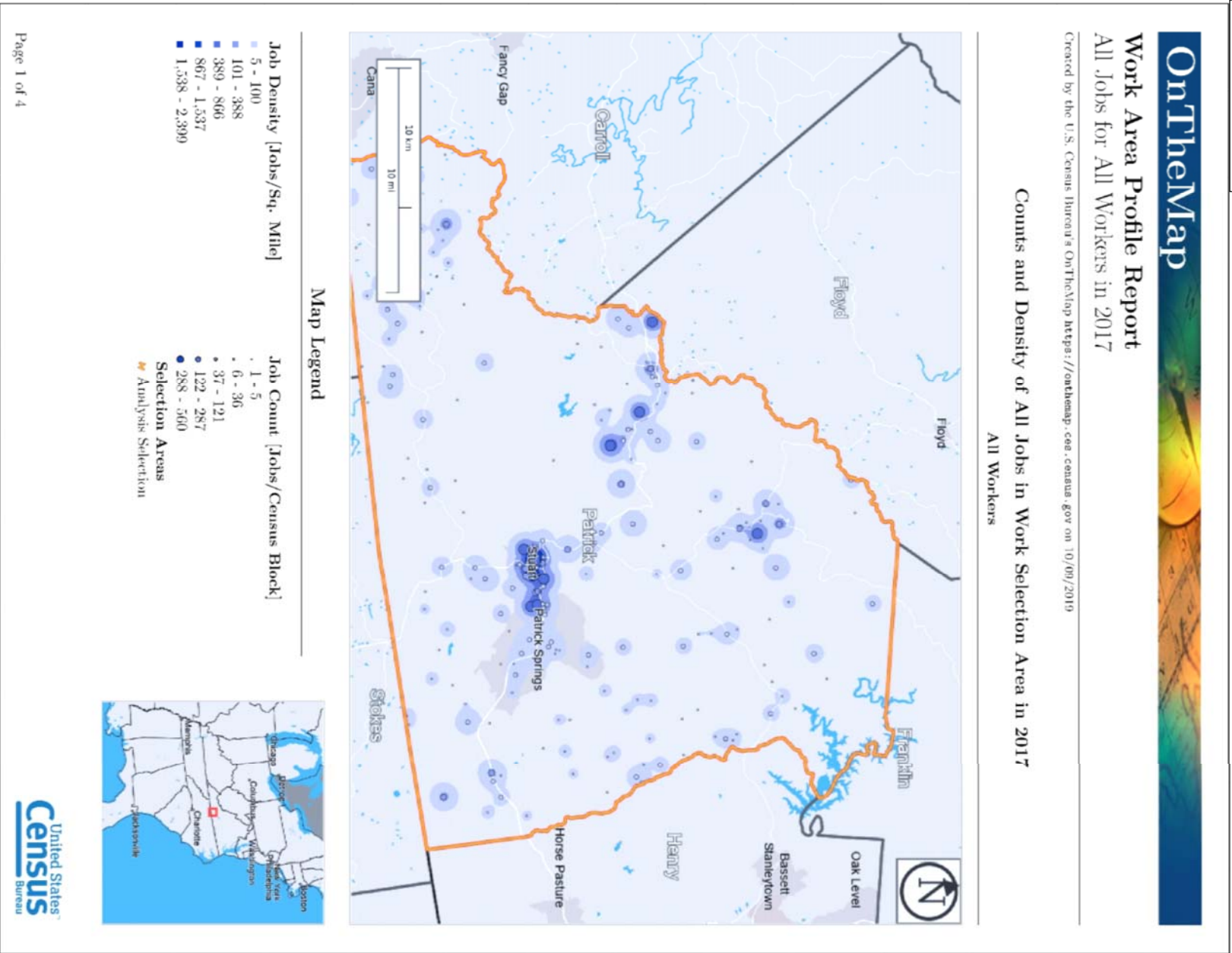


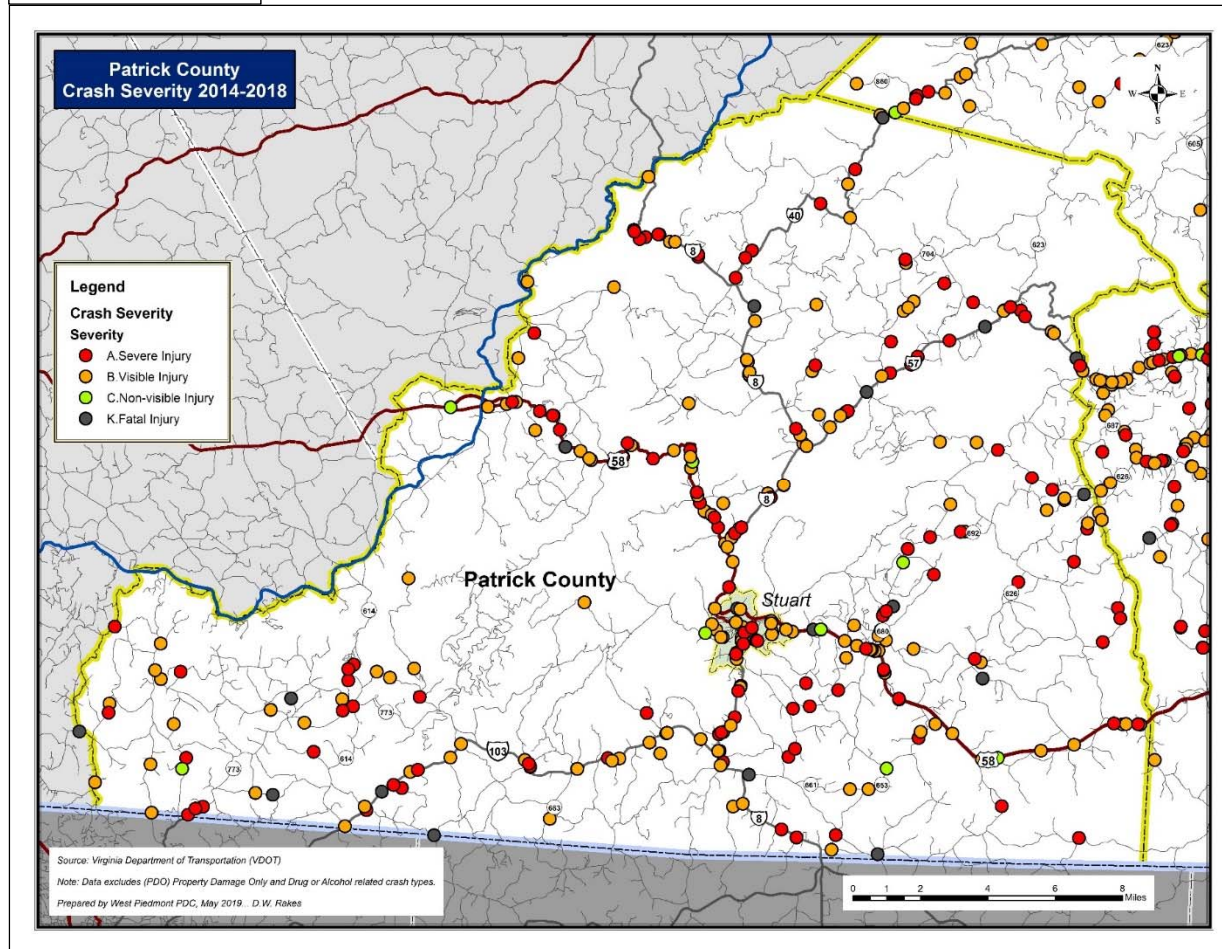
Figure 4.11



*State of the Transportation System*

Figure 4.12 illustrates the crashes in Patrick County by severity inclusive of the years 2014 - 2018, including Severe Injury, Visible Injury, Non-Visible Injury, and Fatal Injury. The table directly below Figure 4.12 summarizes, numerically, the crashes representing each injury category for each year analyzed. Figure 4.13 illustrates Annual Average Daily Traffic (AADT) for the year 2017 for the County. AADT is the average daily traffic on a roadway if a year's worth of traffic was divided up over a period of 365 days. The figure shows that the roadway with the highest volume is that portion of U.S. Route 58 east of Stuart. Roadway Level of Service (LOS) is a measure of roadway performance ranging from A – F, with A representing free-flowing conditions and F representing a roadway that is at capacity and performing poorly. Figure 4.14 illustrates that the County's roadway system performs very well, in terms of LOS. The only two road segments in the County showing a lower LOS of D include a small segment of Route 8 north of Stuart and a segment of U.S. Route 58 in Meadows of Dan. Figure 4.15 shows Volume to Capacity (V/C) Ratio of roadways in the County. V/C Ratio is a measure of how much traffic a road handles compared to how much it is able to accommodate. A V/C Ratio of 0.4, for instance, indicates that 40 percent of the road capacity is occupied by existing traffic volumes. Figures 4.16 and 4.17 pertain to the condition of bridges and culverts in the County. These structures are rated on a scale of 1 – 9, with 1, 2, 3, or 4 rated as poor, 5 or 6 as fair, and 7, 8, or 9 good. Figure 4.17 shows that the vast majority of bridges in the County are rated either fair or good.

Figure 4.12



Patrick County Crash Injury Classification, 2014 - 2018				
Year	Non-Visible Injury	Visible Injury	Severe Injury	Fatality
2014	6	43	22	4
2015	2	39	34	4
2016	0	21	26	1
2017	2	46	20	7
2018	2	26	17	3
<b>Total</b>	<b>12</b>	<b>175</b>	<b>119</b>	<b>19</b>

Source: VDOT

Figure 4.13

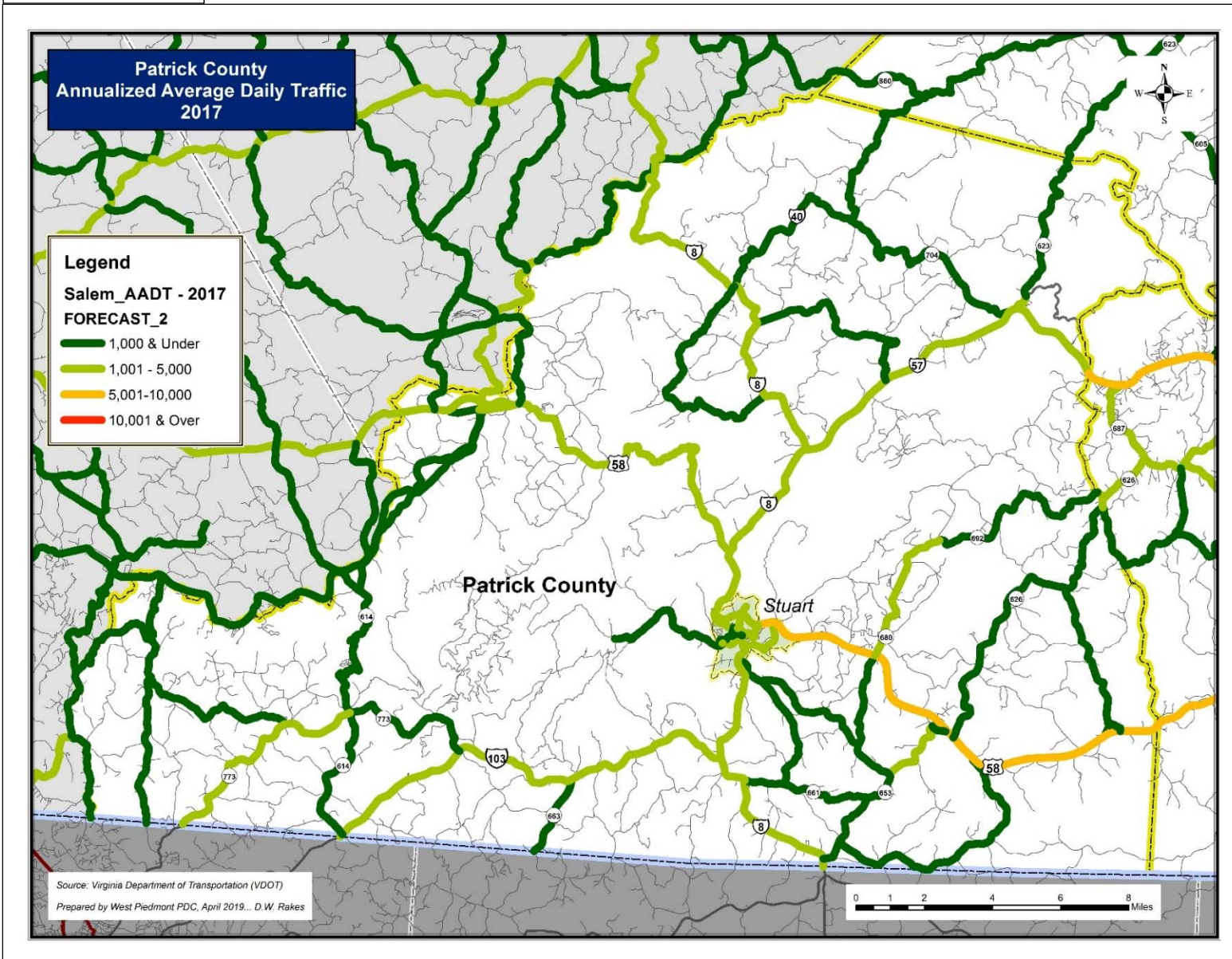




Figure 4.14

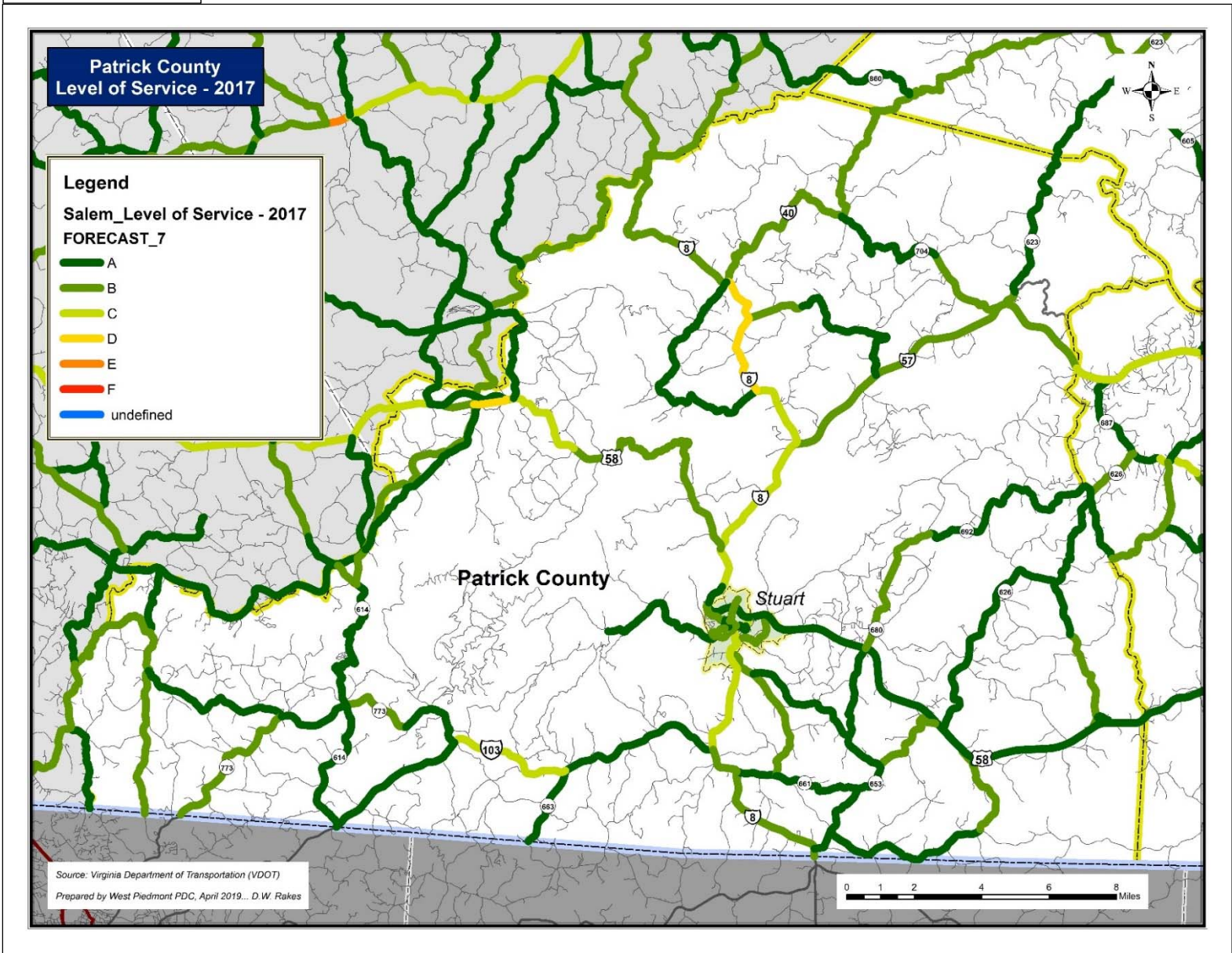


Figure 4.15

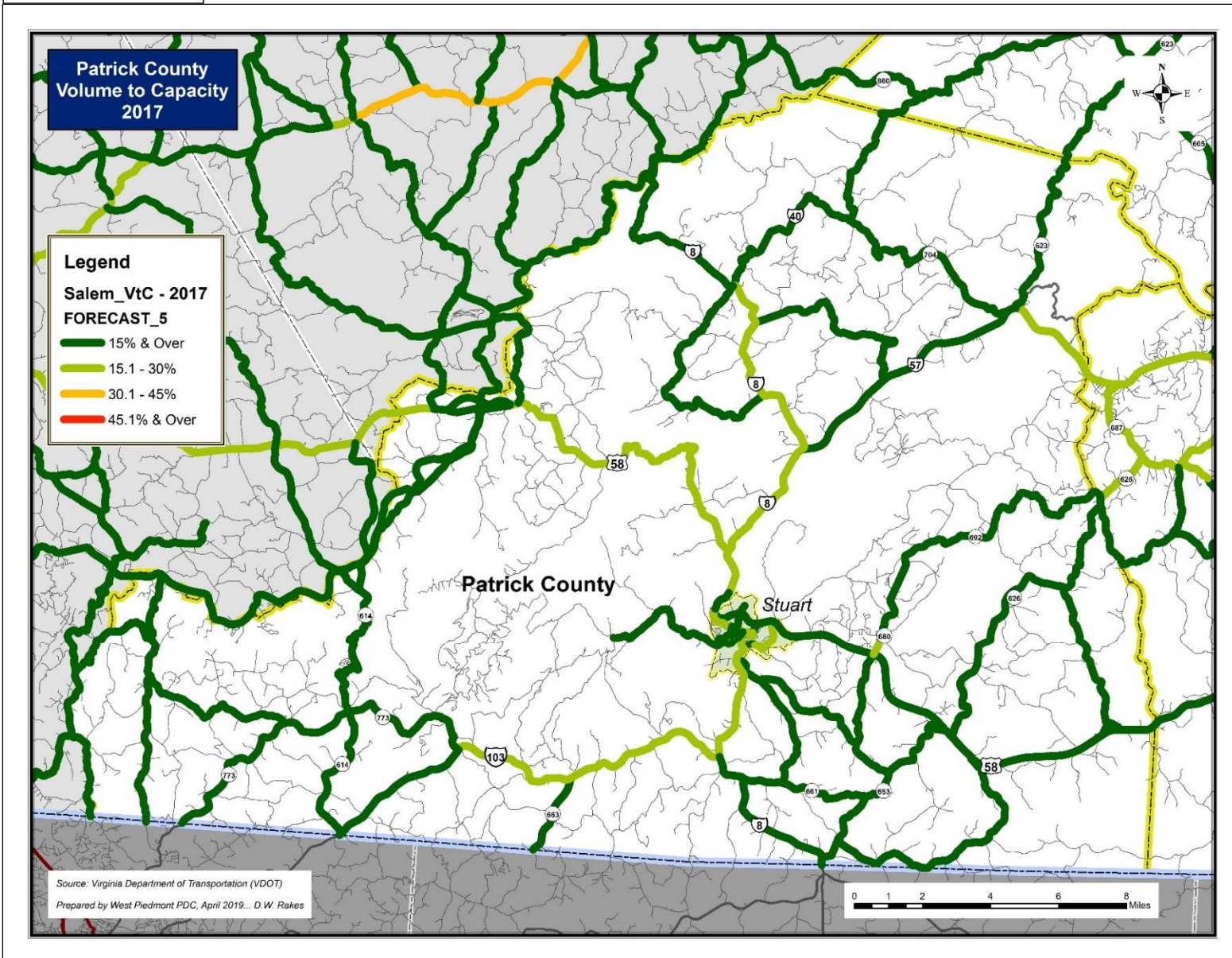
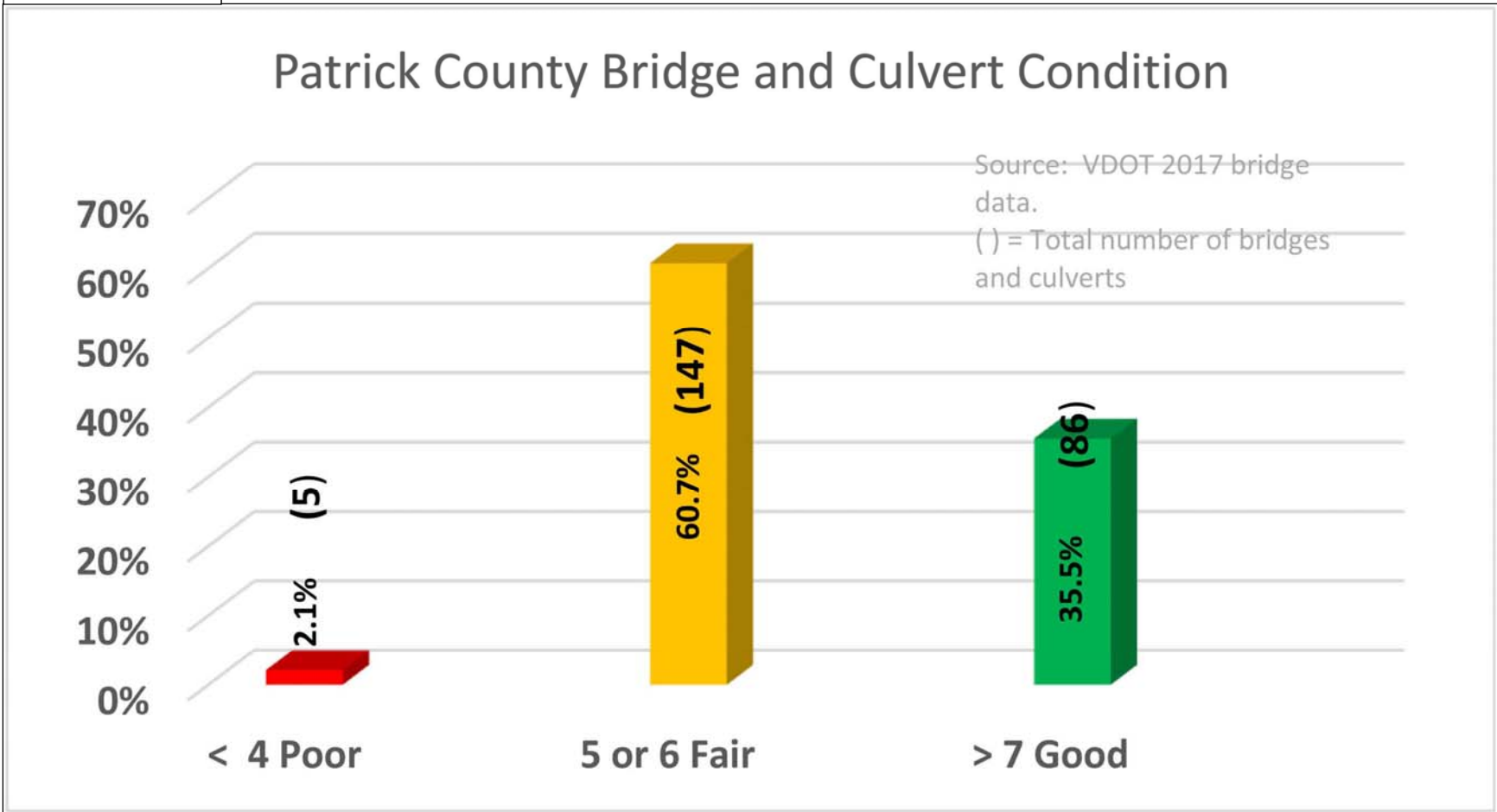




Figure 4.17



*Patrick County Transportation Recommendations*

This section presents a list of priority projects that have been recommended for Patrick County. This list of projects has been generated using the VDOT matrix ranking tool. Figure 4.18 is the map which corresponds with the Priority list.

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Chapter 4 Patrick County

Patrick County Priority Projects											
Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
1	US Route 58 (Jeb Stuart Hwy) / S Mayo Rd	Intersection	-	-	7.88	7,600	A	0.10	15	#4 2035 Rural Long Range Plan; VDOT/Locality Road Project Ride-Along	<u>Short-term:</u> Relocate stop bar to improve sight distance. Install rumble strips on minor street approaches to intersection. <u>Mid-term:</u> Apply access management techniques to intersection influence area. Reconstruct intersection to innovative configuration.
2	US Route 58 (Jeb Stuart Hwy) / Route 8 (Woolwine Hwy)	Intersection	-	-	7.16	5,000	C	0.19	13	VTrans 2045 Safety Needs Segment; crash cluster	<u>Short-term:</u> Remove vegetation/cut back bank west of the intersection to improve sight distance of vehicles turning east from Rt 8. <u>Mid-term:</u> Apply access management techniques to intersection influence area. Consider reconstructing intersection as innovative configuration. Work with property owner to formalize informal park & ride lot adjacent to the intersection, along Rt 8.
3	Route 8 (Salem Hwy) / Route 103 (Dry Pond Hwy)	Intersection	-	-	6.56	4,500	C	0.27	10	Crash cluster	Deficiency with low priority; continue to monitor for potential improvements.
4	Route 8 (Salem Hwy) / Commerce St	Intersection	-	-	6.53	4,500	C	0.27	5	#22 2035 Rural Long-Range Plan	<u>Mid-term:</u> Construct sidewalks and signalized crosswalks at an in the vicinity of the intersection to enhance pedestrian safety and circulation; consider installing pedestrian refuge/gateway island in center of intersection. <u>Long-term:</u> Install right-turn lane.
5	Route 8 (Salem Hwy) / Ashby Dr	Intersection	-	-	6.49	4,500	C	0.27	10	#2 2035 Rural Long-Range Plan; VDOT/Locality Road Project Ride-Along; VTrans 2045 Safety Need Node	<u>Short-term:</u> Install stop bar and centerline on eastbound approach, and add flashing yellow beacons to both approaches of VA 8. <u>Mid-term:</u> Install appropriate turn lanes on VA 8 to provide storage for turning vehicles. <u>Long-term:</u> Explore the most feasible option to consolidate VA 836 and VA 631 into typical 4-legged intersection.

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Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
6	W Blue Ridge St (US Route 58 Bus) / Johnson St	Intersection	-	-	6.14	3,200	B	0.15	5	Crash cluster	Deficiency with low priority; continue to monitor for potential improvements.
7	US Route 58 (Jeb Stuart Hwy) / US Route 58 Bus (W Blue Ridge St)	Intersection	-	-	5.79	5,000	A	0.07	3	#1 2035 Rural Long-Range Plan; VDOT/Locality Road Project Ride-Along	<u>Short-term</u> : Relocate stop control on southbound approach of the connector road from US 58 bypass to US 58 Business (Jeb Stuart Hwy). Trim vegetation on small island in center of intersection, and remove trees just north of small island to improve vehicular sight distance. <u>Long-term</u> : Reconstruct intersection to improve connectivity - convert to T-intersection or to innovative configuration. Consider raising elevation of W Blue Ridge St so as to meet US Route 58 at a more level plane.
8	US Route 58 (Jeb Stuart Hwy)	Segment	US Route 58 (Meadows of Dan)	Route 8 (Woolwine Hwy)	5.62	2,000	B	0.19	3	2035 Rural Long-Range Plan, #6; VTrans 2045 Safety Needs Segment	<u>Long-term</u> : Widen to four lanes with median. Make improvements at intersections along segment as needed.
9	Route 8 (Salem Hwy) / Wayside Rd	Intersection	-	-	5.36	4,500	C	0.27	3	2035 Rural Long-Range Plan, #3; VDOT/Locality Road Project Ride-Along	<u>Short-term</u> : Install stop bar on westbound approach. <u>Mid-term</u> : Install southbound left turn lane and convert right turn taper to full right turn lane on VA 8. <u>Long-term</u> : Realign VA 836 and VA 631 into typical 4-legged intersection.
10	Route 8 (Woolwine Hwy)	Segment	US Route 58 N (Jeb Stuart Hwy)	Route 40 (Charity Hwy)	5.22	2,000	D	0.16	2	#7 2035 Rural Long-Range Plan	<u>Long-term</u> : Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders).
11	Woodland Dr	Segment	US Route 58 (Jeb Stuart Hwy)	Commerce St	5.21	2,300	B	0.16	4	Crash cluster	<u>Mid-term</u> : Apply access management techniques along the corridor where relevant. <u>Long-term</u> : Reconstruct road to full-width lanes, bike lanes, and sidewalk.
12	US Route 58 Bus (Blue Ridge St) / Main St	Intersection	-	-	5.20	2,800	B	0.19	3	2035 Rural Long-Range Plan, #20	<u>Short-term</u> : Improve turn radius.

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Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
13	Route 103 (Claudville Hwy) / (Route 773) Ararat Hwy	Intersection	-	-	5.15	2,800	C	0.23	3	Recommended by Patrick County Administrative staff	<u>Long-term</u> : Convert existing intersection to T-intersection, with turn lanes on all approaches.
14	Spring Rd / Providence Dr	Intersection	-	-	4.80	3,400	B	0.26	8	Crash cluster	<u>Mid-term</u> : Realign Providence Rd and Dogwood Rd to reconfigure existing intersection as a traditional four-way intersection or innovative intersection design.
15	Route 773 (Ararat Hwy)	Segment	State Line Rd	NC State Line	4.26	1,600	B	0.13	3	VTrans 2045 Safety Needs Segment	<u>Long-term</u> : Reconstruct road to address geometric deficiencies (including full width lanes and shoulders).
16	Moorefield Store Rd	Segment	Nettle Ridge Lp	0.48 mi N 863 N	3.67	900	B	0.10	0	2035 Rural Long Range Plan, #16	<u>Long-term</u> : Reconstruct road to address geometric deficiencies (including full width lanes and shoulders).
17	Squirrel Spur Rd	Segment	1.7 Mi S Rt 638	1.1 Mi S Rt 638	3.38	410	A	0.04	0	2020 CEDS	<u>Long-term</u> : Reconstruct road to address geometric deficiencies (including full width lanes and shoulders).
18	Ayers Orchard Rd	Segment	S Mayo Rd	S Fork Lp	3.19	1,000	B	0.09	1	2035 Rural Long Range Plan, #15	<u>Long-term</u> : Reconstruct road to address geometric deficiencies (including full width lanes and shoulders).
19	Route 40 (Charity Hwy)	Segment	Lee Elgin Rd	Franklin CL	3.12	270	B	0.03	1	#10, Rural Long-Range Plan	<u>Short-term</u> : Install "Share the Road" or "Bikes on Road" signage. <u>Long-term</u> : Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders).
20	Spring Rd	Segment	Brook Lp	Pleasant View Dr	2.38	1,300	B	0.12	1	2035 Rural Long Range Plan, #13	<u>Long-term</u> : Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders).

Source: 2017 Level of Service, Volume to Capacity Ratio, and 2014 - 2018 crash data provided by VDOT. 2017 AADT data obtained from VDOT website.



Figure 4.18

