Catawba Regional
Council of Governments

Catawba Regional Council of Governments

2025-2050 Rural Long-Range Transportation Plan

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Plan Goals

The Catawba Regional Council of Governments (CRCOG), Transportation Advisory Committee (TAC), and CRCOG Policy Board propose the following goals for its Long Range Transportation Plan.

1. Develop and maintain the Rural Planning Work Program (RPWP).
2. Implement a transportation planning process that fully complies with the South Carolina Department of Transportation (SCDOT) planning process and federal planning requirements.
3. Provide technical assistance to state, regional, county, and local governments with transportation and other planning needs.
4. Coordinate and assist county and local communities on regional rural transit needs.
5. Identify current condition deficiencies of the transportation system.
6. Identify and prioritize transportation needs for input to the Statewide Multimodal Transportation Plan and Statewide Transportation Improvement Plan (STIP).
7. Coordinate with RFATS MPO, SCDOT, State, non-profit organizations, and Charlotte Regional partners on transportation planning matters.
8. Provide viable transportation alternatives to decrease dependence on the automobile and promote transportation to employment and necessities.
9. Support a more comprehensive transit system that accommodates more riders and improves and enhances the bicycle and pedestrian network.
10. Provide a safe transportation system for all users, develop safety projects to reduce crashes at high-collision intersections, and improve facilities for pedestrians and bicyclists.
11. Encourage communities to recognize the effect growth patterns have on the transportation system and residents' quality of life.
12. Assist communities with developing strategies to encourage connectivity and discourage ineffective sprawl development.
13. Minimize environmental impacts of the transportation system—Use planning tools to reduce gas emissions.

Catawba Regional Council of Governments (CRCOG) is responsible for transportation planning activities within areas containing rural and small urbanized communities designated by the census within its four-county region of Chester, Lancaster, Union, and York counties. In contrast, the Rock Hill-Fort Mill Area Transportation Study (RFATS) Metropolitan Planning Organization (MPO) — Figure 2-1 addresses the larger Rock Hill and Charlotte urbanized areas. This arrangement is managed and funded by the South Carolina Department of Transportation (SCDOT) and the United States Department of Transportation (USDOT) through its components, including the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). This layered approach provides financial and technical resources to ensure compliance with federal and state laws and policies regarding the transportation system.

CRCOG's 31-member Board of Directors (Appendix D) includes representation from across the region based on 2020 US Census population counts. Local county and municipal agencies appoints a Transportation Advisory Committee (TAC) (Appendix E), which is made up of key staff from local government members and technical staff from SCDOT. The Board approves all updates to the Long Range Transportation Plan (LRTP) and Transportation Improvement Plan (TIP).

Figure 1-1 CRCOG Board Apportionment

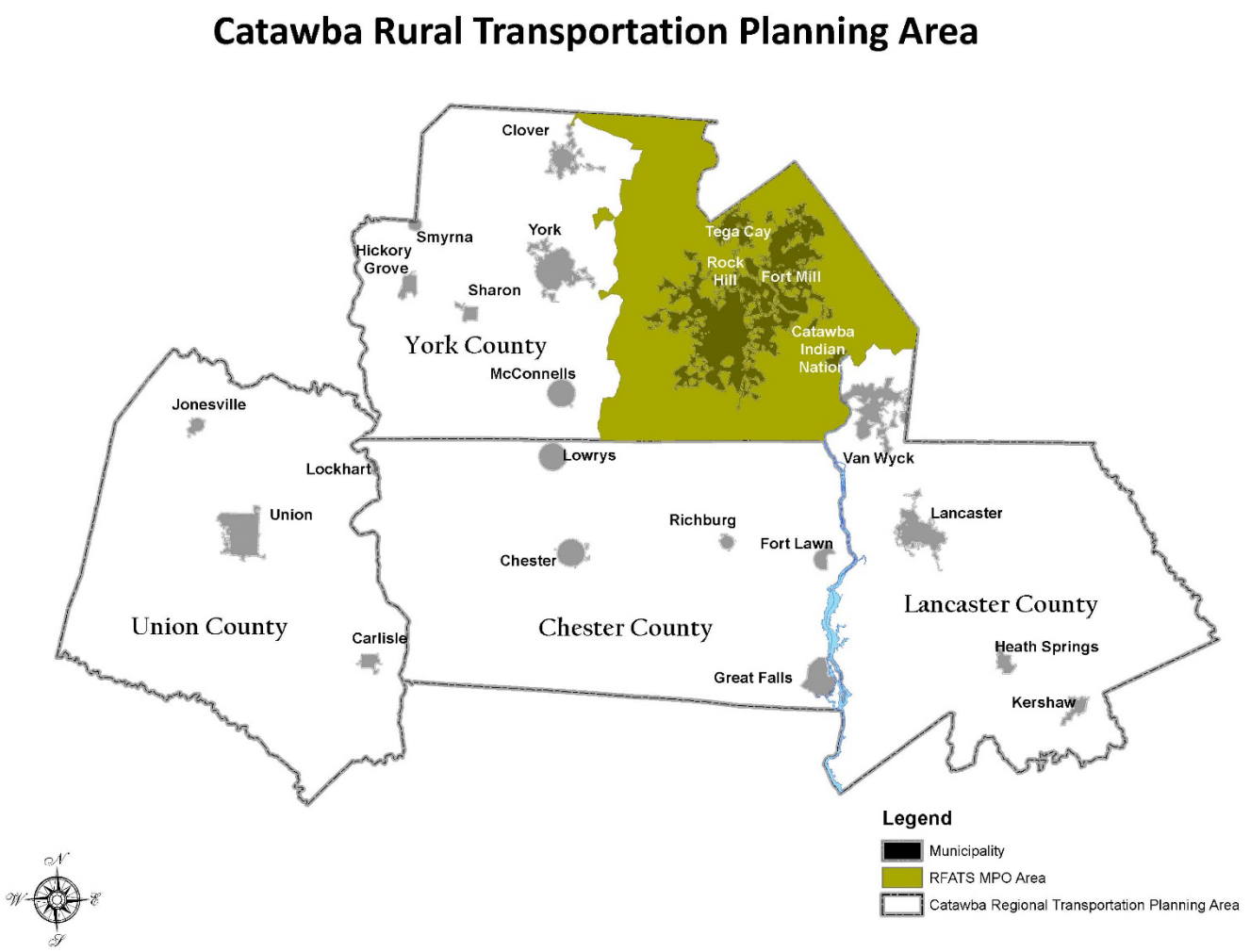
CRCOG BOARD APPORTIONMENT

COUNTY	ELECTED	APPOINTED	TOTAL
Chester	3	2	5
Lancaster	4	3	7
Union	3	2	5
York	9	5	14
Total	**19**	**13**	**31**

The TAC meets regularly to coordinate transportation projects and update various plans, including the TIP and LRTP. CRCOG staff also participates in the RFATS technical team and Charlotte Regional Alliance for Transportation (CRAFT) to promote cooperation, consistency, and communication between the varied transportation planning agencies in the area.

Public participation is accomplished in various ways, as outlined in the CRCOG Public Participation Plan (PPP) found in Appendix C. The CRCOG coordinates closely with the member jurisdictions and uses public comments made during their respective planning efforts to inform the rural transportation program.

Figure 2-1 CRCOG Rural Transportation Planning Area



Source: CRCOG GIS/SCDOT

2.1 Rural Transportation Planning Area

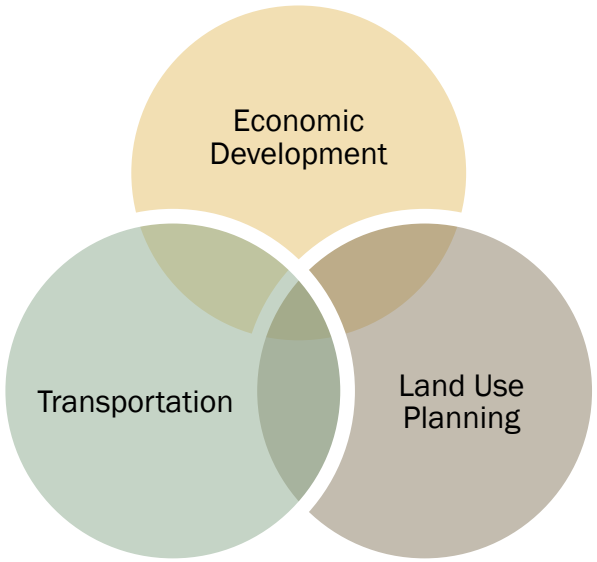
The Catawba region includes four counties and 22 municipalities in the South Carolina Piedmont. The regional population and economy are diverse, ranging from cities and towns with strong commercial and manufacturing sectors to the rural countryside, where timber, pastureland, and row crops dominate the landscape.

Transportation is vital in linking land uses to economic development opportunities inside and outside the region. As a part of the greater Charlotte bi-state region, the area relies on the transportation network to move people and goods across jurisdictional borders to serve regional, state, national, and global markets.

The impact of new development on roadways is often felt countywide. As growth in areas of the region intensifies, traffic and increased commute times soon follow.

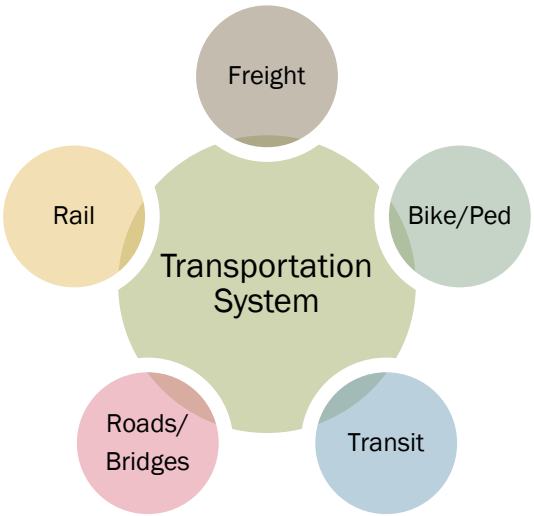
2.2 Transportation Planning

Figure 2-1 Transportation System Model



Transportation planning is intricately tied to land use and economic development activities, resulting in a development pattern that evolves as a community grows. The provision of transportation in the region should reflect the unique characteristics of the landscape and follow the character outlined in local Comprehensive Plans. A transportation system includes various travel options or modes, such as pedestrian, bicycle, bus, automobile, freight, and rail. A multimodal transportation network includes and connects these different travel modes effectively and efficiently, including connections within and between modes. The economy of the Catawba region depends upon the transportation network's viability and success. Therefore, a key consideration is to support these transportation systems (Figure 2-2) and ensure they are balanced with land use and economic strategies.

Figure 2-2 Transportation System Model



As mentioned, the Catawba Regional Council of Governments (CRCOG) regularly coordinates with many regional partners. It relies on its partners to help provide information support for this Long-Range Transportation Plan (LRTP). For example, regionally generated land use and economic data projections are used in the Centralina Regional Travel Demand Model and the SCDOT Statewide Travel Demand Model.

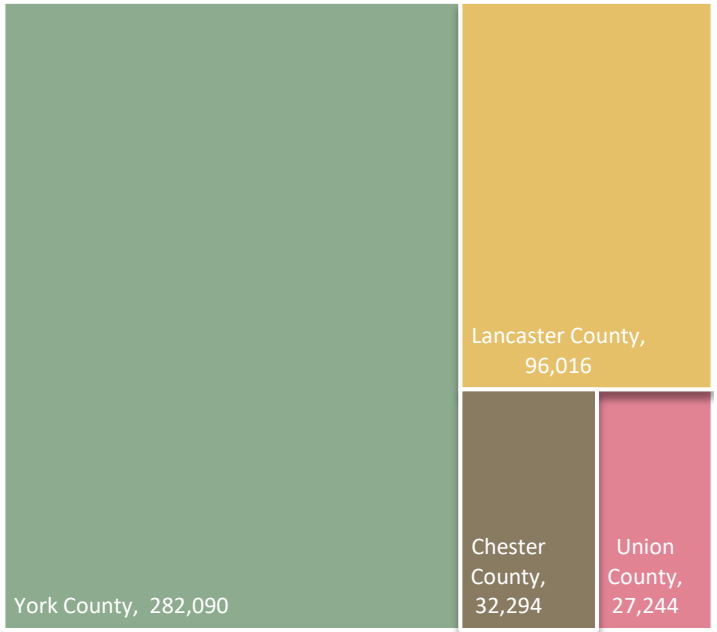
2.3 Population

The primary growth area continues to be inside the RFATS urbanized area within York County and Lancaster County, particularly along the US I-77 corridor, from the City of Rock Hill north to the North Carolina state line, including the City of Tega Cay, Town of Fort Mill, and Unincorporated York County; the US 521 Corridor from the Town of Van Wyck north to the North Carolina State Line; and the Unincorporated Lake Wylie area. Secondary growth occurs between the Lake Wylie community and the Town of Clover, Rock Hill, and the City of York, and south of Van Wyck towards the City of Lancaster, along the US 521 Corridor.

A closer analysis at the county level reveals general trends that will impact the local economies and region as a whole. The 2020 baseline comes from US Census data, and the 2050 figures are from South Carolina Datacenter (SCDC) projections. Figures 2-1 and 2-2 illustrate the population share in the 2020 Census and the projected populations in 2050. The treemap illustrations demonstrate the significant growth of the region's projected population within York and Lancaster counties, which have experienced the positive benefits of their proximity to Charlotte and Mecklenburg County.

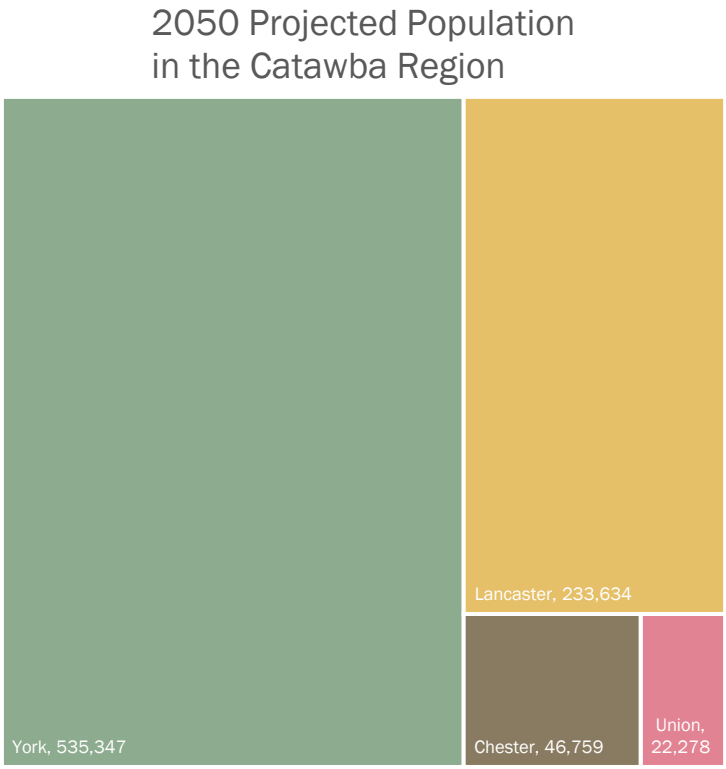
Figures 2-3 and 2-4 illustrate the region's projected population in 2020 and the projected growth in 2050.

Figure 2-1 Population by County within the CRCOG Region



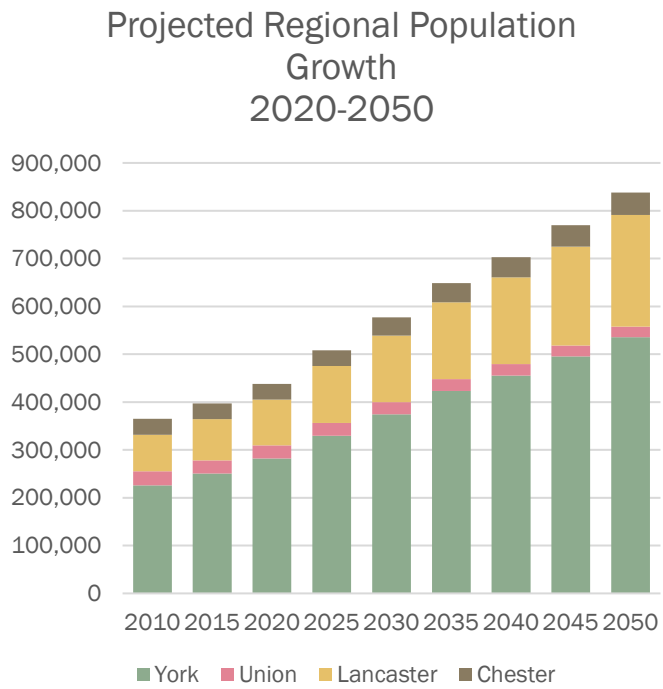
Source: US Census Bureau 2020 Census

Figure 2-2 2050 Projected Population in the Catawba Region



Source: US Census Bureau, SC Revenue and Fiscal Affairs Office SC Community Profiles, and Chester County

Figure 2-3 Projected Regional Population Growth 2020-2050



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Source: US Census Bureau, SC Revenue and Fiscal Affairs Office SC Community Profiles, and Chester County.

SC Revenue and Fiscal Affairs Office of SC Community Profiles projected the population in 2020 for the region to be approximately 450,680, whereas the 2020 population was 437,644. This number is expected to grow by 86.9% to approximately 831,000 by

2050. However, the regional percentage growth rate will continue to decline as the overall regional population totals increase.

Figure 2-4 Projected Regional % Growth Rate Changes
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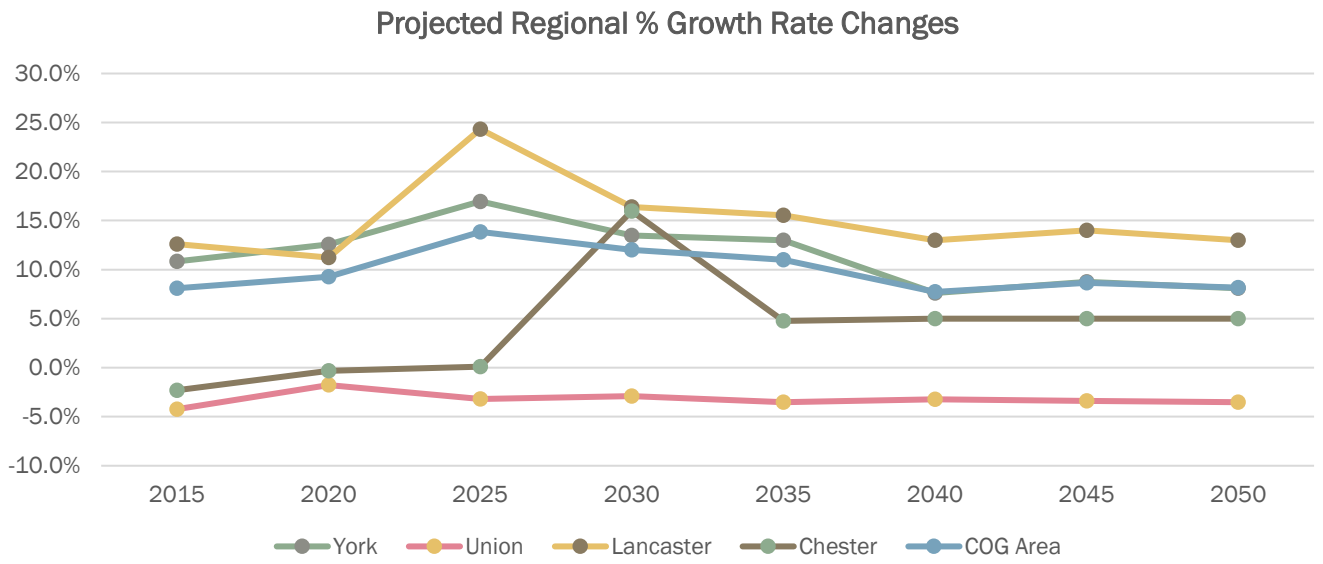


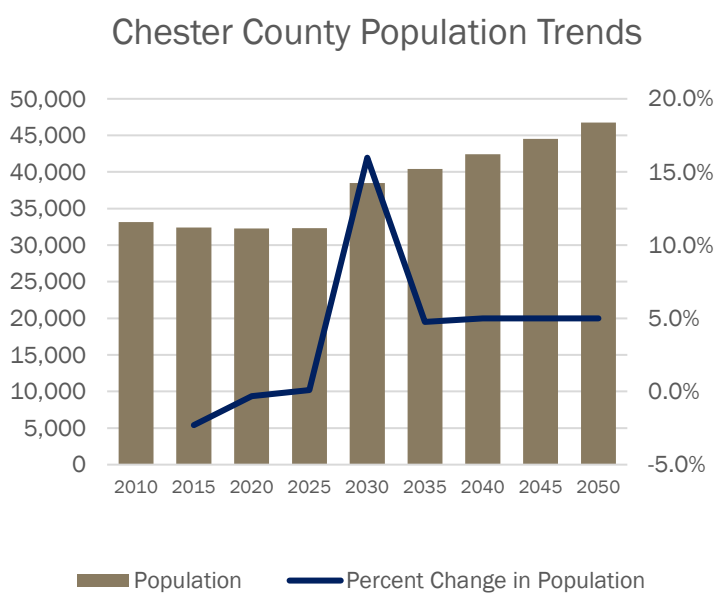
Source: US Census Bureau and SC Revenue and Fiscal Affairs Office SC Community Profiles

The Charlotte Regional Business Alliance prepared the 2050 population projections for counties in the Charlotte Metro area, including York, Lancaster, and Chester Counties in South Carolina. The Alliance anticipated "more than 60% of regional growth will occur in bordering suburban counties, a trend set to intensify given the aging of the large millennial generation into their 30s and 40s. Two counties – Lancaster and York in South Carolina, will more than double in size." (Charlotte Regional Business Alliance, Nov. 5, 2020)

The Charlotte Regional Business Alliance projects a more robust growth rate than the forecasted rates from the Census Bureau. They predict York County will experience a 200% growth rate and a population of 566,331 residents in 2050. The Alliance also anticipates that Lancaster County will experience a 232.8% growth rate and a population of 223,581 in 2050.

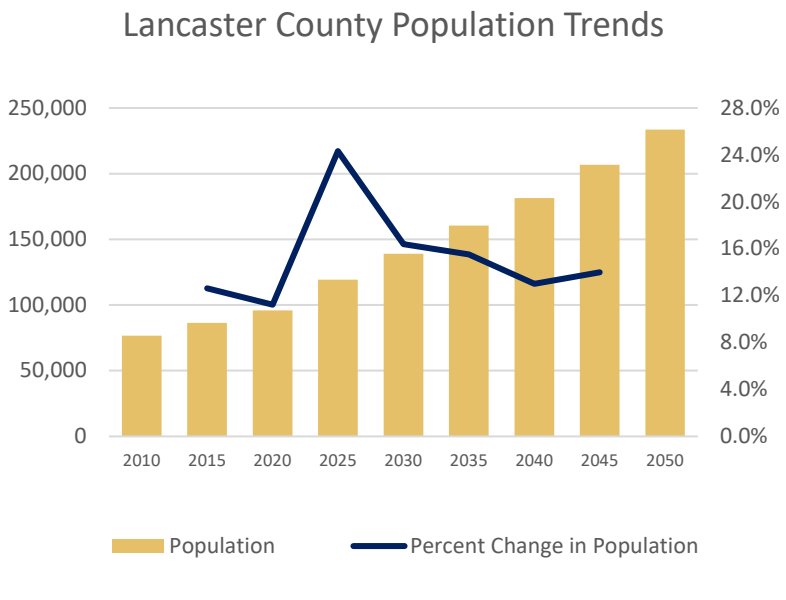
Figures 2-5 through 2-8 display County Growth Projections and growth percentages through 2050 per the US Census Bureau and SC Department of Economic Affairs.

Figure 2-5 Chester County Population Trends



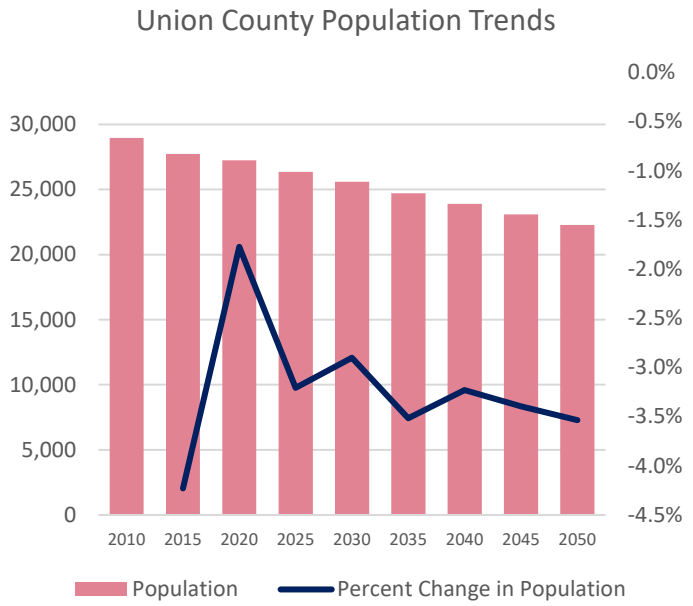
Source: US Census Bureau and SC Revenue and Fiscal Affairs Office SC Community Profiles

Figure 2-6 Lancaster County Population Trends



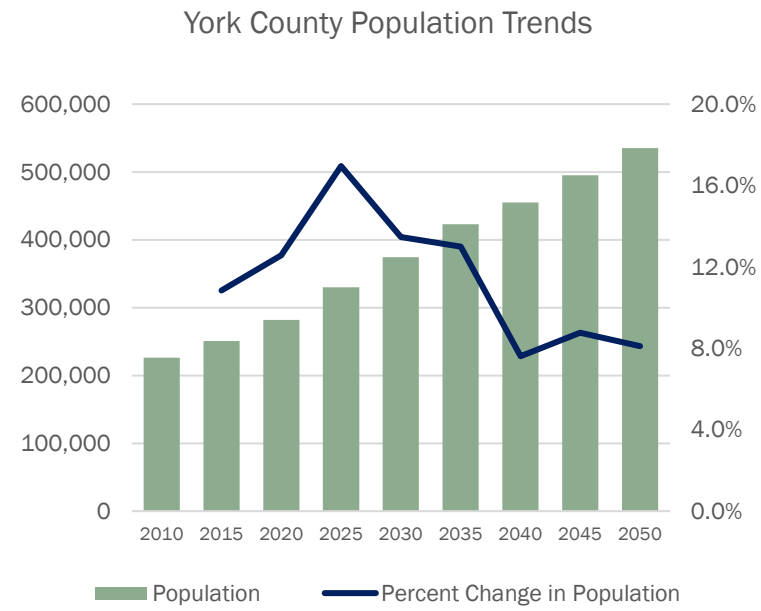
Source: US Census Bureau and SC Revenue and Fiscal Affairs Office SC Community Profiles

Figure 2-7 Union County Population Trends



Source: US Census Bureau and SC Revenue and Fiscal Affairs Office SC Community Profiles

Figure 2-8 York County Population Trends



Source: US Census Bureau and SC Revenue and Fiscal Affairs Office SC Community Profiles

2.4 Urban vs. Rural Area

The Catawba Transportation Planning Region is a diverse population of small and mid-sized urban and rural communities. In 2022, the Census Bureau released the 2020 urbanized area data. This new data resulted from changes in how the Census Bureau classified urbanized areas. One of the significant changes was the elimination of the designation of urbanized clusters and urbanized places. The current designation is urban or rural, based on the latest formulaic requirements.

Table 2-2 highlights the current Census Designated Urbanized areas within the CRCOG region, their population, and their location within either the CRCOG Rural Transportation Planning Area or the RFATS MPO Area.

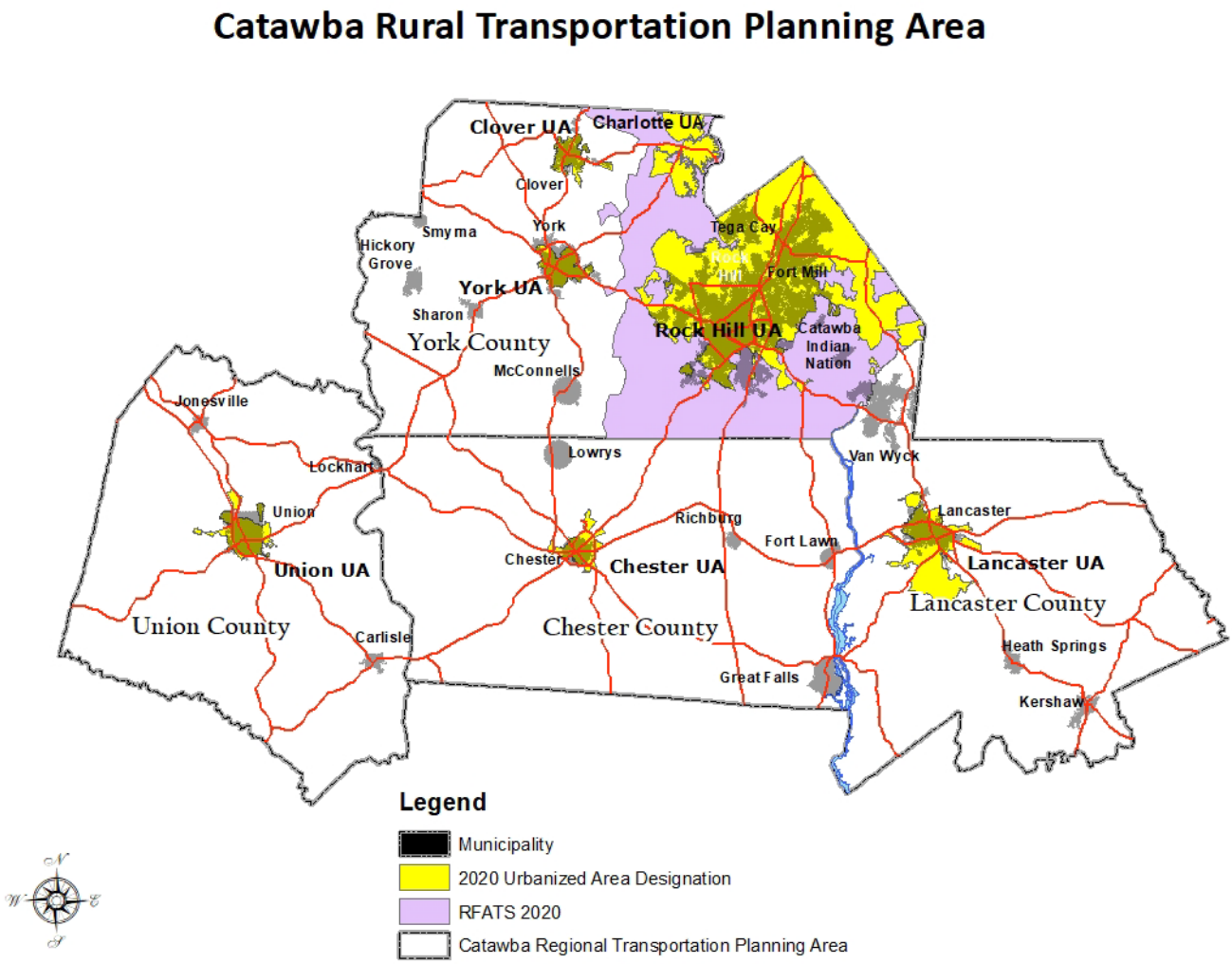
The designation of an urbanized area does not necessarily change the designation of the planning area. The RFATS region continues to support the Rock Hill and Charlotte Urbanized area, while the CRCOG will support the remainder of the region. MPO boundaries are not predicated on urbanized area boundaries. The RFATS area contains large areas of rural designated lands. Figure 2-9 provides a graphic illustration of the region and the designation of urbanized areas.

Table 2-2 Urbanized areas in the CRCOG Region US Census Bureau.

Urbanized Area	Urbanized Population (2020)	County	Transportation Planning Area
Charlotte, NC–SC	20,434	York	RFATS
Chester, SC	8,611	Chester	CRCOG
Clover, SC	7,526	York	CRCOG
Lancaster, SC	22,709	Lancaster	CRCOG
Rock Hill, SC	218,443	York	RFATS
Union, SC	9,729	Union	CRCOG
York, SC	8,631	York	CRCOG
Total	296,083		

Source: US Census Bureau

Figure 2.9 Urbanized Area Ma



Source: US Census Bureau

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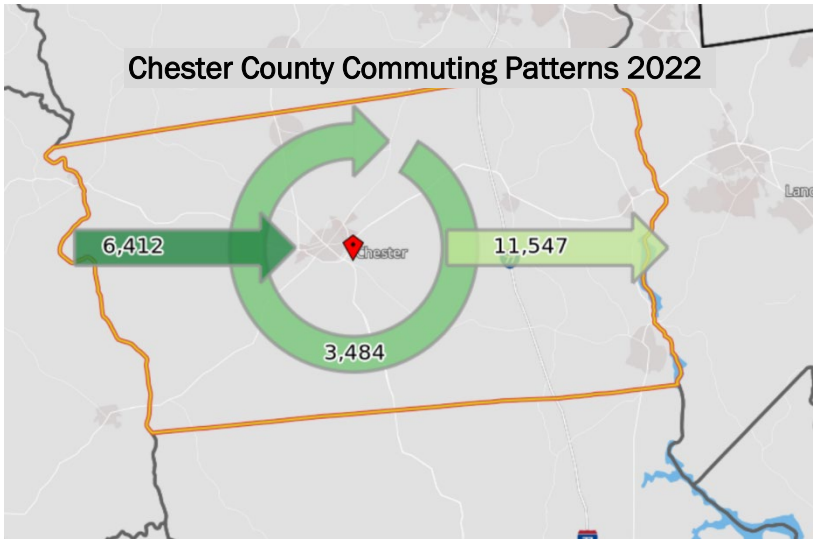
3.1 Chester County

Figure 3-1 Chester County Commute Patterns



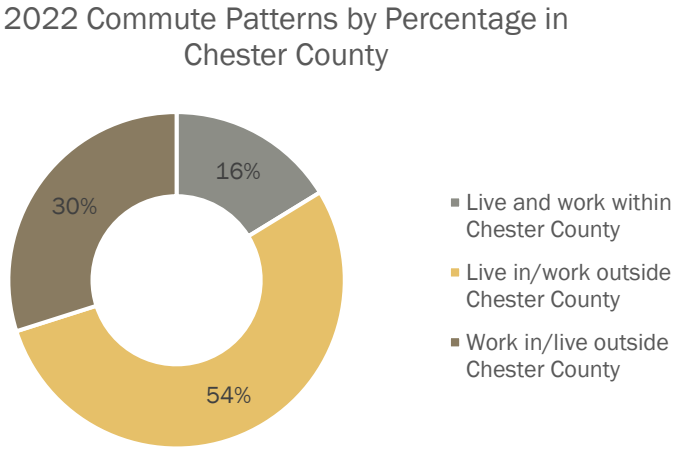
Source: U.S. Census Bureau, 2021 On the Map.

The 2022 U.S. Census Bureau data from "On the Map" (Figure 3-1) indicates that 3,484 persons lived and had primary employment within Chester County. Additionally, 6,412 non-residents commuted into Chester County for employment yet lived in another county, and 11,547 residents commuted out of the county for primary jobs. In 2022, there was a worker commute deficit of 1,651 jobs.

Figure 3-2 represents the percentage breakdown of commuting patterns. It shows that 37% of commuters live and work in Chester County, while 42% commute outside the county.

Figure 3-3 Shows the percentage breakdown of commuter distance in Chester County. According to the 2022 statistics, 30% of commuters travel 25 miles or more to work. The graph shows the distance traveled between the Home Census Block and the Work Census Block.

Figure 3-2 Commute Patterns Chester County

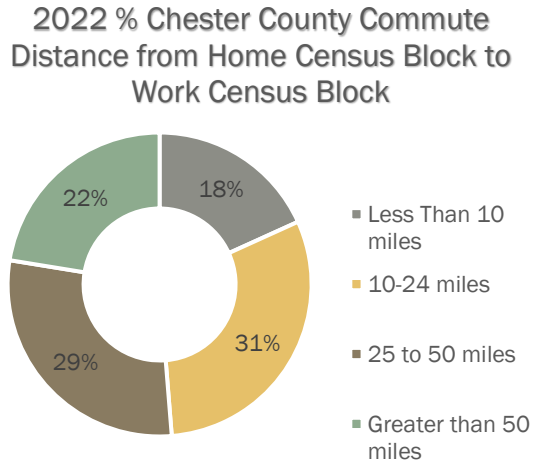


Source: U.S. Census Bureau, 2021 On the Map

Figure 3-4 shows commuters coming to Chester County for work. The chart reveals that approximately 49% of inbound commuters travel less than 25 miles to work. Figure 3-5 displays the prevailing percentage of daily commuters from Chester County to work in nearby counties. One significant observation in this figure is that more commuters travel to York County for Jobs than work and live in Chester County. Figure 3-6 shows the location of trip originations for those who work in Chester County. Not surprising,

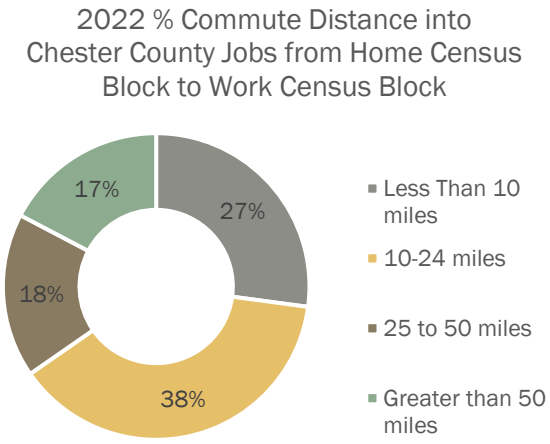
York and Lancaster Counties have the highest percentage of commuters working in the County.

Figure 3-3 % Chester County Commute Distance from Chester Home Census Block to Work Census Block



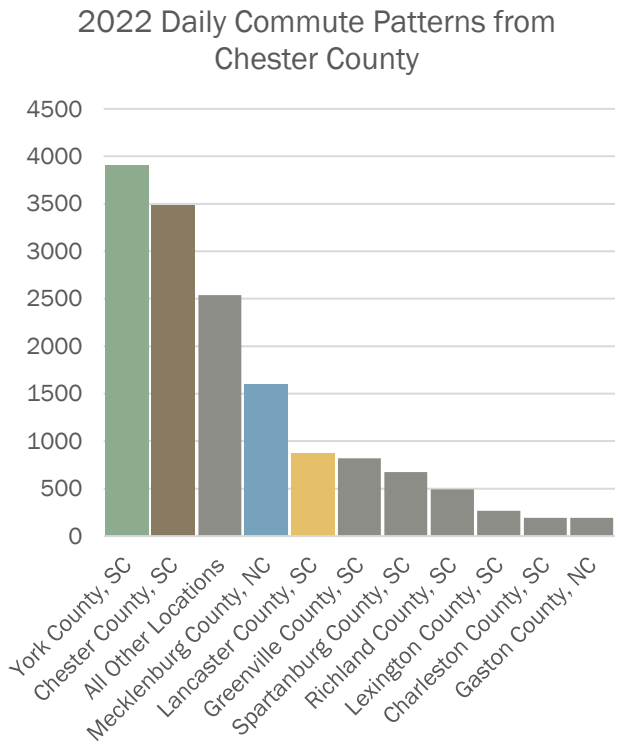
Source: US Census Bureau - On the Map

Figure 3-4 % Commute Distance into Chester County Jobs from Home Census Block to Work Census Block



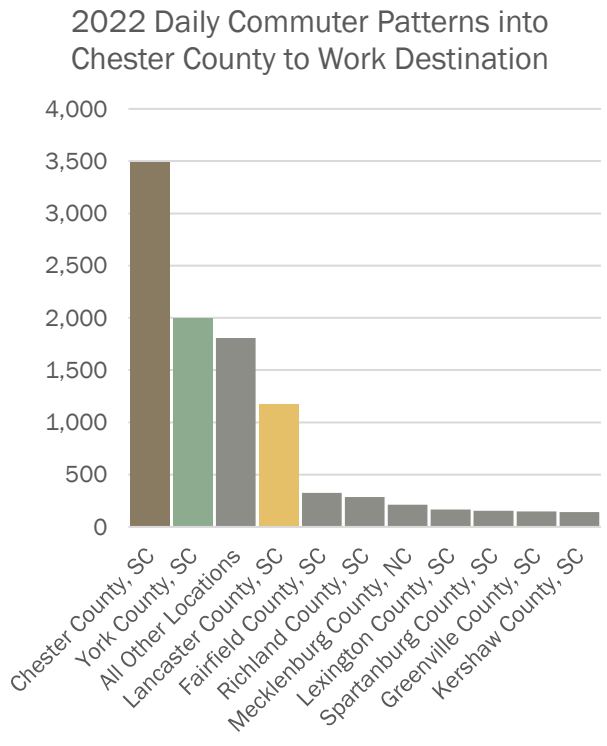
Source: US Census On the Map

Figure 3-5 Daily Commute Patterns from Chester County to Work Destinations



Source: US Census Bureau - On the Map

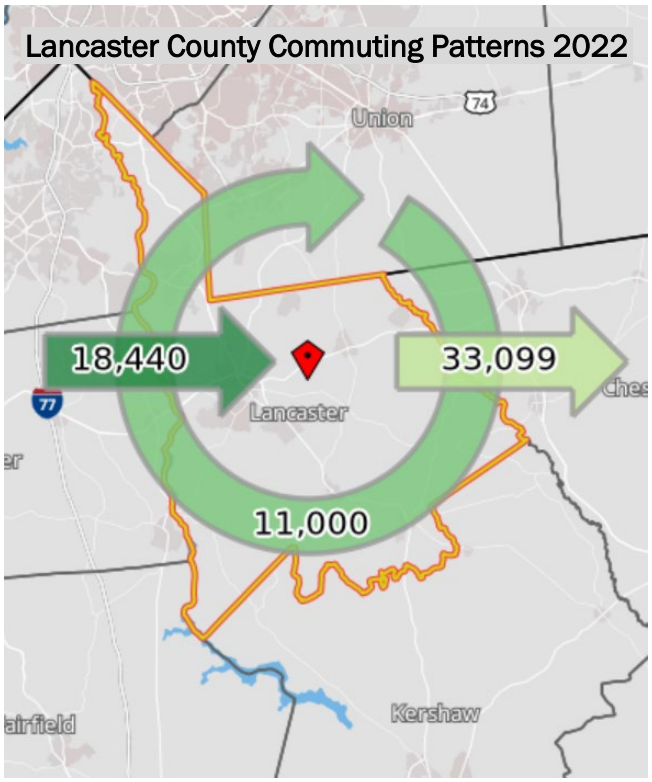
Figure 3-6. Daily Commuter Patterns into Chester County to Work Destination



Source: US Census Bureau On the Map

3.2 Lancaster County

Figure 3-7 Lancaster County Commute Pattern

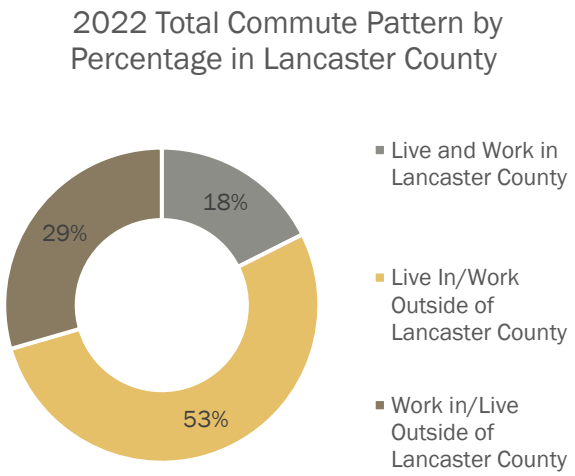


Source: US Census Bureau On the Map

The 2022 American Community Survey (ACS) data shows that 11,000 persons lived and had primary employment within Lancaster County. The data also suggests that 18,440 non-residents commuted into Lancaster County for employment yet lived in another county, and 33,099 residents commuted out of the county for primary employment, resulting in a deficit of 3,669 commuters. Figure 3-8 illustrates the percentage breakdown of commuting patterns. Approximately 18% of workers reside and work in the county, while 53% commute outside the county.

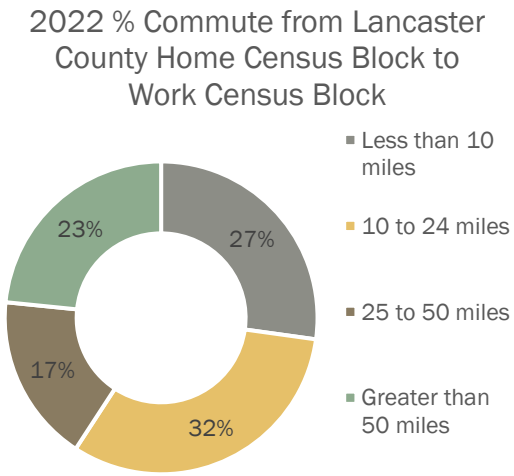
Figures 3-9 and 3-10 show the travel distance of commuters entering and leaving the county to work. Figure 3-9 indicates that approximately 59% of commuters travel less than 25 miles to work from the County, while Figure 3–10 shows that approximately 69% travel less than 25 miles and approximately 38% travel less than 10 miles to work inside the County.

Figure 3-8 Commute Patterns by Percentage in Lancaster County



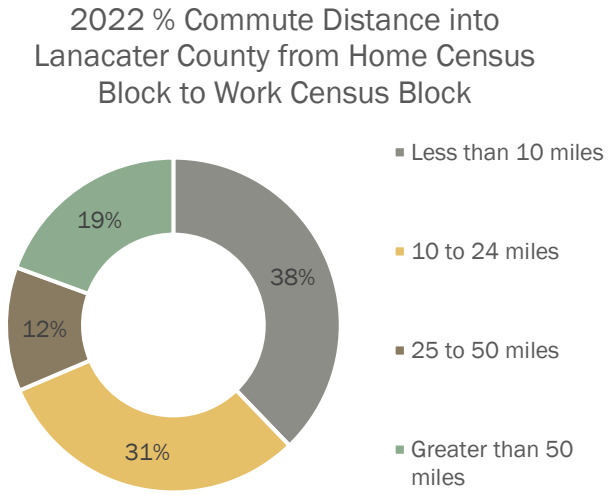
Source: US Census Bureau On the Map

Figure 3-9 % Commute Distance from Lancaster County Home Census Block to Work Census Block



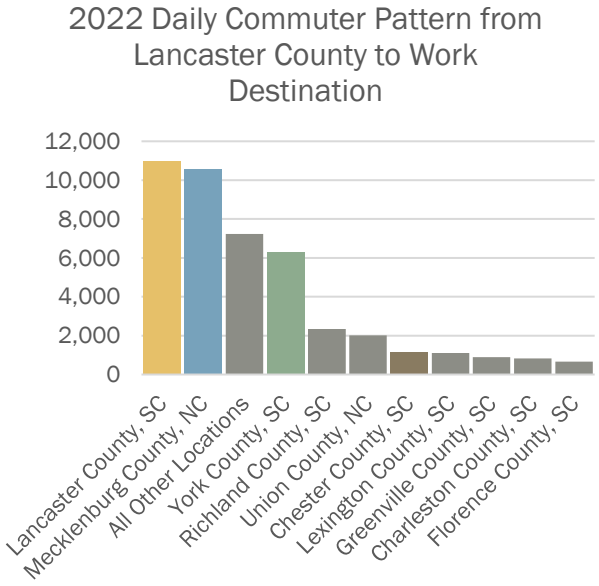
Source: US Census Bureau On the Map

Figure 3-10 % Commute Distance into Lancaster County from Home Census Block to Work Census Block



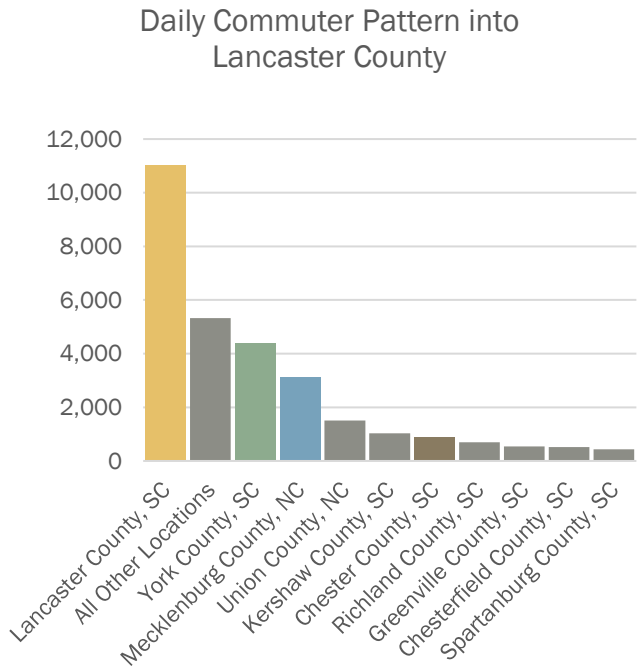
Source: US Census Bureau On the Map

Figure 3-11 Daily Commuter Pattern from Lancaster County to Work Destination



Source: US Census Bureau On the Map

Figure 3-12 Daily Commuter Pattern into Lancaster County



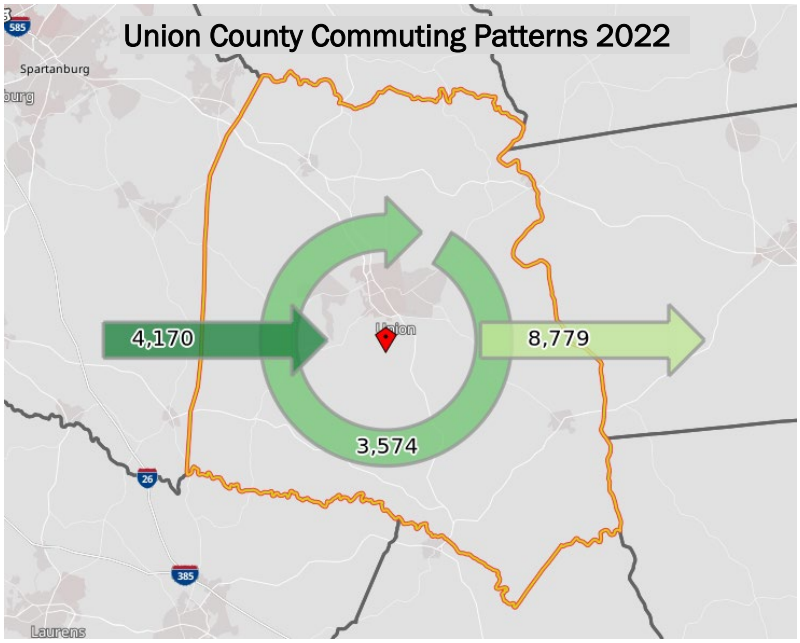
Source: US Census Bureau On the Map

Figures 3-11 and 3-12 describe the commute patterns of Lancaster County residents to Work County destinations by percentage and the commute patterns of workers into the County by percentage. Unsurprisingly, most outflow and inflow come from neighboring York, SC, Mecklenburg, NC, and Union, NC, counties.

3.3 Union County

The SCDC population figures show a steady decrease in Union County's population until 2050. The data suggests that jobs will continue to leave the county slowly; however, economic development efforts in the US 176 corridor may provide the impetus for commuter employment to come from the Upstate region, particularly Spartanburg and Greenville counties.

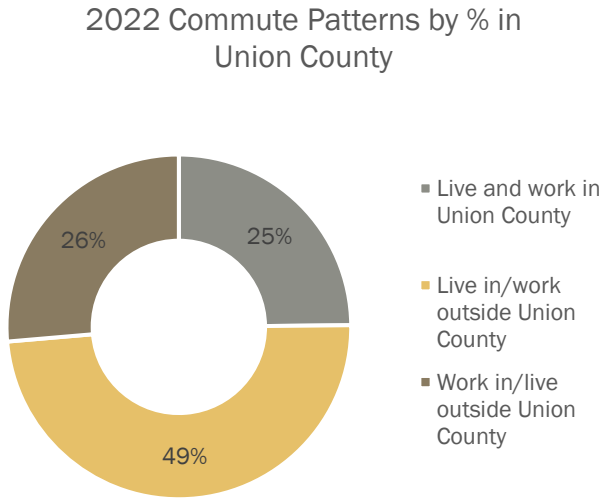
Figure 3-13 Union County Commute Pattern



Source: US Census Bureau On the Map

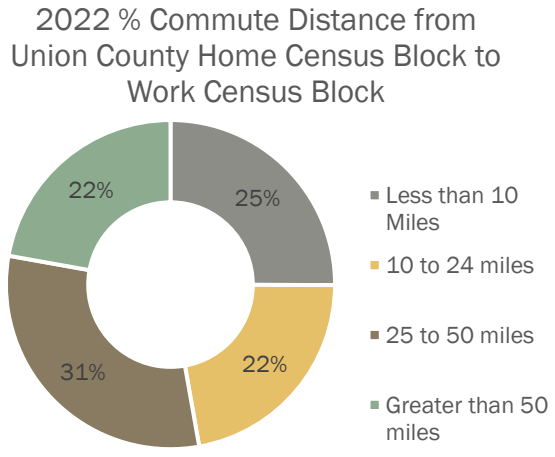
The 2022 ACS data show that 3,574 persons lived and had primary employment within Union County. Also, 4,170 non-residents commuted into Union County for employment yet lived in another county, and 8,779 residents commuted out of the county for primary employment. This results in a commuter deficit of 527. Figure 3-14 illustrates the percentage distribution of commuters. Approximately 49% of Union County commuters travel outside the county for work, while 25% live and work within the County.

Figure 3-14 Commute Patterns by % in Union County



Source: US Census Bureau On the Map

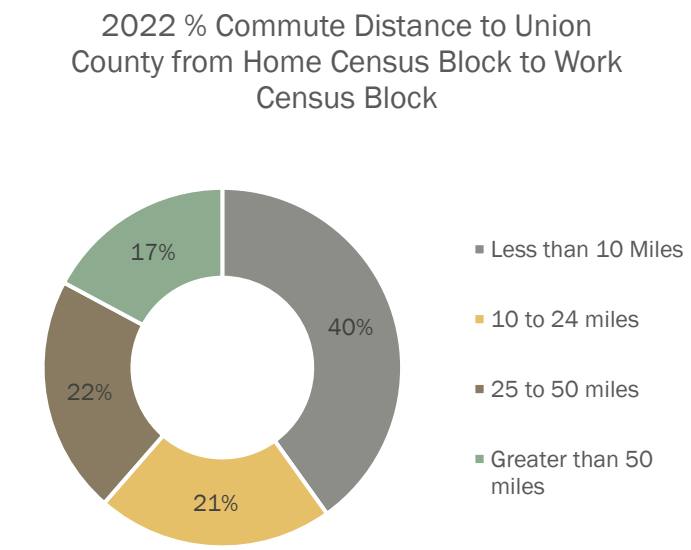
Figure 3-15 % Commute Distance from Union County Home Census Block to Work Census Block



Source: US Census Bureau On the Map

Figures 3-15 and 3-16 show the distance commuters will travel from Union County. Approximately 49% of the outbound commuters travel less than 25 miles to work. Figure 3-16 shows that 64% of commuters who travel to Union County jobs travel less than 25 miles, while 41% of those commuters travel less than 10 miles.

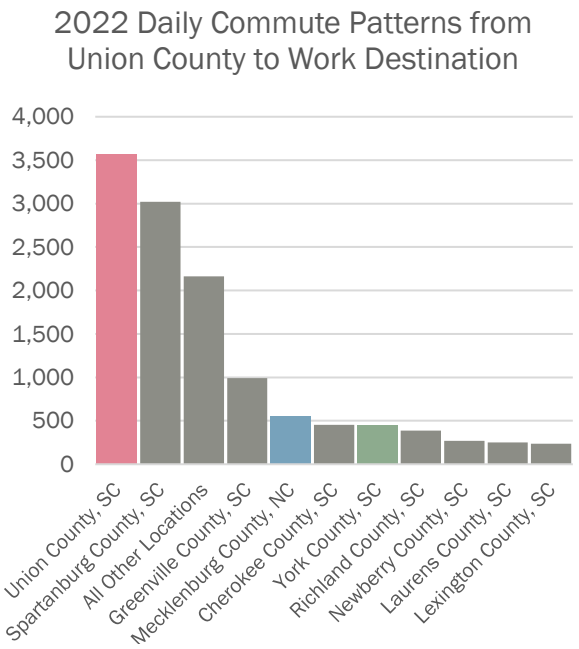
Figure 3-16 % Commute Distance to Union County from Home Census Block to Work Census Block



Source: US Census Bureau On the Map

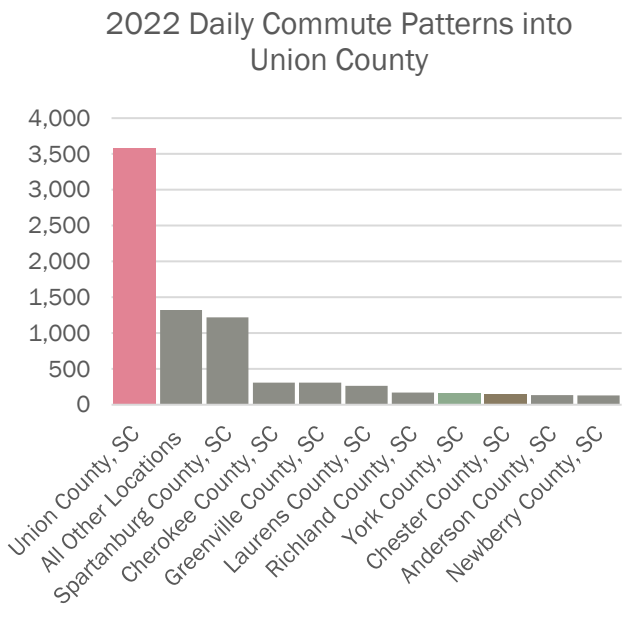
Figures 3-17 and 3-18 describe the county's in-flow and out-flow commute patterns. The only significant pattern is that workers who work and live within Union County and those who commute in from Spartanburg County make up the majority of commuters.

Figure 3-17 Daily Commute Patterns from Union County to Work Destination



Source: US Census Bureau On the Map

Figure 3-18 Daily Commute Patterns into Union County to Work Destination



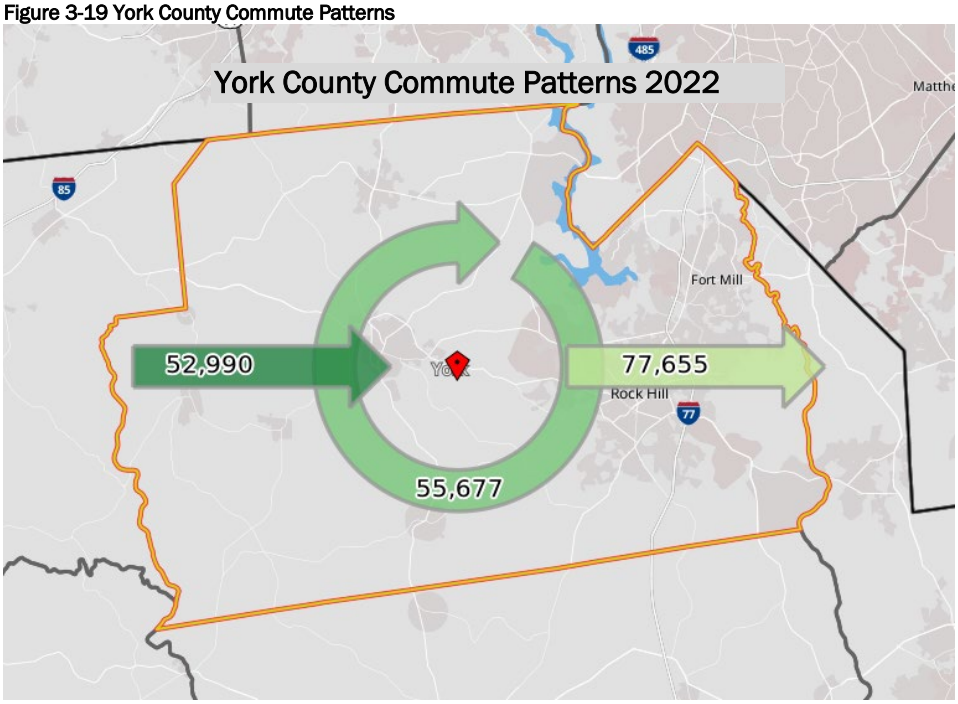
Source: US Census Bureau On the Map

3.4 York County

York County is the largest county in the region and has benefited the most from its proximity to Charlotte and ready access to Interstate 77 and Charlotte-Douglas International Airport. The most recent and future growth areas are along the I-77 corridor and the Lake Wylie area, which presents its challenges. This area falls inside the Rock Hill-Fort Mill Area Transportation Study (RFATS) Metropolitan Planning Organization (MPO) boundary and is not part of the rural transportation plan.

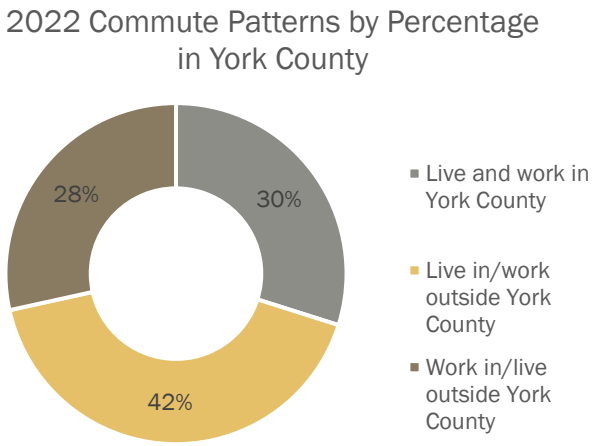
The remarkable growth rate in population and employment is projected to continue and may result in an expansion of the Rock Hill urban area farther west toward the City of York.

Figure 3-19 York County Commute Patterns



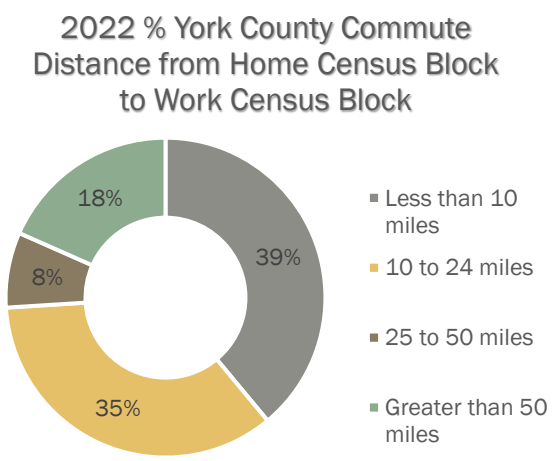
Source: US Census Bureau On the Map

Figure 3-20



Source: US Census Bureau On the Map

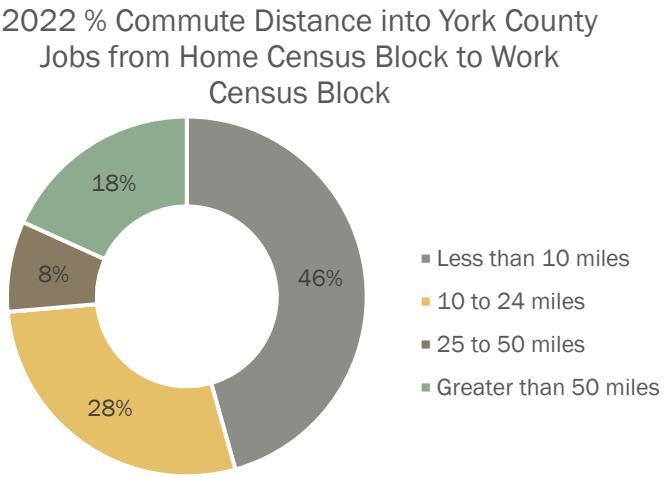
Figure 3-21



Source: US Census Bureau On the Map

ACS 2022 data show that 55,677 persons lived and had primary employment within York County. Also, 52,990 non-residents commuted into York County for employment yet lived in another county, and 77,655 residents commuted out of the county for primary jobs. This creates a worker commute surplus of 31,012.

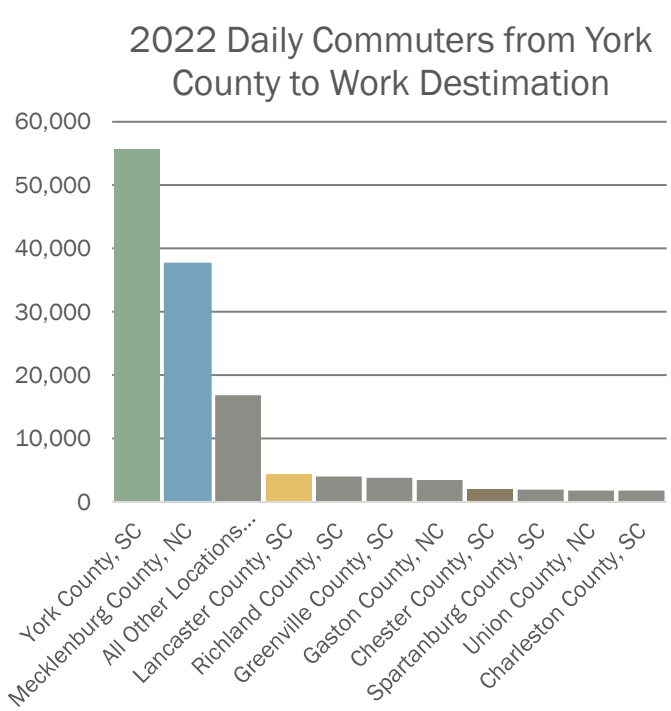
Figure 3-22 % Commute Distance into York County Jobs from Home Census Block to Work Census Block



Source: US Census Bureau On the Map

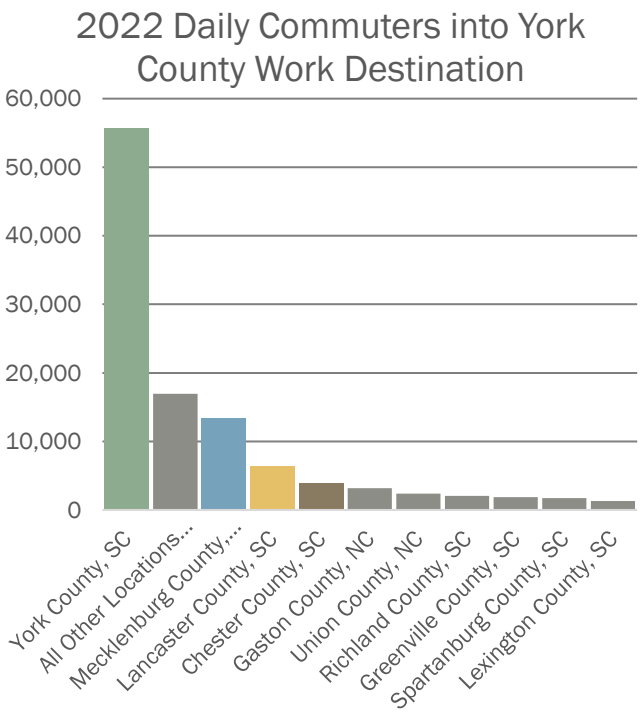
Figures 3-21 and 3-22 illustrate the distance traveled into and out of York County by percentage. Figure 3-21 shows that 74% of commuters travel less than 25 miles, and 39% travel less than 10 miles to work. Figure 3-22 shows a similar result as 75% of commuters work in York County, and 46% travel less than ten miles. Figures 3-22 and 3-23 illustrate the top county source of workers into York County and their destination County.

Figure 3-23 Daily Commuters from York County to Work Destination



Source: US Census Bureau On the Map

Figure 3-24 Daily Commuters into York County Work Destination



Source: US Census Bureau On the Map

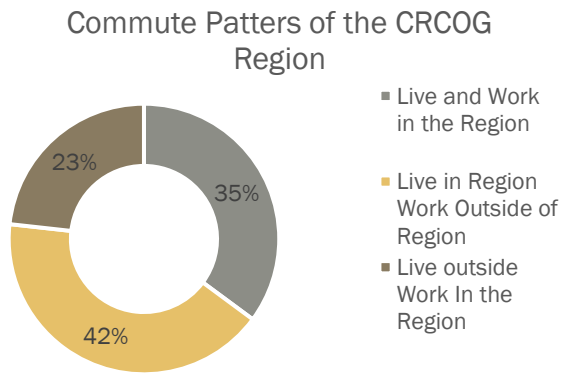
Table 3.1 Worker's Living and Employed in County vs. Employees Commuting into County

Worker's Living and Employed in County vs. Employees Commuting into County							
County	Total Workers Employed in County	Total Workers living and employed in the County	% Total Workers living and employed in County	Total Workers commuting into the County	% Total Workers commuting into the County	Total Workers Commuting out of County	Total commute surplus/(deficit) of Commuters
York	108,667	55,677	51.24%	52,990	48.76%	77,655	31,012
Union	7,744	3,574	46.15%	4,170	53.85%	8,779	(1,035)
Chester	9,896	3,484	35.21%	6,412	64.79%	11,547	(1,651)
Lancaster	29,440	11,000	37.36%	18,440	62.64%	33,099	(3,659)
CRCOG Region	Total Workers employed in COG Region	Total Workers living and employed in the COG Region	% Total Workers living and employed in COG Region	Total Workers commuting into the COG Region	% Total Workers commuting into the COG Region	Total Workers Commuting out of CRCOG Region	Total commute surplus/(deficit) of Commuters in CRCOG Region
CRCOG Region	155,747	93,725	60.18%	62,022	39.82%	111,090	44,657

Source: US Census Bureau On the Map

Table 3-1 summarizes the previous discussion of the commuting patterns of workers in the Catawba region. There is a notable pattern in the table. First is that most workers in York County have a positive commute-in/live-in vs. commute-out job balance, meaning fewer workers commute out of the county to work than remain or commute in, and slightly more than half the workers that live in York County work in York County. Chester, Lancaster, and Union counties have a negative commute-in/live-in vs. commute-out job balance as slightly more workers commute out than commute-in/live-in the communities.

Figure 3-25 Commute Patterns in the CRCOG Source



: US Census Bureau On the Map

Figure 3-25 describes the regional total commuter share drawn from Table 3-1 . Approximately 65% of workers commute in/live in the region, while 42% commute out of the region to work. This results in a surplus of over workers.

4.1 Roadways

The figure shown in Table 4-1 identifies that the road network in the CRCOG/RFATS MPO region is primarily made up of roadways owned and maintained by the SCDOT. The SCDOT roadways make up 3,627 miles or 61.8% of the total roadway miles in the four-county region. Only 2,241 miles, or 38.2%, are roadways owned and maintained by other agencies or entities/individuals.

Table 4-Table 4-1 Total Public Centerline Miles by County1

Total Public Centerline Miles by County				
County	SCDOT Roadways	Other than SCDOT Roadways	Total Miles Public Roads	Percent State Maintained
Chester	810.80	270.58	1081.38	75.0%
Lancaster	892.27	548.63	1440.89	62.0%
Union	615.72	209.12	824.84	75.0%
York	1308.70	1213.61	2522.31	52.0%
Total CRCOG Area	3627.48	2241.94	5869.42	61.8%
State Total	41,314.55	36,677.42	77,991	53.0%

Source: SCDOT

Table 4-2 SCDOT Roadways by Federal Designation in CRCOG Area

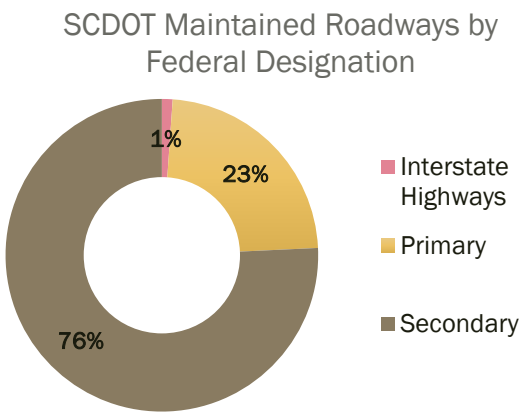
SCDOT Roadways by Federal Designation in CRCOG/RFATS MPO Area							
	Primary Roadways			Secondary Roadways			
County	Interstate	Primary (Non-Interstate NHS Primary and Non-NHS Primary	Total Primary	Federal Aid Secondary	Non-Federal Aid Secondary	Total Secondary	Total SCDOT System
Chester	18.82	197.06	215.88	105.57	489.35	594.92	810.80
Lancaster		187.32	187.32	313.11	391.83	704.95	892.27
Union		149.38	149.38	152.96	313.38	466.34	615.72
York	21.34	305.86	327.2	331.55	649.95	981.49	1308.70
Total CRCOG Area	40.16	839.62	879.78	903.20	1844.50	2747.70	3627.48

Source: SCDOT

Table 4-2 describes the total SCDOT-maintained roadway miles within the region by designation. The table is divided into primary roadways, including Interstate Highways, non-interstate NHS, and non-NHS primary roads, and secondary roadways, which include federal and non-federal aid roadways. The entire region contains approximately 3,627 miles of state-maintained roadways.

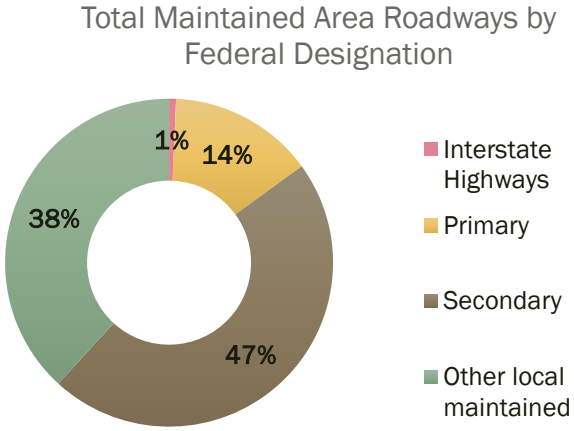
Figure 4-1 describes the percentage breakdown of federally designated roadways maintained by the SCDOT in the four-county region and the total percentage of roadways of both federally designated state-maintained and other (locally owned) roadways.

Figure 4-1 SCDOT Maintained Roadways



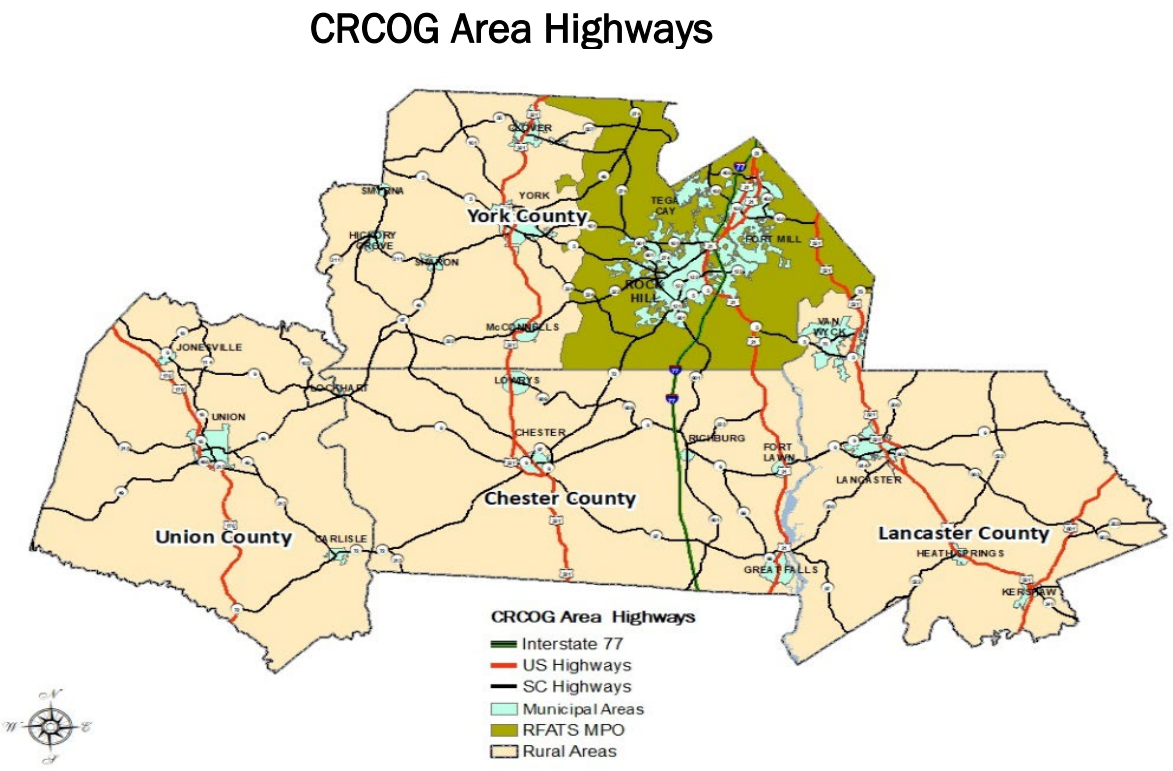
Source: SCDOT

Figure 4-2 Total Maintained Roadways



Source: SCDOT

Figure 4-3 Map of CRCOG Area Major Highways.

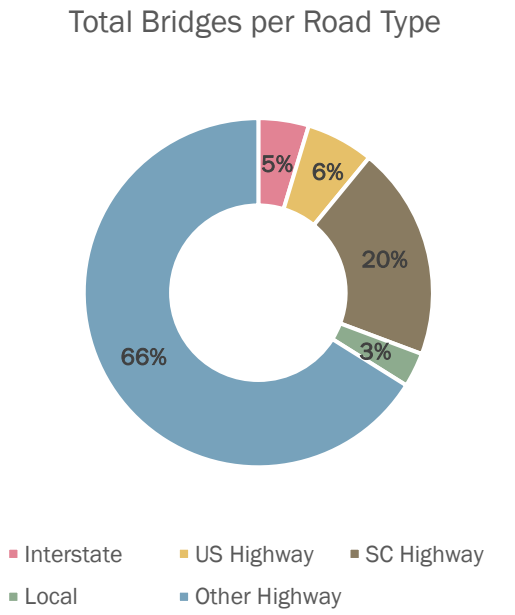


Source: SCDOT

4.2 Bridges

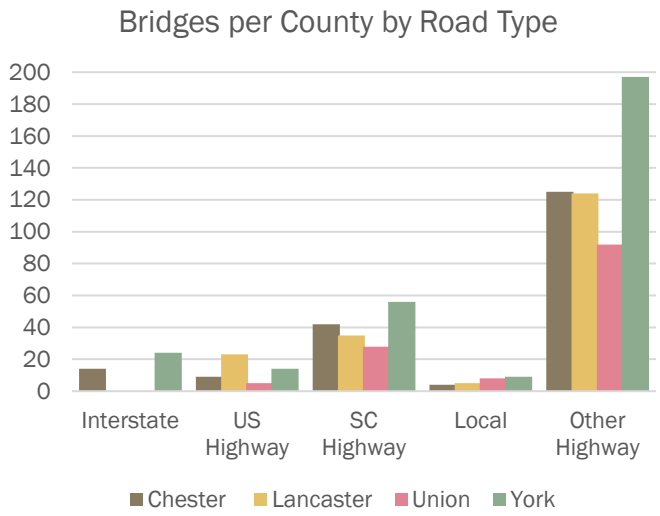
The Catawba region also has an extensive bridge network. As with the roadways, most of the bridges are state-owned. Figure 4-4 displays the distribution by percentage of SCDOT-maintained bridges. The graph shows that the SCDOT maintains approximately 97% of all regional bridges. The remaining 3% are locally maintained. Figure 4-5 illustrates the distribution of bridges by roadway type and county. Figure 4-6 illustrates the total bridge distribution by county. Figure 4-7 maps on the following page display bridge distribution throughout the region.

Figure 4-4 Percentage of bridge types within the Catawba Region



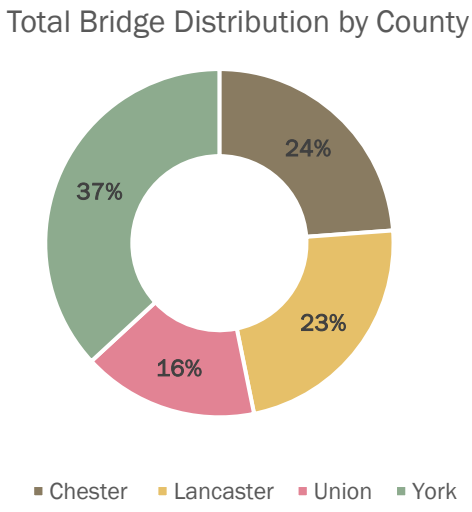
Source: SCDOT

Figure 4-5 Bridges per County by Road Type



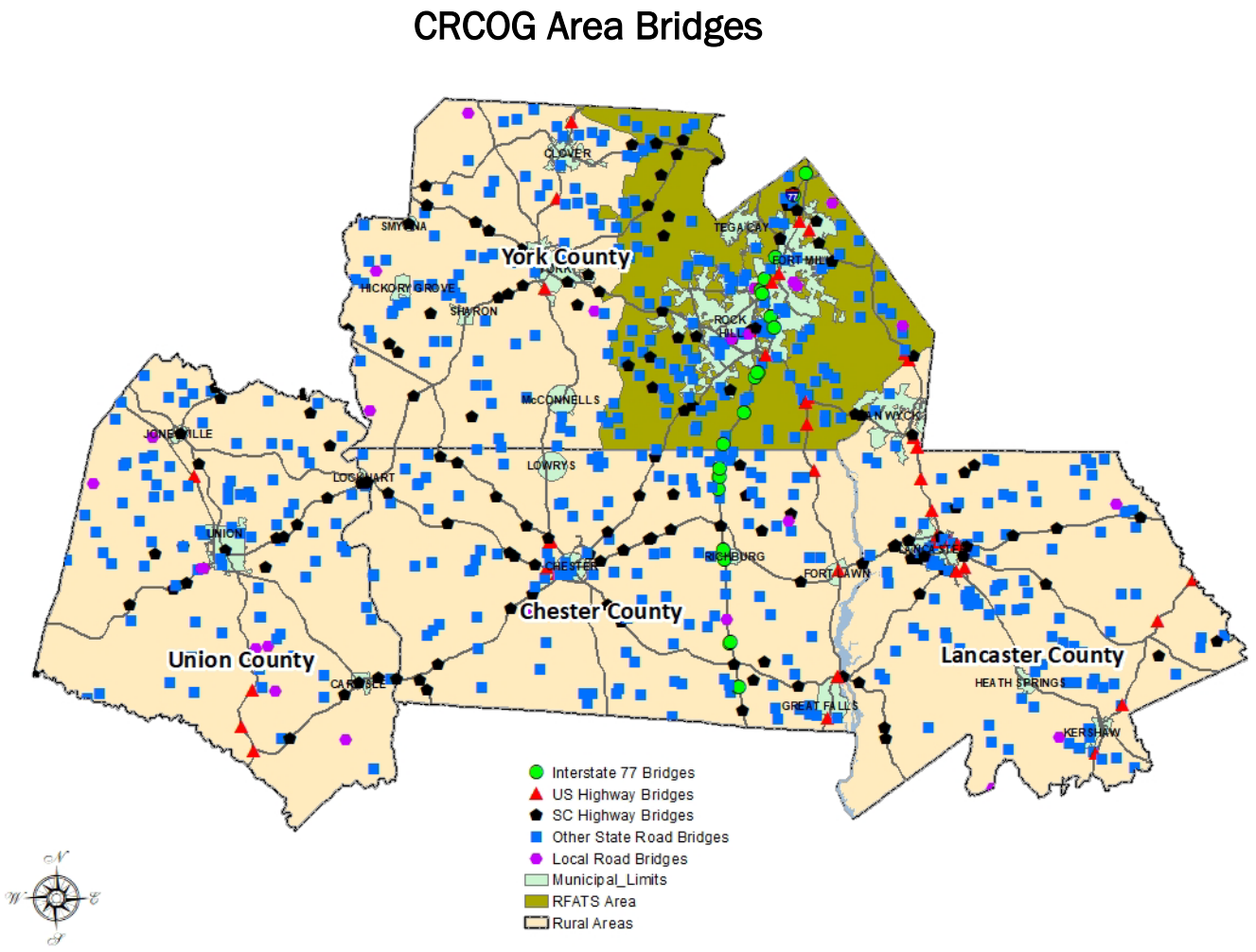
Source: SCDOT

Figure 4-6 Bridge Distribution per County



Source: SCDOT

Figure 4-7 Map of Catawba Regional Area Bridges



Source: SCDOT

4.3 Pavement Condition

The SCDOT currently maintains approximately 2,855 lane miles of pavement within the rural portion of the CRCOG area. Annually, the SCDOT releases its pavement ratings for its entire system. The ratings utilize the Pavement Quality Index and the International Roughness Index as the methodology used to determine the condition grade of road pavement. Pavement in South Carolina is given three possible grades: Poor, Fair, or Good Condition. This is based on data generated from the two indices. The grades are then used for the SCDOT prioritization of pavement projects to ensure pavement projects are ranked per statutory requirements and that dollars are directed toward the appropriate projects.

Table 4-3 provides a snapshot from 2022 that illustrates the overall condition of pavement in the rural, urban, county, and regional areas. A clear pattern is presented within the table. York County scores a much higher rate of good condition-rated roadways and a lower percentage of roadways in poor condition than the other three counties. Conversely, Chester County scores low in good percentage roads and a high

percentage of poor condition roadways, totaling almost 2/3 of the total roadways rated in poor condition. Lancaster and Union counties have comparable statistics. Contributing factors to these totals are robust one-cent sales tax initiatives in York and Lancaster counties and the receipt of higher gas taxes (C-Funds). On a positive note, Chester County's portion of Interstate 77 received a 100% good rating.

Table 4-3 Roadway Condition within the CRCOG Region

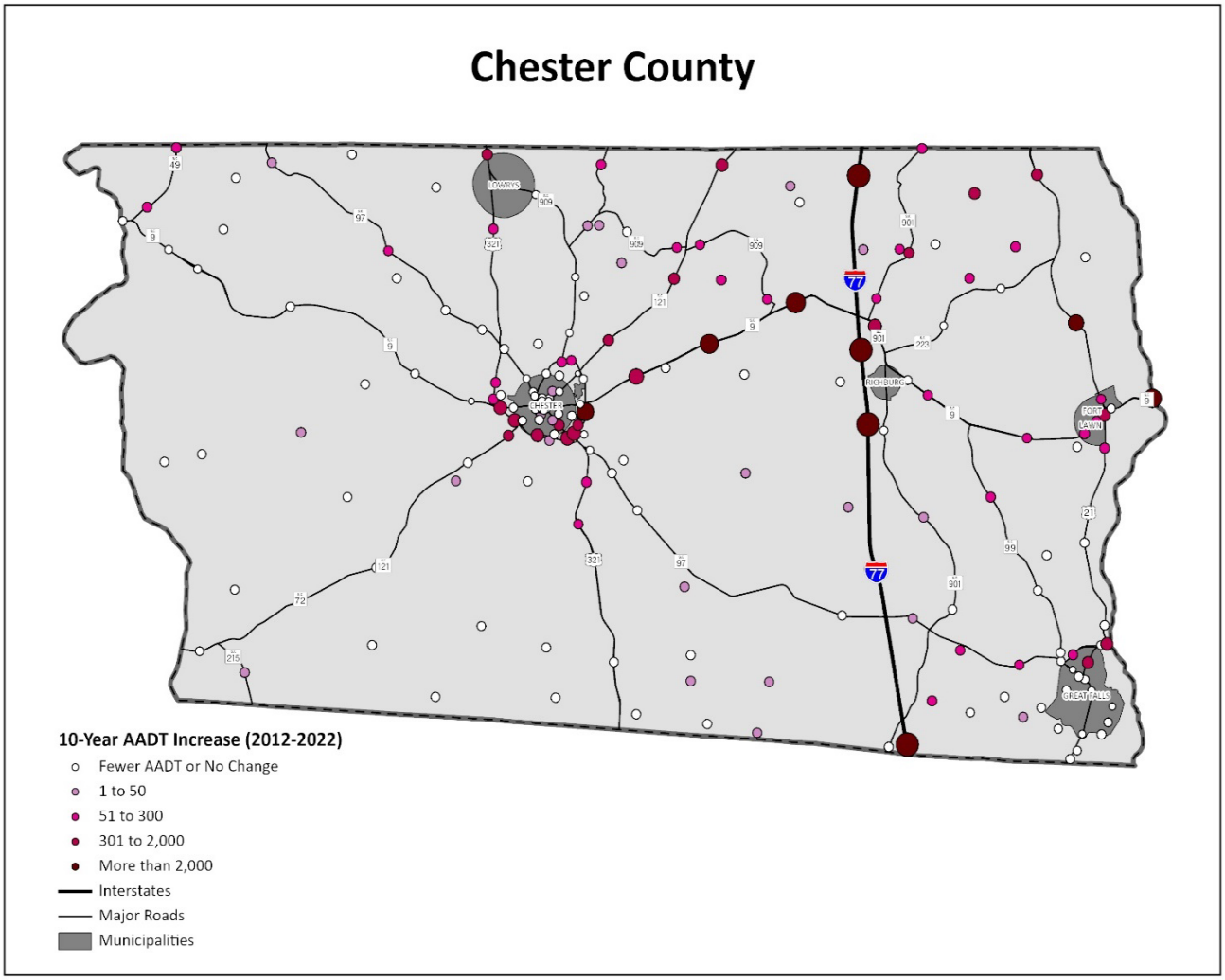
Roadway Condition within the CRCOG Region							
Roadway Setting	Lane Miles				Percentage		
	Total	Good	Fair	Poor	Good	Fair	Poor
Chester County							
Total Rural	768.9	172.8	110.6	485.5	22.5%	14.4%	63.1%
Total Urban	84.1	10.7	15.8	57.9	12.8%	18.8%	68.8%
Total	853.0	183.5	126.4	543.5	21.5%	14.8%	63.7%
Lancaster County							
Total Rural	611.1	171.7	92.3	347.1	28.1%	15.1%	56.8%
Total Urban	231.2	62.8	43.7	124.7	27.2%	18.9%	53.9%
Total	842.3	234.5	136.0	471.8	27.8%	16.1%	56.0%
Union County							
Total Rural	532.7	120.5	102.1	310.2	22.6%	19.2%	58.2%
Total Urban	93.4	24.8	21.5	47.2	26.5%	23.0%	50.5%
Total	626.2	145.3	123.5	357.4	23.2%	19.7%	57.1%
York County							
Total Rural	410.7	135.0	101.3	174.3	32.9%	24.7%	42.4%
Total Urban	122.7	29.2	31.6	61.9	23.8%	25.7%	50.5%
Total	533.4	164.2	132.9	236.3	30.8%	24.9%	44.3%
Catawba Region							
Regional Urban	531.5	127.5	112.6	291.8	24.0%	21.2%	54.9%
Regional Rural	2323.5	600.0	406.3	1317.1	25.8%	17.5%	56.7%
Region Total	2854.9	727.6	518.9	1608.9	25.5%	18.2%	56.4%

Source: SCDOT

The disparity between rural and urban pavement conditions from a regional standpoint is nominal, considering that the CRCOG Region has four times more rural road lane miles than urban lane miles.

Congestion, particularly at peak travel times, and large volumes of vehicles on roads designed for less traffic can quickly overburden the road network. The business community, transportation officials, and others routinely use traffic count data to gauge market conditions and road system performance. SCDOT collects traffic count information annually at station locations in each county. This data is available online graphically and digitally downloaded.

Figure 5-1 Chester County Traffic Volume Patterns between 2012 and 2022.



Source: SCDOT

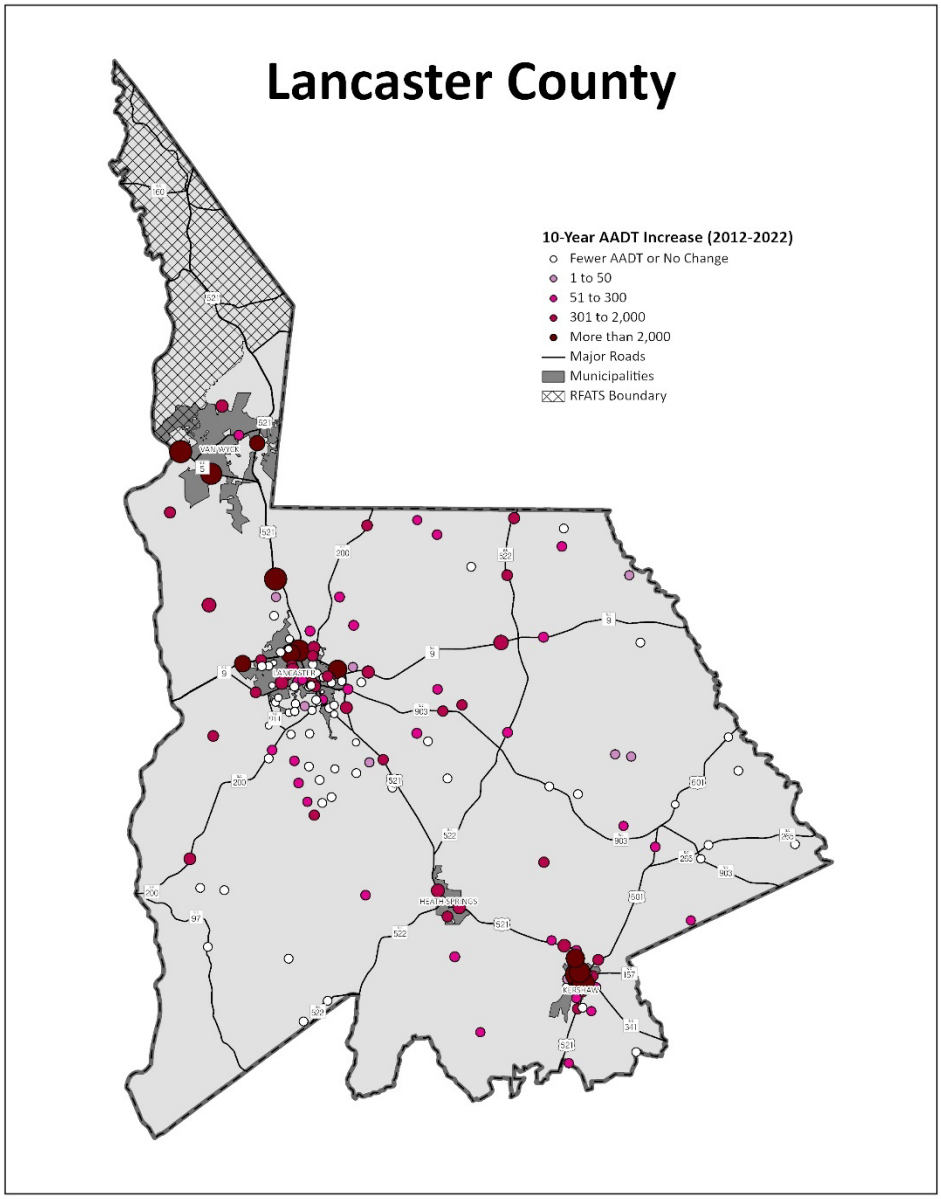
The following maps depict traffic growth from 2012 to 2022, as reported by SCDOT's Annual Average Daily Traffic (AADT) counts.

5.1 Chester County: Chester is the county seat and serves as the governmental and cultural center of the county. The four major highways that serve the area traverse

Chester and connect it to neighboring counties. Despite this level of connectivity, the 10-year trend shown in the map below indicates that count stations on I-77 and SC-9, between I-77 and the City of Chester, experienced the highest growth rates. Further growth is anticipated in the Richburg area as several large residential development projects are currently being planned or are under construction. Nominal growth in traffic volume along the York County border indicates that there is still consistent commuting traffic leaving the county as described in Section 3.1.

This trend will likely continue along the I-77 corridor based on the county's economic development strategy of promoting manufacturing sites near the I-77 Exit 65 - SC 9 interchange and SC 9 corridor (https://choosechester.com/industry/).

Figure 5-3 Union County Traffic Volume Patterns between 2012 and 2022



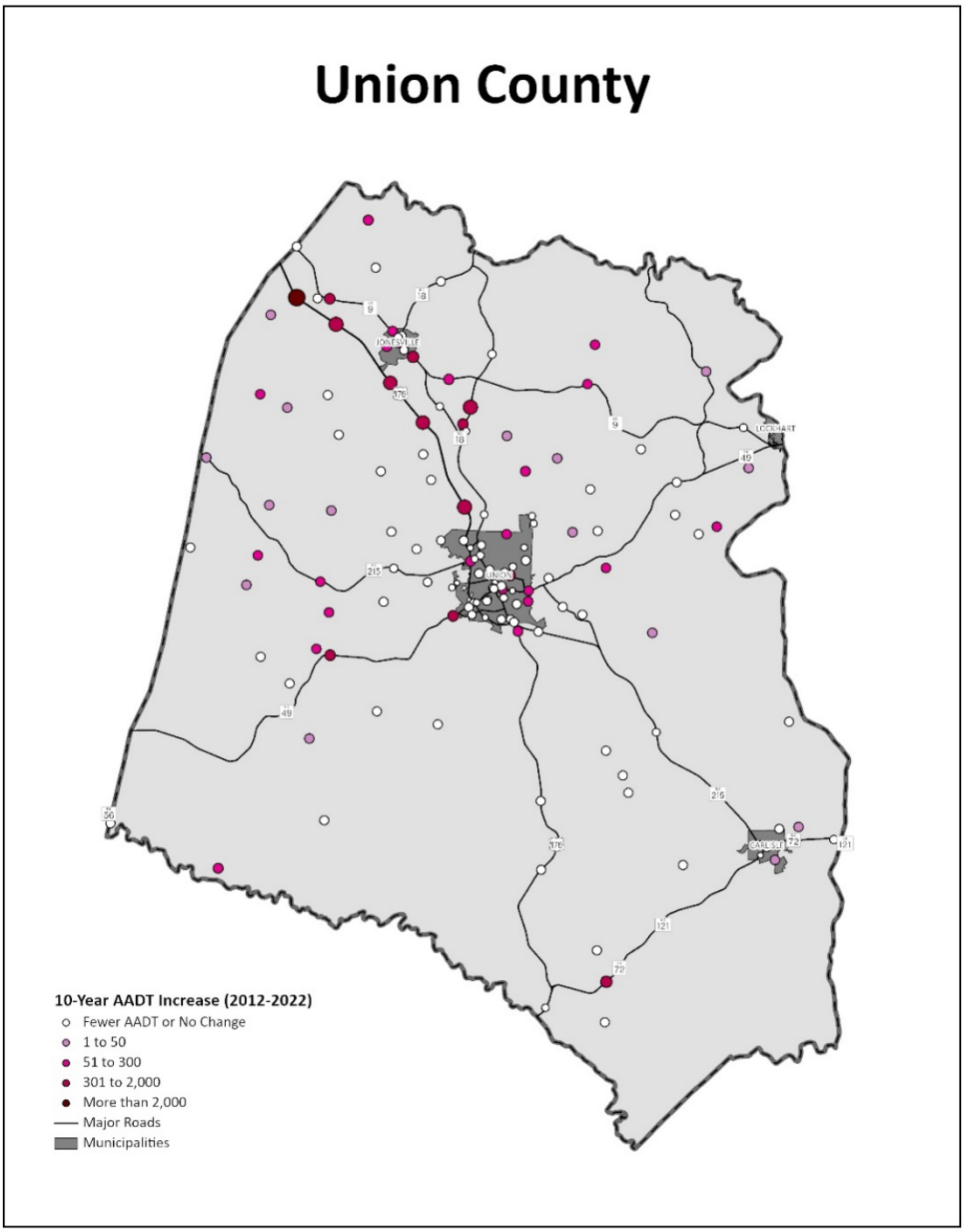
Source: SCDOT

5.2 Lancaster County:

Lancaster County continues to see high growth rates, as evidenced by the map.

Higher counts are found along SC-5 and US 521 near Kershaw and between the City of Lancaster and the Indian Land community to the north. This suggests a steady increase in commuters traveling to Charlotte-Mecklenburg, Union County, NC, and York County, as described in Section 3.2.

Figure 5-3 Union County Traffic Volume Patterns between 2012 and 2022



Source: SCDOT

5.3 Union County:

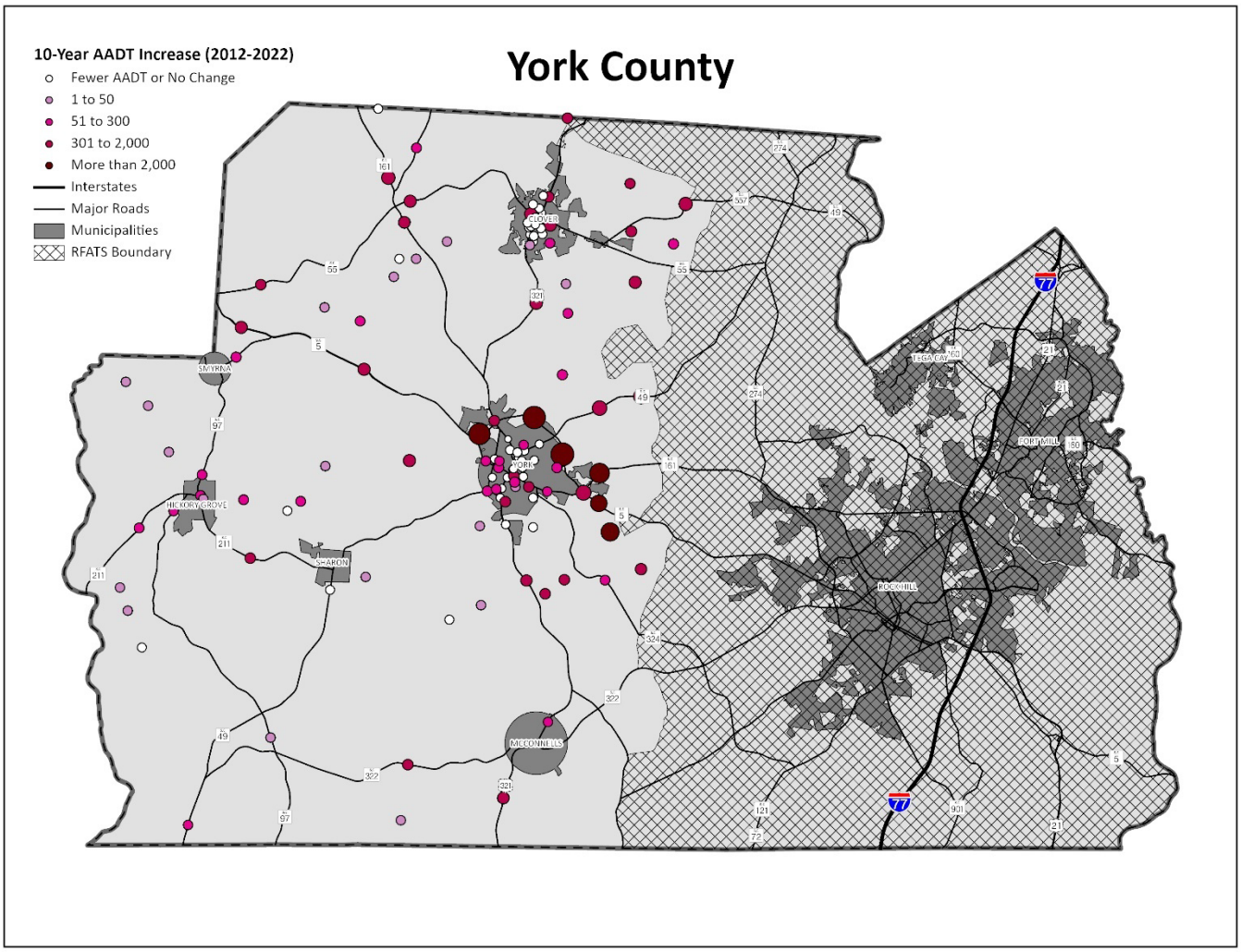
Most traffic count stations with growth are located along the US 176 corridor between the City of Union, the Town of Jonesville, and Spartanburg County. This corresponds to the location of nearby employers along the US 176 corridor and in the Spartanburg/Greenville area. The traffic counts are consistent with the commute patterns described in Section 3.3.

5.4 York County:

Western York County is served by the CRCOG rural transportation program, and RFATS MPO serves the eastern portion, shown as the hatched area of the map.

The area that has experienced the most significant growth is the York area along SC 161 and the Alexander Love Highway. This trip growth is due to the considerable residential growth in the City of York over the last four years. Other growth areas follow commuting patterns within the County along SC 55 from Clover toward the Lake Wylie area and Charlotte along SC 557, SC 55 West and SC 161 North towards Kings Mountain and Gaston County, and south on US 321 towards the City of York. Commute patterns for York County are found in Section 3.4.

Figure: 5-4 York County Traffic Volume Patterns between 2012 and 2022

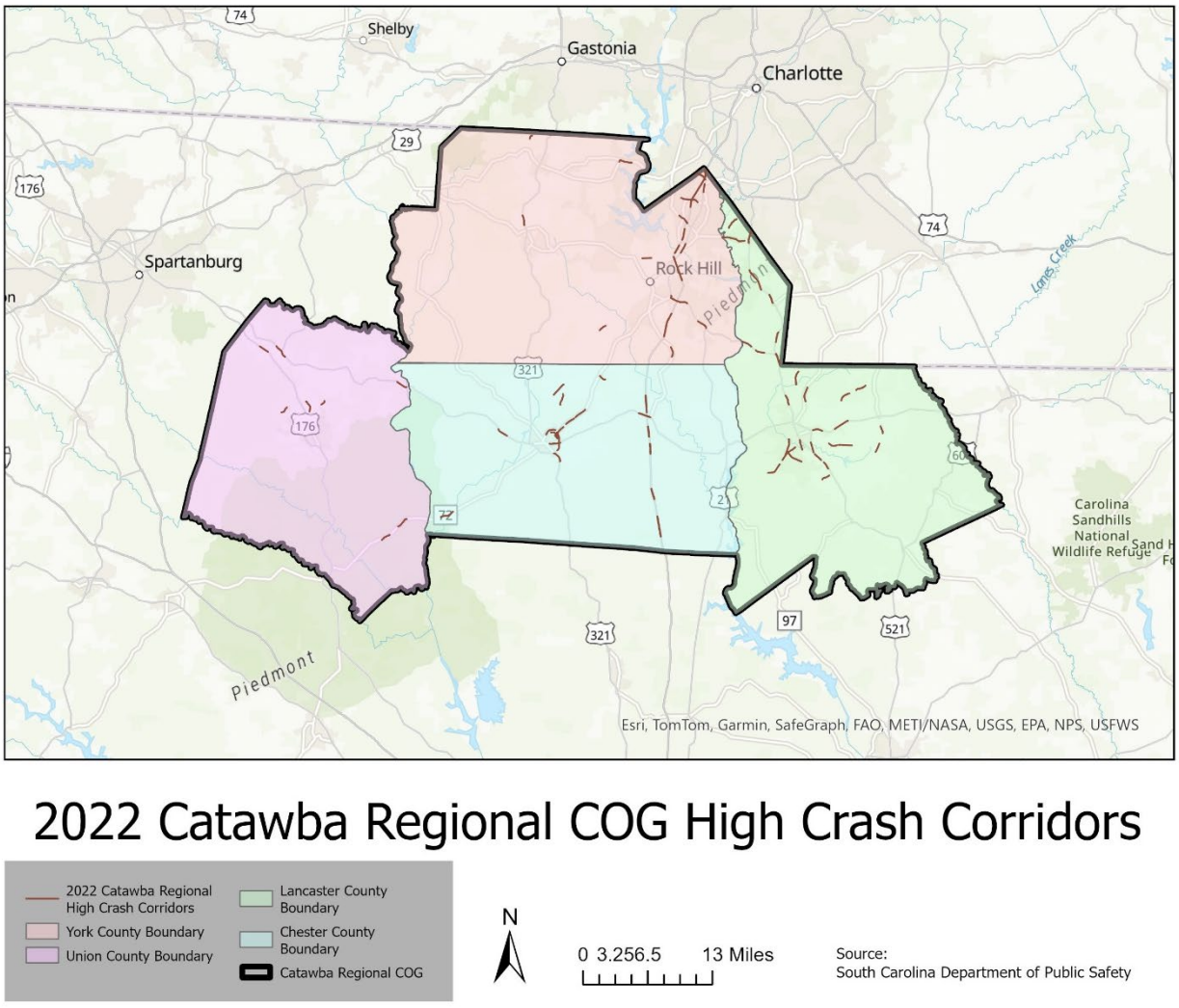


Source: SCDOT

The South Carolina Department of Public Safety maintains crash data on South Carolina roadways. This section used their data to identify high crash corridors within the region. Figure 6-1 displays 5-year totals of the high levels of crashes within the Catawba Region. Many of these corridors are located along the I-77 corridor and, predictably, along major thoroughfares near small population centers within Lancaster, Union, and Chester Counties. The rural area of York County identifies only three such corridors. Table 6-1 provides a list of all the rural high-crash corridors by County

6.1 High Crash Corridors

Figure 6-1 5-year Catawba Regional COG High Crash Corridors



Source: SC Department of Public Safety

Table 6-1: 2022 Catawba Area Rural High Crash Corridors by County

2018-2022 Catawba Area Rural High Crash Corridors by County	
Chester County	
Route ID	**Mile Posts Beginning and End Points**
Chester I-77 N	50.89 - 54.803, 55.437 - 64.237, 65.5 - 66.118
Chester I-77S	50.89 - 64.241, 64.99 - 66.127
Chester S-187 N	0 - 0.66
Chester S-190 E	3.186 - 4.35
Chester S-193 N	0 - 0.716
Chester S-210 E	0 – 0.37
Chester S-420 E	0 - 0.34
Chester SC 72 E	1.31 - 2.74, 16.79 - 18.72, 19.5 - 21.74
Chester SC 9 BUS S	1.88 - 2.85
Chester SC 9 N	27.64 - 28.72
Chester SC 9 S	11.022 - 12.1, 17.85-.76, 27.47 - 28.49
Chester SC 909 S	3.95 -5.38
Chester SC 97 S	13.32 - 14.416
Chester US 321 N	8.385 - 9.448
Lancaster County	
Route ID	**Mile Posts Beginning and End Points**
Lancaster S-12 E	0.34 -1.61
Lancaster S-185 N	3.037 - 4.499
Lancaster S-19 N	0 - 1.002
Lancaster S-25N	0 - 1.74
Lancaster S-42 E	1.13 - 2.23
Lancaster S-51 N	5.327 - 6.37, 7.147 - 8.336
Lancaster S-71 N	0.97 - 1.822
Lancaster SC 200 E	6.959 –7.991, 8.705 - 10.56, 16.41 - 17.92
Lancaster SC 5 S	0 - 1.09, 1.657 - 2.58
Lancaster SC 522 E	18.38 - 19.147
Lancaster SC 9 S	10.02 - 11.569
Lancaster SC 903 S	4.23 - 5.05
Lancaster US 521 N	16.76 - 17.56, 25.264 - 26.201, 29.899 - 30.61, 36.221 - 37.11, 39.292 - 44.364
Lancaster US 521 S	29.684 - 30.61, 36.224 - 37.11, 39.399 - 40.426, 43.293 - 44.356
Union County	
Route ID	**Mile Posts Beginning and End Points**
Union S-4E	3.43 - 3.95
Union S-84E	0 - 0.27
Union SC 18 W	3.859 - 5.001
Union SC 72 E	7.34 - 8.306, 9.766 - 10.682
Union SC 9 S	4.32 - 5.576,

2018-2022 Catawba Area Rural High Crash Corridors by County	
	19.001 -20.14
Union US 176 W	2.852 – 3.811
York County	
Route ID	**Mile Posts Beginning and End Points**
York S-101 N	3.9 – 4.21
York S-237 N	1.297 - 11.601
York US 321 N	15.933 –16.95

Source: SC Department of Public Safety

6.2 Regional Fatalities

The South Carolina Department of Public Safety maintains a dashboard with traffic fatality data. The dashboard was utilized to gather data from 1/1/2018 to 12/31/2022 for the Catawba Region, per county, by type of traffic control and type of vehicles (see Tables 6-2 and 6-3).

Table 6-2: 5-Year Catawba Area Road Fatalities by Type of Traffic Control by County

5 Year Catawba Area Road Fatalities by Type of Traffic Control by County														
County	**Flashing Beacon**	**None**	**Pavement Markings (Only)**	**RR (X-bucks, Lights, & Gates)**	**Stop and Go Light**	**Stop Sign**	**Yield Sign**	**Flashing Traffic Signal**	**Oncoming Emergency Vehicle**	**Unknown**	**Other Warning Signs**	**Work Zone**	**No Category**	**Total**
Chester County	1	54	17	2	1	1	1	0	0	0	0	0	0	77
Lancaster County	0	69	8	0	8	9	1	0	1	0	2	2	0	100
Union County	0	18	19	0	0	4	0	0	0	0	0	0	0	41
York County	0	133	50	0	11	19	0	1	1	1	0	0	2	218
Total	1	274	94	2	20	33	2	1	2	1	2	2	2	436

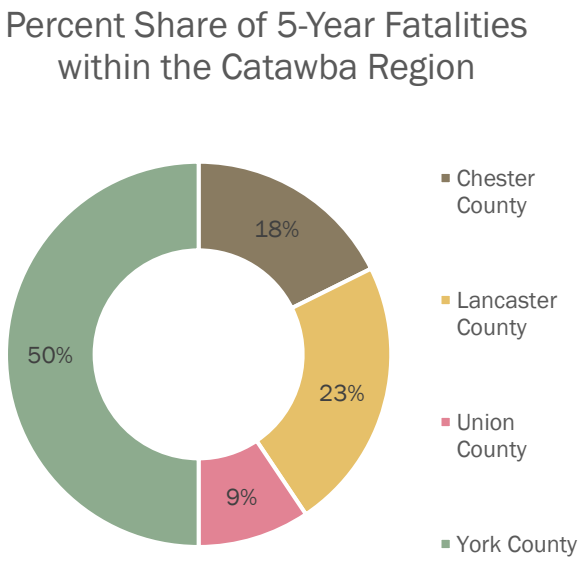
Source: SC Department of Public Safety

Table 6-3: 5-Year Catawba Area Road Fatalities by Type of Vehicle by County

5-Year Catawba Area Road Fatalities by Type of Vehicle by County													
County	**Automobiles**	**Full-Size Van**	**Mini Van**	**Motorcycle**	**Other**	**Other Motorcycle**	**Other Truck**	**Pedal cycle**	**Pedestrian**	**Pickup Truck**	**Sports Utility**	**Truck Tractor**	**Total**
Chester County	31	4	0	3	0	0	2	0	12	13	10	2	77
Lancaster County	33	2	1	14	1	0	0	2	16	18	13	0	100
Union County	19	2	1	1	0	1	0	0	3	7	7	0	41
York County	91	2	3	31	1	2	2	3	28	21	32	2	218
Total	174	10	5	49	2	3	4	5	59	59	62	4	436

Source: SC Department of Public Safety

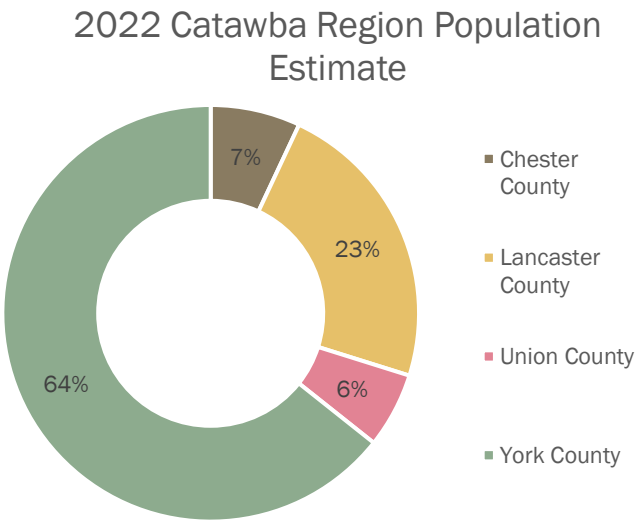
Figure 6-6: Percent Share of 5-Year Fatalities within the Catawba Region



Source: South Carolina Department of Public Safety

Figures 6-6 and 6-7 reveal how fatalities are distributed amongst the counties versus the total share of the population in the region. These tables demonstrate that Lancaster and Union Counties have roughly the same population percentage versus total fatalities suffered over the five years. York County has a disproportionately low fatality rate of 50% despite having 64% of the region's population. Chester County has a disproportionately high fatality count of 18% of the region's total, considering that less than half of that percentage is in the region's total population. It should be noted that the RFATS area was not subtracted from the regional total as the data is only summarized at the county level. Also, York County and Lancaster County are in both the RFATS MPO and CRCOG Rural Planning areas and have robust one-cent sales tax programs that go towards transportation infrastructure improvement projects that contribute to roadway safety.

Figure 6-7: 2022 Catawba Region Population Estimate



The comparisons between Figures 6-6 and 6-7 are only to be used for illustrative purposes only. Fatality rates, as established by the FHWA, and further discussed in Chapter 11, within their National Planning Goals for safety, created fatality rate and serious injury rate performance measures based on total roadway fatalities per miles traveled. The metric equals total fatalities per 100 million miles traveled (HMMT). This formula can be equally applied at the County, region and statewide levels, as it normalizes different data sets to provide an accurate representation equally. In this case we show the federal standard of using a five year period 2018-2022 as shown in Table 6.4. The table shows that York County has a very low rate of 1.41 fatalities per HMMT, which is well below the state rate at this 5-year period of about 1.82, while Chester

County's rate is close to the statewide rate. Union and Lancaster County are both much higher than the state rate.

Table 6.4 Fatality Rate per 100 Million Miles Travelled in the CRCOG/RFATS Region			
	Fatalities (2018-2022)	VMT (2022)	Fatality Rate (per HMVMT)
CHESTER	66	699,524,489.25	1.89
LANCASTER	85	808,270,600.00	2.10
UNION	35	263,515,655.50	2.66
YORK	192	2,715,167,986.00	1.41

Source: SCDOT

There are a number of causes to the higher fatality rates. Roadway improvements such as intersection improvements, pavement markings and signage, rehabilitation and replacement of pavements, and shoulder treatments are only part of the solution to reducing roadway fatalities. Human behavioral changes, education, and increased law enforcement presence and consequences, which are outside the scope of the LRTP, would significantly reduce the overall rate.

The movement of goods is critical to the state's economic health and the Catawba region, which has indirect access to a major inland rail port in Greer, Charlotte intermodal port at Charlotte-Douglas International Airport, major railway carriers, and an interstate highway. The Bipartisan Infrastructure Law (BIL) (also known as the Infrastructure Investment and Jobs Act, or IIJA), signed into law by President Biden in November 2021. BIL invested over $66 in passenger and freight rail. This update to the CRCOG Long Range Plan is in coordination with the South Carolina Department of Transportation 2040 Multimodal Transportation Plan (MTP).

7.1 Rail Services

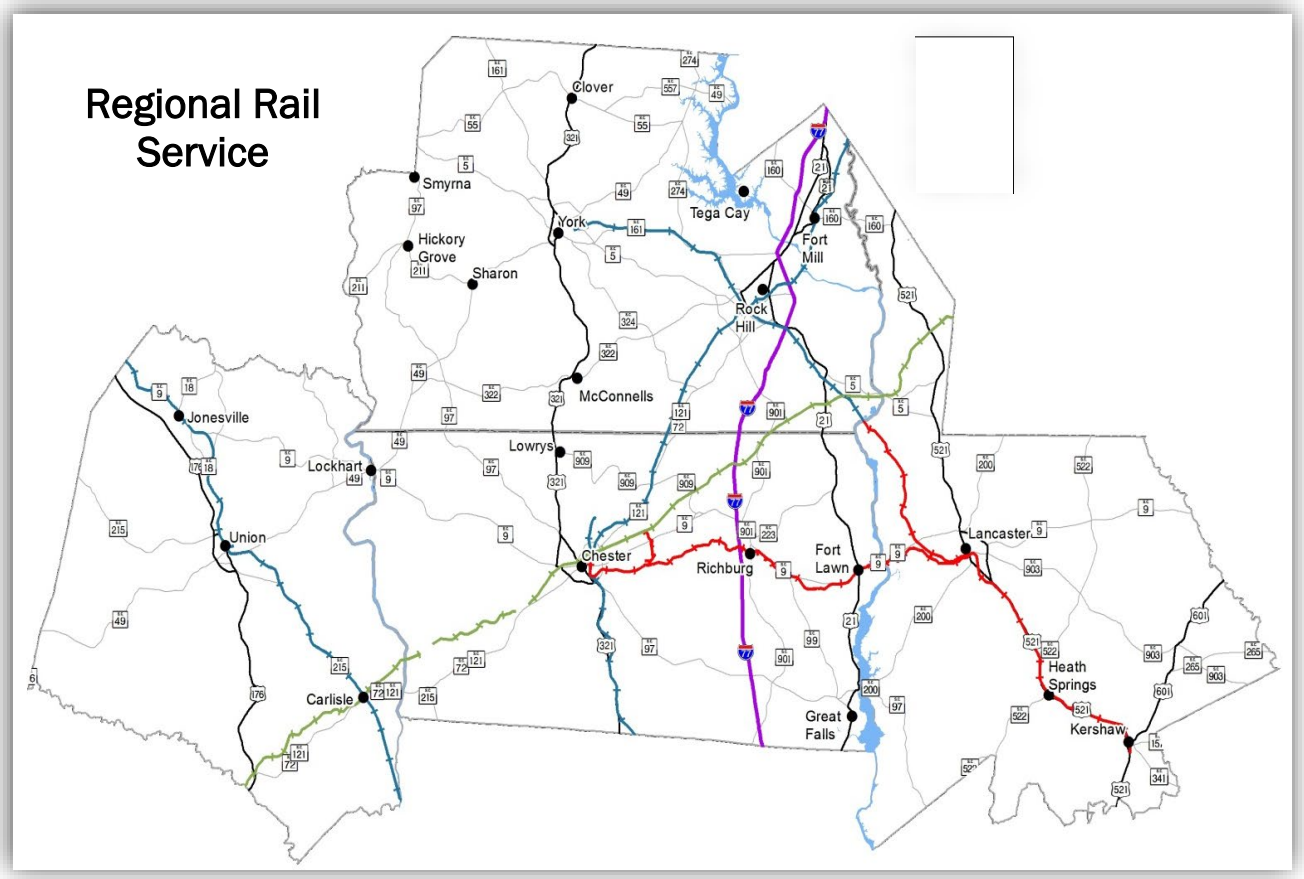
Much of the rail system in the region was developed during the 20th Century and served to spur economic development. The rail system primarily currently serves freight traffic. **CSX Transportation** (green line) has a major rail line that traverses the region on a northeast-southwest trajectory and connects the Lancaster County panhandle to Chester and southern Union County. This line connects business customers with eastern North Carolina and western South Carolina. www.csx.com

Norfolk Southern (blue line) has two main lines running primarily north-south. The first connects York and Chester counties with service to Charlotte to the north and Columbia to the south. The second line bisects Union County and is the main corridor from the Port of Charleston to the Inland Port in Greer. www.nscorp.com

A third system is the **Gulf and Ohio Railroad,** known locally as the **Lancaster and Chester Railroad (L&C)** (red line), a short line developed originally to provide service to the Springs Industries mills. It now also serves a variety of other industries. This line runs between the City of Chester, passing through Fort Lawn and Richburg in Chester County, as it travels east into Lancaster County to the City of Lancaster before it turns south to Heath Springs and terminates in Kershaw. (www.landcrailroad.com.) The L&C provides rail freight

service for industrial customers, connecting them to CSX east of Chester (green line) and the Norfolk Southern line in Chester (blue line).

Figure 7-1 Map of Catawba Regional Rail Service



Source: SCDOT

7.2 Strategic Roadways

The recent update to the 2040 South Carolina Multimodal Transportation Plan included an update to the statewide Strategic Freight Corridor Network. These corridors provide local and regional connections, but they also allow for the efficient movement of goods and services for business and personal purposes.

The rural CRCOG region is served by one interstate and a network of state and federal highways. The following paragraphs contain an overview of major regional highways. Figure 7-2 shows the map of the strategic corridors.

The following strategic highways are listed in the 2040 Multimodal Transportation Plan Update in the region and are essential to transportation and the Upstate's economic vitality.

Interstate 77 – Interstate 77 is a critical link that directly connects goods and services between the CRCOG region, Charlotte, Columbia, and the low country. The York County segment of roadway, located within the RFATS area, is designed for an urban cross-section with four lanes at the North Carolina Stateline and transitions to two lanes as it nears the Chester County Line. The Chester County segment takes on a rural cross-section of the highway, providing two lanes from York County to Fairfield County in each direction.

Highway improvement note:

SCDOT recognized that the rural interstates needed substantial upgrades. The Rural Interstate Freight Mobility Improvement Program was developed and designed to increase mobility along with the interstate freight network by focusing on high-density segments of the system located in rural areas. As part of the 10-Year Plan, SCDOT attempts to address several important segments of the state's interstate system. These critical segments impact hundreds of thousands of motorists per day and impact the movement of freight throughout the state. The SCDOT has initiated planning activities for a segment of the I-77 corridor from the start of the two-lane section in York County, near exit 77 (US 21) to exit 65 (SC Hwy 9) in Chester County. This project is currently in the planning phase and is scheduled for tentative completion in 2035.

SC Hwy 9 – SC Hwy 9 is a major east-west corridor that traverses the region between the Union/Spartanburg County line and Lancaster/Chesterfield County line. It provides direct linkage from industry located on the SC Hwy 9 corridor to I-77 and an efficient connection linking I-77 to I-85 in Spartanburg County. This route is the longest strategic freight corridor in the region, with cross-sections of two to four lanes.

Highway improvement note:

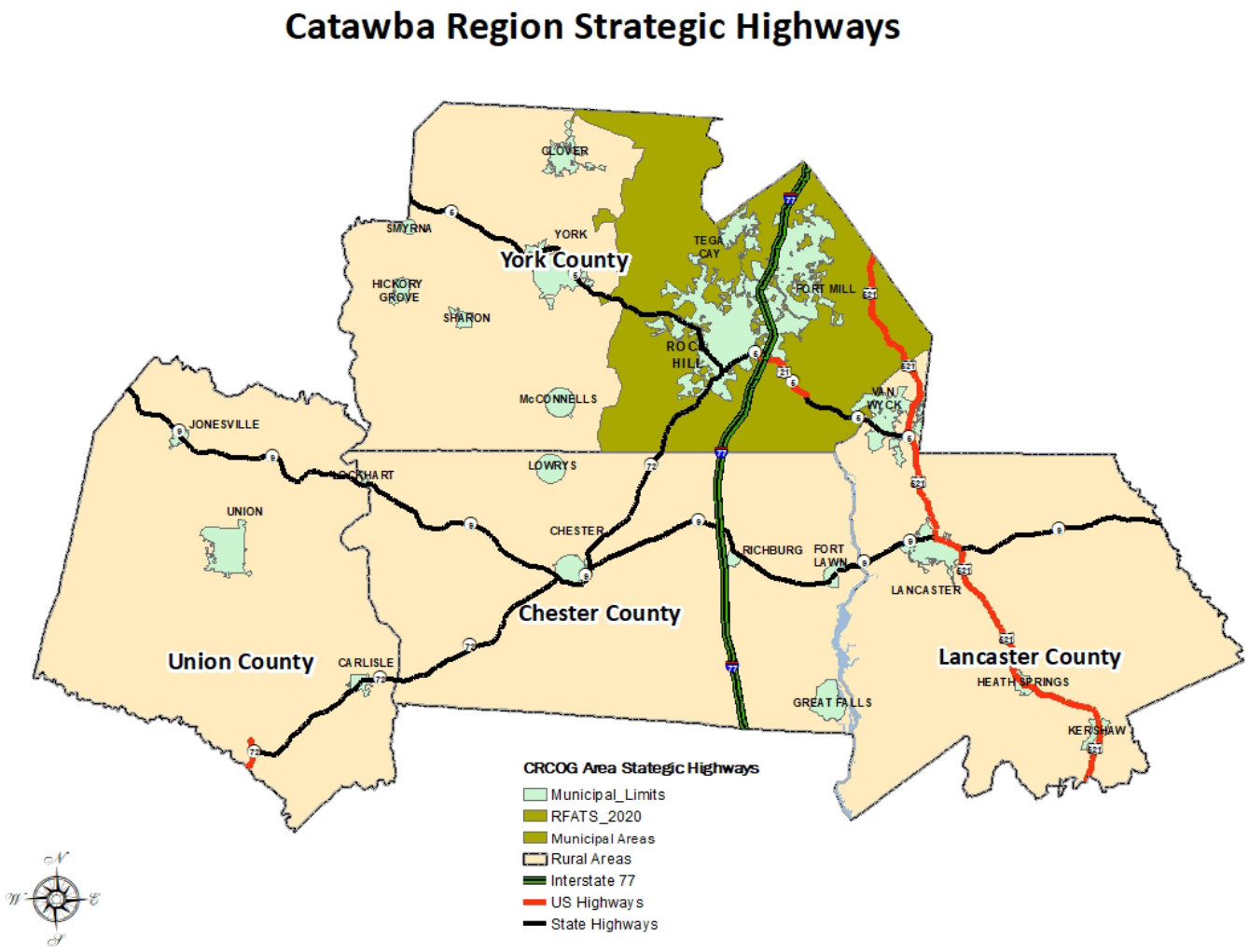
The segment of SC Hwy 9 between Lancaster and the Chesterfield County line is being considered for a potential widening project that would widen the two-lane highway from two to four lanes, as funding becomes available. Further feasibility analysis will be required for this potential future investment.

SC Hwy 5 – SC Hwy 5 provides a key northwest/southeast over-the-road freight link between US 521, the City of Rock Hill, the City of York, and the York/Cherokee County Line. It also provides a direct alternative regional connection between I-77 and I-85. Most of SC Hwy 5 is located in the rural portion of the region, with the remainder in the RFATS region. The cross-section consists of a two-lane roadway in Lancaster County and between the City of Rock Hill and the City of York, where it transitions to a four-lane facility to the Cherokee County line.

SC Hwy 72 – The SC Hwy 72 corridor connects the City of Rock Hill from SC Hwy 5 to the Union/Laurens County Line. More importantly, it links with SC Hwy 9 in Chester to efficiently connect goods and services from I-77 to I-26 in Laurens County. The cross-section of SC Hwy 72 is a rural two-lane cross-section throughout its length.

US 521 – US 521 is one of the region's few major north-south economic corridors. It connects Southeast Charlotte's Ballantyne Area/I-485 to the City of Lancaster and southern Lancaster County. It also provides an alternative route through Kershaw County to I-20. Most of its length is located within the rural area of Lancaster County. US 521 contains a four-lane cross-section throughout the rural area.

Figure 7-2: Strategic Corridors



Source: SCDOT

List of road segments with the highest Average Annual Daily Trips in the CRCOG area in 2023.			
Bolded segments are part of the Strategic Freight Corridors, as shown in Figure 6-1			
County	Route	Route Segment	AADT
CHESTER	**I-77**	**SC 9 (LANCASTER HWY) TO SC 901 (MT HOLLY RD) (YORK)**	**56,300**
CHESTER	**I-77**	**S- 56 (OLD RICHBURG RD) TO SC 9 (LANCASTER HWY)**	**48,900**
CHESTER	**I-77**	**SC 97 (GREAT FALLS HWY) TO S- 56 (OLD RICHBURG RD)**	**48,700**
CHESTER	**I-77**	**SC 200 (HWY 200) (FAIRFIELD) TO SC 97 (GREAT FALLS HWY)**	**48,500**
LANCASTER	**US-521**	**SC 9 (PAGELAND HWY), SC 9 BUS TO US 521 BUS (N MAIN ST), SC 9**	**27,400**
LANCASTER	**US-521**	**S- 56 (OLD CHARLOTTE RD) TO SC 5 (RAMP RAMP)**	**25,700**
LANCASTER	**US-521**	**US 521 BUS (N MAIN ST), SC 9 TO S- 56 (OLD CHARLOTTE RD)**	**23,500**
LANCASTER	**SC-9**	**S- 67 (GILLSBROOK RD) TO US 521 (RAMP RAMP), US 521 BUS**	**21,800**
LANCASTER	**SC-5**	**County Line - YORK TO SC 75 (W REBOUND RD), S- 29**	**18,900**
YORK	SC-5	SC 324 (MCFARLAND RD) TO SC 5 (ALEXANDER LOVE HWY E)	18,700
CHESTER	**SC-9**	**S- 103 (WILSON ST) TO SC 72 (J A COCHRAN BYP)**	**17,400**
YORK	SC-5	SC 49 (CONGRESS ST N) TO SC 5 BUS (LIBERTY ST E), SC 161	17,100
YORK	**SC-161**	**SC 5 (ALEXANDER LOVE HWY E) TO SC 274 (CELANESE RD), S- 81**	**16,900**
LANCASTER	**SC-9**	**S- 612 (RUGBY RD) TO S- 67 (GILLSBROOK RD)**	**15,000**
CHESTER	**SC-9**	**SC 909 (NO NAME) TO S- 46 (NO NAME), L- 46**	**15,000**
CHESTER	**SC-9**	**S- 514 (HAWTHORNE RD) TO County Line - LANCASTER**	**15,000**
LANCASTER	**US-521**	**SC 5 (RAMP RAMP) TO SC 75 (CHARLOTTE HWY)**	**14,800**
YORK	SC-5	SC 5 BUS (LIBERTY ST E), SC 161 TO L- 4972 (PUBLIC WORKS RD)	14,500
YORK	**SC-5**	**US 321 (FILBERT HWY) TO SC 49 (CONGRESS ST N)**	**13,600**
UNION	US-176	SC 49 (N DUNCAN BYP), S- 137 TO SC 49 (W MAIN ST), S- 7	13,600
CHESTER	**SC-9**	**S- 56 (OLD RICHBURG RD) TO SC 909 (NO NAME)**	**13,600**
YORK	SC-55	US 321 (MAIN ST S) TO SC 557 (HIGHWAY 557), L- 852	13,300
UNION	US-176	US 176 CON (CONNECTOR RD) TO SC 49 (N DUNCAN BYP), S- 137	13,200
CHESTER	**SC-9**	**US 321 (COLUMBIA RD) TO S- 103 (WILSON ST)**	**13,000**
YORK	SC-5	US 321 BUS (CONGRESS ST S) TO SC 324 (MCFARLAND RD)	13,000
CHESTER	**SC-9**	**S- 46 (NO NAME), L- 46 TO SC 223 (NO NAME)**	**13,000**
LANCASTER	SC-903	US 521 BUS (S MARKET ST), S- 351 TO S- 362 (COMMUNITY LN)	12,700
LANCASTER	**SC-9**	**County Line - CHESTER TO S- 612 (RUGBY RD)**	**12,500**
YORK	US-321	US 321 BUS (KINGS MOUNTAIN ST) TO SC 161 (HIGHWAY 161)	12,500
UNION	US-176	County Line - SPARTANBURG TO S- 14 (CEDAR GROVE RD)	12,300
LANCASTER	**SC-5**	**SC 75 (W REBOUND RD), S- 29 TO US 521 (CHARLOTTE HWY)**	**12,200**
YORK	**SC-5**	**L- 4972 (PUBLIC WORKS RD) TO S- 1172 (PARK PLACE RD)**	**11,900**
YORK	US 321	S- 238 (JIM MCCARTER RD N) TO SC 55 (KINGS MOUNTAIN ST)	11,800
YORK	US 321	S- 4 (OLD NORTH MAIN ST) TO State Line - NORTH CAROLINA	11,500
LANCASTER	**SC 9**	**US 521 (HWY 9 BYP E BYP), SC 9 BUS TO S- 36 (POTTER RD)**	**11,100**
CHESTER	**SC-9**	**SC 72 (J A COCHRAN BYP) TO S- 56 (OLD RICHBURG RD)**	**10,700**
YORK	SC 5	SC 5 BUS (BLACK HWY), S- 75 TO US 321 (FILBERT HWY)	10,600

CHESTER	**SC 9**	**US 21 (CATAWBA RIVER RD) TO S- 514 (HAWTHORNE RD)**	**10,500**
UNION	US 176	S- 14 (CEDAR GROVE RD) TO S- 12 (WEST SPRINGS HWY)	10,500
CHESTER	US 321	US 321 BUS (COLUMBIA RD), SC 9 TO S- 16 (ASHFORD ST)	10,400
LANCASTER	**US 521 BUS**	**S- 500 (E BARR ST) TO US 521 (RAMP RAMP), SC 9**	**10,400**
YORK	SC 557	SC 55 (HIGHWAY 55 E) TO SC 49 (CHARLOTTE HWY), SC 274	10,200
LANCASTER	SC 200	SC 914 (MEMORIAL PARK RD), S- 25 TO US 521 BUS (S MARKET ST)	10,100
YORK	**SC 5**	**S- 1172 (PARK PLACE RD) TO S- 56 (RAWLINSON RD)**	**10,000**
Bold indicates part of the Strategic Freight Network in the CRCOG Area. RFATS road segments are not included.			
*AADT is the average annual daily trip at specific roadway segments.			

Table 7-1 List of road segments with the highest Average Annual Daily Trips in the CRCOG area in 2021.

Source: SCDOT

Chester, Lancaster, Union, and York counties have demand-response transit services. York County contracts with York County Access, operated by the York County Council on Aging, for transit services. Senior Services of Chester County operates the Chester County Connector. Lancaster County Council on Aging operates the Lancaster Area Ride Service (LARS). Union County began a three-year public transportation pilot program in 2023 in partnership with the Chester Connector. The program is a "demand response" service run Monday through Friday, 7:00 am – 5:00 pm, providing access to medical appointments, grocery stores, pharmacies, and essential shopping needs.

Chester County Connector has been funded through FTA/SCDOT 5311 funds; the Chester Healthcare Foundation, the United Way, the Springs Close Foundation, Chester County, fares and other local funding sources and donations. In 2025, Chester Connector sought to replace its operations center, which is structurally unsuitable for long-term occupancy. They are continuing to pursue alternative options.
[www.facebook.com/Senior-Services-Inc-of-Chester-Chester-County-Connector-502149729921718/]

York County Access is a cooperative effort between York County and the City of Rock Hill. Rock Hill provides funding for York County Access and receives FTA/SCDOT funds that support the transit program. In addition to funding received from fares, Title XIX Medicaid and senior transportation funding are also received by York County Access under the Older Americans Act. [www.yorkcountygov.com/YorkCountyAccess]

Lancaster Area Ride Service (LARS) is a joint effort of local nonprofit organizations committed to making Lancaster residents mobile. The service is operated by the Lancaster County Council on Aging and funded by the South Carolina Department of Transportation and Lancaster County. LARS is financed by Lancaster County, FTA/SCDOT, and fares. [www.lancastercoa.org/LARS_Transportation.html]

CRCOG partnered with Union County to complete a Transit Feasibility Study to determine the viability of public transit in Union County. In cooperation with the City of Union and the Towns of Carlisle, Jonesville, and Lockhart, the County received South Carolina State Mass Transit Funds from the SCDOT/FTA to conduct the study to

evaluate the needs, consider alternatives, and recommend implementation strategies. After completing the Feasibility Report, the County pursued a 3-year pilot program before receiving rural transit funds. The 3-year pilot program was funded by SCDOT/FTA, with Union County local matching funds. Service began in 2023.

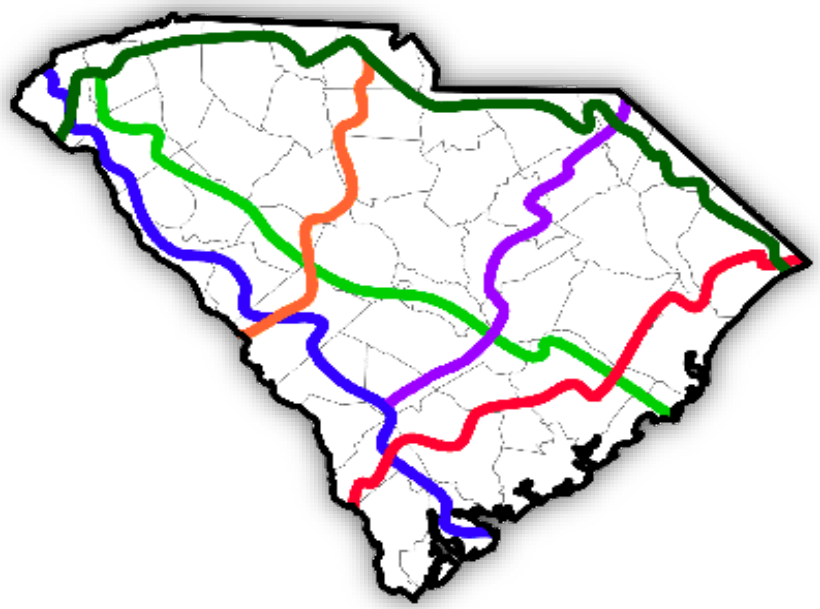
Rock Hill has 5311 on-demand that serves the Rock Hill Urbanized area and a fixed route transit system only serving the City of Rock Hill.

9.1 Bicycle and Pedestrian Initiatives

9.1.1 Complete Streets

In 2021, the SCDOT adopted a Complete Streets Departmental Directive to establish guidelines for including multimodal accommodations that include walking, bicycling, and transit in projects undertaken on state-owned roadways. This consideration will consist of all Guideshare-funded projects in the TIP and TAP-funded projects. A complete publication of this directive is provided in Appendix G.

Figure 9-1 South Carolina Statewide Bike Routes



Source: SC PRT

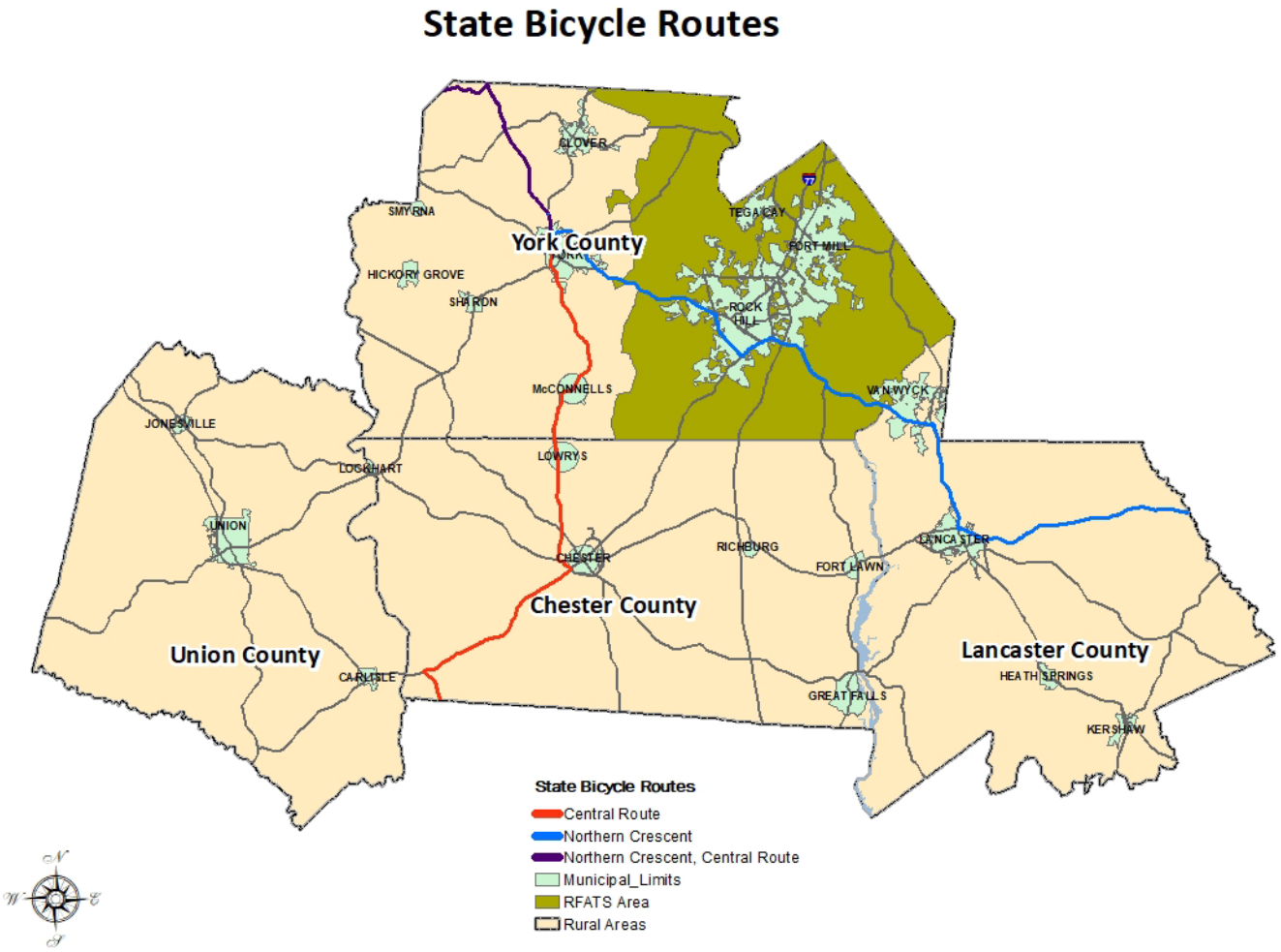
9.1.2 State Routes in the CRCOG Region

The South Carolina State Trails Program is operated by the South Carolina Department of Parks, Recreation, and Tourism, which maintains a website with topical and county-specific maps. [www.sctrails.net/Trails/TRLGD.html]

The **Northern Crescent Route** (dark green line) runs south of the North Carolina border, from the mountains to the sea. This 360-mile route provides access to several state parks and recreation areas, including Kings Mountain State Park in York County, Andrew Jackson State Park, and Forty Acres Rock Heritage Preserve, which serve as primary attractions along the route in Lancaster County.
[www.sctrails.net/Trails/ALLTRAILS/bikeguide/ncrescent.html]

The **Central Route** (orange line) covers 166 miles and passes through the center of the state from Kings Mountain State Park in York County to the Redcliffe State Historic Site near the Georgia border. This route passes through the charming historic cities of York and Chester and includes Chester State Park on SC 72.
[www.sctrails.net/Trails/ALLTRAILS/Bikeguide/central.html]

Figure 9-2 State Bicycle Routes in the CRCOG Area

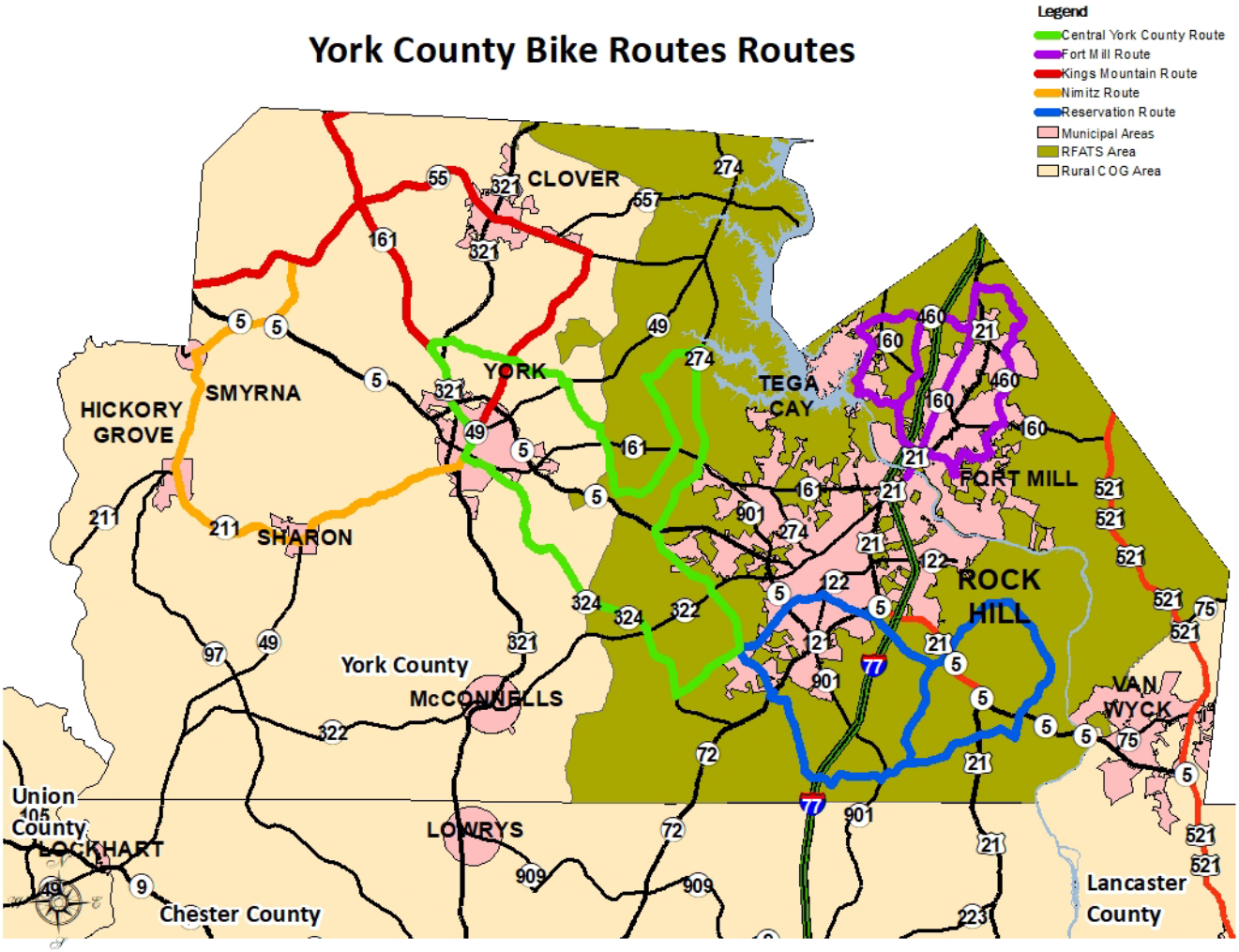


Source: SCDOT

9.1.3 York County Bike Routes

York County created Prioritized Bike Routes consisting of five Routes totaling 181 miles (79 miles in the rural areas) and linking the county's far eastern and western portions with key points of interest. The York County Bike/Ped Task Force (BPTF) initially coordinated and facilitated this effort. The task force, made up of staff from municipal and county planning offices, South Carolina Department of Health and Environmental Control (DHEC) staff, Winthrop University staff, Eat Smart Move More South Carolina, and local bike clubs and citizen advocates, had a vision of promoting cycling/pedestrian as an alternative mode of transportation between the rural and urban communities. The BPTF closely coordinated with SCDOT and the York County Government to create the five signed routes. Figure 9-2 illustrates the location of the routes in the county.

Figure 9-3 York County Bicycle Routes



Source: York County Planning and Development

9.1.4 Carolina Thread Trail

The **Carolina Thread Trail (CTT)** program is an effort to encourage 15 counties in the south-central Piedmont of North Carolina and the north-central portion of South Carolina, including Lancaster, Chester, and York counties, to create a large, interconnected greenway and trail system that will preserve and increase the quality of life within local communities.

Over time, the CTT will link approximately 2.8 million people, places, cities, towns, and attractions with partnerships from the participating counties and municipalities. Lands to be incorporated into trails and greenways can include farmland, wildlife habitat, open

fields, and forests. The CTT will help preserve the county's natural areas and will be a place to explore nature, culture, science, and history. Building a county-wide trail system is no small undertaking. Segments will be built individually, and adjustments will be made to the proposed routes as circumstances change.

Residents from Chester, Lancaster, and York counties participated in locally driven processes to create a Thread Trail Master Plan for each jurisdiction. These plans are meant to serve as a guiding document for greenway and trail development within each county. Residents worked with neighboring counties to identify connection points and build trails that would grow together over time.

To date, 23 trail segments, totaling 36.9 miles, have been constructed/dedicated throughout the region. Table 9-1 displays the trails built in the three-county area. Figure 9-4 shows their location. A 29.3-mile blueway trail between the Lake Wylie Dam and the SC Highway 9 bridge has also been dedicated.

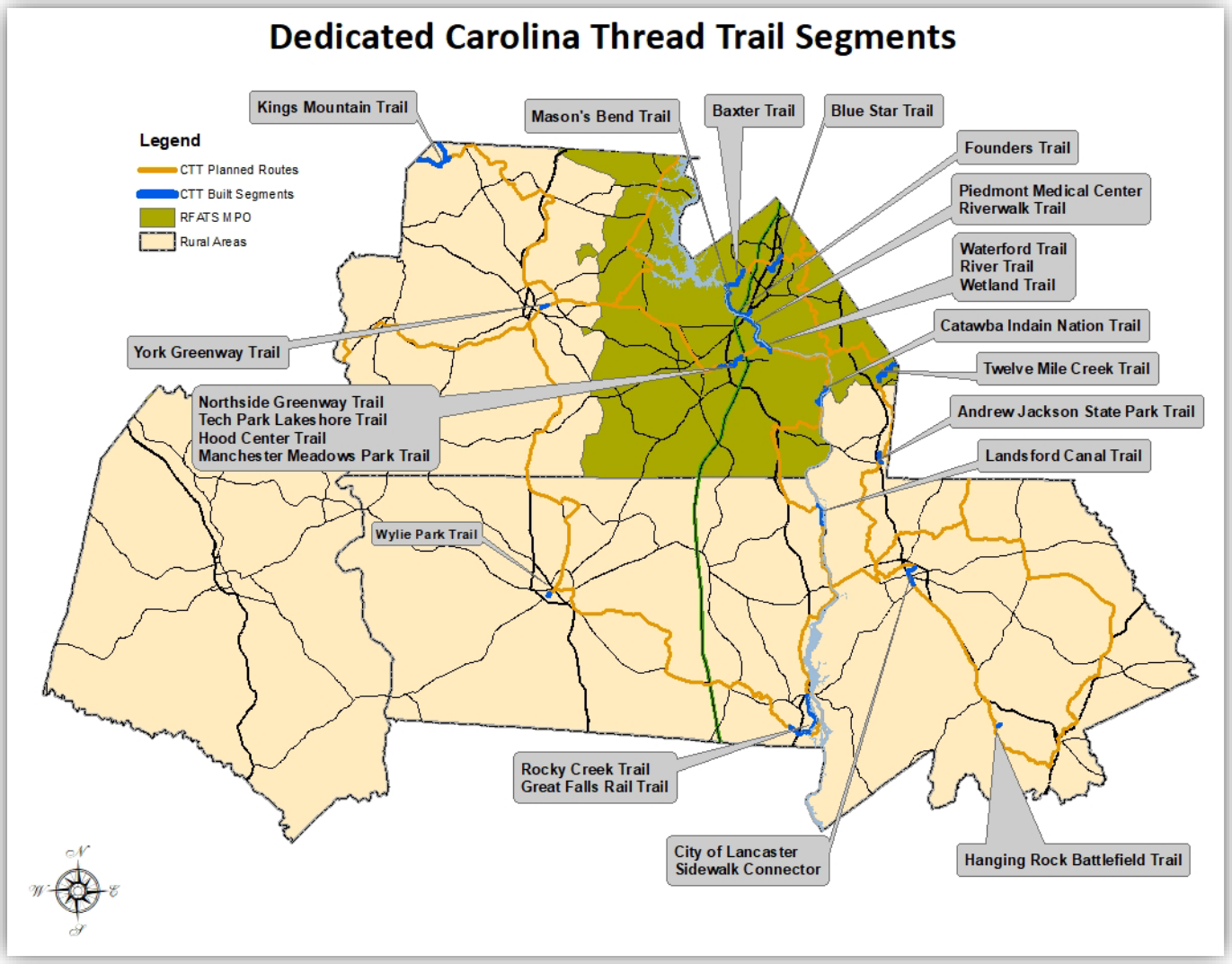
Table 9-1 Constructed Segments of the Carolina Thread Trail in the Catawba Region

Constructed Segments of the Carolina Thread Trail					
	Name	**Place**	**Length Miles**	**Surface**	**County**
1.	**York Greenway**	**York**	**0.5**	**Paved**	**York County**
2.	Mason's Bend	Fort Mill	1.9	Natural	York County
3.	Northside Greenway	Rock Hill	0.3	Paved	York County
4.	Tech Park Lakeshore Trail	Rock Hill	0.6	Paved	York County
5.	Baxter Village Trail	Fort Mill	3.3	Natural	York County
6,	Founder's Trail	Fort Mill	2.3	Natural	York County
7.	Hood Center Trail	Rock Hill	0.8	Paved	York County
8.	Manchester Meadows Park Trail	Rock Hill	0.6	Paved	York County
9.	Riverwalk: Piedmont Medical Center Trail	Rock Hill	2.5	Paved	York County
10.	River Trail	Rock Hill	1.0	Paved	York County
11.	Wetland Trail	Rock Hill	0.4	Boardwalk	York County
12.	Waterford Trail	Rock Hill	1.5	Paved/Natural	York County
13.	Blue Star Trail	Fort Mill	1.4	Natural	York County
14.	Catawba Indian Nation Trail	Catawba	2.5	Natural	York County
15.	**Kings Mountain State Park**	**Clover**	**4.5**	**Natural**	**York County**
16.	**Landsford Canal**	**Landsford**	**1.5**	**Natural**	**Chester County**
17.	**Rocky Creek Trail**	**Great Falls**	**1.6**	**Natural**	**Chester County**
18.	**Wylie Park Trail**	**Chester**	**0.5**	**Paved**	**Chester County**
23.	**Great Falls Rail Trail (Future)**	**Great Falls**	**2.7**	**Paved/Natural**	**Chester County**
20.	**City of Lancaster Sidewalk Connector**	**Lancaster**	**1.6**	**Paved**	**Lancaster County**
21.	**Andrew Jackson State Park Trail**	**Lancaster**	**1.1**	**Natural**	**Lancaster County**
22.	Twelve Mile Creek Trail	Indian Land	3.5	Natural/Paved/Boardwalk	Lancaster County
23.	**Hanging Rock Battlefield Trail**	**Heath Springs**	**0.3**	**Natural**	**Lancaster County**
	Total Miles		36.9		

Bold text is for segments located within the Catawba Rural Planning Area.

Source: https://www.carolinathreadtrailmap.org/trails

Figure 9-4 Carolina Thread Trail Segments



Source: https://www.carolinathreadtrailmap.org/trails and CRCOG GIS

CTT Master Plans can be found at the following web links:

Chester: [www.carolinathreadtrail.org/local-connections/chester-county-sc]

Lancaster: [www.carolinathreadtrail.org/local-connections/lancaster-county-sc]

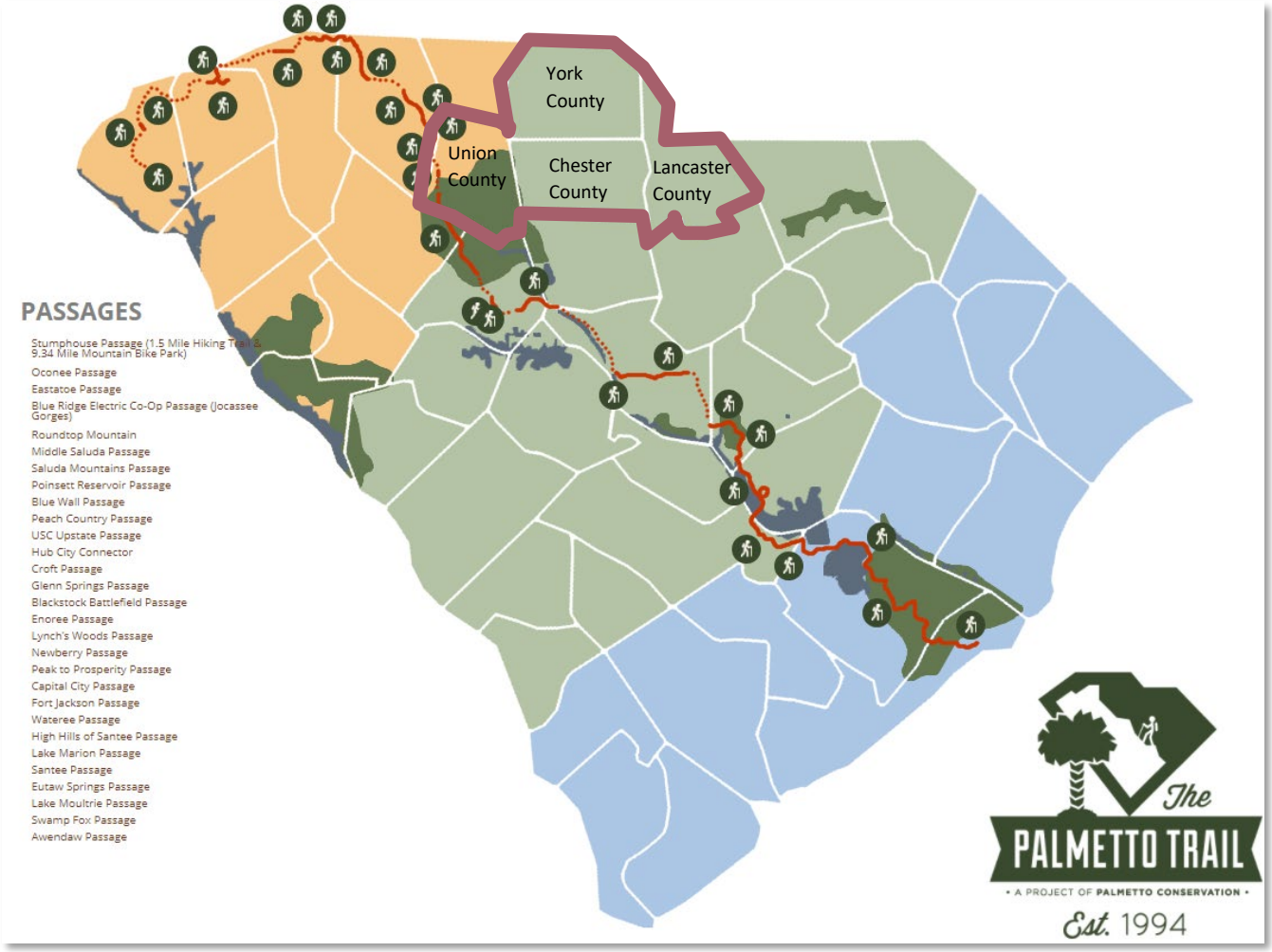
York: [www.carolinathreadtrail.org/local-connections/york-county-sc]

9.1.5 Palmetto Trail

The Palmetto Trail, when finished, will be a 425-mile recreational trail that traverses the state of South Carolina. The trail begins at Oconee State Park in the Upstate and ends north of Charleston at the Francis Marion National Forest along the coast. It will consist of several connecting sections that will showcase the unique history, culture,

and geography of the Palmetto State. Each section is designed for a weekend's enjoyment on the trail.

Figure 9-5 Palmetto Trail Map



Source: https://palmettoconservation.org/palmetto-trail/map/

The trail will connect the mountains to the sea, forming a spine for a network of trails in South Carolina, the genesis of a statewide trail system. A portion of the Trail is constructed in Union County within the Sumter National Forest (Enoree Passage). Additional planned trail corridors will continue through Union County.

A 2018 study undertaken by the **South Carolina Aeronautics Commission** (SCAC) estimated the annual economic impact for 57 airports throughout the state. Economic impacts summarized in the report reflect specific information on annual economic impacts. Included within the study were the four public airports in the Catawba Region: Chester Catawba Regional; Lancaster County-McWhirter Field; Rock Hill/York County/Bryant Field; and Union County, Troy Shelton Field. Each airport was investigated to identify potential economic impacts related to five categories shown below in Table 10-1. The study indicated that 322 jobs were created, creating approximately $51.9 million in economic activity. This equates to $161.1 thousand of economic activity per job created.

Table 10-1 Economic Impacts of Catawba Region Airports

Airport	Jobs Created	Annual Payroll	Spending	Economic Activity	Economic Activity per Job
Chester Catawba Regional	49	$1,700	$3,500	$5,200	$106
Lancaster County-McWhirter Field	34	$1,200	$3,300	$4,500	$132
Union County, Troy Shelton Field	15	$569	$1,000	$1,568	$104
Rock Hill/York County/Bryant Field	224	$10,000	$30,600	$40,600	$181
Total	322	$13,469	$38,400	$51,868	$161
Economic Activity illustrated in ($1,000's)					
Source: South Carolina					

Source: SC Aeronautics.

The SCAC also provides free detailed aeronautical information on airports, heliports, seaplane bases, ultra-light parks, and glider ports in the state of South Carolina. Airport aeronautical details include airport location, runway information, communication frequencies, Fixed Base Operator information, diagrams, GIS data, and a wealth of other information for pilots and the general public. You will also find other airport-related information, such as charts, maps, pilot guides, current weather conditions and weather forecasts, FAA grant history, and much more may be found at: https://scaeronautics.sc.gov/default.asp]

The Catawba COG Region currently hosts nine active airports within the region. As listed above, four of the Airports are public, with at least one in each county. Four are private, and one is privately owned for public use. Table 10-2 provides the list that includes the name, location, Federal Aviation Administration identification number, and role for each facility (Public only) of active airports, and Figure 9-1 displays the mapped location of airports in the region.

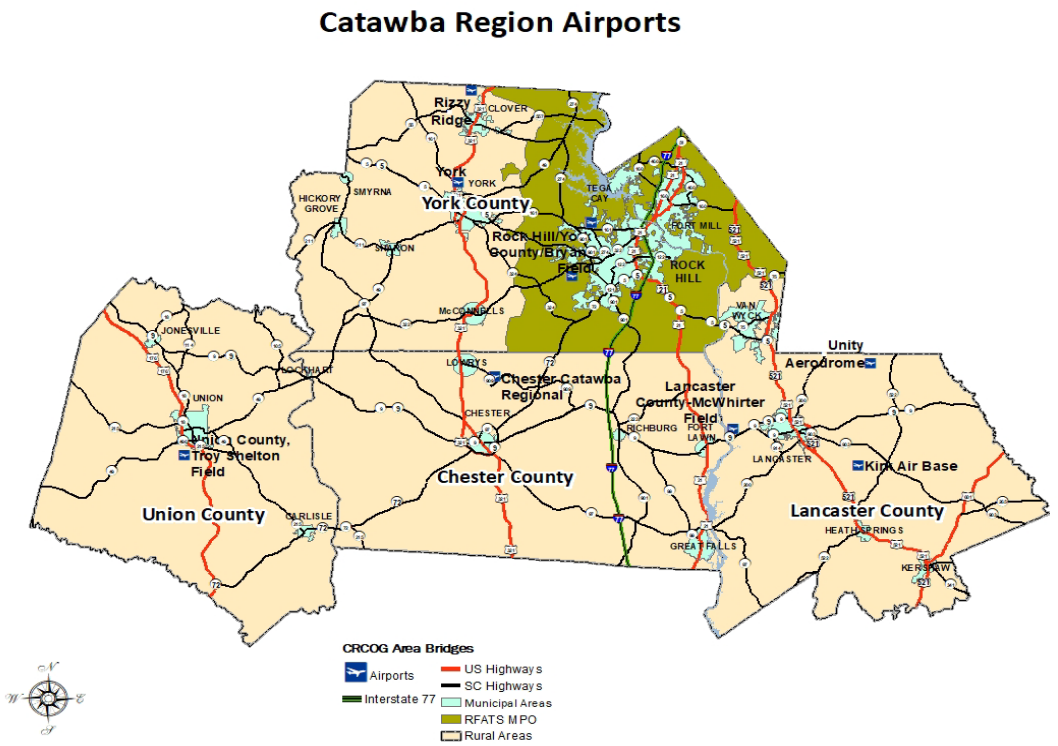
The region is also served in reasonable proximity by commercial airports with daily flights in Charlotte (Charlotte/Douglas International Airport – CLT), Columbia Metropolitan Airport (CAE), Concord-Padget Regional Airport (JQF), and Greenville-Spartanburg International Airport (GSP).

Table 10-2 List of Catawba Region Airports

Airports in the Catawba Region				
FAAID	**Airport Name**	**Role**	**County**	**Public/ Private**
DCM	Chester Catawba Regional	Business/Recreation (SC III)	Chester	PU
T73	Kirk Air Base		Lancaster	PR/PU
LKR	Lancaster County-McWhirter Field	Business/Recreation (SC III)	Lancaster	PU
SC76	Unity Aerodrome		Lancaster	PR
35A	Union County, Troy Shelton Field	Recreation/Local (SC IV)	Union	PU
55SC	Falls Landing		York	PR
UZA	Rock Hill/York County/Bryant Field	Corporate/Business (SC II)	York	PU
01SC	York		York	PR
39SC	Rizzy Ridge		York	PR

Source:: SC Aeronautics

Figure 10-1 Map of Catawba Region Airports



11.1 Federal Guidance

The Bipartisan Infrastructure Law (BIL) is the latest transportation act to provide long-term funding certainty for surface transportation. This means states and local governments can move forward with critical transportation projects, like new highways, bridges, freight and transit lines.

The BIL includes transportation planning provisions, which involve specific requirements for different transportation projects. Some general aspects and considerations related to transportation planning under this law could consist of the following:

- Funding Allocation: The law allocates substantial funds for various transportation projects, and there may be requirements related to how these funds are distributed among different states and regions.
- Project Prioritization: Transportation planning often involves prioritizing projects based on factors such as safety, economic impact, environmental considerations, and community needs. .
- Sustainable and Resilient Infrastructure: The law emphasizes the importance of sustainability and resilience in infrastructure development.
- Public Transit and Active Transportation: The BIL includes funding for public transit and active transportation projects. Transportation planning requirements ensure these funds enhance public transit systems and support walking and biking infrastructure.
- Emissions Reductions Given the increasing focus on addressing emissions, transportation planning requirements may include considerations for reducing carbon emissions, promoting electric vehicle infrastructure, and integrating sustainable transportation options.
- Community Engagement: The BIL emphasizes the importance of community engagement. Transportation planning requirements may involve engaging communities in decision-making and ensuring that infrastructure benefits are distributed to all members of the community.
- Technological Innovation: The law encourages the adoption of innovative transportation technologies and intelligent transportation systems. Planning requirements could include considerations for incorporating these technologies into transportation projects.

Additionally, the ten planning factors stipulated under the FAST Act/SAFETEA-LU planning requirements are continued under BIL law and are shown in the box below.

Table 11-1 FAST Act Planning Requirements

Planning Requirements
1. Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and nonmotorized users;
3. Increase the security of the transportation system for motorized and nonmotorized users;
4. Increase the accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. Enhance travel and tourism.

Source: FHWA

The BIL also continues the FAST Act/ Moving Ahead for Progress in the 21st Century (MAP-21) emphasis on a performance-based approach to the transportation decision-making process, which supports the seven national goals of the Federal-Aid Highway program. These seven national performance goal areas are discussed in depth in the following section, specifically in Table 11-2.

11.2 Transportation Performance Management (TPM)

11.2.1 Background

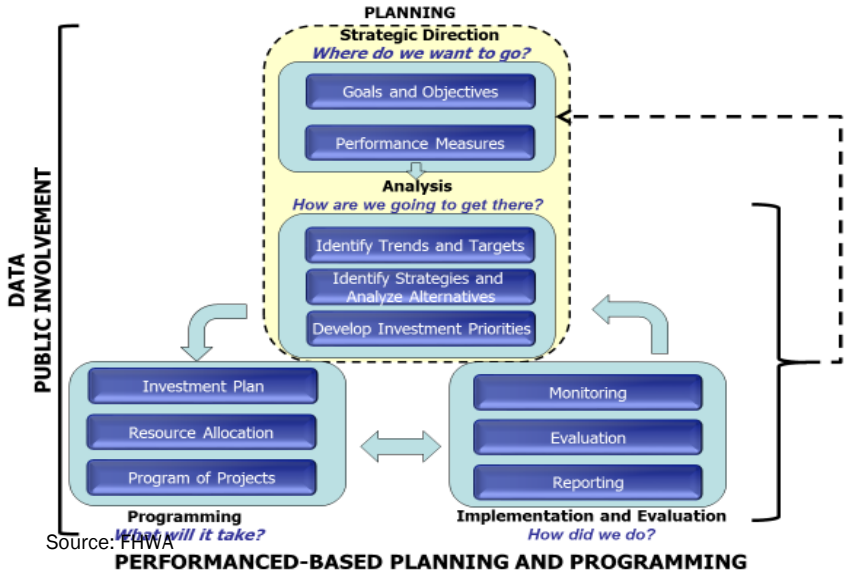
Figure 11-1 Performance Management Cycle

Source: FHWA

Transportation Performance Management is a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals. TPM is systematically applied and is a regular ongoing process. It provides key information to help decision-makers understand the consequences of their investment decisions across assets and/or modes of transportation. It is intended to improve communication between decision-makers, stakeholders, and the general public, thus ensuring targets and measures are developed based on data and objective information. The process also provides state and local governments with improved and more efficient delivery times, accountability, and transparency.

11.2.2 Performance-based planning and programming (PBPP) –

Figure 10-2 Performance-based Planning and Programming



Source: FHWA

Performance-based planning and programming refer to the application of performance management within the CRCOG planning area's planning and programming processes to achieve desired performance outcomes for the multimodal transportation system.

The BIL adjusts the timeframe for states and MPOs to meet their performance targets under the National Highway Performance Program. It clarifies the significant progress timeline for the Highway Safety Improvement Program performance targets. This requires measuring regional performance in seven national goal areas. The seven-goal areas, goal descriptions, and assigned Performance Measures (PM) per 23 USC Section 150(b) are provided in Table

11-1. Congestion Mitigation Air Quality (CMAQ) performance measures, only apply within the RFATS MPO Area.

The MAP-21 surface transportation legislation established National Goals and a performance and outcome-based program. As part of the program, federally established performance measures are set, and those targets shall be monitored for progress. There is alignment between SCDOT's Strategic Plan Goals and the MAP-21 National Goals. The SCDOT demonstrates compliance with the strategic goals through performance management reporting to the FHWA. The CRCOG coordinates its planning efforts with the SCDOT through planning agreements that direct the South Carolina COGs to participate in the statewide transportation performance management program, in an overall effort to assist the state in carrying out its goals.

The MAP-21 National Goals are as follows:

MAP-21 National Goals

- Safety - To significantly reduce traffic fatalities and serious injuries on all public roads.
- Infrastructure Condition - To maintain the highway infrastructure asset system in a state of good repair.
- Congestion Reduction - To achieve a significant reduction in congestion on the National Highway System
- System Reliability - To improve the efficiency of the surface transportation system.
- Freight Movement and Economic Vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental Sustainability - To enhance the transportation system's performance while protecting and enhancing the natural environment.
- Reduced Project Delivery Delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion by eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

11.2.2 Performance Measures and Targets

Performance Targets are "a quantifiable level of performance or condition, expressed as a value for the (Performance) measure, to be achieved within the time required by the Federal Highway Administration." A target for a performance measure is a single numerical value. For each of the performance measures listed in Table 11-1, the SCDOT has corresponding performance targets to set. The FHWA mandates that each State DOT and MPO establish performance targets for applicable national performance measures. The SCDOT accomplished this through planning agreements with each MPO and COG, which require that each agency adopt performance targets into their long-range plans within 180 days of the date the state sets its targets. MPOs and COGs can either adopt the state-set performance targets or adopt their own through a coordinated process approved by the SCDOT.

Table 11 2 MAP 21 National Goals, Performance Measures, and Targets

MAP 21 National Goals, Performance Measures, and Targets		
National Goal and Description	Performance Measure	Target
Performance Measure 1 Safety (PM-1)		
Safety To significantly reduce traffic fatalities and serious injuries on all public roads. This is evaluated annually.	• Number of Fatalities • Fatality Rate per 100 Million Vehicle Miles Traveled • Number of Serious Injuries • Serious Injury Rate per 100 Million Vehicle Miles Traveled • Number of Non-motorized fatalities and Serious Injuries	5-year Rolling Averages that change annually (See Appendix F)
Performance Measure 2 Infrastructure Condition (PM-2)		
Infrastructure Condition To maintain the National Highway System (NHS) highway infrastructure asset system in a state of good repair	• % of Interstate Pavements in Good Condition • % of Interstate Pavements in Poor Condition • % of Non-Interstate NHS Pavements in Good Condition • % of Non-Interstate NHS Pavements in Poor Condition • % of NHS Bridge Deck Area in Good Condition • % of NHS Bridge Deck Area in Poor Condition	• Four Year Target • Four Year Target • Two- and Four-Year Targets • Two- and Four-Year Targets • Two- and Four-Year Targets • Two- and Four-Year Targets
Performance Measure 3 System Performance (PM-3)		
Congestion Reduction (CMAQ) To achieve a significant reduction in congestion on the National Highway System	• % of Non-Single Occupant Vehicles • Annual Hours of Peak-Hour Excessive Delay per Capita (PHED)	• RFATS Area Only
System Reliability To improve the efficiency of the surface transportation system	• % of Interstate Highways that are Reliable • % of Non-Interstate Highways that are Reliable	• Two- and Four-Year Targets • Two- and Four-Year Targets
Freight Movement and Economic Vitality To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development	• Truck Travel Time Reliability Index	• Two- and Four-Year Targets
Environmental Sustainability (CMAQ)* To enhance the performance of the transportation system while protecting and enhancing the natural environment	• Emission Measure - Total Emissions Reduction – NOx Benefit (kg/day) • Emission Measure - Total Emissions Reduction – VOC Benefit (kg/day)	• RFATS Area Only
No Assigned Performance Measure		
Reduced Project Delivery Delays	To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion by eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices	

Source: FHWA

11.2.2.1 PM-1 Safety

Safety performance measures apply to all public roads statewide. The CRCOG adopted SCDOT's statewide safety targets for all public roads. These five safety performance measures and targets, which include the number of fatalities, fatality rate, number of serious injuries, serious injury rate, and number of non-motorized fatalities and serious injuries per 100 million miles traveled, can be found in Appendix F – System Performance Report. Safety targets are measured on a five-year rolling average. Safety targets are required to be set by the SCDOT by August 31st annually and adopted by each MPO and COG by February 27th of the following year.

Based on the SCDOT Engineering Office analysis, roadway departures, and fixed objects are the leading factors in fatal and severe injury crashes in the CRCOG study area and statewide. Countermeasures that can be applied to reduce roadway departures include paved shoulders, rumble strips, adequate clear zones, cable guardrails, enhanced signalization, pavement friction, and horizontal curve improvements. These countermeasures will be encouraged on all newly programmed projects, specifically on projects where crash data show many roadway departures and/or fixed object collisions. The CRCOG, working with regional partners, has developed a priority project list that includes several potential intersection and corridor projects that, through Regional Mobility/Guideshare funding, with the intent to decrease non-motorized fatality and serious injury rates during future reporting periods. The SCDOT Rural Road Safety Program funds a list of projects statewide that address the most safety-challenged rural highways within the state. Appendix H provides a list of those planned projects and their current status.

11.2.2.2 PM-2 Infrastructure Condition (NHS Pavements and Bridges)

In 2022, the CRCOG adopted Statewide two-year and four-year NHS Pavements and NHS Bridge baseline measures and targets. The performance period runs from the calendar year 2022 and 2025. This is the second four-year period under review. In 2022, the state performed its first four-year evaluation of the initial four-year period between 2018 and 2022. After the first four-year evaluation, the SCDOT reevaluated the previous targets and adjusted them to meet anticipated performance levels based on future investments and system degradation.

In September 2022, the SCDOT announced that MPOs and COGs would no longer fund pavement and bridge improvement projects, including reconstruction, rehabilitation, and preservation, through Regional Mobility/Guideshare funding. Instead, these projects will be funded through the SCDOT or the County C-fund programs. The SCDOT fully funds the state bridge program. However, the CRCOG is still required to adopt pavement and bridge targets on a biennial basis.

The CRCOG has traditionally adopted state-wide performance measures and targets into its LRTP. Statewide performance measures and targets are found in Appendix F.

11.2.2.3 PM 3 System Reliability

The CRCOG adopted SCDOT's statewide PM-3 system reliability targets for person miles traveled on the interstate system and NHS and truck travel time reliability on the interstate system. A major consideration for establishing future performance goals related to system reliability is growth in Vehicle Miles of Travel (VMT). According to the Charlotte Regional Model (CRM), VMT growth is projected to increase within the region over the horizon of the LRTP. The congested portion of Interstate-77 and Non-Interstate NHS (US-21) is located within the RFATS MPO area. Reliability within the CRCOG study area is at approximately 100%.

Truck Travel Time Reliability (TTTR) measures the actual average truck travel time versus the recommended travel time on the Interstate system. The recommended time is based on optimal traffic conditions, and a ratio above 1.0 indicates that the highway conditions are less reliable for freight carriers.

The CRCOG has adopted the statewide PM-3 performance measures and targets. The latest statewide performance measures targets are found in Appendix F.

11.2.3 System Performance Report

Through the federal rulemaking process, the Federal Highway Administration (FHWA) requires state DOTs and MPOs (and by extension, the South Carolina Department of Transportation (SCDOT) requires COGs) to monitor the transportation system using specific performance measures. These measures are associated with the national goal areas prescribed in MAP-21 and the FAST Act. The System Performance Report **(Appendix F)** describes these national goal areas, rulemakings, performance areas, and prescribed measures. Performance measures have been identified for highway systems, including a set of measures to assess progress toward achieving the goals of the Congestion Mitigation Air Quality (CMAQ) Program.

This System Performance Report presents the baseline, performance/condition measures, targets, and progress towards achieving those targets from a statewide and COG regional level. These performance measures are a part of SCDOT's Strategic Ten-Year Asset Management Plan (STAMP). SCDOT's STAMP was developed in collaboration with South Carolina's Division Office of the Federal Highway Administration (FHWA). The plan has been designed to satisfy federal rulemaking and transcend these requirements by setting performance estimates for all state-maintained roads and bridges. By clearly identifying the needs of South Carolina's transportation infrastructure, the STAMP has provided the SCDOT with a platform to communicate existing infrastructure conditions and project-constrained performance targets for the SCDOT's physical assets over the next decade. The STAMP is an all-inclusive document

that houses the Strategic Plan, Ten-Year Plan (2018-2027), Asset Management Plan (2022-2032), and Performance Measures.

Figure 11-3 Transportation Performance Management four-year performance cycles.

Source: FHWA

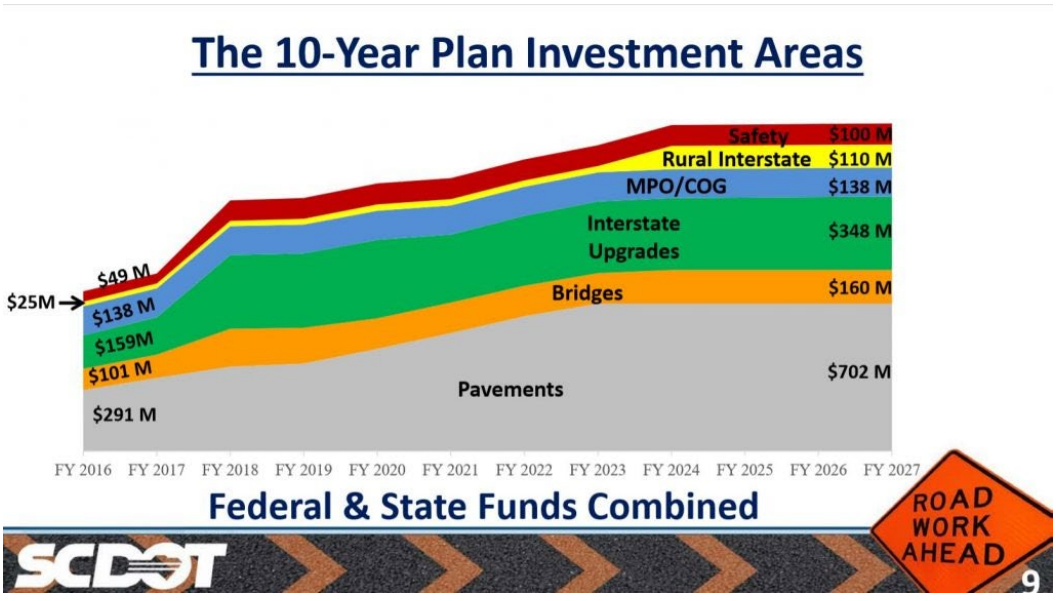
12.1 Statewide Planning Process

CRCOG adheres to the **SCDOT Statewide Transportation Planning Process** found in **Appendix A.**

12.2 SCDOT 10-Year Investment Plan

Act 40, the Roads Bill, passed by the South Carolina General Assembly, went into effect on July 1, 2017, allowing the South Carolina Department of Transportation to make significant strides toward bringing the highway system back from a lack of funding for 30 years. A 2-cent increase in the gas tax per year will reach a maximum of 12 cents in 2023 and be implemented through 2027. The 10-year investment plan enables the agency to:

- Address safety needs by improving 100 miles of the worst roads yearly.
- Replace over half of the state's 750 structurally deficient bridges.
- Reconstruct, resurface, and rehabilitate 80% of the state's 42,000 miles of roadways to achieve overall good condition.
- Initiate interstate widening projects through the Rural Interstate Improvement Program.



12.3 South Carolina Act 114

Each project must be financially constrained and identified within the Transportation Improvement Plan. Moreover, each road widening, functional intersection, and new-location roadway improvement project must be rated and ranked consistent with South Carolina ACT 114. The CRCOG TAC performs the ranking and may add regional-specific ranking criteria if approved by SCDOT. The ranking criteria used to rank CRCOG projects are located in Appendix B.

12.4 State C-Fund Law

The law stipulates that counties spend at least 25% of their apportionment of C funds, based on a biennial averaging of expenditures, on the state highway system for construction, improvements, and maintenance. Furthermore, counties must spend no more than 75% of their apportionment yearly on their local system. The balance of uncommitted funds carried forward from one year into the next cannot exceed 300% of the county's total apportionment for the most recent year.

12.5 Transportation Alternative Program (TAP) Grants

The program is a "grant" program under Federal regulation. It is a reimbursement-based grant. Only after a project has been approved by the SCDOT and the FHWA division office can project costs become eligible for reimbursement. Typically, the grant requires an 80% to 20% match by the local agency, meaning the SCDOT will pay for 80% of the project, and the qualifying entity will pay 20%. Exceptions to the 20% match are permitted upon request and available match funding.

The following eligibilities are authorized for the Transportation Alternatives Program and by the SCDOT Commission:

Table 12-1 The Transportation Alternative Program Process

The Transportation Alternative Program Process	
The following entities may apply for TAP Funding: • Local governments • Regional Transportation Authorities • Transit Agencies • Natural Resource or Public Lands agencies • School Districts, local education agencies or schools • Tribal Governments • Nonprofits • Any other local or regional governmental entity responsible for or overseeing transportation the State determines to be eligible, including all eligible COGs.	**The following are eligible projects that may be funded.** • Planning, design, and construction of: • On-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation (Note: The term “pedestrians” includes all users of the pedestrian infrastructure, including persons with disabilities). • Projects that provide safe routes for non-drivers, including children, older adults, and individuals with disabilities, to access daily needs. • Safe Routes to Schools infrastructure (23 U.S.C. 208) • Projects listed in an applicable SCDOT, COG/MPO non-motorized transportation, bicycle, or other related plans.

- Projects that meet SCDOT's Complete Streets Departmental Directive

Source: www.scdot.org/getting/community_transportation_alternatives.aspx]

A list of approved and proposed TAP Projects is listed in the LRTP Appendix B Priority Projects List.

12.6 State Rural Infrastructure Bank

The South Carolina Transportation Infrastructure Bank (SIB) was created in 1997 (Bank Act). Its corporate purpose is to assist in financing major qualified projects by providing loans and other financial assistance to government units and private entities for constructing and improving highway and transportation facilities necessary for public purposes, including economic development. The Bank's primary goal is to support the development of transportation infrastructure in the state. Since 1997, the Bank has assisted with funding up to $5.9 billion on 100 projects in 29 counties and five municipalities.

The SIB Board has approved a new Rural Project Program (2024) and committed $250 million over the next ten years. The Rural Project Program will provide financial assistance to rural projects that do not exceed $50 million. The Bank will accept rural applications from local governments (project sponsors or owners) for financial aid for transportation projects.

The in 2024-2025 the SCDOT developed a new framework for a structured process to aid in transportation planning for MPOs and COGs. Many efforts to address transportation challenges have traditionally focused on identifying areas with heavy vehicle traffic congestion and implementing solutions such as capacity widening and intersection improvements. There has been a shift to creating a multi-tiered demand management and operations strategy process to help preserve existing infrastructure, support existing communities, and improve multimodal travel choices. The Regional Mobility Program is intended to be an objective, data-driven approach to ensure investment decisions are made with a clear focus on outcomes.

The South Carolina Department of Transportation has proposed revisions to the MPO and COG Guideshare Program to increase funding and align the policies and measures with the agency's strategic goals. The current MPO and COG Program was renamed the Regional Mobility Program. The refocused program aims to improve transportation system performance and mobility by reducing congestion's adverse impacts on the movement of people, goods, and services. Guideshare funding will continue as the program is rebranded.

Table 13-1 Statewide Regional Mobility Plan Program Goals

Statewide Regional Mobility Plan Program Goals		
Program Policy Element	**Objective**	**Performance Measure**
Access	• Ability to easily connect to goods and services across modes, abilities, and socioeconomic groups. • Proximity to services	• Population Density • Jobs Density • Average Job Accessibility by Auto within 30 minutes • Average Job Accessibility by Transit within 30 minutes
Time Efficiency	• People and goods can get where they need to go in a reasonable amount of time, relative usage of the system relative to capacity	• Daily Vehicle Miles Traveled (VMT) • Daily Truck Miles Traveled (TMT) • Person Miles Traveled • Vehicle Hours of Delay • Average Travel Speed • Volume to Capacity Ratio (V/C) • Percent Travel Meeting LOS Criteria in the Peak Hour
Reliability	• Consistency of travel time and experience by mode, including measurement of congestion • Travel reliability	• Travel Time Reliability / On-Time Arrival (Vehicle) • Travel Time Reliability / Planning Time Index (Vehicle) • Travel Time Reliability / Planning Time Index (Truck) • Percent Miles Heavily Congested

Statewide Regional Mobility Plan Program Goals		
Safety	• Available travel options are safe for all users	• Number of Fatalities • Number of Serious Injuries • Rate of Fatalities • Rate of Serious Injuries • Pedestrian Fatalities and Serious Injuries • Bicyclist Fatalities and Serious Injuries
Travel Options	• People can get where they need to go by a variety of travel options or modes	• Percent of Pedestrian Facility Coverage • Percent of Bicycle Facility Coverage • Percent of population within ½ mile of transit route or facility • Transit Ridership
Land Use Planning & Transportation Linkage	• Achieve sustainable development and improve quality of life	• Establishment of coordination policies to promote communications between various agencies

Source: SCDOT

The SCDOT developed a data-driven approach to identifying priority corridors and providing solutions based on the higher benefit-cost ratio.

The CRCOG worked with the SCDOT to develop specific weighted criteria for ranking corridors that best reflected the traffic patterns and conditions within the CRCOG region. The priority ranking corresponds to the performance measures provided in Figure 13-1. Those included Average Annual Daily Trips, Safety (Crashes and Fatal and Serious Injuries), and Travel Options (Bike, Ped, and Freight). Using that approach, the CRCOG worked with city and county partners to vet the project list for accuracy and consider any options for adding other potential candidate corridors. As a result of this effort, a list of 19 corridors was identified. Figure 13-1, on the following page, identifies the location of the priority corridors. Due to the map's scale and the corridors' short length, we used numbers to identify the location. Table 13-2 provides more detailed information, such as street name, corridor range, length in miles, and priority ranking. Based on the operation at recommendations for improvements to key intersections within each corridor, estimated costs/benefits were provided. Several corridors have been adopted into the priority projects list (Exhibit B).

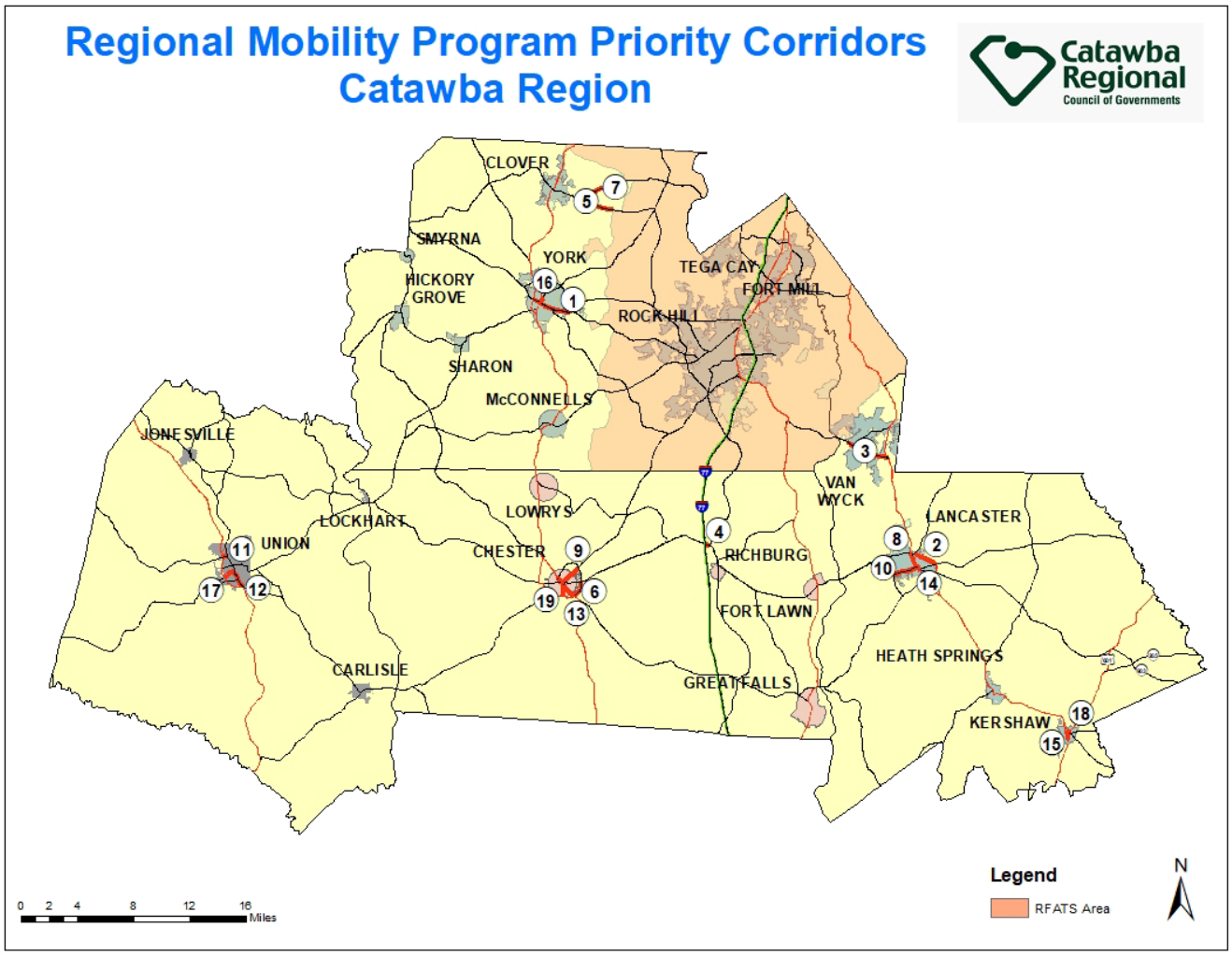
Note: In 2025, the SCDOT is evaluating the project ranking and selection methodology within the priority corridors versus existing stand-alone projects to ensure that the requirements of Act 114 will be met.

County	Street Name	Corridor Range	Length in Miles	Priority Ranking
York	SC 161/Liberty St. E.	SC 5/Alexander Love Hwy E to US 321/Congress St.	2.51	1
Lancaster	US521/Lancaster Bypass E.	SC 9/E. Arch St. to SC 200/Monroe Hwy.	1.96	2
Lancaster	SC 5/Rock Hill Hwy.	US 521/Charlotte Hwy. to Lancaster S-358/Steel Hill Rd.	2.82	3
Chester	SC 9/Lancaster Hwy.	SC 901/Edgeland Rd. to I-77 Ramp	0.50	4
York	SC 55/Highway 55 E	SC 557/Highway 557 to York S-54/Paraham Rd.	2.32	5
Chester	SC 9/J. A. Cochran Bypass	US 321/Columbia Rd. to SC 9/Lancaster Hwy.	1.22	6
York	SC 557/Highway 557	SC 55/Highway 55 to York S-186/Cross Rd.	3.32	7
Lancaster	US521BUS/Charlotte Hwy./N. Main St.	US 521/Lancaster to L-268/E. Bar St.	1.1	8
Chester	Chester S-275 N/Saluda St.	Chester S-117 N/Wylie St. to SC72/JA Cochran Bypass	1.46	9
Lancaster	SC 9/W. Meeting St.	SC 914/Memorial Park Rd. to US 521BUS/N. Main St.	1.82	10
Union	SC 215/Harwood Hts.	US 176/N Duncan Bypass to SC 18/Thompson Blvd.	0.41	11
Union	SC 18/S. Pinckney St.	US 176/S. Duncan Bypass To S-7/ E. Main St. (0 - 1.24)	1.25	12
Chester	US321BUS/Columbia Rd.	SC 97/Dawson Dr. to US 321/JA Cochran Bypass	1.74	13
Lancaster	US521BUS/N. Market St./S. Market St.	SC 903/Chesterfield Ave. to L -268/E. Barr St. (2.27 - 2.74)	0.46	14
Lancaster	US521BUS/S. Hampton St.	US 601/E. Hilton St. to US 521/S. Matson St.	0.72	15
York	US321BUS/Congress St. N.	SC 5/Liberty St. to S 45/Blackburn St.	0.37	16
Union	Union S-7 N/W. Main St.	US176/N. Duncan Bypass to Union S-	0.78	17

County	Street Name	Corridor Range	Length in Miles	Priority Ranking
		187 N/N Herndon St.		
Lancaster	SC341/E. Marion St.	SC 341/S. Minor St. to US 521BUS/Hampton St.	0.27	18
Chester	Chester S-16 E/Ashford St.	US321 to US321 Bypass	0.78	19

Table 13-2 Regional Mobility Program CRCOG Priority Corridors

Figure 13-1 Regional Mobility Program CRCOG Priority Corridors



One of Catawba Regional's primary roles as a Council of Governments is to provide technical assistance to our member jurisdictions. Staff routinely attend meetings of other organizations within the greater Charlotte bi-state area to share information and foster cooperation.

- **Charlotte Regional Alliance for Transportation (CRAFT)** was created in 1999 to facilitate regional transportation planning in the greater Charlotte area and is made up of the four MPOs, one Rural Planning Organization (RPO), and CRCOG. CRAFT's role is to enhance communication among jurisdictions, promote awareness of regional concerns, and provide an educational forum in Charlotte that addresses significant common issues. [http://www.crtpo.org/related-information/craft]

- **Rock Hill – Fort Mill Area Transportation Study (RFATS)** is the MPO for the urbanized area of York County and includes the Indian Land community of Lancaster County. The CRCOG and other planning staff of county and municipal agencies within the region are members of the technical advisory committee (TAC). [www.rfatsmpo.org]

- **The Greater Charlotte Regional Freight Mobility Plan** has been completed. The CRCOG participated with the technical and steering committees to represent the interests of the four-county Catawba region. Centralina Regional Council managed this project.. [www.centralina.org/regional-planning/transportation/freight/]

- **Connect Beyond** is a two-state, 12-county regional mobility initiative coordinated by the Centralina Regional Council and Charlotte Area Transit System (CATS) through its partners, Charlotte Regional Transportation Planning Organization (CRPTO), Gaston Urban Area MPO, Cabarrus-Rowan MPO, and the North Carolina Department of Transportation, to create a unified regional transit vision and plan.

  The CRCOG's goal is to continue coordinating transit initiatives supporting RFATS with the North Carolina partners. As of 2025, the RFATS policy committee and the CRCOG Board have not adopted the Connect Beyond Regional Mobility Plan. RFATS is the primary agency that provides Regional Mobility planning in the Urban areas and will implement their own plan independently which may coincide with a number of goals within the Connect program.

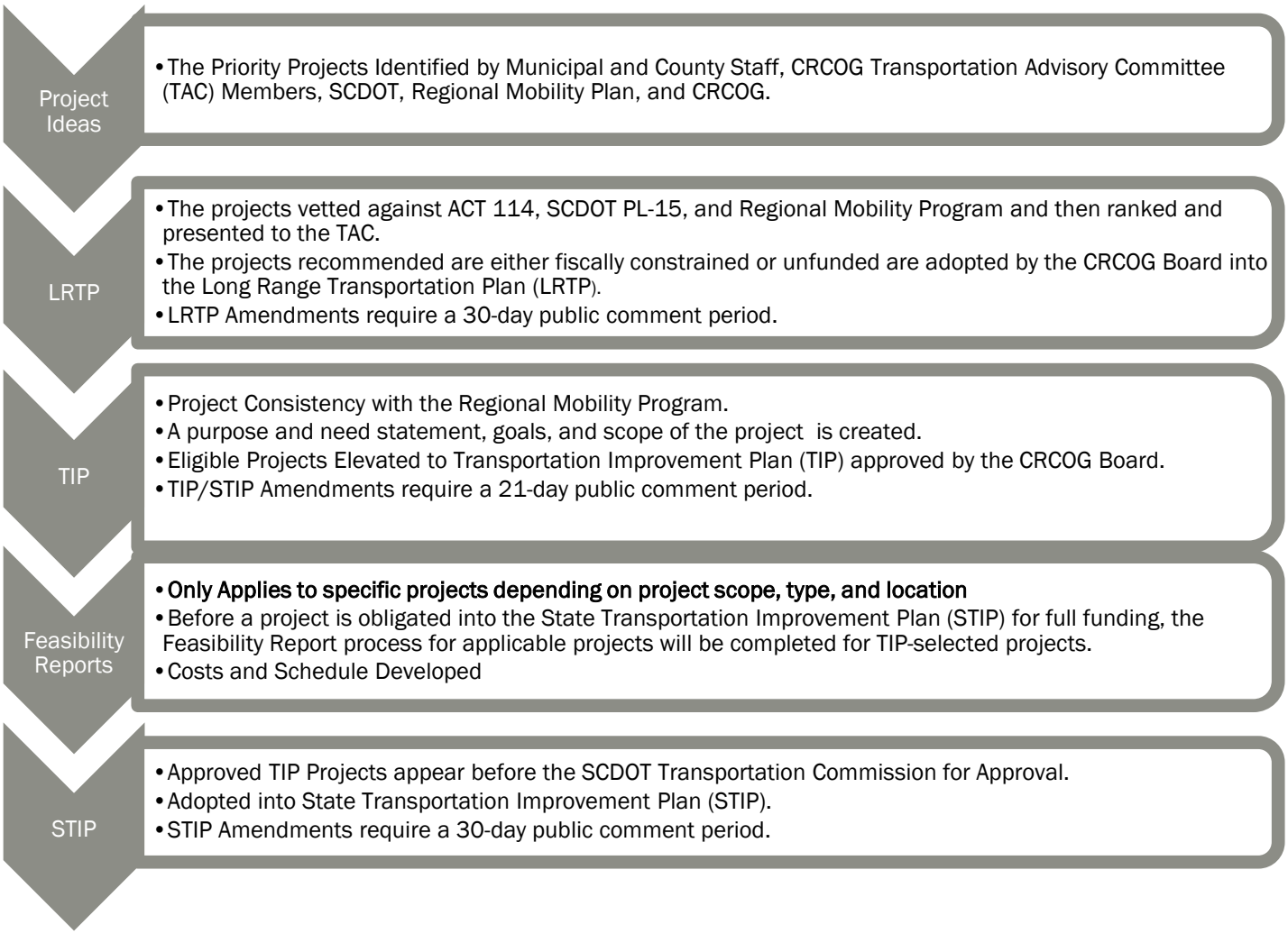
15.1 Project Planning Process

COGs are responsible for developing regional transportation plans and recommending projects for inclusion in the Statewide Transportation Improvement Program (STIP). They engage in public involvement and County and Municipal consultation through the formation of the rural Transportation Advisory Committee, which function similarly to technical advisory committees in Metropolitan Planning Organizations (MPOs). These committees, composed of County/Municipal officials, County/Municipal staff, and SCDOT staff, help identify and prioritize projects that address regional needs.

Additionally, COGs work closely with SCDOT to ensure that projects align with state transportation goals. They collect and analyze data, such as traffic counts and socio-economic information, to support the COGs prioritization process. Figure 15-1 provides

Figure 15-1 Project Planning Process

Source: SCDOT



a detailed flow chart describing step by step processes from project ideas to project adoption in the STIP.

15.1.1 Project Recommendations to the LRTP

The project selection process for the LRTP begins with project identification that come from recommendations from County and Municipal staff members, SCDOT staff, Transportation Advisory Committee (TAC) Members, or CRCOG initiated projects. A cost estimate is then generated from the SCDOT. The projects are then presented to the TAC for review and discussion. The SCDOT also provides feedback to ensure that projects align with state transportation goals. If accepted, the projects are internally reviewed by CRCOG staff against ACT 114 criteria using data sources from the SCDOT. A weighted formulaic scoring method is applied, and a final score is given. Staff then places the project(s) based on its score against existing projects a within the LRTP priority projects list. The projects and project list is then presented to the CRCOG Board for Approval a

15.1.2 Project Recommendations to the Transportation Improvement Program (TIP)

The transportation improvement recommendations within this plan will be listed in two categories: priority projects, those that are fiscally constrained, and potential projects that do not have funding identified. Priority projects listed in the LRTP will be eligible for programming in the **Transportation Improvement Program (TIP)** when Regional Mobility/ Guideshare funds are available. Once approved by the CRCOG Board, the project is recommended to the SCDOT Commission for approval to become part of the **STIP**.

15.1.3 Project Types

Projects may be categorized into one of five buckets The LRTP process takes a practical approach to consider the limited funding resources to address the needs of the transportation system by allocating future Regional Mobility/Guideshare funds toward projects that yield the most value for the dollar This focuses this goal by dividing projects into five project types that include system improvement, corridor improvements, intersections, bike and Pedestrian improvements, and signals and Intelligent Transportation Systems (ITS), The text box on page 69 describes these in more detail.

15.1.4 Appendix B

Appendix B lists priority and potential projects. Tables B.1, B.2, and B.3 provide the criteria for scoring the projects. The CRCOG utilized SCDOT Planning Directive 15 - COG and MPO Project Ranking Process and HB Act 114 weighting and applied scoring based on SCDOT data and other socio-economic data.

Note: In 2025, the SCDOT is evaluating the project ranking and selection methodology within the priority corridors versus existing stand-alone projects to ensure that the requirements of Act 114 will be met.

Project Types

System Improvement represents investments that address operational needs.

Corridor Improvements: represents investments within corridors as part of the Regional Mobility Program. Priority Corridors will address intersections and other efficiency and operational needs and conduct Road Safety Audits and Corridor Analysis where warranted.

Intersection Improvements include projects that will help reduce congestion and increase system efficiency and safety.

Bike and pedestrian improvements are categories that promote multimodal transportation options, address safety issues and facilities, such as sidewalk and multi-use path improvements, and conduct pedestrian and bicycle studies as needed.

Signals/Intelligent Transportation Systems (ITS) is a category typically under the responsibility of the SCDOT District 4 office. Using the recommendations of the Regional Mobility Program priority corridor analysis, the CRCOG will coordinate with the SCDOT in prioritizing future recommended projects.

Pavements and Bridges: The SCDOT is solely responsible for preserving, rehabilitating, and maintaining pavements and bridges. **No local Guideshare will be directed towards these projects.**

The LRTP's horizon year is 2050, and the following projections consider cost estimates for committed projects and Regional Mobility/Guideshare funds based on the SCDOT Commission's most recent allocation. With these assumptions, the total funding for the Rural Transportation Planning Program will be approximately $187 million over the next 25 years.

Financial Summary FY2025-2050	
Committed Projects	$30,901,000
Total Expenses	**$30,901,000**
*Guideshare Allocations 2025 through 2050	$187,375,000
Total Balance	**$156,474,000**
LRTP Fiscally Constrained Projects	**$100,925,004**
*Per current Guideshare distribution	

The Plan must also be fiscally constrained, meaning the programmed projects anticipated costs cannot exceed the expected total balance at the sunset year of the plan. Currently, all but one project is fiscally constrained. The total projected cost (2025) of projects currently listed within the priority projects list, including all of the Regional Mobility Priority Corridor projects is $100.3 million, leaving over $55 million to program through the sunset of the plan. This number will change as new projects are added to, and subtracted from, the plan, or as funding amounts increase or decrease

Over the last three years, the Guideshare allocations from the SCDOT have increased from $4.9 million annually to $7.4 million annually. This bump in funding has provided substantial opportunities for the CRCOG to address future project planning needs. The increase allows for the absorption of higher project costs due to a recent increase in raw materials and labor inflation. Further, a policy change by the SCDOT prohibiting Bridge and Pavement projects from COGs and MPOs allows the COGs and MPOs to target their resources towards the poorest performing, highest need corridors and intersections and address multimodal needs.

This plan's financial assumptions are based on current funding levels approved at the federal and state levels. Changes to the type and number of financial resources resulting from new legislation or federal/state policies and programs will necessitate a review and potential amendments to this plan.

Appendices

Appendix A – SCDOT Statewide Transportation Planning Process

Appendix B – Priority and Potential Projects and Selection Methodology

Appendix C – CRCOG Public Participation Plan

Appendix D – CRCOG Board Members

Appendix E – CRCOG Transportation Advisory Committee

Appendix F – FAST Act Performance Measures

Appendix G - SCDOT Complete Streets Directive

Appendix H – Regional Mobility Program Priority Corridor Reports

Appendix I – Current SCDOT-CRCOG Planning Agreement