

Southwestern Community Services Short Range Transit Operations Plan

Existing Conditions Memorandum
DRAFT

Upper Valley Lake Sunapee Regional Planning Commission
Southwestern Community Services

October 2018

Contents

1. Study Overview.....	4
2. Introduction to Sullivan County.....	4
2.1 Demographics and Socioeconomics	5
2.2 Employment	7
2.3 Travel Patterns.....	10
2.4 Key Findings.....	10
3. Current Transit Services.....	12
3.1 Southwestern Community Services Transportation Services.....	12
Description of Existing Routes/Services.....	14
3.2 Route Diagnostics	18
Ridership	18
Service Effectiveness	23
Financial Efficiency	24
Cost Effectiveness.....	25
Fleet Analysis.....	27
3.2 Other Regional Transportation Providers	27
Intercity Bus	27
Rail	27
Rideshare Services.....	27
Other.....	28
3.3 Key Findings.....	28
4. Unmet Transportation Needs.....	29
4.1 Stakeholder and Public Outreach	29
Mobility Visioning Workshops.....	29
Chamber of Commerce Workshops	31
Community Survey	31
Rider Survey	31
Driver Survey	31
4.2 NHDOT Compliance Review	31
5. Peer System Review.....	32
5.1 Description of Peer Systems.....	32
New River Transit Authority (WV)	32
Bluefield Area Transit (WV).....	33
RTS Orleans (NY).....	34
SMOC/Prairieland Transit (MN)	34
Brown Cab (WI)	34
HCS Keene (NH).....	34
Advance Transit (NH).....	36
The Current (NH/VT).....	36



Peer Service Summary 37

5.2 Operations 38

5.3 Fares 39

5.4 Technology 40

5.6 Summary of Peers Analysis 41

FIGURES

Figure 1-1. Study Area Overview 4

Figure 2-1. Sullivan County Population Density 2016 6

Figure 2-2. Sullivan County Job Density 2015 9

Figure 2-3. Sullivan County Commuting Patterns 10

Figure 3-1. SCS Deviated Fixed Routes 13

Figure 3-2. Claremont Route Map 15

Figure 3-3. Newport Route 16

Figure 3-4. Charlestown Route 17

Figure 3-5. Daily Ridership by Route 19

Figure 3-6. SCS 2018 Monthly Ridership by Route 19

Figure 5-1. New River Transit Authority Map 33

Figure 5-2. HCS Keene Map 35

Figure 5-3. Advance Transit Map 36

Figure 5-4. The Current Map 37

TABLES

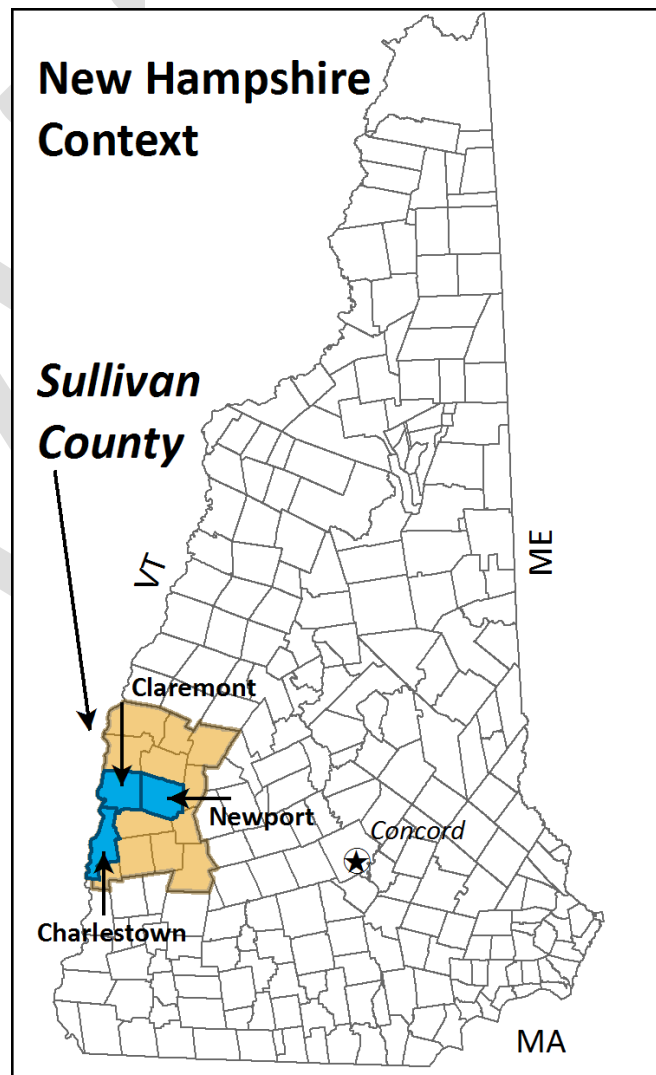
Table 2-1. Demographic and Socioeconomic Characteristics	5
Table 2-2. Vehicle Availability by Household	5
Table 2-3. Labor Force Characteristics	7
Table 2-4. Employment Characteristics	7
Table 2-5. Major Employers in the Study Area	8
Table 2-6. Travel Patterns	11
Table 3-1. SCS Fares and Passes	12
Table 3-2. System-Wide Operating Statistics by Route	18
Table 3-3. Top Destinations by Route	20
Table 3-4. Top 5 Destinations that are not a Regular Stop	21
Table 3-5. Origin-Destination Matrix	22
Table 3-6. SCS Passenger per Revenue Mile Statistics	23
Table 3-7. Passenger per Revenue Mile Route Statistics	23
Table 3-8. SCS Passenger per Revenue Hour Route Statistics	23
Table 3-9. Passenger per Revenue Mile Statistics	24
Table 3-10. Cost per Revenue Mile Statistics	24
Table 3-11. SCS Passenger per Revenue Mile Route Statistics	24
Table 3-12. SCS Cost per Revenue Hour Route Statistics	25
Table 3-13. Cost per Revenue Hour Statistics	25
Table 3-14. Subsidy per passenger by Route	25
Table 3-16. Cost per Passenger Statistics	26
Table 3-16. SCS Cost per Passenger Route Statistics	26
Table 3-17. Farebox Recovery	26
Table 3-18. Farebox Recovery Statistics	26
Table 3-19. SCS Fleet	27
Table 3-20. Other Transportation Providers in Sullivan County	28
Table 5-1. Peer Systems	32
Table 5-2. Peer Operating Characteristics	38
Table 5-3. Peer Operating Statistics	38
Table 5-4. Peer Performance Measures	39
Table 5-5. Peer Fares	40
Table 5-6. Peer Technology Comparison	40

1. STUDY OVERVIEW

Transit service in Sullivan County, New Hampshire, has recently undergone substantial changes and is now operated by Southwestern Community Services (SCS). SCS has been serving the needs of the Sullivan and Cheshire Counties since 1965. SCS, however, is new to the operation of transit services. SCS now operates general public demand response service in Claremont, route deviation demand response service in Claremont, Charlestown, and Newport, and a volunteer driver program throughout Sullivan County. SCS currently has a planning assistance grant through the National Rural Technical Assistance Program (RTAP) that includes consulting support from the Community Transportation Association of America (CTAA)/United States Department of Agriculture (USDA) to complete Marketing and Branding Study for the community transportation services in Sullivan County, which is occurring simultaneously with this study.

Figure 1-1. Study Area Overview

In coordination with Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) and the New Hampshire Department of Transportation (NHDOT), this study seeks to assist SCS in assessing current transit services, developing transit service alternatives that improve/enhance current services, identifying opportunities and strategies to coordinate/partner with local municipalities and employers to improve access to employment, identifying sustainable funding mechanisms, and working with project partners to ensure that marketing and branding strategies fit with the goals of the transit service and the character of the community.



2. INTRODUCTION TO SULLIVAN COUNTY

Sullivan County is located in southwestern New Hampshire and covers an area of 552 square miles. It consists of 15 municipalities and is the second least populated county in New Hampshire. Current demographic and socioeconomic characteristics of the population, employment, and travel patterns are discussed in this section. Primary sources of data used to conduct the analysis include: US Census Bureau American Community Survey (ACS) 5-Year Estimates 2016 and Business Survey 2012; the

Longitudinal Employer Household Dynamics Dataset (LEHD) 2015; and New Hampshire Employment Security.

2.1 Demographics and Socioeconomics

Demographic and socioeconomic statistics are important in transit planning to understand the potential transit markets that exist in an area. Transit dependency is frequently related to level of income, age, vehicle availability, and disability status. Income is a key determinant in the type of transportation used to commute. People with lower incomes are often more likely to be in need of public transportation options than people with higher incomes who can afford private transportation. Table 2-1 includes a summary of statistics for the study area and major municipalities. The highest percentages of poverty are found in Claremont and Charlestown, while the highest percentage of disabled persons is found in Newport. The statewide poverty level is 8.5%, putting Sullivan County consistent with the state. The median household income in all three of the major municipalities in the county are lower than the county average, and at least \$15,000 lower than the New Hampshire state average of \$68,485.

Table 2-1. Demographic and Socioeconomic Characteristics

Region	Population (2016)	Percent in Poverty (2016)	Median Household Income(2016)	Percent Disabled under Age 65 (2016)
Sullivan County	43,051	9.0%	\$58,454	8.3%
Claremont	13,022	13.3%	\$47,555	9.4%
Newport	6,507	8.2%	\$52,486	11.8%
Charlestown	5,001	13.1%	\$50,568	7.5%

Source of Data: American Community Survey 5-Year Estimates, 2016

Population density maps can help identify where populations may be concentrated and where population distribution may be sparse. This can be particularly helpful in transit planning when considering how and where services can best meet the transportation needs of various populations. Population density in the region is mapped in Figure 2-1.

Another common measure of transit dependence and demand is the number of cars available per household. Zero-vehicle households are considered to be entirely dependent upon alternate transportation sources. Additionally, one-vehicle households with two adults are also partially dependent on alternate modes of transportation. Vehicle availability by household is presented in Table 2-2. The average number of people per household in Sullivan County is 2.4. Claremont has the highest percentage of households without a car (10.3%) and with only one car (39.3%) where Charlestown has the lowest.

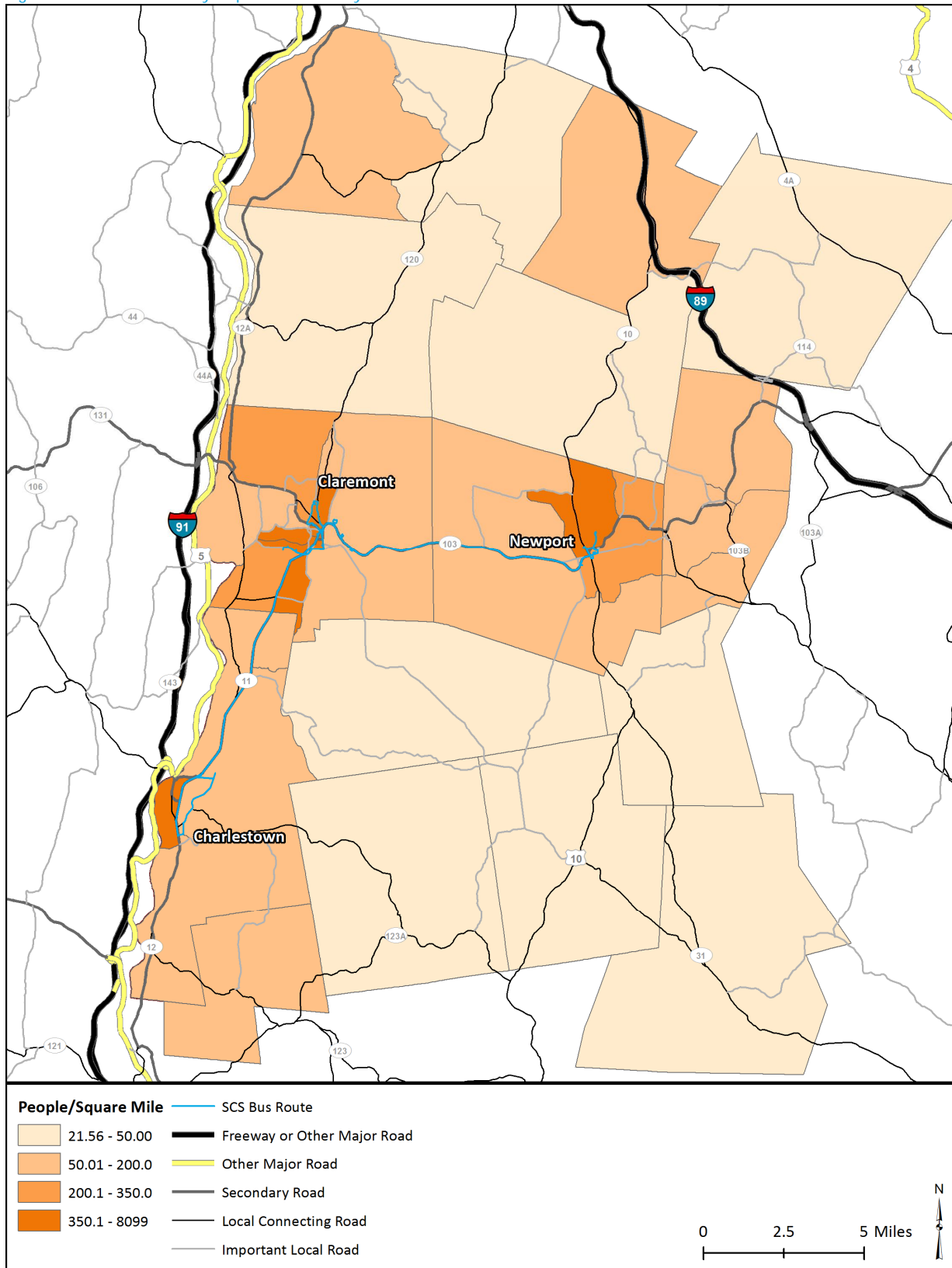
Table 2-2. Vehicle Availability by Household

Region	0- car household	1- car household
Sullivan County	6.1%	32.0%
Claremont	10.3%	39.3%
Newport	9.9%	34.0%
Charlestown	5.5%	26.5%

Source of Data: American Community Survey 5-Year Estimates, 2016



Figure 2-1. Sullivan County Population Density 2016



2.2 Employment

The trip to work is often the most frequent trip taken by many people; therefore, employment characteristics are important factors in the discussion of public transportation. Large employers are commonly destinations for significant numbers of people, which make them important to transit service. This section looks both at workers residing in the study area (labor force) and workers employed in the study area (employees/jobs).

Labor force characteristics are provided in Table 2-3 for the study area. The three largest municipalities in the county: Claremont, Newport and Charlestown, make up over fifty percent of the population, though have lower percentage of individuals in the workforce. Newport has the lowest percentage of individuals in the workforce but the shortest travel time to work.

Table 2-3. Labor Force Characteristics

Region	Population 2016	Percent in Labor Force Age 16+ (2016)	Mean Travel Time to Work (minutes)
Sullivan County	43,051	48.7%	24.5
Claremont	13,022	46.7%	22.5
Newport	6,507	46.1%	21.6
Charlestown	5,001	46.7%	26.2

Source of Data: American Community Survey 5-Year Estimates, 2016

Employer characteristics are described in Table 2-4 for the study area. The three largest municipalities make up 50% of all employers in the region but employ 79% of all employees indicating that the more rural areas tend to have numerous small employers and the urban areas have more large employers. Claremont has the greatest number of employers and employees in the county.

Table 2-4. Employment Characteristics

Region	Total Employer Establishments (2012)	Total Employment (2015)
Sullivan County	4,521	13,505
Claremont	1,146	5,277
Newport	691	3,335
Charlestown	456	2,118

Source of Data: US Census Bureau Business Survey 2012, LEHD 2015

The top ten largest private employers in the study area are listed by employment range in Table 2-5. All of the top ten are located in Claremont, Charlestown or Newport with a significant cluster in Claremont. The two largest employers with over 1,000 employees are found in Charlestown (Whelen Engineering) and Newport (Sturm Ruger & Co). Claremont has several large employers that collectively employ roughly the same number of employees as Whelen Engineering and Sturm Ruger & Co.

Table 2-5. Major Employers in the Study Area

Employer	Municipality	# Employees
Whelen Engineering	Charlestown	1,100
Sturm Ruger & Co	Newport	1,085
Valley Regional Hospital	Claremont	251
Walmart	Claremont	217
National Field Representatives	Claremont	161
CANAM Group	Claremont	154
Red River Computer	Claremont	120
Lake Sunapee Bank	Newport	119
Claremont Savings Bank	Claremont	105
NH Industries	Claremont	103

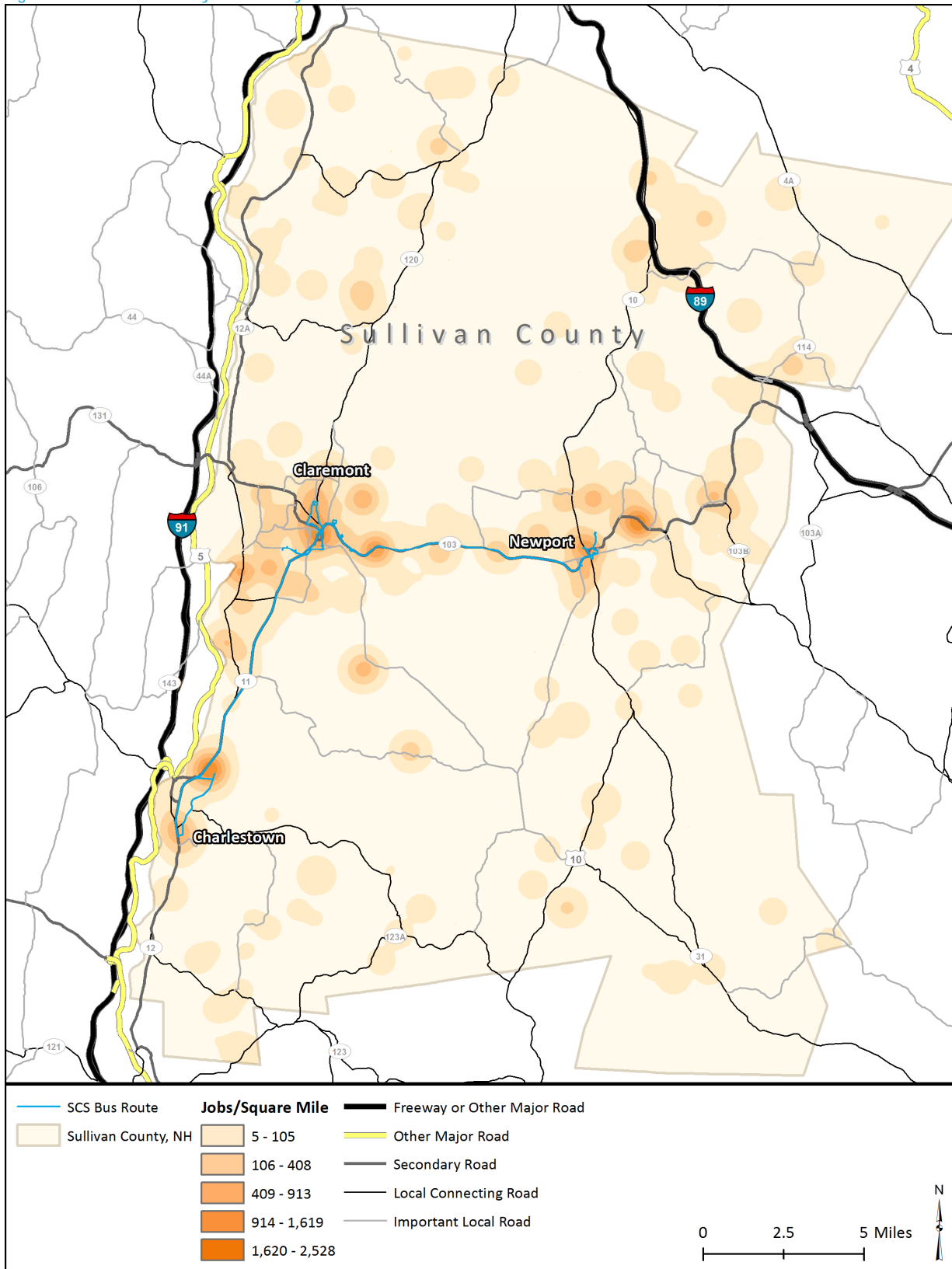
Source of Data: Economic and Labor Market Bureau, NH Employment Security, January 2018

Job density in Sullivan County is displayed in Figure 2-2. Not surprisingly, the highest concentrations of jobs in Sullivan County are located in Claremont, Newport, and Charlestown.

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Figure 2-2. Sullivan County Job Density 2015



2.3 Travel Patterns

The labor force in the region comes from within the study area as well as from outside the study area. Sullivan County is a net exporter of workforce: more people who live in the county work outside of it than those who live and work in the county or those who live outside it and commute into the county (Figure 2-3). Sullivan County borders Vermont, so there is a lot of interstate travel in this region.

Figure 2-3. Sullivan County Commuting Patterns



Table 2-6 is a matrix of home and work locations for workers in the region. The most common home/work pairs are (greater than 10%):

- Live and work within the same community
- Live within the county but work in another New Hampshire county
- Live in Charlestown but work in Claremont
- Live in Charlestown but work in another state
- Work in Claremont or Charlestown but live in another state

2.4 Key Findings

The following are the key finding from the market analysis:

- Claremont and Charlestown have the highest percentage of the percent of the population in poverty, while Newport has the highest percentage of disabled individuals
- According to the employment statistics almost half of the jobs in Charlestown are at Whelen Engineering
- One-third of the jobs in Newport are at Sturm and Ruger Co
- Sullivan county is a net exporter of the workforce



Short Range Transit Operations Plan

Table 2-6. Travel Patterns

		Work in...						
		Claremont	Charlestown	Newport	Elsewhere in Sullivan County	Other NH County	Out of State	TOTAL
Live in...	Claremont	1,994	369	465	206	2260	1241	6,535
		30.5%	5.6%	7.1%	3.2%	34.6%	19.0%	
	Charlestown	303	507	96	110	685	935	2,636
		11.5%	19.2%	3.6%	4.2%	26.0%	35.5%	
	Newport	305	48	1,074	244	1173	360	3,204
		9.5%	1.5%	33.5%	7.6%	36.6%	11.2%	
	Elsewhere in Sullivan County	498	168	649	994	4263	999	7,571
		6.6%	2.2%	8.6%	13.1%	56.3%	13.2%	
	Other NH County	1,344	544	774	897			3,559
		37.8%	15.3%	21.7%	25.2%			
Out of State	833	482	277	324			1,916	
	43.5%	25.2%	14.5%	16.9%				
TOTAL	5,277	2,118	3,335	2,775	8,381	3,535	25,421	

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3. CURRENT TRANSIT SERVICES

Southwestern Community Services (SCS) currently provides a variety of transit services across Sullivan County. Existing SCS services are described in this section as well as other regional transportation providers.

3.1 Southwestern Community Services Transportation Services

In October of 2016, Southwestern Community Services took over public transit services from Community Alliance Transportation Services. SCS has an annual operating budget for transportation of \$453,445 in fiscal year 2018.

SCS operates three deviated fixed routes, Dial-a-Ride (DAR) service, and a Volunteer Driver Program using a fleet of cutaway vehicles and Route Match scheduling/dispatching software. Service operates on non-holiday weekdays from approximately 6:30 AM to 5:00 PM. Route deviation is available within 3/4 mile of a route¹ and to guarantee a pick-up it must be requested by noon the business day before. Same-day deviation requests are accommodated as the schedule allows. Dial-a-ride is available in Claremont only. The Volunteer Driver Program operates throughout Sullivan County.

The three deviated fixed routes serve the municipalities of Claremont, Charlestown and Newport¹. The Claremont route provides circulating services within the city while the other two routes provide connections from Charlestown and Newport to Claremont. All three routes serve Opera House Square, Hannaford, Market Basket and Walmart in Claremont.

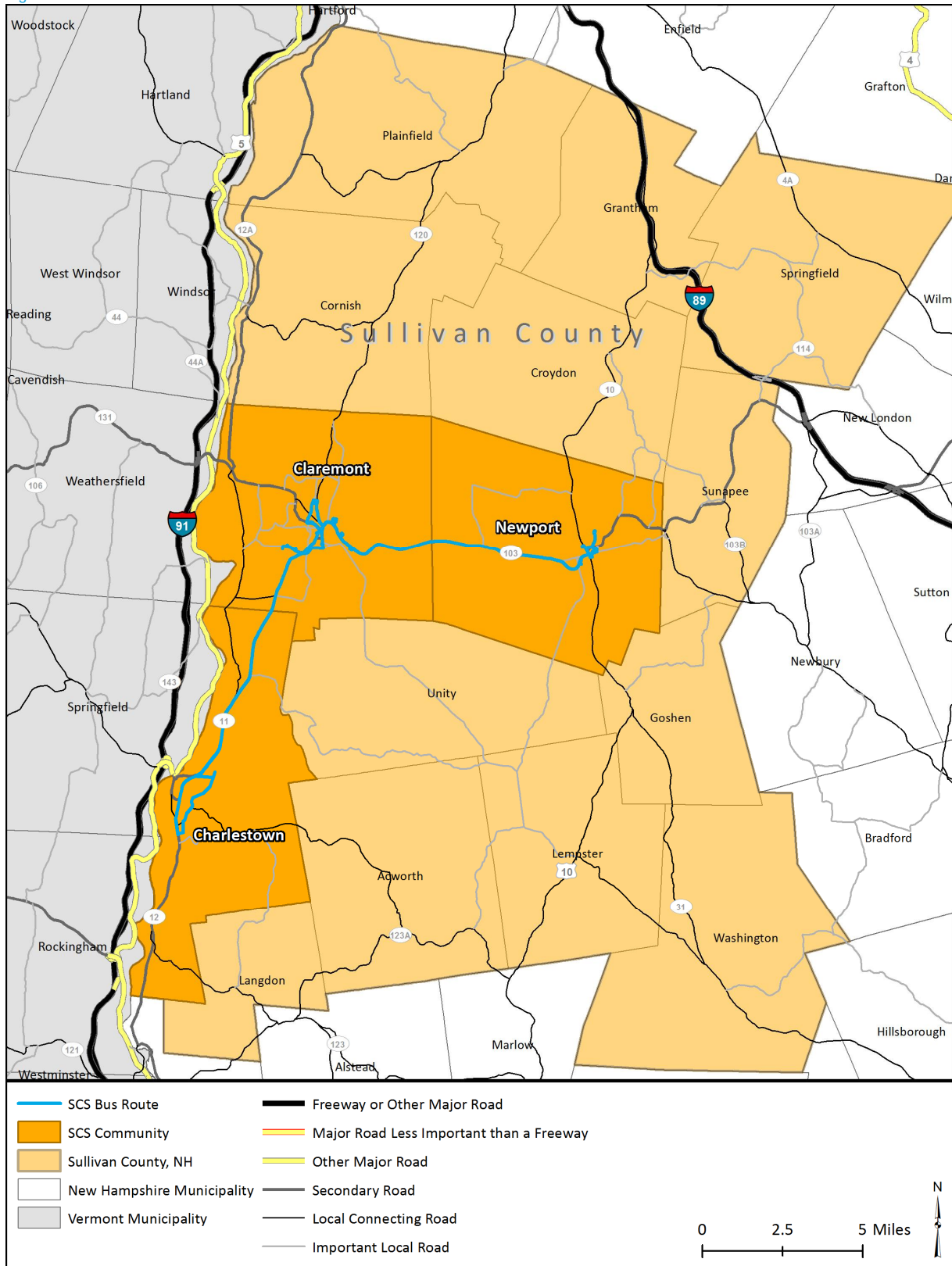
Table 3-1. SCS Fares and Passes

Fare Type	Fare
One-way within one city/town	\$1.50
One-way between towns	\$2.50
Deviation	\$0.00
Children age 6-12	\$0.50
Children 5 and under	\$0.00
Eight-punch pass	\$10.00
Unlimited in-town monthly pass	\$25.00
Unlimited town-to-town and in-town pass	\$35.00

Bus fares are based on the number of towns traveled. Travel within one city/town is \$1.50 and between towns is \$2.50. SCS does not offer discounts for transfers between routes. Each new route accessed is a new fare. A discounted fare of \$0.50 is available to children ages 6-12 and those under 6 ride for free when accompanied by an adult. The dial-a-ride fare is the same as the one-way within one city/town fare: \$1.50. SCS also offers monthly passes and an eight-punch pass. Monthly passes are \$25-\$35 and can be purchased on-board buses or at the SCS office.

¹ Operationally the deviated fixed route only deviates ¼ mile and pickups beyond ¼ mile of a route are accommodated with Dial-A-Ride service.

Figure 3-1. SCS Deviated Fixed Routes



Description of Existing Routes/Services

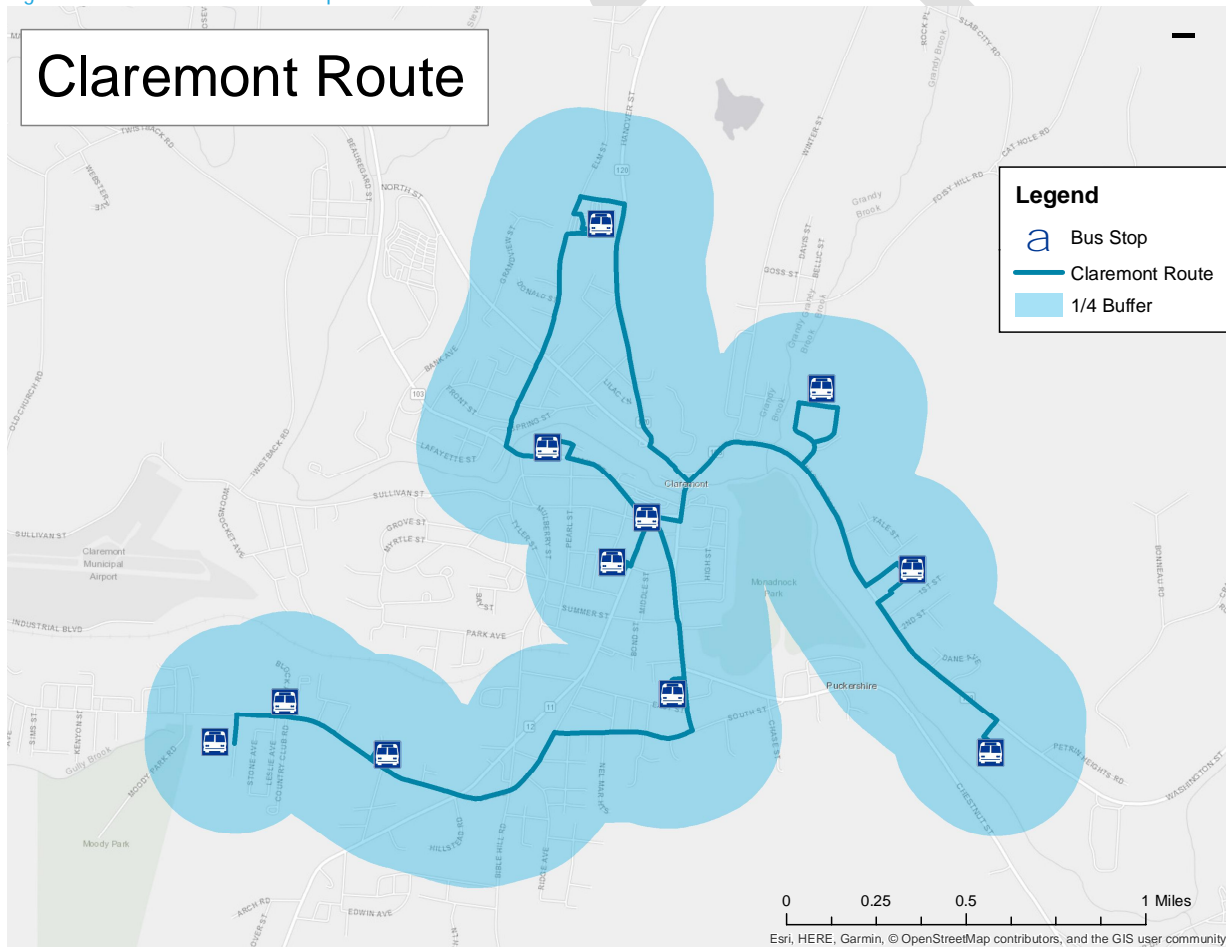
SCS utilizes Routh Match software to manage the routes. Each stop is put into Route Match as a customer stop and the trips are built by linking the customer stops. The routes only stop at the stops in the public schedule unless a deviation is requested ahead of time. Deviations must be requested one day in advance. Each morning an operator is given a manifest that lists each stop and any deviations. Between stops the route follows consistent routing unless a deviation is requested.

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Claremont Route

The Claremont Route serves the City of Claremont with service to the Senior Center, several housing/apartment complexes, the Valley Regional Healthcare Center and several shopping destinations off of Route 103. Service begins at Opera House Square, then heads to Rite Aid where it pulls into the parking lot. From there it returns to Opera House Square to Broad Street; if a deviation is requested, then Glidden Street may be used. It then heads south along Broad Street to Marion Phillips where it pulls into the facility. The route continues south on Broad Street to South Street and over to Pleasant Street and Maple Avenue. It then pulls into the Bourdon Center, then Claremont Manor and ends at the Claremont Senior Center. It then returns to Opera House Square via the fastest way possible, which varies based on deviation requests. At Opera House Square it then travels north to the Valley Regional Health Care Center via Sugar River Mills and then east along 103 to Market Basket. The route then returns to Opera House Square via the Broad Street Bridge serving Walmart and Hannaford along the way. The route pulls into both Walmart and the Hannaford Plaza, stopping at the main entrances.

Figure 3-2. Claremont Route Map

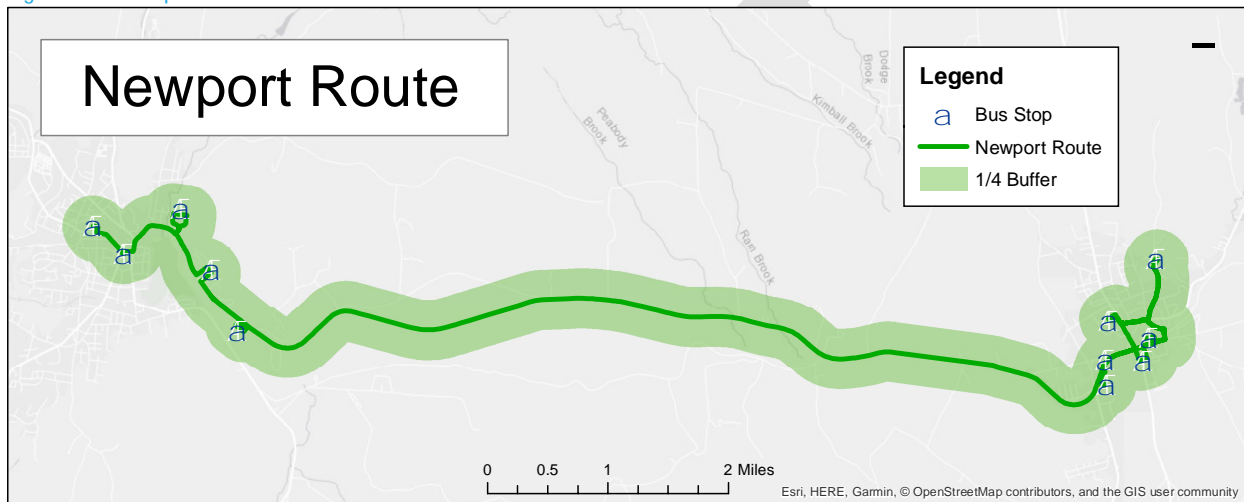


The Route operates from 8:00 AM to 4:25 PM and it takes approximately 60 minutes to complete the 9.9 mile loop. Non-revenue miles make up 9% of the total miles to operate the service. The average operating speed based on revenue miles and hours is 11.4 miles per hour.

Newport Route

The Newport Route connects the Town of Newport and City of Claremont. There are three trips daily in both directions between the Claremont Opera House Square and Newport. Service between Claremont and Newport is direct with no scheduled stops along Route 103. In Newport, service is provided to Shaw’s, the Newport Health Center, Senior Center, Department of Motor Vehicles, Summercrest Senior Living, and Maple Manor. The route then travels to Sugar River Mills in Claremont via Route 103 with service to Market Basket, Hannaford, Walmart and Opera House Square. When returning back to Shaw’s, the route travels direct along Route 103, unless a deviation is requested. The travel time between stops is inconsistent amongst trips.

Figure 3-3. Newport Route

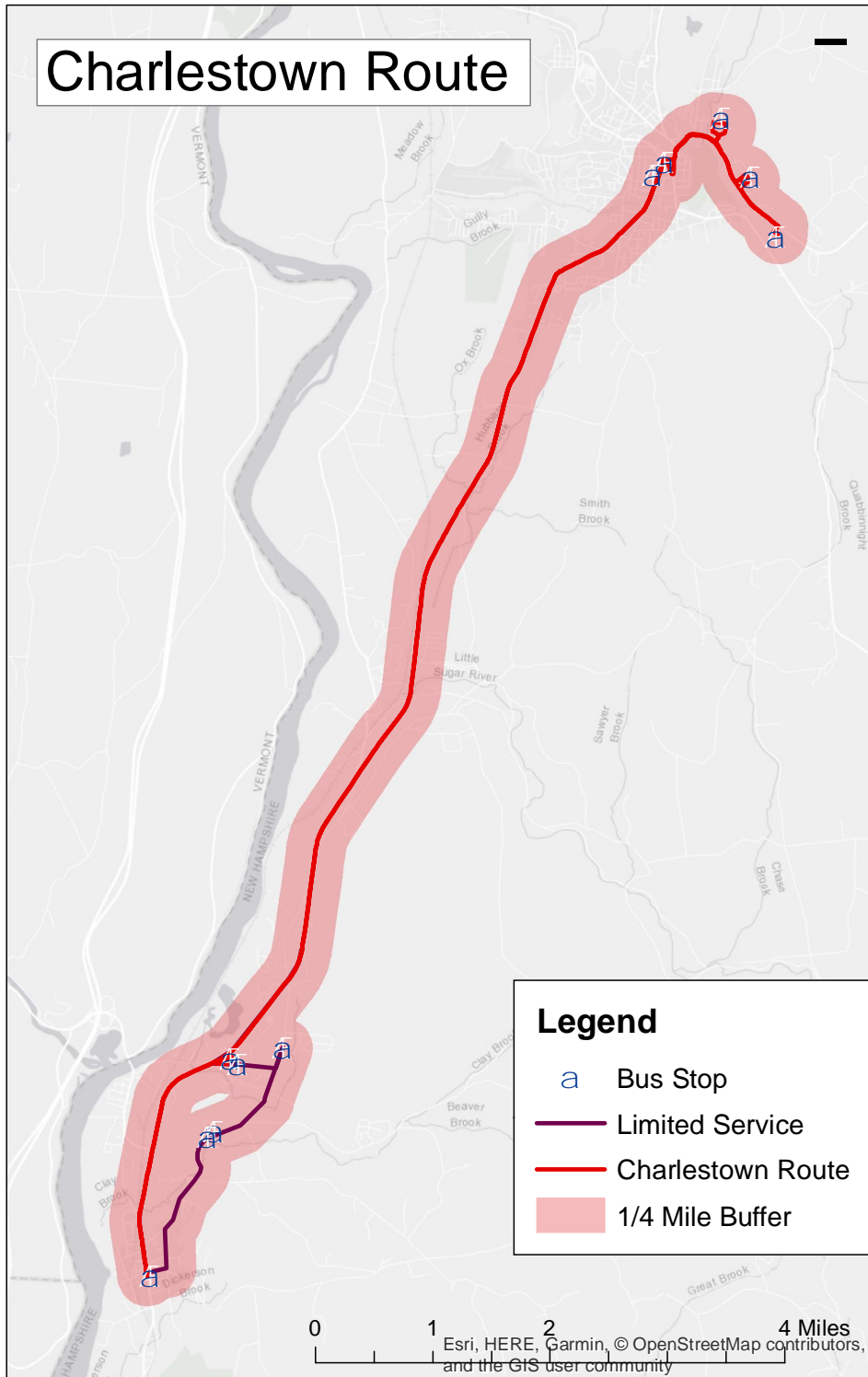


The Route operates from 6:25 AM to 4:45 PM, but each trip has a different variation. Non-revenue miles make up 17% of the total miles to operate the service. The average operating speed based on revenue miles and hours is 14.3 miles per hour.

Charlestown Route

The Charlestown Route connects the Town of Charlestown and City of Claremont (Figure 3-4). There are three trips daily in both directions between the Claremont Opera House Square and the Charlestown Mascoma Savings Bank. Service between Claremont and Charlestown is direct with no scheduled stops along Route 11/Highway 12 until Lovers Lane Road. In Charlestown, service is provided to 22 Lovers Lane Road, Mayflower Apartments, Mascoma Savings Bank, Crown Point Park, Twin Maples Park, and Emma’s Market. The route then returns to Claremont and serves Market Basket, Hannaford and Walmart. The travel time between stops is inconsistent amongst trips and not all stops are served on every trip unless a deviation is requested. For example, Crown Point Park and Twin Maple Park are only served on the mid-day trip.

Figure 3-4. Charlestown Route



The Route operates from 7:15 AM to 3:40 PM, with gaps in service from 8:30 AM – 10:30 AM and 12:07 PM – 2:40 PM. Non-revenue miles make up 37% of the total miles to operate the service; when not in

service on this route, the vehicle operates DAR service. The average operating speed based on revenue miles and hours is 16.79 miles per hour.

Dial-a-Ride

SCS operates a Dial-A-Ride program that provides curb-to-curb service open to the general public. Service is available Monday through Friday between 9:00 AM –10:30 AM and 12:30 PM – 2:30 PM and reservations must be made at least 24 hours in advance. The vehicle used for DAR operates the Charlestown runs when not being used for DAR. Service is available within Claremont and the fare is the same as the in-town fixed route fare. The average operating speed based on revenue miles and hours is 13.98 miles per hour.

Volunteer Drivers

The volunteer driver program is administered in-house with administrative assistance from UVSLRPC. Volunteer drivers are reimbursed based on mileage. The rate is set by the General Services Administration and the current rate is 54.5 cents per mile².

3.2 Route Diagnostics

Five important data sets were collected or calculated from SCS FY2018 records to analyze route diagnostics: ridership statistics, revenue hours, revenue miles, operating cost, and farebox revenue. Route diagnostic statistics are described for each of the routes and services in Table 3-2.

Table 3-2. System-Wide Operating Statistics by Route

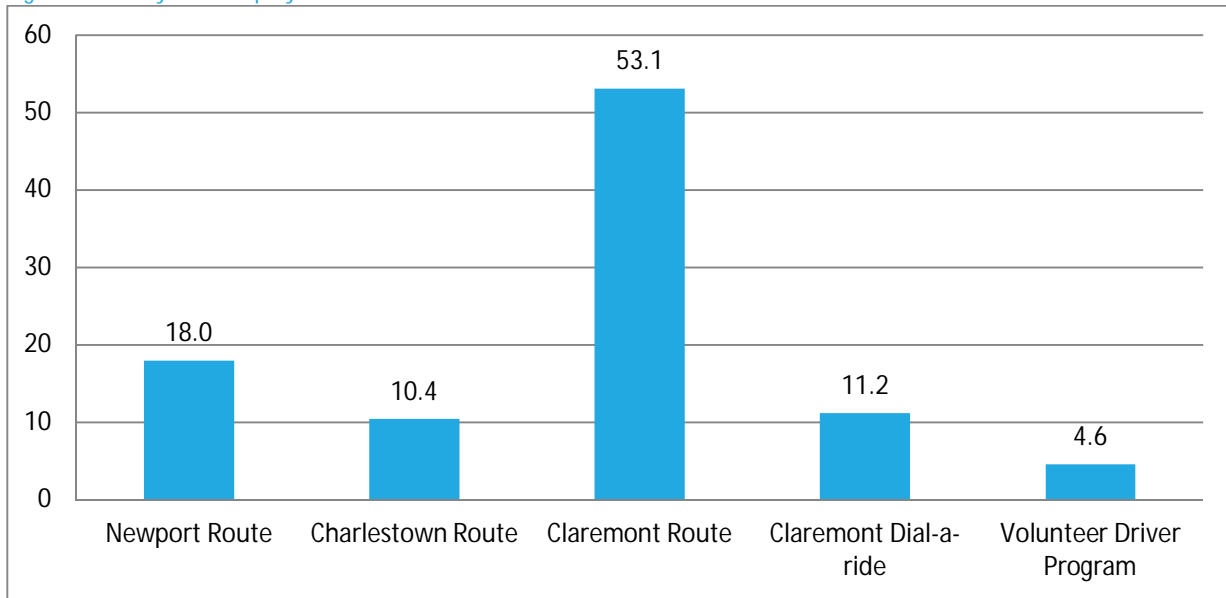
Route	Ridership	Revenue Hours	Revenue Miles	Operating Cost	Fare Revenue
Newport Route	4,452	2,234	31,579	\$128,594	\$5,510
Charlestown Route	2,585	841	15,769	\$96,523	\$2,918
Claremont Route	13,170	2,160	24,722	\$124,698	\$11,809
Claremont Dial-a-ride	2,777	620	8,337	\$42,865	\$2,754
TOTAL	22,984	5,855	80,407	\$392,680	\$22,991

Ridership

SCS carried just over 20,000 passengers on the fixed routes plus an additional 2,777 on the Dial-a-ride, and 1,138 volunteer driver trips in FY2018. The Claremont Route has the highest daily ridership amongst all routes/services and the Charlestown Route the lowest (Figure 3-5).

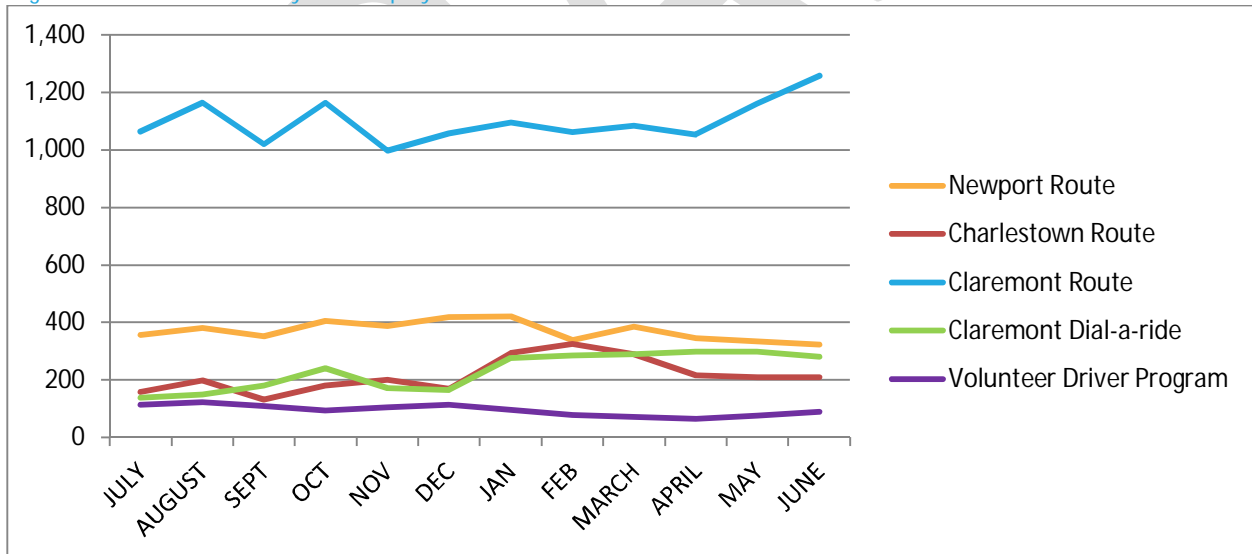
² General Services Administration. *Privately Owned Vehicle (POV) Mileage Reimbursement Rates*. <https://www.gsa.gov/travel/plan-book/transportation-airfare-rates-pov-rates-etc/privately-owned-vehicle-pov-mileage-reimbursement-rates>

Figure 3-5. Daily Ridership by Route



The monthly trend in ridership for FY2018 shows there has been an overall increase in each of the routes except the Newport Route (Figure 3-6). The month of September experienced the lowest ridership amongst all routes and January had the highest. Overall ridership grew by 20.5% in FY2018, with the largest percent growth on the Claremont DAR service.

Figure 3-6. SCS 2018 Monthly Ridership by Route



The top three overall destinations were: Walmart, Market Basket and the Sugar River Mills, each with over 1,000 alightings in FY2018 (Table 3-3).

The Charlestown Route had 5 destinations with over 100 alightings, this includes Hannaford, Market Basket, Walmart, Rite Aid and Opera House Square (in descending order). There was very little ridership activity in Charlestown at Twin Maples Park, Mayflower & Lovers Lane Road, and Emma's Market.

The Claremont Route had 5 destinations with over 500 alightings, indicating that 2 or more people disembarked at this location daily. Stops included: Walmart, Market Basket, Sugar River Mills, Valley Regional Hospital and Marion Phillips.

The Newport Route had the highest number of alightings at Opera House Square in Claremont and in Newport high activity (over 100) locations included: Newport Health Center, Irving Oil Corporation, Department of Motor Vehicles (DMV) and Shaw's.

Table 3-3. Top Destinations by Route

	Charlestown	Claremont	Newport	Dial a Ride	Volunteer Vehicles	Total
Walmart Supercenter & Vision Center	138	1,782	203	130	3	2,256
Market Basket	138	1,100	98	61	0	1,397
Sugar River Mills	10	1,132	83	13	1	1,239
Marion Phillips	34	842	9	61	2	948
Opera House Square	108	468	261	58	0	895
Rite Aid	115	285	220	33	0	653
Valley Regional Hospital	8	524	17	72	0	621
Earl Bourdon Center	18	438	11	5	0	472
Hannaford Supermarket	152	204	19	3	0	378
Claremont Senior Center	4	240	N/A	92	0	336
Newport Health Center	N/A	N/A	149	0	0	149
Shaw's	N/A	2	117	0	0	119
Irving Oil Corporation	N/A	N/A	112	0	0	112
DMV	N/A	N/A	107	0	0	107
Claremont Manor	0	68	N/A	0	0	69
Mascoma Savings Bank - Charlestown	63	N/A	N/A	1	0	64
222 Lovers Lane	25	N/A	N/A	0	0	25
Maple Manor	N/A	N/A	21	0	0	21
Emma's Market	2	N/A	N/A	0	0	2
Mayflower and Lovers Lane	1	N/A	N/A	1	0	2
Twin Maple Park	2	N/A	N/A	0	0	2

The top five destinations that are not a scheduled stop on a route are presented in Table 3-4. The top two destinations, Southwestern Community Services and McDonalds are along the route. River Valley Community College is one-mile from the closest stop, Claremont Arms is adjacent to Walmart and the Claremont Community Center is located by Claremont Manor.

Table 3-4. Top 5 Destinations that are not a Regular Stop

Destination	Charlestown	Claremont	Newport	Dial a Ride	Volunteer Vehicles	Total	On Route
Southwestern Community Services	152	85	71	149	0	457	Yes
McDonald's	218	67	50	113	0	448	Yes
River Valley Community College	10	196	186	19	0	411	No
Claremont Arms	9	335	12	4	0	360	No
Claremont Community Center	1	232	13	45	0	297	No

The origin destination matrix in Table 3-5 shows travel patterns for the fixed route and dial-a-ride services. The top 10 origin-destination pairs are as follows:

1. Sugar River Mills-Walmart (1,091)
2. Marion Phillips-Walmart (661)
3. Marion Phillips-Market Basket (439)
4. Walmart-Bourdon Center (370)
5. Sugar River Mills – Claremont Senior Center (348)
6. Sugar River Mills- Market Basket (329)
7. Opera House Square – Market Basket (226)
8. Walmart – Opera House Square (194)
9. Opera House Square-Irving Oil Corporation (175)
10. Marion Phillips – Valley Regional Hospital (167)

Table 3-5. Origin-Destination Matrix

	Claremont Manor	Claremont Senior Center	DMV	Earl Bourdon Center	Emma's Market	Hannaford	Irving Oil Corporation	Maple Manor	Marion Phillips	Market Basket plaza	Mascoma Savings Bank	Mayflower and Lovers Lane	Newport Health Center	Newport Senior Center	Opera House Square	Rite Aid	Shaw's	Sugar River Mills	Twin Maple Park	Valley Regional Hospital	Walmart Supercenter & Vision Center
Claremont Manor	1	0	0	0	0	0	0	0	0	45	2	0	0	0	15	18	0	1	0	18	15
Claremont Senior Center	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	171	0	0	0
DMV	0	0	0	0	0	0	0	0	0	4	0	0	0	0	24	3	0	1	0	4	16
Earl Bourdon Center	0	0	0	71	0	0	1	0	1	59	4	0	0	0	8	12	0	5	0	36	180
Emma's Market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
Hannaford	3	0	0	7	0	0	0	0	3	0	0	2	0	4	17	0	0	0	0	18	1
Irving Oil Corporation	0	0	0	3	0	3	0	0	0	2	0	0	0	0	121	12	0	15	0	0	19
Maple Manor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Marion Phillips	0	2	0	0	0	0	1	0	9	219	0	0	0	0	74	23	1	2	1	90	326
Market Basket plaza	15	2	3	59	0	0	4	0	220	4	3	0	2	1	82	47	4	163	0	1	44
Mascoma Savings Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Mayflower and Lovers Lane	0	2	0	14	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
Newport Health Center	0	0	0	0	0	0	0	0	1	10	0	0	1	0	33	0	0	27	0	2	20
Newport Senior Center	0	0	0	0	0	2	0	0	0	5	0	0	69	0	5	0	0	0	0	0	21
Opera House Square	7	44	16	9	1	0	54	1	31	144	11	0	8	15	10	4	49	59	1	49	100
Rite Aid	2	4	1	13	0	0	0	0	49	51	26	0	2	0	1	1	0	39	0	14	60
Shaw's	0	0	0	0	0	142	0	1	0	3	0	0	0	3	26	0	0	1	0	1	13
Sugar River Mills	1	177	9	9	0	0	24	1	0	166	29	0	9	0	6	40	2	16	0	76	453
Twin Maple Park	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Valley Regional Hospital	5	1	1	34	0	0	0	1	77	24	2	0	0	0	25	50	0	54	0	2	60
Walmart Supercenter & Vision Center	26	0	4	190	0	0	8	1	335	19	16	0	3	19	94	36	12	538	0	4	0

Service Effectiveness

Service effectiveness describes the amount of service utilized per unit of transit service provided. Service effectiveness is measured based on two indicators: passengers per mile or hour and the percentage of non-revenue time.

Passenger per Mile

Passengers per mile is a measure of efficiency and trip length. Large numbers indicate shorter circulator type routes. Smaller numbers indicate either longer routes, where passengers are traveling greater distances, or poorer performing routes. SCS averages 0.28 passengers per mile on the deviated fixed routes, and 0.33 on the dial-a-ride service with an overall system value of 0.29. The Claremont Route had the highest passengers per revenue mile with 0.53 and the Newport Route the lowest at 0.14. The statewide average is 0.69 passengers per mile for bus routes and 0.11 for demand response. Statewide the bus average in rural areas for bus passenger trips per mile is 0.31 and 0.13 for demand response. According to the *2017 Rural Transit Fact Book* the national average for passengers per mile for rural transit service providers is 0.64 for bus, and 0.15 for demand response. The SCS passengers per mile statistic for bus service (0.28) is on par with the New Hampshire rural average (0.31), but less than the national rural average or state average. This indicates the system is performing more like a rural system than an urban one, as expected. In regards to demand response, the passengers per mile (0.33) is much higher than the state rural average (0.13), and more in line with the national average, including urban systems.

Route	Passengers/Rev. Mile
Newport Route	0.14
Charlestown Route	0.16
Claremont Route	0.53
Claremont Dial-a-ride	0.33
TOTAL	0.29

Table 3-7. SCS Passenger per Revenue Mile Statistics

BUS AVERAGES	
National Bus Average	15.35
National Rural Average	0.64
NH Bus Average	0.69
NH Bus Rural Average	0.31
SCS Bus	0.28
DEMAND RESPONSE AVERAGE	
National DR Average	0.32
National Rural DR Average	0.15
NH DR Average	0.11
NH DR Rural Average	0.13
SCS DR	0.33

Table 3-7. Passenger per Revenue Mile Route Statistics

Passenger per Hour

Route	Passengers/Rev. Hour
Newport Route	1.99
Charlestown Route	3.07
Claremont Route	6.10
Claremont Dial-a-ride	4.48
Average	3.93

Table 3-8. SCS Passenger per Revenue Hour Route Statistics

Passengers per hour measures ridership as a function of the amount of service provided and will vary based on the type of route and average operating speed. Higher numbers indicate a more efficient system. SCS averages 3.72 passengers per hour on the deviated fixed routes, 4.48 for dial-a-ride, with an overall system value of 3.93 (Table 3-8). The Claremont Route had the highest passengers per revenue hour with 6.10 and the Newport Route the lowest at 1.99. The statewide average is 9.24 passengers per hour for bus routes and 2.7 for demand

response (Table 3-9). Statewide the New Hampshire bus average in rural areas for bus passenger trips per hour is 4.26 and 1.28 for demand response. According to the *2017 Rural Transit Fact Book* the national average for passengers per hour for rural transit service providers is 11.2 for bus and 2.7 for demand response. The SCS passengers per hour statistic for bus service (3.85) is just below the New

Hampshire rural average (4.96) and significantly less than the national rural average or state average. This indicates the system is performing more like a rural system than an urban one. In regards to demand response the passengers per hour (4.48) is much higher than the state rural average (1.28), and national averages for rural and non-rural areas (2.6 and 2.7 respectively).

Table 3-9. Passenger per Revenue Mile Statistics

DEMAND RESPONSE AVERAGE		BUS AVERAGES	
National DR Average	2.6	National Bus Average	32.4
National Rural DR Average	2.7	National Rural Average	11.2
NH DR Average	1.32	NH Bus Average	9.24
NH DR Rural Average	1.28	NH Bus Rural Average	4.96
SCS DR	4.48	SCS Bus	3.72

Revenue vs non-Revenue Service

It is important to look at the percentage of service hours/miles that are in revenue service versus in non-revenue service. Vehicles in non-revenue service do not pick up passengers but still have associated costs, and by decreasing non-revenue hours a system can improve the financial efficiencies listed in the section below. Higher percentages of non-revenue hours can indicate insufficient vehicle and driver scheduling. It is expected that a certain percentage of time will be non-revenue hours as the vehicle must access its starting and ending locations and demand response service typically has greater percentages of non-revenue time than fixed route service. As a benchmark, a route with more than 10% of hours or miles as non-revenue should be examined to improve efficiencies. The Newport and Charlestown Routes had more than 10% of hours as non-revenue (15% and 44%, respectively).

Financial Efficiency

Cost per Mile

Cost per mile measures the financial efficiency of providing service and will vary based on average operating speed. The smaller the number indicates more

financially efficient routes and/or faster operating speeds. SCS averages \$5.08 per mile on the deviated fixed routes, with an overall system

Route	Cost /Rev. Mile
Newport Route	\$4.07
Charlestown Route	\$6.12
Claremont Route	\$5.04
Claremont Dial-a-ride	\$5.14
TOTAL	\$4.88

value of \$4.88 (Table 3-11). The Charlestown

Table 3-11. SCS Passenger per Revenue Mile Route Statistics

Route had the highest cost per mile at \$6.12 and the Newport Route the lowest at \$4.07. According to the 2017 Rural Transit Fact Book the national average operating cost per mile for rural transit service providers is \$3.51 for fixed-route and \$2.22 for demand response. This cost difference is because operating

BUS AVERAGES	
National Bus Average	\$6.81
National Rural Average	\$3.51
NH Bus Average	\$5.33
NH Bus Rural Average	\$4.30
SCS Bus	\$5.08
DEMAND RESPONSE AVERAGE	
National DR Average	\$2.75
National Rural DR Average	\$2.22
NH DR Average	\$3.40
NH DR Rural Average	\$2.38
SCS DR	\$5.14

Table 3-10. Cost per Revenue Mile Statistics

speeds tend to be higher in rural areas due to less traffic which allows of a greater number of miles for

the same cost. SCS costs per mile for both deviated fixed route and demand response are higher than state and national averages.

Cost per Hour

Cost per hour also measures the financial efficiency of providing service and will vary based on the type of route and average operating speed. The percentage of non-revenue hours can greatly impact the cost/revenue hour. Costs per hour are typically lower for demand response service than fixed route service due to the type of vehicle, fuel consumption and costs, and maintenance needs. SCS averages \$76.69 per hour on the deviated fixed routes, with an overall system value of \$67.07 (Table 3-12). The Charlestown Route had the highest cost per hour at \$114.77, almost twice the cost of the other deviated fixed routes and \$45 more than dial-a-ride. Overall the cost per hour for deviated fixed route is much lower than national and state averages. The cost per hour for demand response is lower than national averages and on par with the state averages.

Route	Cost / Rev. Hour
Newport Route	\$57.56
Charlestown Route	\$114.77
Claremont Route	\$57.73
Claremont Dial-a-ride	\$69.14
TOTAL	\$67.07

Table 3-12. SCS Cost per Revenue Hour Route Statistics

Table 3-13. Cost per Revenue Hour Statistics

DEMAND RESPONSE AVERAGE		BUS AVERAGES	
National DR Average	\$69.63	National Bus Average	\$130.83
National Rural DR Average	\$39.37	National Rural Average	\$71.19
NH DR Average	\$40.00	NH Bus Average	\$71.44
NH DR Rural Average	\$27.31	NH Bus Rural Average	\$61.47
SCS DR	\$69.14	SCS Bus	\$76.69

Cost Effectiveness

Cost effectiveness measures the effectiveness of the system from a financial standpoint – how well the dollars put into the system are being used to produce trips. The cost effectiveness indicators are: cost per passenger, farebox recovery and subsidy per passenger.

Subsidy per Passenger

Subsidy per passenger measures how much it costs to operate a route on a “per passenger” basis. It is calculated by subtracting passenger revenue from operating cost and dividing by the total number of passengers. It is the cost to operate after taking into account fare revenue and which must be subsidized by other sources. SCS averages a subsidy of \$24.14 per passenger on the deviated fixed routes, with an overall system value of \$16.08 (Table 3-14). The Charlestown Route has the highest subsidy per passenger at \$36.21 and the Claremont Route the lowest at \$8.57.

Route	Subsidy/Pax
Newport Route	\$27.65
Charlestown Route	\$36.21
Claremont Route	\$8.57
Claremont Dial-a-ride	\$14.44
Average	\$16.08

Table 3-14. Subsidy per passenger by Route

Cost per Passenger

Cost per passenger is the overall cost to operate the route divided by the number of passengers. SCS averages a cost of \$25.23 per passenger on the deviated fixed routes, with an overall system value of \$17.08 (Table 3-16). The Charlestown Route has the highest cost per passenger of \$37.34 and the Claremont Route the lowest at \$9.47. The statewide average is \$7.73 per passenger for bus routes and \$30.33 for demand response. Statewide, the New Hampshire average in rural areas for cost per passenger trip per is \$10.36 for fixed route and \$22.48 for demand response. SCS has lower cost per passenger for demand response service compared to other systems statewide. According to the *2017 Rural Transit Fact Book*, the national average for cost per passenger for rural transit service providers is \$7.32 for bus and \$14.31 for demand response. The SCS cost per passenger for fixed route bus service is higher than the national averages for rural and non-rural areas. Typically the cost per passenger is higher for demand response service because of vehicle capacity and nature of the service, but this is not the case for SCS. In regards to demand response service, SCS has a lower cost per passenger than state and national averages.

Route	Cost/ Pax.
Newport Route	\$28.88
Charlestown Route	\$37.34
Claremont Route	\$9.47
Claremont Dial-a-ride	\$15.44
Average	\$17.08

Table 3-16. SCS Cost per Passenger Route Statistics

BUS AVERAGES	
National Bus Average	\$4.04
National Rural Average	\$7.32
NH Bus Average	\$7.73
NH Bus Rural Average	\$10.36
SCS Bus	\$25.23
DEMAND RESPONSE AVERAGE	
National DR Average	\$35.55
National Rural DR Average	\$14.31
NH DR Average	\$30.33
NH DR Rural Average	\$22.48
SCS DR	\$15.44

Table 3-16. Cost per Passongor Statistics

Farebox Recovery

Route	Farebox Recovery
Newport Route	4.3%
Charlestown Route	3.0%
Claremont Route	9.5%
Claremont Dial-a-ride	6.4%
Average	5.9%

Table 3-17. Farebox Recovery

Farebox recovery measures the percent of operating cost covered by fares and is heavily influenced by the ridership productivity of a route against its total operating cost, as well as the fare policy of the system. It is calculated by dividing fare revenue by operating cost. For all SCS fixed routes, the overall farebox recovery rate is 5.9%.

For demand response service, the average farebox recovery in the state is 3.1% with only 1.6% recovery in rural areas. These are much lower than the national averages, but SCS is closer to the national average than the state average. For fixed route service, the national rural average is 12%. The state average for fixed route service is 15.4% recovery with the rural average at 8.3%. SCS is lower than both for deviated route service.

Table 3-18. Farebox Recovery Statistics

DEMAND RESPONSE AVERAGE		BUS AVERAGES	
National DR Average	7.7%	National Bus Average	25.7%
National Rural DR Average	7.0%	National Rural Average	12%
NH DR Average	3.1%	NH Bus Average	15.4%
NH DR Rural Average	1.6%	NH Bus Rural Average	8.3%
SCS DR	6.4%	SCS Bus	6.0%

Fleet Analysis

As of August 2018, the SCS-owned fleet consisted of 6 vehicles: primarily 22-25 foot gasoline cutaway buses and vans, all of which were manufactured in 2010 or later (Table 3-19). The fleet consists of one Ford E-350's and five E-450's. All of the vehicles are wheelchair accessible in accordance with the requirements of the Americans with Disabilities Act of 1990 (ADA). All of the SCS vehicles are classified as light-duty small buses, cutaways with a useful life of 4 years or 100,000 miles. Half of the vehicles are past their useful life in terms of age and one in terms of mileage. All vehicles are housed at the SCS office. Maintenance is performed at three different repair facilities on a rotating basis, based on price and availability.

Table 3-19. SCS Fleet

Vehicle Make	Vehicle Model	Vehicle Year	Vehicle Length	Seating Capacity	Condition	Lifetime Mileage
Ford	E-450SD	10-Jun	22'	8/2 wc	3 Fair	150343
Ford	E-4FF	10-Jul	25'	16/2 wc	3 Fair	97206
Ford	E-450SD	13-Aug	25'	16/2 wc	4 Good	91770
Ford	E-350	16-Apr	21'	8/2 wc	4 Good	51961
Ford	E-450SD	16-Apr	23'	12/2 wc	4 Good	31323
Ford	E-450	17-Mar	23'	12/2 wc	5 excellent	33010

3.2 Other Regional Transportation Providers

Intercity Bus

There are no intercity bus providers in Sullivan County. Greyhound provides service in Vermont along Route 4 and in Bellows Falls. Dartmouth Coach provides service in Hanover (to Boston and to New York City). While there is no intercity or commuter bus service in the region, The Current does operate a shopper shuttle from Chester and Springfield, Vermont to Claremont on the first and third Wednesdays of the month. Service on this route is free.

Rail

Rail service is available at the Claremont Amtrak station located about two miles outside of town. The station is served by the Vermonter with one trip in each direction daily. The station is not on the fixed route or within the deviation zone.

Rideshare Services

The Upper Valley Transportation Management Area (UVTMA) is a coalition of transit, rideshare, planning commissions, employers and municipalities that advocates for increases in alternative mode transportation including transit service and Park-and-Ride facilities. Their goals are to reduce the costs associated with employee parking, make commuting to work affordable, promote sustainability, improve traffic conditions, and improve parking conditions. They work with individual employers to create commuting programs and benefits that meet the needs of the employees. Municipalities currently participating include Enfield, Hanover, Hartford, Lebanon, and Norwich.

Other

Outside of SCS, there are few other transportation services available. Of those that are available, most are program-specific or limited to a certain segment of the population. Table 3-20 outlines the alternative transportation services available in Sullivan County.

Table 3-20. Other Transportation Providers in Sullivan County

Provider Name	Service Area	Service Description	Service Hours/days	Fares
American Red Cross	Charlestown and Route 12 Corridor	Open to general public for medical appointments		Donations
Charlestown Ambulance Service	Charlestown	Ambulance, Non-emergency medical trips		Vary depending on distance
CNC Cab Company	Claremont	Traditional taxi service, non-accessible		\$5 one-way in town
Easter Seals	Statewide	Transportation for elderly and disabled		Vary by destination
Granite State Independent Living	Statewide	Persons with disabilities in areas with no public transit		Fee-for service
Golden Cross Ambulance	Claremont	Ambulance, Non-emergency and emergency medical trips		Vary by destination
Claremont Best Taxi	Claremont	Traditional taxi service, non-accessible	24-7	\$2.5 per mile, \$6 min. Seniors 10% discount
Newport Senior Center	Newport	Individuals 60+	M-F 9 AM-2:45 PM	\$1 donation
Veterans Administration	Statewide	For Veterans to VA facilities		Free

3.3 Key Findings

The following lists the key finding from the analysis of existing transportation services:

- The Claremont Route is the most efficient route
- The Charlestown Route has a high cost per hour due to the high percentage of non-revenue hours associated with the route
- The Charlestown and Newport Routes are underutilized
- Overall the dial-a-ride service performs better than national and state averages for rural and non-rural systems
- On the Charlestown Route there is very little ridership on Old Claremont Road
- Walmart is a top destination for all services
- Four out of the 5 top destinations that are not regularly scheduled stops are either along or near the existing Claremont Route

- There are some missed connections/inability to transfer between routes serving the same destinations on some trips
- There is a general lack of other transportation services available – there is no intercity bus provided, TNC's do not operate in the service area, and there are few alternative transportation options available to the general public

4. UNMET TRANSPORTATION NEEDS

Transportation needs that have been identified in the region are documented in this section. This includes public outreach, surveys, stakeholder meetings and NHDOT findings.

4.1 Stakeholder and Public Outreach

Mobility Visioning Workshops

Three mobility workshops facilitated by the Community Transportation of America (CTAA), one in each municipality, were held in early August of 2017. Thirteen attendees showed up in addition to SCS and UVLSRPC staff. A series of eight questions were asked, a summary of the findings is presented below.

1. What words come to mind when you think of public transit in Sullivan County?
 - Lacking/limited-need more frequent and after hours service and a wider service area.
 - Perception – poor understanding of how the system works, is funded and what it actually does for service.
 - Community
 - Underutilized
 - Hard to access
 - Opportunity
 - Flexible
 - Vital – filling a need
 - Inaccessible
 - Important
2. How did you first hear about Public Transportation in Sullivan County?
 - Community Alliance
 - Community Partners
 - Social service network
 - Seeing the buses in the community
 - County Coach 1986
 - Google Search looking for transportation options for patients to DH
3. What could Public Transportation do better?
 - Inform- Better outreach and education
 - Intermodal Connectivity
 - Increase-Expand Route and Schedules to include later hours, weekends

- Marketing and education
 - Change Identity – Not just for those people, not a social service agency
 - More efficient route design & timing
 - Regional connections
 - Route maps
 - Color coding schedules
 - Expand service area
 - Move the current bus stop in front of town office to the parking lot across the street
 - 4 times a day to Charlestown
 - Provide service to new medical building in Cedar Park (Springfield Hospital)
4. What additional Public Transportation Services would you like to see in Sullivan County?
- Lebanon/Upper Valley (Route 120)
 - More Door to Door bus service
 - Charlestown/Keene/VT connections and crossover
 - Inter-model Connections
 - Expanded hours and locations; weekends
 - I-89 Commuter
 - Network/Collaborate w/other Transportation providers- Cheshire, Grafton, VT
 - Connection to Brattleboro
 - Stop at high school in Newport
 - Service to Whipple Street Caleb Group
 - Park & get the bus, Current/Windsor VT
 - Van service to outlying Sullivan County communities
5. Where would you like to see public Transportation going?
- Sunapee
 - Concord NH
 - New London
 - Unity
 - Local Resorts – Mount Sunapee
 - Arbor View
 - Downtown Newport focus
 - Claremont Soup Kitchen
 - Bellow Falls train station
6. Do you use Public Transportation?
- Yes – 2
 - No – 13
7. Why not?
- Doesn't go where needed – Vermont, Walpole
 - Lack of knowledge on how to use it or unaware of it
 - Doesn't run when needed

- Not convenient to use
- Own a car

8. What can we do to improve public transportation services in Sullivan County?

- Improved social media
- Advisory Committee involvement
- Improve schedule and brochure
- Make presentations to senior and civic groups to inform them
- Coordinate with local employers
- Marketing – improve/change image
- Connect with civic groups and the tech centers in Newport and Claremont

Chamber of Commerce Workshops

TBD

Community Survey

TBD

Rider Survey

TBD

Driver Survey

TBD

4.2 NHDOT Compliance Review

In September of 2017 NHDOT conducted a compliance review related to the SCS transportation program. The review, similar to a triennial review, was done to determine SCS's compliance with the Federal Transit Administration (FTA) Section 5311 program requirements. The review looked at 13 areas for compliance and suggested the following (some of which have been implemented since the review – they are highlighted as blue text):

- Provide RTAP Newsletter to drivers
- Have own domain name for transportation
- Update the brochure to be inclusive of ADA notice and complaint procedure and reasonable modification
- Submit five year capital plan
- Submit cost allocation plan
- Separate item codes Admin costs to improve tracking
- Provide auditing report
- Include DBE requirements as part of procurement
- Obtain be trained on DBE semi-annual report template
- Complete facility maintenance plan
- Clarify animal policy
- Driver training to include reasonable modification includes the fact that lifts should be deployed upon request unless it is unsafe to do so.
- Announcement of stops
- Clearly identify routes at multi-route stops
- Make brochure and material translation available upon request

5. PEER SYSTEM REVIEW

As part of the Short Range Transit Operations Plan Study, a peer review was prepared to gain an understanding of how other similar systems are operating transit service. This peer review explores eight transit services that operate in similar conditions or are located in proximity to the SCS service area. Although each transit system and route is unique, the similarities and differences in these eight peers provide useful insight into how rural transit service is provided and operated throughout the country.

5.1 Description of Peer Systems

Eight peer systems were selected to examine operating characteristics. The eight peer systems were selected in conjunction with the study advisory committee and can be found in Table 5-1.

Table 5-1. Peer Systems

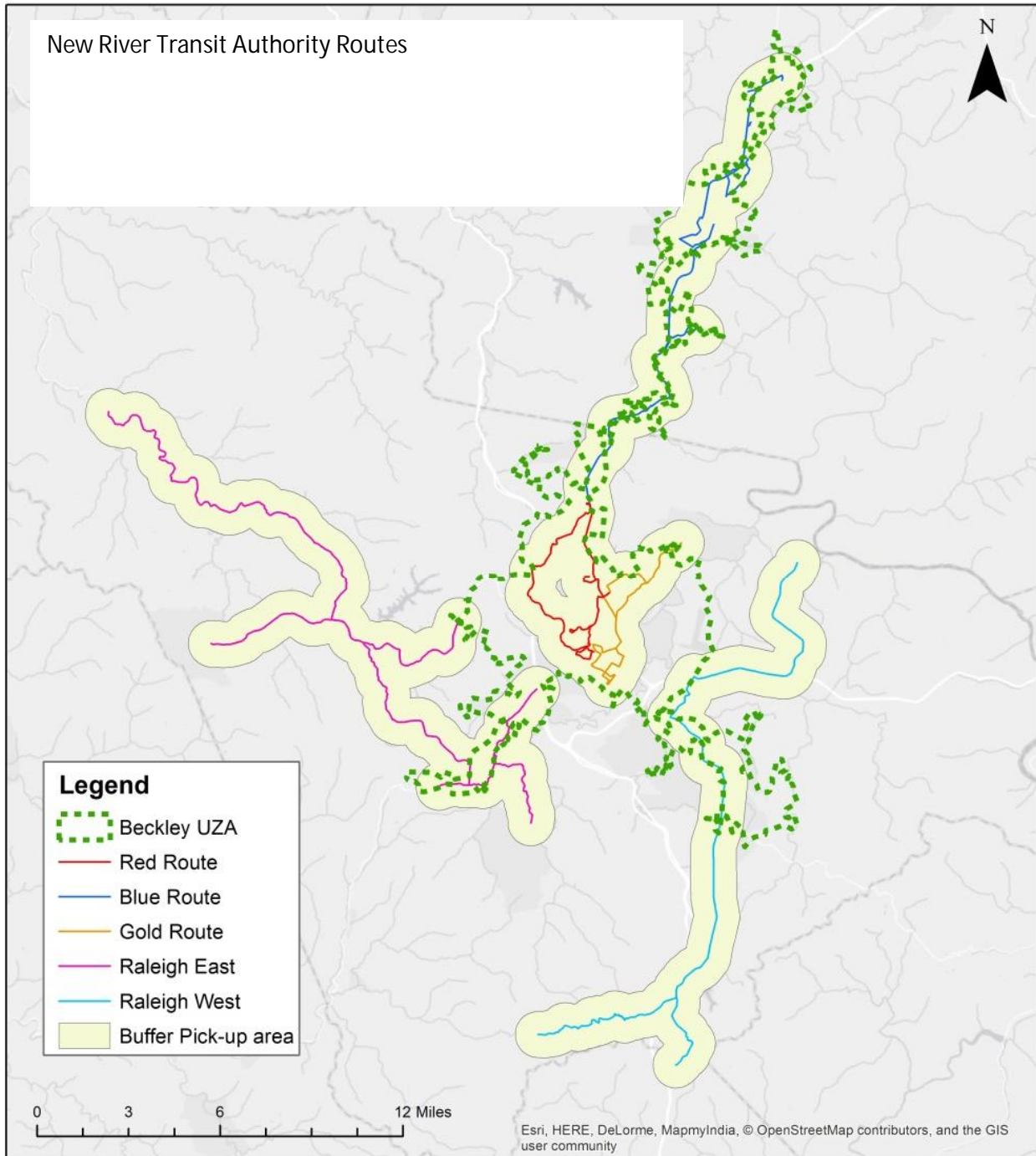
System	Town	State	Other Services	Fixed Route	Demand Response	Taxi	DAR	Deviated FR
New River Transit Authority	Beckley	WV	No	No	No	No	Yes	Yes
Bluefield Area Transit	Bluefield	WV	NEMT	No	No	No	No	Yes
RTS Orleans	Albion	NY	No	No	No	No	Yes	Yes
SMOC/Prairieland Transit	Worthington	MN	Express	Yes	No	Yes	No	No
Brown Cab	Madison	WI				Yes		
HCS Keene	Keene	NH	NEMT	Yes	Yes	No	Yes	No
Advance Transit	Lebanon	NH/VT	Shuttles	Yes	Yes	No	No	No
The Current	Brattleboro	NH/VT	Commuter; Volunteer drivers	Yes	Yes	Yes	Yes	No

[New River Transit Authority \(WV\)](#)

New River Transit Authority (NRT) provides service to Raleigh and Fayette counties in Southern West Virginia using three deviated fixed routes, two flex zones, and dial-a-ride services (Figure 5-1). Service is operated throughout the weekdays from 8:30 AM to 4:20PM. A late night shuttle is currently being piloted in the Town of Fayetteville on Friday and Saturday nights from 5:00 PM to 1:00 AM. The dial-a-ride service is available on weekdays from 8:00 AM to 4:00 PM and is open to the general public.

Reservations must be made a day in advance. The annual operating budget is \$579,646 for New River Transit Authority.

Figure 5-1. New River Transit Authority Map



Bluefield Area Transit (WV)

Bluefield Area Transit provides service to Mercer and McDowell counties in Southern West Virginia using three deviated fixed routes and demand-response service for non-emergency medical trips. Service is operated on weekdays from 7:00AM to 6:00PM and on Saturdays on the Athens route when Concord University is in session. Deviations are available within ¾ mile of each route. The annual operating budget is \$1,388,338.

RTS Orleans (NY)

RTS Orleans is a subsidiary of Rochester-Genesee Regional Transportation Authority providing deviated fixed route and dial-a-ride services in Orleans County, New York. Deviated fixed route service is operated Monday through Friday from 6:30 AM to 5:30 PM on four routes and on Saturdays on one route from 9:00 AM to 5:00 PM. The dial-a-ride is open to the general public Monday-Friday from 6:30 AM – 11:00 AM & 2:00 PM – 5:00 PM. The annual operating budget for RTS Orleans is \$748,781.

SMOC/PrairieLand Transit (MN)

PrairieLand Transit System operates the Nobles County Heartland Express and coordinates discounted taxi rides with the Worthington Taxi Service. Service is available Monday through Friday from 7:00 AM to 5:30 PM on the Heartland Express. Reservations for the taxi service must be made between 7:00 AM to 6:00 PM by calling dispatch but rides can be scheduled for after hours. The annual operating budget is \$336,447.

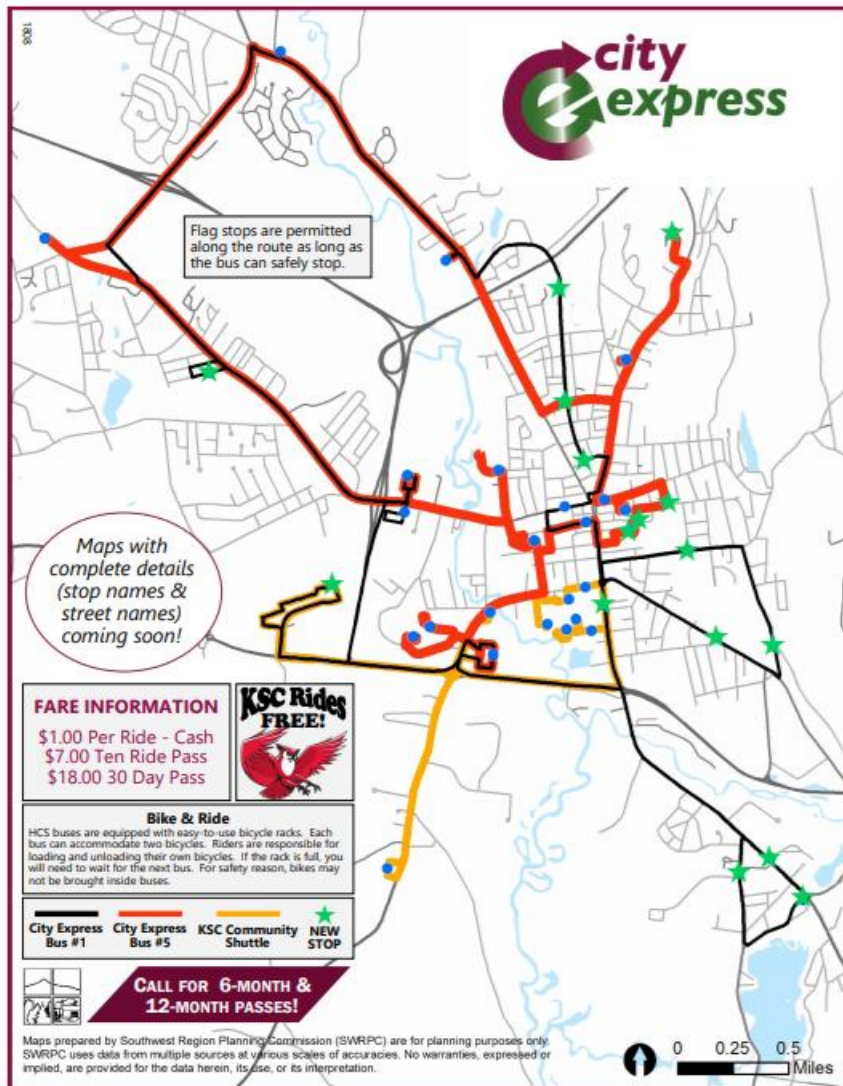
Brown Cab (WI)

Brown Cab Service, Inc. provides taxi and shared ride service in the area between Janesville and Madison, Wisconsin. Brown Cab operates shared ride taxi service in Fort Atkinson, Jefferson, Lake Mills, Waupaca, and Whitewater, WI.

HCS Keene (NH)

HCS Keene operates the City Express transit and paratransit system in Keene NH in addition to dial-a-ride for seniors in Keene and weekly non-emergency medical (NEM) trips to the Veterans Affairs (VA) healthcare facility in White River Junction and Dartmouth Hitchcock Hospital. Service is operated on 3 fixed routes from 8:00 AM to 5:00 PM on weekdays (Figure 5-2). Paratransit service is available during the same hours as fixed route. Dial-a-ride is available on weekdays from 8:00 AM to 4:00 PM and NEM provides service every Wednesday. The annual operating budget is \$641,450.

Figure 5-2. HCS Keene Map



Advance Transit (NH)

Advance Transit (AT) is the primary operator of local bus services throughout Upper Valley region, including the towns of Lebanon, Hanover and Enfield. Service, on seven fixed routes and the complimentary ADA demand response service, operates weekdays from approximately 6:00 AM to 6:00 PM; there is no weekend service. Demand response service is available within ¾ mile of all fixed routes. The annual operating budget is \$903,441.

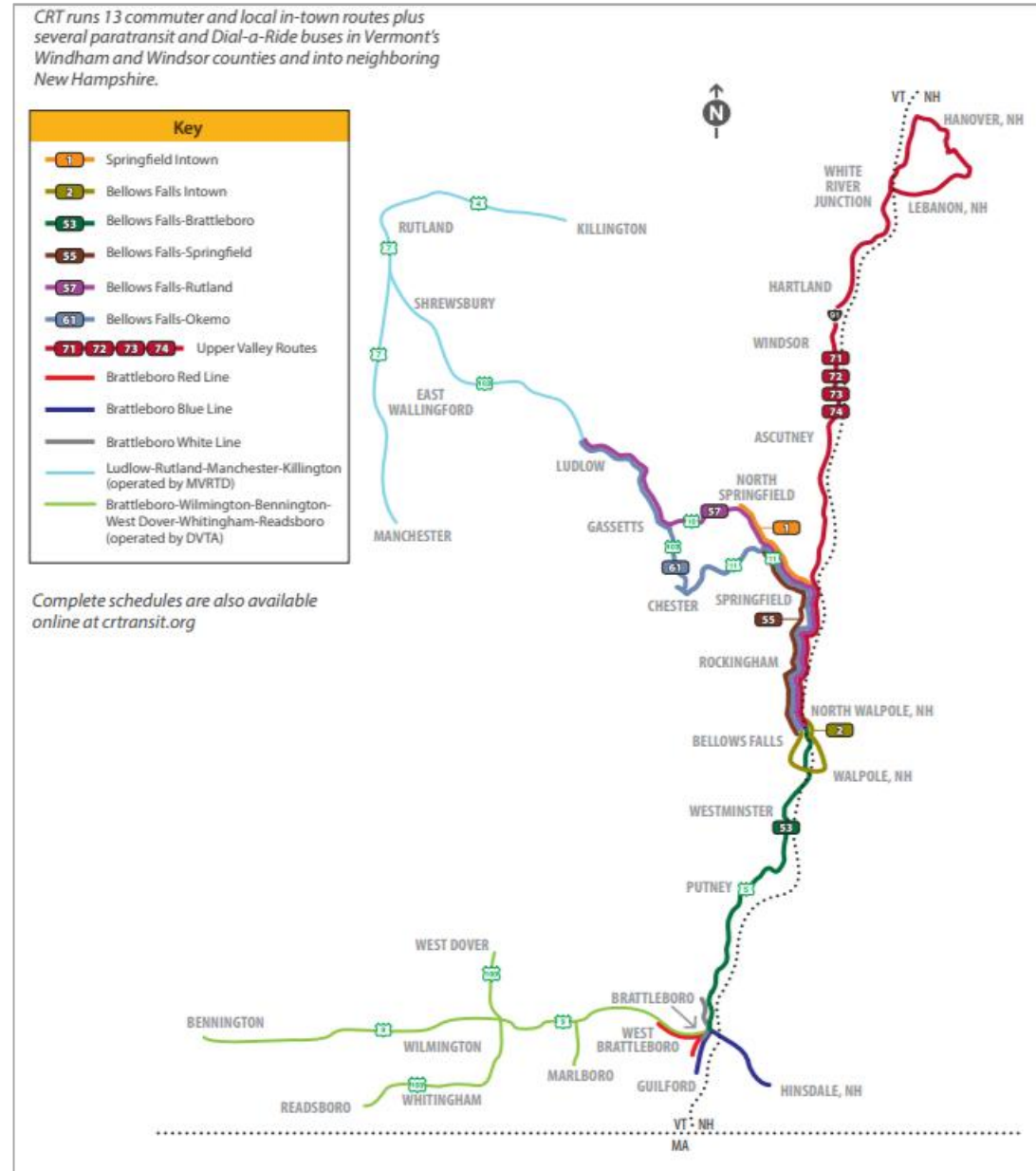
Figure 5-3. Advance Transit Map



The Current (NH/VT)

The Current provides fixed route, ADA paratransit, and dial-a-ride services in southeastern Vermont, with commuter service to Hancock, NH (Figure 5-4). There are five fixed routes, eight expresses/commuter routes, and one shopper shuttle. Service hours and operating days vary by route. Demand response service is available within ¾ mile of all fixed routes. Dial-a-ride is available in all 36 member municipalities. The annual operating budget is \$4,769,321.

Figure 5-4. The Current Map



Peer Service Summary

The most common types of service provided were fixed route/deviated fixed route service with deviations, demand response service or taxi service to meet ADA requirements. Five systems operated other services such as NEMT, Express/Commuter bus or parking lot shuttles for large institutions. Dial-a-ride services are provided by half of the operators, two have eligibility requirements while two are open to the general public. Subsidized taxi service was provided by three of the peers, reservations must be made through transit dispatch. Hours of service were on average from 7:00 AM to 6:00 PM for deviated or traditional fixed route and 8:00 AM to 4:00 PM on dial-a-ride. Late night service was available on a pilot program for New River Transit Authority. All of the peers required at least one day advance

reservation for dial-a-ride, demand-response or deviations on the fixed route. Weekend service is provided by three of the peers. The Current operates on both Saturday and Sunday, RTS Orleans on Saturday only and Bluefield Area Transit only operates weekend service only when Concord University is in session.

Table 5-2. Peer Operating Characteristics

Peer System	Hours of Service	Weekend service
New River Transit Authority	8:30 AM- 4:20 PM	No
Bluefield Area Transit	7:00 AM- 6:00 PM	Yes- when Concord University is in session
RTS Orleans	6:30 AM - 5:30 PM	Saturday
SMOC/Prairieland Transit	7:00 AM - 6:00 PM	No
Brown Cab		
HCS Keene	8:00 AM - 5:00 PM FR and DR; 8:00 AM - 4:00 PM DAR; 8:00 AM - 4:30 PM NEMT	No
Advance Transit	6:00 AM - 7:00 PM	No
The Current	6:00 AM - 6:00 PM	Yes

5.2 Operations

Comparative operational statistics for the peer systems are provided in Table 5-3. Annual passenger count varies from 29,009 to 225,624, with the average being 111,054. Revenue hours and miles also vary greatly with the average revenue miles being 817,609 and hours 34,692.

Table 5-3. Peer Operating Statistics

Peer System	Annual Passengers	Annual Revenue Hours	Annual Revenue Miles
New River Transit Authority	35,182	19,129	252,747
Bluefield Area Transit	225,624	43,482	739,484
RTS Orleans	39,450	8,024	177,482
SMOC/Prairieland Transit	29,009	11,046	80,826
Brown Cab			
HCS Keene	45,302	10,156	129,247
Advance Transit	126,355	9,070	156,758
The Current	276,458	141,940	4,186,721
SCS	22,984	5,855	80,407

Source: 2016 NTD Data; 2018 SCS

Performance stats measure the health of a system and route and are presented in Table 5-4. Passengers per revenue hour measures ridership as a function of the amount of service provided. High values indicate a route that is performing well. Higher values also require larger vehicles. The peers range greatly in the number of passengers per hour carried. The routes that travel greater distances tend to

have a greater number of passengers per one-way trip. For all peers, the average passengers per revenue hour is 4.98.

Table 5-4. Peer Performance Measures

Peer	Passengers/ Rev. Hr	Farebox Recovery	Cost Efficiency
New River Transit Authority	1.84	10.8%	\$14.69
Bluefield Area Transit	5.19	13.0%	\$5.35
RTS Orleans	4.92	8.1%	\$17.44
SMOC/Prairieland Transit	2.67	1.2%	\$11.16
Brown Cab			
HCS Keene	4.46	4.5%	\$13.53
Advance Transit	13.93	N/A	\$5.76
The Current	1.95	3.3%	\$16.67
SCS	3.93	5.9%	\$16.08

The farebox recovery ratio is the percentage of operating costs covered by fares collected, calculated by the fares collected divided by the cost to operate the route. The peers vary greatly in the farebox recovery from 1.2% to 13%³ (farebox revenue/operating cost). For all the peers, the average farebox recovery is 6.81%. This includes The Current which operates 5 of their 13 routes as fare free.

Cost efficiency measures the cost of providing service, taking into account fare revenue collected per passenger. Cost efficiency, represented as subsidy per passenger, also varies greatly and ranges from \$5.35 per passenger to \$17.44 per passenger (operating cost – farebox revenue)/passengers). For all peers, the average cost efficiency is \$12.09 per passenger.

5.3 Fares

There are a variety of fares, passes, and discounts available amongst the peers. Five of the peers used a single fare and one used zonal fares based on the origin and destination community. One system, Advance Transit, operates fare free. One-way fares ranged from \$1 to \$2.50 for fixed or deviated fixed routes.⁴ For dial-a-ride, the fares ranged from \$1 to \$3 with only one peer charging more for a dial-a-ride trip than a fixed route trip. Two of the three peers that operate deviated fixed route service charge additional fares for the deviation. Two of the peers offer a discount for children and one offers a discount for elderly/disabled. Passes were limited amongst the peers with only two offering a punch pass and two offering a monthly pass.

³ Does not include Advance Transit, which operates Fare Free

⁴ This does not include Advance Transit, which operates fare free, or select routes on The Current, which also operate fare free

Table 5-5. Peer Fares

Fare	NRT	Bluefield Area Transit	RTS Orleans	SMOC/PrairieLand Transit	HCS Keene	Advance Transit	The Current
Single or zonal base fare	Single	Zonal	Single	Single	Single	Fare Free	Single
One-way fare	\$2.50 all	\$1.25-\$2.25	\$1 FR, DAR \$3	\$3 taxi \$1.25 Express	\$1 FR/DAR; \$2 DR; \$10 NEMT (donation)	Fare Free	\$0-\$2 (varies based on route type)
Children discount	Free under 12	No	Free under 5	No	No	0	No
Elderly/disabled discount	No	No	50%	No	No	0	No
Deviation charge	No	yes-varies	\$2.00	n/a	N/A	0	N/A
Punch pass	No	No	Yes - 11 ride and 23-ride	No	Yes	No	No
Monthly pass	Yes	\$30	No	No	No	No	No
Senior/disabled monthly pass	No	\$25	No	No	No	No	No

5.4 Technology

Technology today serves a variety of functions in many aspects of everyday life, including transit. A review of the peer systems technology provides an understanding of trends within rural transit. This section explores two primary sectors of technology; schedule information, and fare. See Table 5-6 for a description of technology deployment in each of the peer services.

Automatic Vehicle Location (AVL) provides real-time information on the vehicles location and anticipated arrival at a stop, which allows passengers to plan accordingly. One of the peers (Advance Transit) has AVL/real time information available for the routes. Google Transit combines bus schedules with Google Maps to allow the public to plan their trip using Google Maps. Systems must convert their schedule information into a format called General Transit Feed Specification (GTFS) in order to display in Google. Two of the peers have their schedule information in Google. Nationally the standard is if a system has real time information, then the schedules and routes are also in Google Transit because the software that generates the real-time information can be converted into a GTFS data set.

Table 5-6. Peer Technology Comparison

Peer	AVL/Real Time	Google Transit	Electronic Fare Payment
New River Transit Authority	No	No	No
Bluefield Area Transit	No	No	No
RTS Orleans	No	No	No
SMOC/PrairieLand Transit	No	No	No
Brown Cab			
HCS Keene	No	No	No
Advance Transit	Yes	Yes	N/A
The Current	No	Yes	No

The two primary electronic fare payment systems used in the United States are the contactless SmartCard and mobile payments. The most widely used electronic fare technology in transit is the contactless SmartCard system. The SmartCard fare instrument is the size of a credit card and can be loaded with stored value or any kind of pass. A user simply taps the card on a reader and enters the vehicle. Mobile ticketing is where users pay fares from a Smartphone. Transit agencies are now starting to experiment with fare payment through cellular telephone. This technology operates as the SmartCard with the ability to store multiple pass options and fare types. It requires that riders download an application (app) onto a Smartphone. Payment is processed through the app and a transit pass is produced on the person's phone. None of the peer systems have electronic fare payment systems.

5.6 Summary of Peers Analysis

Based on the peer analysis, the following generalizations can be made about peer services:

- The most common types of service provided were deviated fixed route service with deviations, demand response service or taxi service to meet ADA requirements
- Most do not advertise a discount for the elderly or disabled
- Only one system offered late night service. This service was available through subsidized taxi vouchers when the trip was scheduled in advance through the transit dispatch. One other system was piloting it.
- Two systems offered express/commuter services and two others offered NEMT service. One system also operated a parking lot shuttle service for a major institution.
- Dial-a-ride services are provided by half of the operators; two have eligibility requirements while two are open to the general public.
- Subsidized taxi service was provided by three of the peers
- All of the peers required at least one day advance reservation for dial-a-ride, demand-response or deviations on the fixed route
- 3 out of 8 offered service on the weekend
- Of those that operate deviated fixed route, 2/3 charge a premium fare for a deviation
- The majority do not offer monthly passes
- Single fares were more prevalent than zonal fares
- In some cases the dial-a-ride or demand response fare was more expensive than the fixed route fare to incentivize people to use the fixed route
- Only one system offered a punch pass
- Technology use is limited