



THE 2023 PLUMAS COUNTY SHORT-RANGE TRANSIT PLAN

Draft Report

prepared for the
Plumas County Transportation Commission

prepared by
LSC Transportation Consultants

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Transportation considerations play a key role in the daily life of a region’s residents. Access to social and medical services, employment opportunities, and educational resources are issues of universal concern, as they have a strong impact on the economy, community, and overall wellbeing of the local population. Mobility is particularly important in Plumas County, with a modest population dispersed over a large and rugged forested terrain with limited commercial, medical, educational, and social service resources in the area. Ensuring people can reach the services they need is a priority issue, and public transit can help provide mobility to those in greatest need. In addition to providing mobility to residents without easy access to a private automobile, transit services can also provide a wide range of important economic development and environmental benefits.

The Plumas County Transportation Commission, aware of the importance of transportation issues, has retained LSC Transportation Consultants, Inc., to prepare the 2023 Plumas County Short-Range Transit Plan for the next five years for the Plumas Transit Systems (PTS) and Plumas Seniors Transportation programs. This study presents the setting for transportation in Plumas County, including demographic factors, the recent operating history of public transit services, and information on connecting services, as well as the evaluation of service alternatives, capital alternatives, funding alternatives, and institutional alternatives, ultimately presenting a recommended course of action over the next five years.

The overall study affords the leaders and transportation providers of Plumas County the chance to take an in-depth look at the transit systems currently in place, identify the optimal manner in which transit can meet the public’s needs within Plumas County, and carefully identify where transit resources should be devoted over the plan period. In the end, the study will provide a “business plan,” based on public input, which can guide the regional transit program to best meet mobility needs utilizing the available resources.

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STUDY AREA CHARACTERISTICS

STUDY AREA

Plumas County is in the most northern portion of the Sierra Nevada and the most southern portion of the Cascades, with a relatively small population that lives in small towns and cities found across the region. This rural county is bordered by Lassen and Shasta Counties to the north, Tehama and Butte Counties to the west, and Yuba and Sierra Counties to the south. Lassen Volcanic National Park lies partially within Plumas County and is renowned for its many beautiful sights, one of which is Lassen Peak, the largest plug dome volcano in the world. Plumas County has long been, and continues to be, home to the Greenville Rancheria of Maidu Indian. The local county population grew due to the arrival of American settlers in the mid 1800's during the California Gold Rush; mining continued to be a dominant industry in the area for decades following. Once the Western Pacific Railroad was constructed in 1910, the timber industry in Plumas County began to boom, supporting the region's continued growth throughout the 20th century.

Both State Routes (SR) 70 and 89 connect communities across Plumas County. SR 70 runs east-to-west through many major communities in the county, including Chilcoot-Vinton, Portola, Blairsden, Quincy, and the towns in Feather River Canyon. SR 89 runs from the southeastern portion of the county north until it terminates into SR 36 near Chester, passing through Graeagle, Quincy, Greenville, and running along the western side of Lake Almanor. There are no interstates or United States (US) Routes that pass directly through Plumas County. Interstate-80 (I-80) runs east-to-west to the south of the county and US 395 runs north-to-south near Plumas County's eastern border. The study area is shown in Figure 1.

POPULATION CHARACTERISTICS

Population

According to the US Census American Community Survey (ACS) the population of Plumas County was approximately 19,631 persons in 2021 (Table 1). The largest populations are found in East Quincy (Census Tract 1), Quincy (Census Tract 1), Portola (Census Tract 3), and Chester (Census Tract 5.01). Cumulatively, these census tracts constitute almost two thirds (65 percent) of the county's total population. Plumas County was greatly impacted by the Dixie Fire in the summer of 2021, with the town of Greenville specifically devastated. Some residents have moved to Taylorsville but any long-term population impacts stemming from this natural disaster have yet to be determined. The available data from the Census Bureau referenced below represents pre-Dixie fire population levels.

Potentially Transit Dependent Population

Public transit enhances regional connectivity by helping individuals get to the places they need, whether it be the grocery store, a social gathering, work, or school. Transit systems are available to all residents within the specific service area, yet it is common for ridership to be drawn primarily from certain subpopulations who together comprise what is known as the "transit dependent" population. Youth, senior adults, persons with disabilities, low-income individuals, and households with no vehicles available are all considered transit dependent.



Figure 1
Site Map

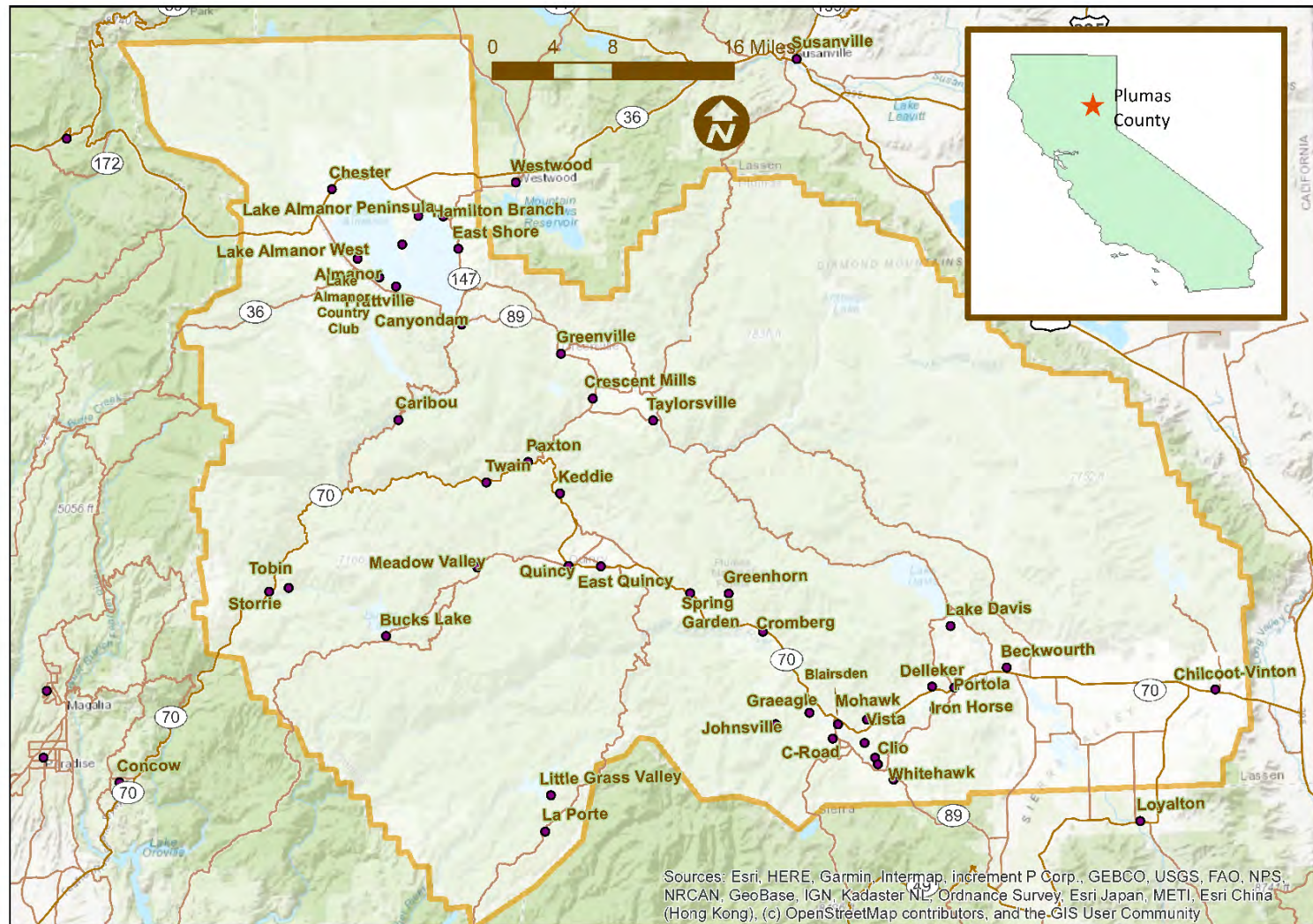


Table 1 : Plumas County Population Characteristics by Census Tract

Census Tract	Area Description	Total Population	Total Households	Youth (Ages 5 - 17)		Senior Adults (Ages 65+)		Low Income		Disabled Persons		Zero Vehicle Households	
				#	%	#	%	#	%	#	%	#	%
1	East Quincy, Quincy	5,644	2,695	799	14.2%	1,015	18.0%	599	10.6%	709	12.6%	18	0.7%
2.01	Blairsdan, Clio, Graegle	1,567	477	257	16.4%	614	39.2%	214	13.7%	236	15.1%	29	6.1%
2.02	La Porte, Meadow Valley	1,183	392	122	10.3%	404	34.2%	46	3.9%	216	18.3%	0	0.0%
3	Chilcoot-Vinton, Portola	4,969	1,471	837	16.8%	1,110	22.3%	627	12.6%	790	15.9%	13	0.9%
4	Greenville, Storrie, Tobin	2,258	907	215	9.5%	792	35.1%	386	17.1%	479	21.2%	47	5.2%
5.01	Chester	2,242	1,050	196	8.7%	821	36.6%	239	10.7%	418	18.6%	0	0.0%
5.02	Canyondam, Lake Almanor	1,768	465	139	7.9%	790	44.7%	176	10.0%	370	20.9%	0	0.0%
Total County		19,631	7,457	2,565	13.1%	5,546	28.3%	2,287	11.6%	3,218	16.4%	107	1.4%
Source: US Census American Community Survey, 2021													

Obviously, these groups are not exclusive from each other. Table 1 presents data estimating the amount of transit dependent individuals within each census tract in Plumas County, as well as the relative concentrations of these persons compared to other areas in the county.

Youth Population

Children ages 5 to 17 years old are considered transit dependent persons, as most are not legally able to drive a car but still likely have commitments outside of home. For instance, youth may utilize public transit to get to and from school or after-school activities. Many children will also ride the bus with their parents and guardians if those individuals rely on public transit themselves. Overall, there are not many youths that live in Plumas County. In Plumas County, youths consist of less than 15 percent of the area's population, and in four of the County's census tracts youths represent 10 percent or less of the tract's population.

In 2021, Census Tract 3 (Portola) had the greatest number of children, with 837 persons, followed by Census Tract 1 (East Quincy/Quincy) with 799 (US ACS). Communities such as Meadow Valley (Census Tract 2.02) and Lake Almanor and East Shore (Census Tract 5.02) each have relatively small numbers of youths, with less than 150 individuals in this age group in both areas. The census tracts with the greatest concentrations of people aged 5 to 17 as of the 2021 ACS were Census Tract 3 (Portola) with 16.8 percent, Census Tract 2.01 (Blairsden/Graeagle) with 16.4 percent, and Census Tract 1 (East Quincy/Quincy) with 14.2 percent. The area with the smallest concentration of youths is Census Tract 5.02, which includes the communities of Canyon Dam and Lake Almanor (7.9 percent). This information is presented in Figure 2.

Senior Population

Senior adults are a high transit generating population group, and many transit agencies across the country offer this age group discounted fares. Plumas Transit Systems offers a senior fare for any adult over the age of 60., and Plumas Seniors Transportation provides rides for senior adults over the age of 60 to medical appointments, grocery shopping, and other appointments. In the context of this study however, the senior population is considered to be adults ages 65 and older. Over one quarter (28.3 percent) of Plumas County residents are aged 65 years or older. The communities with the most people aged 65 years or older are Portola and Chilcote-Vinton (1,110 residents), followed by East Quincy and Quincy (1,015 residents).

The areas of Plumas County with the greatest concentration of seniors are the communities in the Lake Almanor area (Census Tract 5.02) and Blairsden/Graeagle (Census Tract 2.01) with 44.7 and 39.2 percent of these populations 65 or older, respectively. This is followed by 36.6 percent within Census Tract 5.01 (Chester). Over one third (35.1 percent) of the population in Census Tract 4 (Greenville and the Feather River Canyon towns) are seniors. East Quincy and Quincy have the smallest concentration or proportion of older adults, with only 18 percent of the local population in this age group. Figure 3 shows the concentrations of elderly persons throughout the study area.

Figure 2
Youth Population

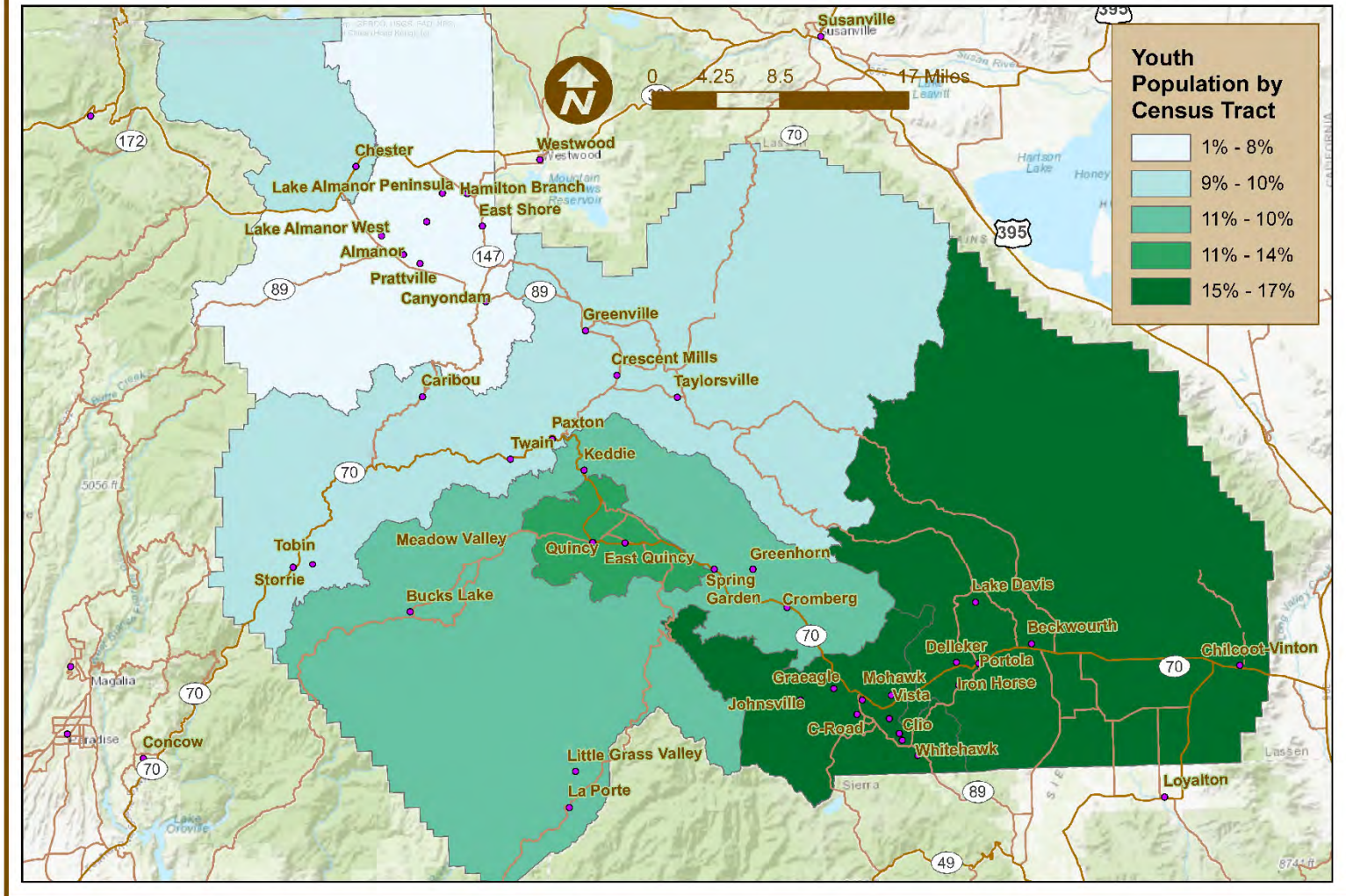
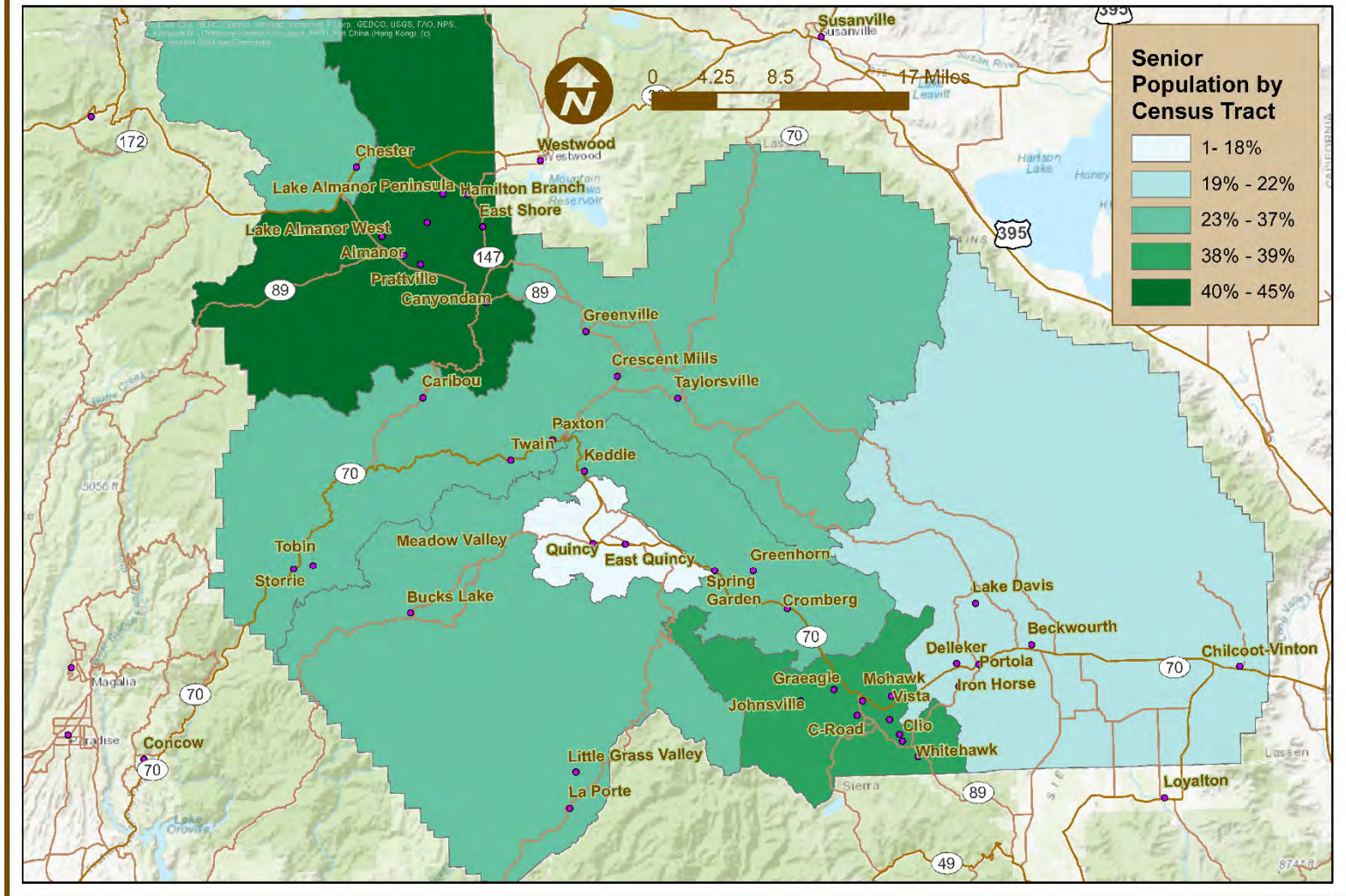


Figure 3
Senior Population



Low-Income Population

Due to the high costs associated with car ownership and maintenance, low-income persons are another group that often utilizes public transit instead of cars. In this study, low-income individuals are those people considered below the poverty level as defined by the US Census Bureau. According to the 2021 ACS, an estimated 2,287 low-income persons reside in Plumas County, representing 11.6 percent of the total population. This statistic is slightly below the statewide poverty rate, as in 2021 California was estimated to have 12.3 percent of its population living in poverty. Areas with the largest low-income populations are Census Tract 3, or Portola/Chilcoot-Vinton (627 persons), Census Tract 1, or East Quincy/Quincy (599 persons), and Census Tract 4, or the Feather River Canyon and Greenville (386 persons).

Figure 4 presents data regarding the concentration of low-income residents across Plumas County. As evidenced by the map, the greatest concentration of low-income persons is within the Feather River Canyon and Greenville (Census Tract 4), with 17.1 of this area's population estimated to be living below the poverty line. This is followed by Blairsden and Graegle with 13.7 percent (214 persons), and Portola and Chilcoot-Vinton with 12.6 percent. The area with the lowest concentration of low-income persons is Census Tract 2.02 (Meadow Valley/La Porte) with 3.9 percent, or 46 persons.

Disabled Persons

Disabled persons often utilize public transit because of physical or cognitive constraints that prevent these individuals from driving personal vehicles. Overall, it is estimated that 16.4 percent of Plumas County's population is disabled in some way (2021 ACS), which is higher than the statewide rate of 11.2 percent. Figure 5 presents data about where disabled residents live within Plumas County. The greatest numbers of disabled persons live in the more populated areas of Census Tracts 1 and 3, with 709 and 790 persons, respectively. In Census Tract 4, which includes Greenville, Storrie, and Tobin, the concentration of disabled persons within the local population is 21.2 percent, or 479 persons. Canyon Dam and Lake Almanor (Census Tract 5.02) have approximately 20.9 percent of their populations living with a disability.

Zero Vehicle Households

The final demographic group that is considered part of the overall transit dependent population are households that do not have a vehicle available for use, or zero-vehicle households. For people within these homes, it is likely that public transit is one of the only consistent options available for traveling farther from home. It was estimated in the 2021 ACS that there are 7,457 households in Plumas County, with the greatest number of households (2,695) being in Quincy and East Quincy (Census Tract 1). The number of households across the county without a vehicle was estimated to be only 107(1.4 percent of total households)

As depicted in Figure 6, Census Tract 2.01 (Blairsden/Clio/Graegle) has the greatest concentration of households with no access to a vehicle with 6.1 percent (29 households) followed by Census Tract 4 (Greenville/Feather River Canyon) with 5.2 percent (47 households). Census Tracts 2.02, 5.01, and 5.02 have the smallest concentration with no zero-vehicle households (0 percent).

Figure 4
Low Income Residents

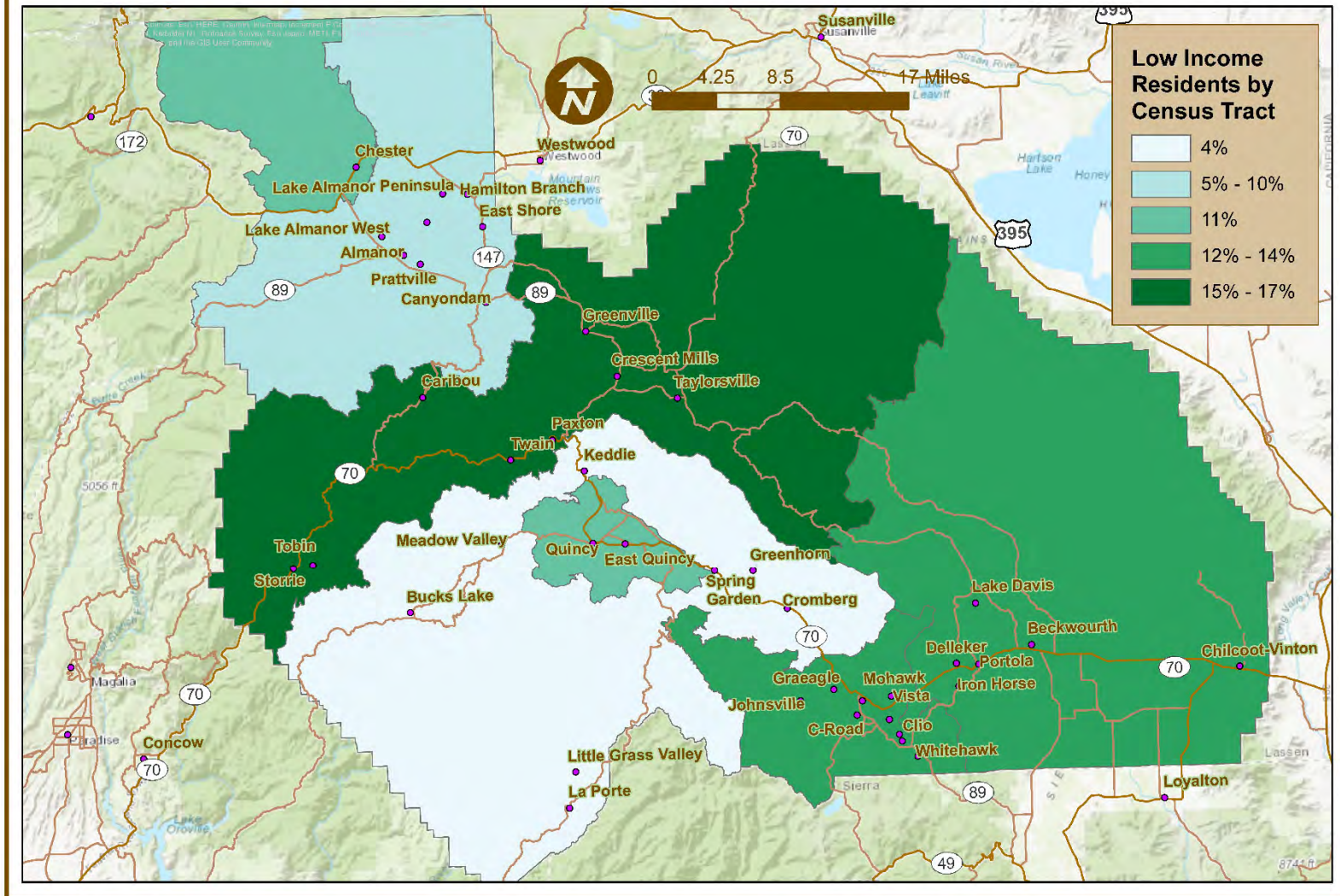
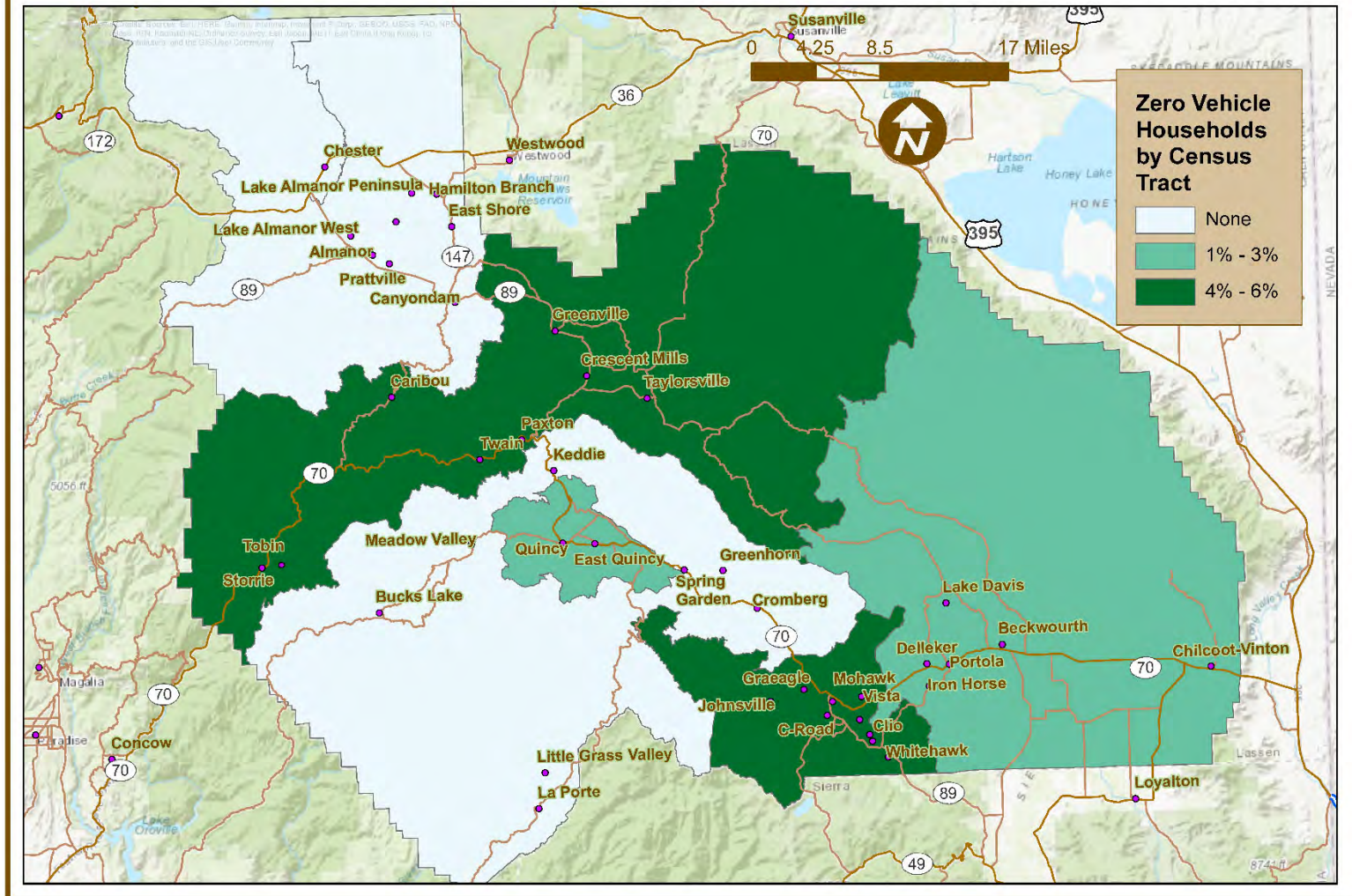


Figure 5
Persons with Disabilities



Figure 6
Zero Vehicle Households



Summary of Plumas County Transit Dependent Populations

Overall, the most populated areas of Plumas County are also where the largest numbers of transit dependent persons live. Census Tracts 1 (East Quincy/Quincy) and 3 (Portola/Chilcoot-Vinton) are home to the greatest number of youths, seniors, low-income persons, and disabled persons. These data points are not surprising as there are thousands more people who live in Census Tracts 1 and 3 compared to any of the other census tracts in Plumas County. PTS currently runs three routes that are focused on serving these population centers: the Quincy Local and Quincy Local Evening Routes, and the East County Route. Although this demographic review discusses statistics at the census tract level, it can also be presumed that there are a significant number of transit dependent individuals living in the second most populated community in Plumas County, Chester. Chester is currently served by the North County Route.

In 2021, the greatest concentration of transit dependent persons lived in Census Tracts 2.01 (Blairsden/Clio/Graegle), 5.02 (East Shore/Lake Almanor), and 4 (Greenville/Feather River Canyon). Even though there are less overall transit dependent individuals in these areas, the transit dependent population comprises a more significant portion of the population in these census tracts. Currently, PTS offers the East County Route, which serves Graegle and Blairsden (upon request), and the North County Route, which passes through Greenville and then goes along the east side of Lake Almanor by the communities in Census Tract 5.02. There are currently no transit routes serving the communities in the Feather River Canyon or in the western portion of Plumas County. However, as noted previously in the text, the Dixie Fire destroyed a good portion of the homes in Greenville, and it is unknown if and how the town will be rebuilt. There is also no data indicating where former Greenville residents have moved to, but anecdotal evidence suggests many moved to Taylorsville, which lies within the same Census Tract, and Quincy/East Quincy.

Population Projections

In order to adequately plan for future transit needs within a community, it is important to gain insight from population models and forecasted trends. For instance, as the population ages, there may be a greater need for demand response or ADA paratransit services. The California Department of Finance uses models to project the population for the state, separated by age group. Table 2 presents the population projections for Plumas County broken down by age group through 2030, as estimated by the California Department of Finance, and highlights are described below:

- Total population is estimated to increase (3.4 percent) between 2020 and 2025. The overall population is then expected to decrease by 1.9 percent between 2025 and 2030, resulting in only a slight net increase from 2020 to 2030 (1 percent).
- Between 2020 and 2025, the youth population of Plumas County is expected to increase slightly (0.9 percent). This increase is expected to continue but at a slower pace in future years, with a 0.6 percent increase projected between 2025 and 2030.
- The adult population between the ages of 50 to 64 significantly decreased between 2015 and 2020 and will continue to decrease by 19.3 percent between 2020 and 2025. This group will decrease in size by another 17.9 percent between 2025 and 2030.

Table 2: Plumas County Population Projections by Age

	Age in Years								Total Population
	0 - 4	5 - 19	20 - 34	35 - 49	50 - 64	65 - 74	75 - 84	85+	
2015	730	2,759	2,772	2,498	4,646	2,957	1,393	470	18,225
2020	810	2,583	2,999	2,365	3,725	3,267	1,883	614	18,246
2025	858	2,607	3,273	2,568	3,007	3,188	2,486	877	18,864
2030	879	2,623	3,022	2,962	2,470	2,645	2,738	1,162	18,501
% Change 2015-2020	11.0%	-6.4%	8.2%	-5.3%	-19.8%	10.5%	35.2%	30.6%	0.1%
% Change 2020-2025	5.9%	0.9%	9.1%	8.6%	-19.3%	-2.4%	32.0%	42.8%	3.4%
% Change 2025-2030	2.4%	0.6%	-7.7%	15.3%	-17.9%	-17.0%	10.1%	32.5%	-1.9%
Average Annual % Change 2020-2030	0.8%	0.2%	0.1%	2.3%	-4.0%	-2.1%	3.8%	6.6%	0.1%
<i>Source: California Department of Finance, 2020</i>									

- The senior population between the ages 65 and 74 grew about 10.5 percent between 2015 and 2020, however the population is expected to decrease about 2.4 percent between 2020 and 2025. This population is expected to continue decreasing at a more rapid pace between 2025 and 2030 (-17 percent).
- Seniors between the ages of 75 and 84 grew at the greatest rate over the past five years (35.2 percent). This growth is expected to continue, with a 32 percent growth between 2020 and 2025. The growth of this age group is likely due to the aging of the Baby Boomer generation.
- Finally, the senior population ages 85 and above grew by 30.6 percent over the past five years. This age group is expected to significantly grow in the coming years, with 42.8 percent growth predicted between 2020 and 2025. Growth in this category is expected to continue at a slightly more moderate pace of 32.5 percent in the five years following. This is also the age group that is most likely to become transit dependent in the next five years.

Overall, the projected population increases for adults ages 75 years and older indicate that the need for transit services, particularly demand response services and access to medical appointments, will increase due to the overall aging of the Plumas County population. This group is forecast to increase by 56 percent between 2020 and 2030.

EMPLOYMENT AND ECONOMY

According to the 2019 ACS, Plumas County's unemployment rate was 3 percent. This was lower than the statewide rate of 5.1 percent in 2019, and comparable to the national unemployment rate of 2.9 percent.

Plumas County's largest employers are shown in Table 3. Quincy is home to most of the County's large employers, including the County of Plumas, Sierra Pacific Industries, and Collins Co., all of which have well

over 100 employees. Other large employment centers are in Portola, Chester, and Blairsden. Educational institutions and hospitality companies are some of the more common large employers in the County.

Table 3: Plumas County Major Employers		
Company	Location	# Of Employees
Plumas County	Quincy, CA	500-999
Collins Co.	Chester, CA	100-249
Eastern Plumas District Hospital	Portola, CA	100-249
Environmental Alternatives	Quincy, CA	100-249
Plumas Bank	Chester, CA	100-249
Seneca Healthcare District	Chester, CA	100-249
Sierra Pacific Industries	Quincy, CA	100-249
USDA Forest Service	Chester, Quincy, Blairsden, CA	100-249
C Roy Carmichael Elementary	Portola, CA	50-99
Nakoma Golf Resort	Clio, CA	50-99
Plumas Bank	Quincy, CA	50-99
Plumas District Hospital	Quincy, CA	50-99
Plumas Pines Golf Course	Blairsden, CA	50-99
Safeway	Quincy, CA	50-99
Walton's Grizzly Lodge	Portola, CA	50-99
<i>Source: California Employment Development Department, Labor Market Info, 2021</i>		

COMMUTE PATTERNS AND TRAVEL INFORMATION

Commute Patterns

Understanding commuting patterns is essential to maximizing the effectiveness of transportation services. The US Census maintains the “Longitudinal Employer Household Dataset” which provides detailed data on where people are employed who live in a set area of residences, as well as data on the location of residences of a set area’s employees. This information provides context for how many people are commuting within, into, and out of Plumas County. Table 4 presents commute pattern data for 2019 at the county and city/town level. The top portion of the table contains data regarding where those who work in Plumas County live, while the lower portion of the table contains data about where those who live in Plumas County work. For this analysis, if less than 1 percent of workers either lived or worked in a city/town, that location was included as “All other locations.”

Remote workers are not differentiated in this data set, therefore there are some data points that seem to be outliers, but which are likely to describe workers who telecommute most of the time. For example, the 114 Plumas County residents working in San Francisco are likely working from home all or most of the time.

Table 4: Plumas County Local and Regional Commute Patterns, 2019

* **Bold** indicates Plumas County or place within Plumas County

Where Persons Employed In Plumas County Commute From

Counties	# of Persons	% of Total	Cities/Towns	# of Persons	% of Total
Plumas County	3,401	63.1%	East Quincy	583	10.8%
Washoe (NV)	296	5.5%	Quincy	435	8.1%
Butte	267	5.0%	Portola	367	6.8%
Lassen	209	3.9%	Chester	224	4.2%
Tehama	160	3.0%	Greenville	197	3.7%
Shasta	121	2.2%	Delleker	125	2.3%
Nevada	99	1.8%	Chico	123	2.3%
Placer	91	1.7%	Reno	123	2.3%
Sacramento	86	1.6%	Susanville	116	2.2%
Sierra	82	1.5%	Hamilton Branch	81	1.5%
All other locations	574	10.7%	Chilcoot-Vinton	77	1.4%
			Beckwourth	72	1.3%
			Lake Almanor Country Club	67	1.2%
			Meadow Valley	64	1.2%
			Red Bluff	61	1.1%
			Redding	55	1.0%
			Iron Horse	49	0.9%
			All other locations	2,567	47.7%
Total Number of Workers	5,386		Total Number of Workers	5,386	

Where Plumas County Residents Work and Commute to

Counties	# of	% of	Cities and Towns	# of	% of
Plumas	3,401	52.5%	East Quincy	773	11.9%
Washoe (NV)	397	6.1%	Quincy	727	11.2%
Sacramento	331	5.1%	Chester	451	7.0%
Placer	247	3.8%	Portola	371	5.7%
Butte	210	3.2%	Reno (NV)	273	4.2%
Lassen	208	3.2%	Greenville	188	2.9%
Santa Clara	135	2.1%	Sacramento	149	2.3%
Alameda	127	2.0%	Susanville	137	2.1%
San Francisco	114	1.8%	Chico	119	1.8%
Nevada	96	1.5%	Lake Almanor Peninsula	119	1.8%
All other locations	1,211	18.7%	San Francisco	114	1.8%
			Sparks (NV)	96	1.5%
			Delleker	94	3.2%
			San Jose	64	2.1%
			Roseville	60	0.9%
			Beckwourth	48	0.7%
			Yuba City	46	0.7%
			Truckee	44	0.7%
			All other locations	2,604	40.2%
Total Number of Workers	6,477		Total Number of Workers	6,477	

Notes: Cities in bold text are within Plumas County.

Source: US Census Bureau LEHD Database, 2019

Where Plumas County Workers Live

Over 63 percent (3,401) of the 5,386 jobs in Plumas County are held by Plumas County residents. A significant number of workers commute to Plumas County from residences in Washoe County, Nevada, (5.5 percent) and Butte County (5 percent). Also, 3.9 percent of workers (209 people) in the county commute from nearby Lassen County. Data by Census Place shows that 10.8 percent of Plumas County workers live in East Quincy, 8.1 percent live in Quincy, and 6.8 percent live in Portola. The most popular cities/towns for workers to live in outside of Plumas County are Chico (2.3 percent), Reno (2.3 percent), and Susanville (2.2 percent).

Where Plumas County Residents Work

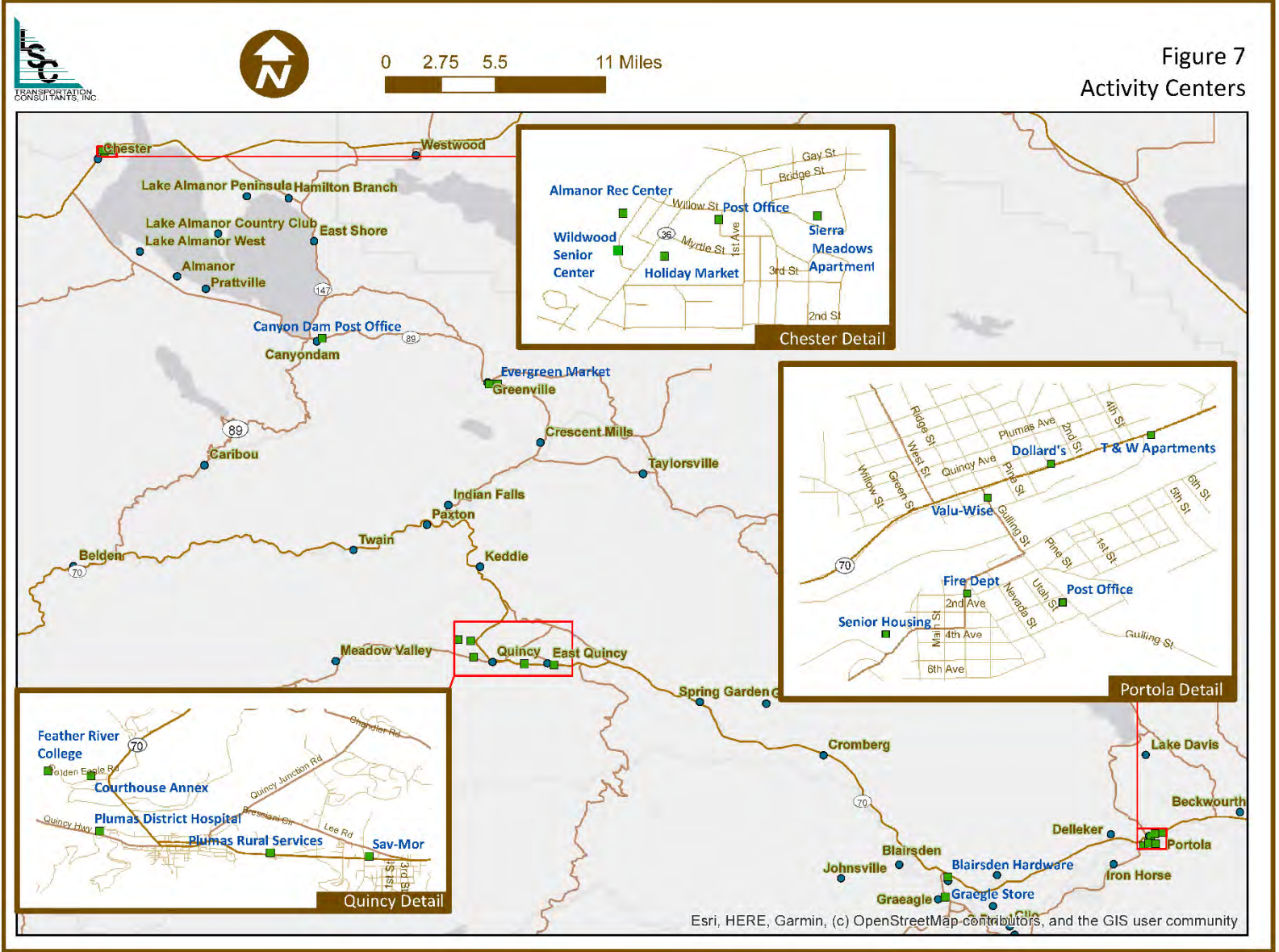
Just over half of employed Plumas County residents, or 3,401 workers, also work in Plumas County. Comparatively, only 6.1 percent of Plumas County residents (397 workers) commute out of county to work in Washoe County, Nevada, the next most likely county for residents to be employed. East Quincy and Quincy are the most common employment locations by Census Place for Plumas County residents, with 11.9 and 11.2 percent of residents employed in these communities, respectively. Approximately 7 percent of county residents work in Chester, and another 5.7 percent in Portola. The most common cities/towns for county residents to commute to outside of Plumas County are both in Washoe County: Reno (4.2 percent) and Sparks (1.5 percent).

Means of Transportation to Work

Given Plumas County's rural nature, it is not surprising that the majority of working residents (16 years or older) drive alone to work. Over three quarters (77.2 percent) of working residents reported in the 2019 ACS that they drive alone to work. Carpooling was the second most likely transportation method used by commuters, with 9.8 percent of Plumas County workers reporting that they carpool. Slightly less than 5 percent (4.9) of workers walked to their employment, while 1.2 percent bicycled. A small portion of the working population (0.9 percent) in Plumas County uses public transit to commute to and from their work. Due to the difficulty of serving rural communities with public transit given their dispersed nature, this number is similar to other rural areas throughout California. As remote work opportunities expand, it is important to recognize that 5.8 percent of workers in Plumas County work from home and have no need to commute.

MAJOR ACTIVITY CENTERS

It is important to make sure that transportation services are working effectively and efficiently, moving people where they need to go in a timely manner. For transit services to operate successfully, major transit activity centers in the study area should be identified to determine where transportation services currently operate and where they might be needed. Examples of transit activity centers include schools, grocery stores, medical facilities, parks, and human service organizations. In Plumas County, most of the major transit activity centers are in Quincy, East Quincy, Portola, and Chester, with some other centers dispersed across the less-populated areas of the county. Major activity centers in Plumas County are described below and identified in Figure 7.



Transportation Hubs

Plumas Transit Systems (PTS) does not have a transit center; however, all four fixed routes pass through Quincy. Some stops in Quincy are shared between all four fixed routes, meaning they are locations where passengers can transfer to another bus with relative ease. These stops include Sav-Mor, Relay Station, Court Street at Dame Shirley, Main Street and Post Office, and Feather River College. Another important PTS stop is the Holiday Market in Chester, where passengers can transfer to Lassen Rural Bus to Susanville. Connections to the Lassen Rural Bus can also be made at Hamilton Branch. From Susanville, passengers could access the Sage Stage intercity bus route to Reno. In the past, PTS riders had the opportunity to transfer to Susanville Rancheria Public Transportation in Chester and get transportation services to Redding or Red Bluff. This service has been discontinued indefinitely. Stops that can be accessed from buses heading either direction in Portola include T&W Apartments, Portola Post Office, Senior Housing, and Eastern Plumas Healthcare.

Senior Centers and Facilities

There are no government sponsored senior centers in Plumas County, however there are other important sites frequented by senior adults. The Portola Veteran's Hall is located at 449 West Sierra Street in Portola, and the Quincy Veteran's Hall is at 247 Lawrence Street in Quincy. The Wildwood Senior Apartments in Chester provide senior programming through the Wildwood Senior Center, located at 366 Meadowbrook Loop. The Mohawk Community Resource Center is located at 8989 Highway 89 in Blairsden, and offers computers for use, printing services, meetings spaces, and classes. Plumas County sponsors a Senior Nutrition Program with distribution sites in Chester, Greenville, Portola, and Quincy.

Services for Persons with Disabilities

Plumas Rural Services is a nonprofit located at 711 East Main Street in Quincy. Besides managing operations for PTS, Plumas Rural Services offers many other types of services to improve the well-being and self-sufficiency of residents in Plumas, Lassen, Modoc, and Sierra Counties. Two of these programs are specifically targeted at persons with disabilities: A.L.I.V.E. provides support and training for adults with disabilities, and the Family Empowerment Center provides support to parents and guardians of children with disabilities. Plumas Rural Services also provides In-home Respite Services to caregivers responsible for a loved one with a disability.

Government and Social Services

Plumas County Government offices and facilities are all located in the county seat, Quincy, and are together the largest employer in the county. Issues related to taxes, voting, zoning, building permits, and law can all be addressed at the government offices. The Plumas County Department of Social Services is located at 270 County Hospital Road in Quincy and consists of both Adult Services and Children and Family Services. The Adult Services Branch administers two distinct programs: Adult Protective Services and Public Guardian-Conservator program. Children and Family Services includes Child Protective Services and Foster Care.

The Plumas County Superior Court is located at 520 Main Street, Room 104, in Quincy. The County Clerk's office is located at 520 Main Street, Room 102.

Education Centers

Feather River College is located at 570 Golden Eagle Avenue in Quincy. According to the Vice President of Instruction, the campus resumed offering in-person classes during the 2021-22 school year with very few remote options, so students have been and will continue to be on campus. The campus typically serves approximately 3,000 students over the course of a year, many of which attend part-time.

There are combined junior and senior public high schools located at 612 First Street in Chester, 117 Grand Street in Greenville, 6 Quincy Junction Road in Quincy, and 155 Sixth Avenue in Portola. There is also a public elementary school in each of these four towns. The Plumas Christian School, which teaches students in grades kindergarten through 6th grade, is located in Quincy. The Plumas Charter School, which serves students in kindergarten through 12th grade from both Plumas and other adjacent counties, has learning centers in Quincy, Chester, and Taylorsville.

Medical Centers

There are two major medical providers in Plumas County: Plumas District Hospital and Eastern Plumas Healthcare. Plumas District Hospital's main hospital and health centers are located at 1065 Bucks Lake Road in Quincy, and they also provide the Indian Valley Medical Clinic at 176 Hot Springs Road in Greenville. Eastern Plumas Healthcare also serves the greater community, with 2 medical clinics and a therapy center. Eastern Plumas Healthcare has a medical clinic at 7597 SR 89 in Graeagle, a medical and dental clinic at 480 1st Avenue in Portola, and the Therapy and Wellness Center at 500 1st Avenue in Portola. There is also the Seneca Healthcare District, a critical access hospital located at 130 Brentwood Drive in Chester.

Shopping and Commercial

Downtown Quincy has a variety of stores, restaurants, businesses, and services, including the Plumas Pines Center, a shopping mall, and Safeway. Downtown Portola also has a lively mix of shops and restaurants, most of which are located right along SR 70. There are many other local markets and restaurants distributed throughout the other communities in Plumas County. Many businesses in Plumas County focused on catering to tourists travelling throughout the scenic, more rural areas of the county.

BACKGROUND

In Plumas County, there are several transportation programs and services to help local residents with their mobility needs. Plumas Transit Systems (PTS), operating since 1990, is a public transportation service and offers the only fixed route service for the general county population. One of the original motivations for establishing PTS was to aid social services by transporting clients living in more remote areas of Plumas County to the actual agency offices in the Quincy-area, but the service later grew to serve all county residents. Even though PTS has been around for decades, many social services organizations and groups continue to offer their own transportation services as well, supplementing PTS to ensure Plumas County residents have access to transportation when needed.

PLUMAS TRANSIT SYSTEMS

Administration and Management

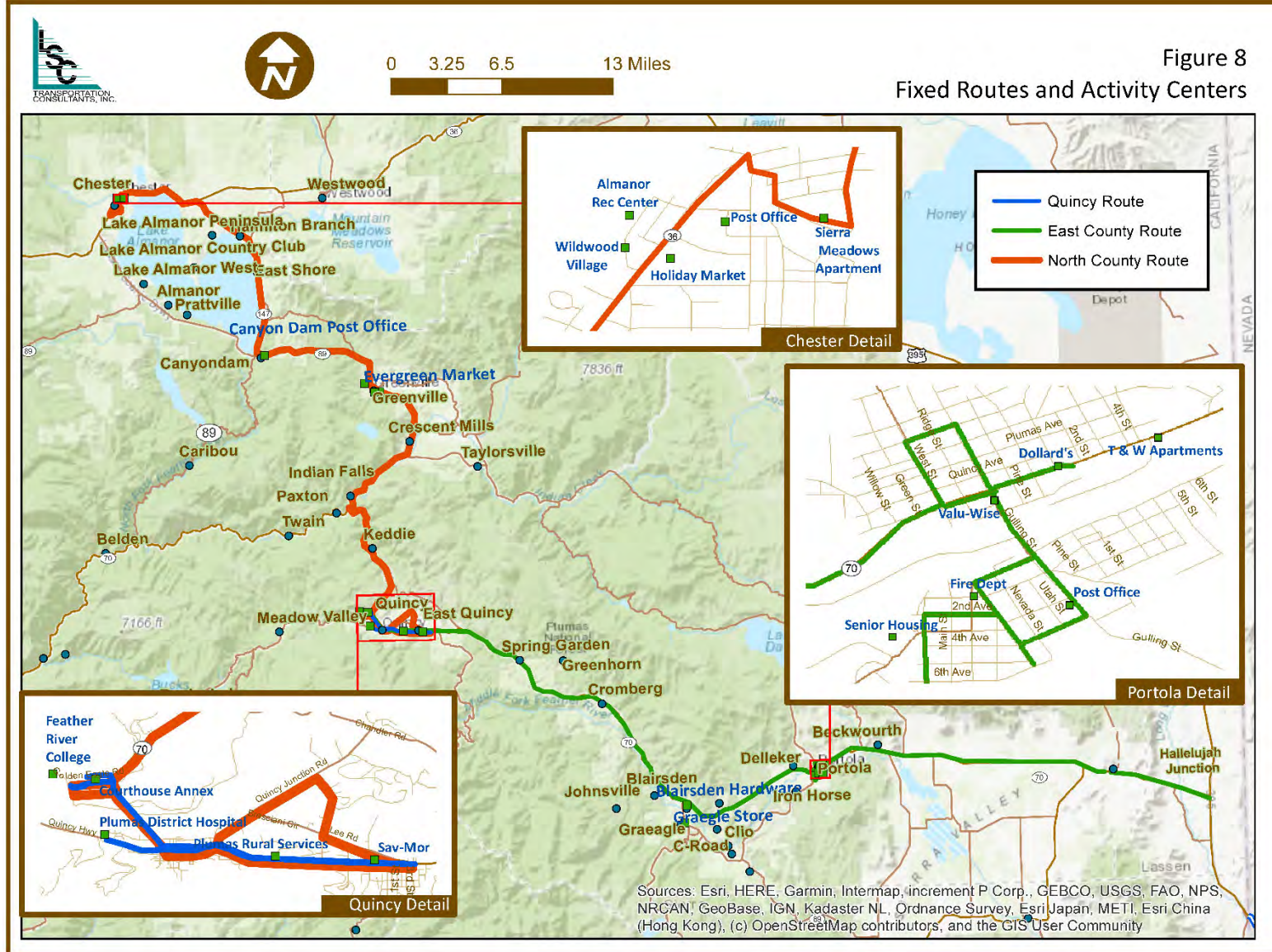
Administrative oversight of the transit services in Plumas County is conducted through County Service Area (CSA) #12, a special service district formed in June 1982, and governed by the Plumas County Board of Supervisors. Prior to July 1, 2010, PTS was operated by the Alliance for Workforce Development, but now the transit service is operated under contract by Plumas Rural Services, a local nonprofit social services agency headquartered in Quincy. Vehicle maintenance is performed by private auto shops.

Route Descriptions

Currently, PTS offers deviated fixed-route service Monday through Friday along four routes: North County (Chester), East County (Portola), Quincy Local, and Quincy Local Evening. Together, these routes serve the major population centers in Plumas County by providing connectivity both within and between these distinct communities. The entire PTS fixed route system is shown in Figure 8 in reference to the previously mentioned activity centers. As evidenced in Figure 8, the fixed routes are not entirely distinct from one another as many share stops, specifically in the Quincy-area. Deviations of up to three-quarters of a mile are available for ADA eligible passengers with 24-hour advance notice. Passengers can also “flag” the bus along the fixed route if it is a safe location to stop.

North County Route: Chester – Greenville – Quincy

Southbound service from Chester to Quincy begins at 6:05 AM and ends at 8:10 PM, with two runs in the morning and one in the evening. There is an additional afternoon run that goes from Greenville to Quincy. Northbound service begins at 7:16 AM in Quincy and ends at 6:50 PM in Chester, but when Feather River College (FRC) is in session there is an additional evening bus that runs from Quincy to Greenville that ends service at 9:50 PM. Overall, when FRC is in session there are three runs northbound to Chester daily, and two runs to Greenville. Some of the runs do not include service to each bus stop.



East County Route: Portola – Graeagle – Quincy

Westbound service from Portola to Quincy begins at 6:20 AM in Portola and ends at 4:27 PM in Quincy. There are two westbound runs in the morning and one in the afternoon. On Mondays, Wednesdays, and Fridays, the second two westbound runs start in Hallelujah Junction and end in Quincy. Service in the opposite direction begins at 9:09 AM in Quincy and ends at 9:15 PM in Portola. There are four eastbound runs per day; on Mondays, Wednesdays, and Fridays the first two runs go all the way to Hallelujah Junction. The nighttime run ends at 9:15 PM in Portola when FRC is out of session and 9:56 PM when FRC is in session. The East County route service to and from Hallelujah Junction allows passengers to transfer to Modoc County's Sage Stage transit system, which in turn provides service to Reno, Nevada.

Quincy Local:

The Quincy Local bus makes a loop through Quincy, with service beginning at 7:10 AM at Sav-Mor and then ending at 5:08 PM at Highway 70 at Mill Creek Road with roughly hourly headways. The bus completes the whole route ten times per day, five times in the morning and five times in the afternoon.

Quincy Local Evening:

The Quincy Local Evening service is only available when FRC is in session. Service begins at 5:15 PM at Sav-Mor and ends back at Sav-Mor at 8:52 PM. The bus completes the full route six times each evening.

The fixed routes provide the following number of daily runs on each corridor on weekdays (slightly simplified):

- Chester – Greenville – Quincy (SR 89): 3 round trips.
- Greenville – Quincy: 1 round trip in addition to Chester – Greenville – Quincy round trips, plus 1 additional northbound run when FRC is in session.
- Portola – Graeagle – Quincy (SR 70): 3 runs westbound and 4 runs eastbound (the last eastbound run has a different schedule when FRC is in session).
- Hallelujah Junction – Quincy (SR 70): 2 roundtrips.
- Quincy Local: 10 roundtrips.
- Quincy Local Evening: 6 roundtrips (only when FRC is in session).

Connections to Other Regional Transit Services

In the past, Plumas County residents have had the opportunity to ride PTS into Chester and then transfer to the Susanville Indian Rancheria Transportation Program, which provided service from Plumas County to both the Red Bluff and Redding Transit Centers. From there, other connections could be made to cities such as Chico. Unfortunately, the Susanville Indian Rancheria discontinued their transportation program indefinitely. Therefore, Plumas County residents lost an important intercity transit connection.

PTS passengers can take transit to Susanville by taking the North County route to either Hamilton Branch or the Holiday Market in Chester. There, they are able to connect to the Lassen Rural Bus, a program

provided by the Lassen Transit Service Agency. Plumas County residents can take advantage of the Lassen Rural Bus to get to Susanville and then beyond to Reno by connecting to the Sage Stage, provided by Modoc County. The recent extension of the East County route to Hallelujah Junction also allows passengers to connect to the Sage Stage and travel on to Reno more directly.

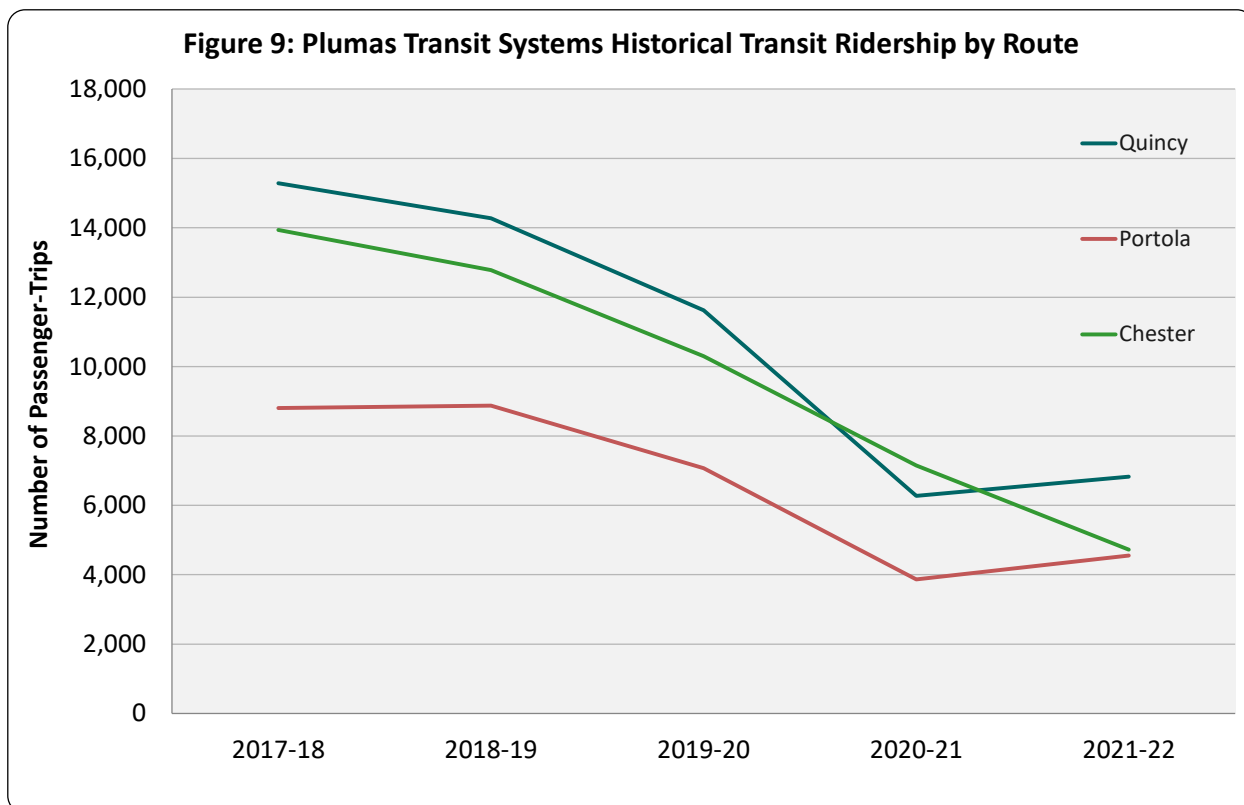
Fares

PTS fares are dependent on the route the passenger is riding and the location they are traveling from. When traveling within the communities of Quincy, Portola or Chester, the one-way fare is \$1 for the general public. Traveling from the farthest outlying community on the North or East County routes (Chester or Portola) all the way to Quincy costs \$4 for the general public. Riding the bus from a community in the middle of the North and East County routes to Quincy costs between \$2 to \$3, depending on the location. Half price fares are available for seniors aged 60 years or older and disabled riders, while children ages 7 or younger ride for free. Monthly passes are also available for purchase, ranging in cost from \$25 for Quincy Local service to \$100 for service on the Chester or Portola routes.

PTS Historical Ridership

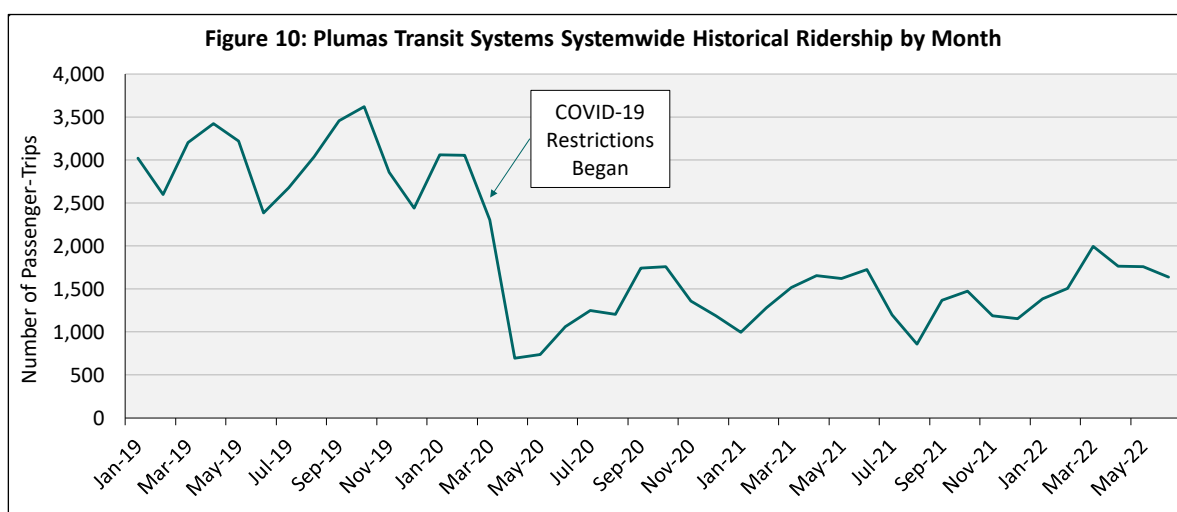
Historical ridership is an important metric to consider when planning for the future of a transit system. As evidenced in Table 5 and Figure 9, all routes experienced their highest ridership levels in FY 2017-18. As with most public transit systems in the US, the COVID-19 pandemic significantly impacted ridership. For instance, from FY 2017-18 to FY 2018-19 PTS experienced a systemwide 5.5 percent decrease in ridership, yet from FY 2018-19 to FY 2021-22 there was a 57.6 percent decrease in ridership. The COVID-19 pandemic prompted public health officials to recommend everyone stay home and socially distance, which resulted in a decreased need for people to leave their homes and use public transit. Overall, the East County route had the smallest decrease in ridership over the past five years with a 48.3 decrease, and the North County route had the greatest decrease at 66.1 percent. The impacts of the 2021 Dixie Fire contributed to a continued decrease in North County ridership during FY 2021-22 while the Quincy and East County routes saw a slight rebound in ridership as pandemic restrictions lifted.

Table 5: Plumas Transit Systems Historical Transit Ridership <i>Fiscal Year 2017-18 - 21-22</i>							
	Fiscal Year					Change 2017-18 to 2021-22	
	2017-18	2018-19	2019-20	2020-21	2021-22	#	%
Quincy Local	15,285	14,277	11,624	6,275	6,824	-8,461	-55.4%
Portola/Graeagle/Quincy (East County)	8,810	8,876	7,075	3,870	4,552	-4,258	-48.3%
Chester/Greenville/Quincy (North County)	13,937	12,781	10,301	7,152	4,726	-9,211	-66.1%
Total Systemwide	38,032	35,934	29,000	17,297	16,102	-21,930	-57.7%
<i>Source: PTS Service Workbooks, PTS Ridership Report FY 21-22</i>							



Ridership by Month

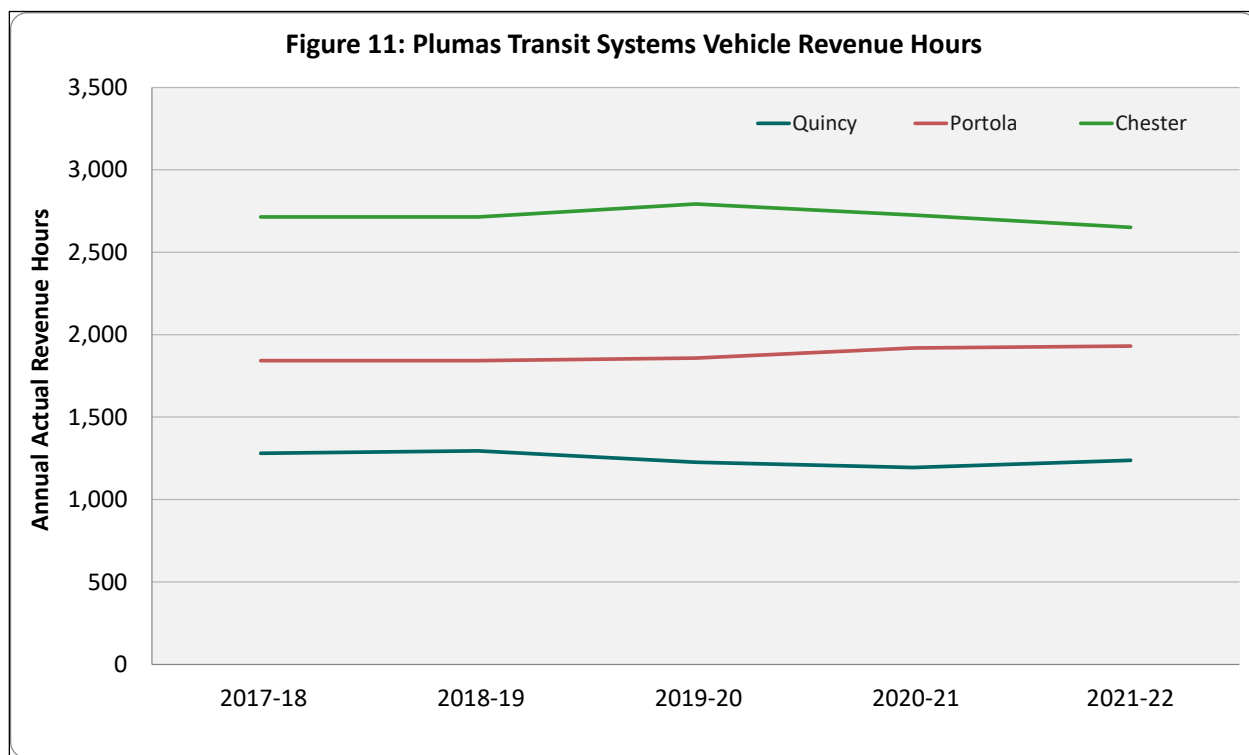
Monthly ridership data for January 2019 through June 2022 is presented in Figure 10. Prior to the beginning of the COVID-19 pandemic, October 2019 had the highest ridership with an average of 3,775 passenger-trips completed in the month. May 2019 (3,502 passenger-trips) and April 2019 (3,442 passenger-trips) were the next two months with the highest ridership levels pre-COVID. Overall, prior to the pandemic, PTS had slightly less ridership in the summer and winter compared to spring and fall. Some of these seasonal fluctuations may have been due to students; ridership was higher during the seasons where students are in school and lower in the seasons when many students are on vacation.

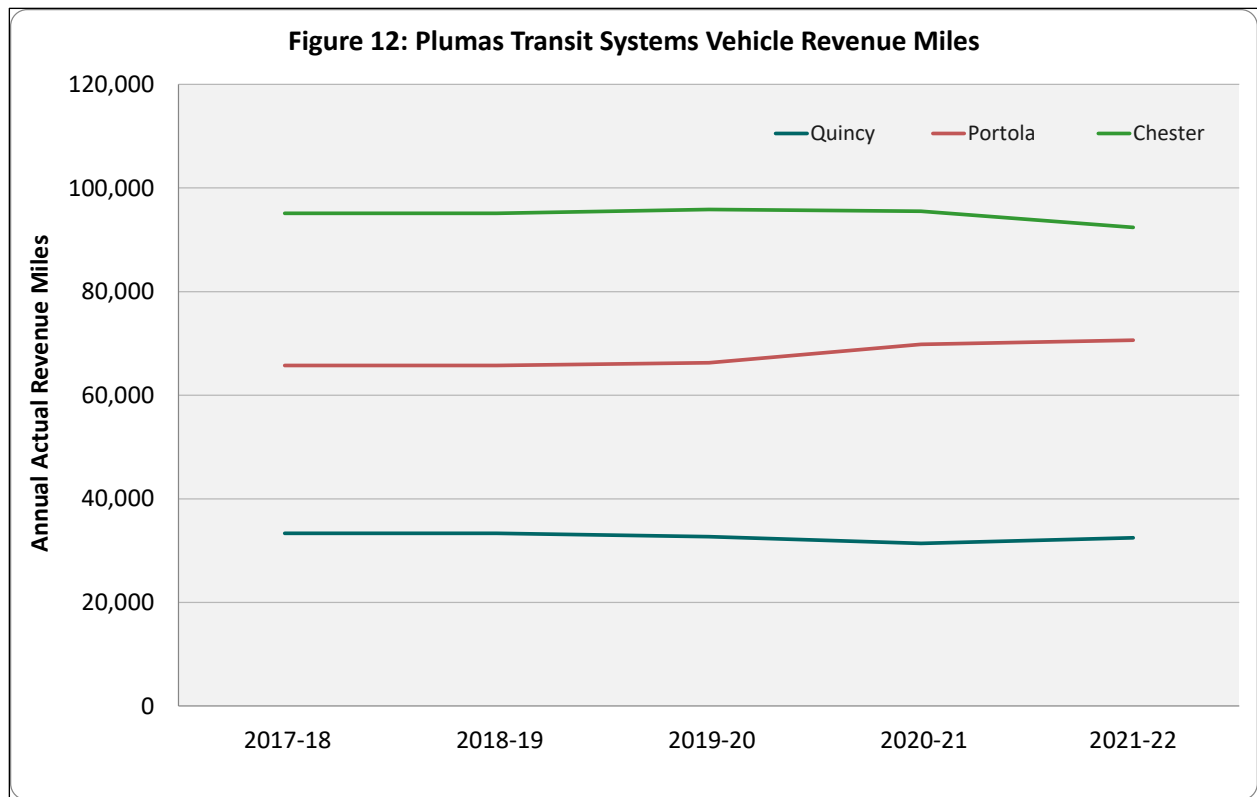


As shown in Figure 10, ridership significantly decreased at the beginning of the COVID-19 pandemic in March 2020. Out of all the months considered, the month with the lowest ridership levels was April 2020 (694 passenger-trips), as this was when there were the most restrictions and closures in places to help curb the spread of COVID-19. August 2021 had the second least number of passenger-trips (861) completed due to impacts of the Dixie Fire on PTS and the Plumas County community.

Historical Service Levels

PTS annual service levels, as measured by vehicle revenue hours and vehicle revenue miles, have stayed very consistent from FY 2017-18 to FY 2021-22. As shown in Figures 11 and 12, there have been no drastic changes to service levels for any of the fixed routes despite declining ridership, the COVID-19 pandemic, and the Dixie Fire. From FY 2017-18 to FY 2021-22, across the whole transit system there was no measurable decrease in revenue hours and a 17 percent increase in revenue miles. The Portola route saw slight increases in service levels over the five years considered (5 percent increase in revenue hours and 7 percent increase in revenue miles). Both the Quincy and Chester routes saw slight decreases in service levels due to impacts of the COVID-19 pandemic on the Feather River College schedule and the Dixie Fire.





Total Ridership by Community

According to data from June 2021, a little over 40 percent of the system’s ridership is associated with passengers traveling to or from Chester, followed by another 34 percent of passengers traveling in Quincy and 23 percent in Portola. This indicates that PTS is effectively enhancing the mobility of residents across Plumas County for the major communities, both within their community and between communities.

Boardings and Alightings by Stop

To determine stops with high levels of passenger activity, bus drivers recorded boardings and alightings as they completed their daily routes during April 2022. Note that not every run was surveyed in a day and some runs were surveyed multiple times over the course of a few days. Therefore, average boardings by run are shown in Table 6.

Some stops in the Quincy-area are popular among passengers riding different fixed routes; for instance, the stop at SR 70 and South Lindan Ave accounted for 50 percent of surveyed boardings on the Quincy Evening route, 15 percent of boardings on the Portola route, and 7 percent of boardings on the Quincy Local route. Popular Quincy Local route stops included the Sav-Mor and SR 70 at Quincy Junction Road while active stops along the Quincy Evening route were SR 70 at South Lindan Ave and Valley Heights. Portola passengers frequently used the stops at Highway 70 and Mill Creek Road, Court Street at Dame Shirley, and the Graeagle Store, among others. The most popular stops among Chester route passengers were those at SR 89 and Carter Street, Sav-Mor, and Wolf Creek and Higbie.

Table 6: Top Boardings and Alightings by Stop

Average Per Run				% of Surveyed Boardings on	Average Per Run				% of Surveyed Boardings on
Bus Stops	On	Off	Route	Bus Stops	On	Off	Route		
QUINCY LOCAL (19 Runs Surveyed)				QUINCY EVENING (12 Runs Surveyed)					
Sav-Mor	1.3	0.1	32%	Highway 70 @ South Lindan Avenue	0.2	0.0	50%		
Highway 70 @ Quincy Junction Road	0.6	0.5	16%	Main Street @ Post Office	0.1	0.0	25%		
Feather River College	0.3	0.1	8%	Highway 70 @ Quincy Junction Road	0.1	0.0	25%		
Main Street @ Post Office	0.3	0.2	8%	Sav-Mor	0.0	0.0	0%		
PRS - 586 Jackson Street	0.3	0.7	7%	Relay Station	0.0	0.0	0%		
Highway 70 @ S. Lindan Avenue	0.3	0.2	7%	Lawrence Street @ Railway Avenue	0.0	0.0	0%		
Athletic Center	0.2	0.1	5%	Athletic Center	0.0	0.1	0%		
Courthouse Annex	0.2	0.6	4%	Feather River College	0.0	0.0	0%		
Lawrence Street @ Post Office	0.1	0.2	3%	Court St @ Dame Shirley	0.0	0.0	0%		
Evergreen Trailer Park	0.1	0.0	3%	Valley Heights	0.0	0.2	0%		
Plumas District Hospital	0.1	0.1	3%	Mill Street	0.0	0.1	0%		
Court Street @ Dame Shirley	0.1	0.1	1%						
EAST COUNTY (6 Runs Surveyed)				NORTH COUNTY (18 Runs Surveyed)					
Highway 70 @ Mill Creek Road	1.5	0.3	23%	Sav-Mor	0.7	0.2	22%		
Highway 70 @ S. Lindan Avenue	1.0	0.0	15%	Wolf Creek @ Higbie	0.4	0.3	15%		
Court Street @ Dame Shirley	0.8	0.0	12%	Highway 89 @ Carter Street	0.4	0.6	15%		
Sierra Energy	0.3	0.2	8%	Lawrence @ Railway	0.5	0.0	9%		
Spring Garden/Greenhorn Ranch Road	1.0	0.0	8%	Sheriff Sub-Station	0.2	0.2	5%		
Graeagle Store	0.3	0.3	8%	Taylorsville "T"	0.2	0.2	5%		
Feather River College	0.3	0.0	8%	Courthouse Annex	0.2	0.5	5%		
Main Street @ Post Office	0.5	0.0	8%	Plumas Pines/ Safeway	0.2	0.2	5%		
Portola Post Office	0.0	0.5	0%	Canyon Dam/Grocery Store	0.3	0.0	4%		
Commercial Street at S. Gulling Street	0.0	0.5	0%	Highway 89 @ Evergreen Market	0.1	0.1	4%		
Highway 70 @ Delleker Road	0.0	0.5	0%	Feather River College	0.1	0.1	4%		
Highway 70 @ Quincy Junction Road	0.0	2.0	0%	Main Street @ Post Office	0.1	0.1	2%		
Spring Garden/Frontage Road	0.0	1.0	0%	PRS - 586 Jackson Street	0.0	0.5	0%		

Source: LSC. Based on limited runs in April, 2022

Source: LSC. Based on limited runs in April, 2022

In FY 2020-21 PTS made 423 ADA deviations off the fixed route. PTS does not track the location of the deviations, and no substantial data related to ADA deviations was collected by drivers when they were recording boarding and alighting data. Therefore, there is not much evidence available to indicate common locations where ADA deviations are being requested.

On-Time Performance by Stop

During April 2022, PTS bus drivers also recorded the time the bus arrived at each stop and then subsequently departed. The time data collected by the bus drivers was compared to the official PTS route schedules to determine on-time performance. For each stop, the difference between the scheduled versus actual departure time was calculated. All runs with recorded data were analyzed to determine the average difference between actual departure times from each stop versus the PTS schedule.

Based on the limited data collected, the routes with the best on-time performance were the East County and Quincy Evening Routes (Table 7). For these routes, the bus departed from most stops within one minute of the scheduled departure time. The Quincy Local route saw slightly worse on-time performance, with the bus leaving each stop 1 to 5 minutes later than scheduled. The North County route had the worst on-time performance by far, with performance declining throughout the route. For instance, the

southbound North County buses departed the Sheriff Sub-Station stop an average of 5.5 minutes late, but then went on to depart Feather River College on average over 16 minutes late.

Table 7: On-time Performance Data for Select Stops			
		Earlier than 1 minute	Late by 1 to 5 minutes
		Early by 1 minute or less	Late by 5 to 10 minutes
		Late by 1 minute or less	Late by more than 10 minutes
Bus Stop	Average Difference Between Scheduled vs Actual Departure Times (Minutes)	Bus Stops	Average Difference Between Scheduled vs Actual Departure Times (Minutes)
QUINCY LOCAL (19 Runs)		QUINCY EVENING (12 Runs)	
Sav-Mor	1.6	Sav-Mor	0.3
Relay Station	2.1	Relay Station	0.8
Highway 70 @ Quincy Junction Road	3.1	Highway 70 @ Quincy Junction Road	0.2
Athletic Center	2.9	Lawrence Street @ Railway Avenue	0.6
Evergreen Trailer Park	4.3	Athletic Center	0.4
Courthouse Annex	3.2	Feather River College	0.3
Feather River College	3.2	Court St @ Dame Shirley	0.5
Plumas District Hospital	3.3	Main Street @ Post Office	0.4
PRS - 586 Jackson Street	3.3	Highway 70 @ South Lindan Avenue	0.6
Court Street @ Dame Shirley	4.8	Valley Heights	0.7
Main Street @ Post Office	4.3		
Highway 70 @ S. Lindan Avenue	4.6		
EAST COUNTY - Eastbound (4 Runs)		NORTH COUNTY - Northbound (10 Runs)	
Sierra Energy	0.3	Marie @ Lorraine	-11.0
Fourth and California	0.0	Canyon Dam/Post Office	3.5
Commercial Street at S. Gulling Street	0.3	Wolf Creek @ Higbie	-0.5
Highway 70 @ Delleker Road	0.3	Sheriff Sub-Station	1.7
Gullin Street @ Value-wise	0.0	Highway 89 @ Evergreen Market	1.4
Graegle Store	0.5	Highway 89 @ Carter Street	3.8
West Street @ Spruce Street	-0.5	Taylorsville "T"	4.3
Feather River College	0.8	Evergreen Trailer Park	9.9
Highway 70 @ Resse Street	0.3	Feather River College	4.1
Highway 70 @ Mill Creek Road	0.3	Courthouse Annex	5.5
Court Street @ Dame Shirley	0.3	Lawrence @ Railway	1.7
Main Street @ Post Office	0.3	Plumas Pines/ Safeway	2.1
Highway 70 @ S. Lindan Avenue	0.5	Sav-Mor	2.4
EAST COUNTY- Westbound (2 Runs)		NORTH COUNTY - Southbound (8 Runs)	
Sierra Energy	0.0	Marie @ Lorraine	0.5
Fourth and California	0.0	Holiday Market	3.0
Commercial Street at S. Gulling Street	0.0	Wolf Creek @ Higbie	2.8
Highway 70 @ Delleker Road	0.0	Sierra Meadows	8.7
Lawrence Street @ Railway Avenue	0.0	Highway 36 @ Melissa	12.7
58421 Highway 70 / Cromberg	0.0	Sheriff Sub-Station	5.5
Highway 70 @ Quincy Junction Road	0.0	Highway 89 @ Evergreen Market	4.9
Feather River College	-1.0	Highway 89 @ Carter Street	5.4
Senior Housing	1.0	Taylorsville "T"	2.6
Park & Ride	0.0	Courthouse Annex	7.3
Highway 70 @ Post Office	0.0	Feather River College	16.8
Spring Garden/Greenhorn Ranch Road	1.0	Plumas Pines/ Safeway	11.3
Portola Post Office	0.0	Sav-Mor	6.0
Source: LSC. Based on limited runs in April, 2022			

Plumas Transit Systems Financial Analysis

PTS financial characteristics were reviewed for FY 2020-21. Details of this analysis are shown in Table 8 and discussed below.

Table 8: PTS Operating Revenue Sources		
Source	FY 2020-21	
	Funding Amount	% of Total
Local Funding		
Passenger Fares (Tickets and Sales)	\$50,000	4.1%
Feather River College	\$30,000	2.5%
Far Northern Regional Center	\$11,000	0.9%
Subtotal	\$91,000	7.5%
State Funding		
Transportation Development Act (TDA) State Transit Assistance (STA)	\$180,000	14.8%
Transportation Development Act (TDA) Local Transportation Funds (LTF)	\$205,968	17.0%
State of Good Repair (SGR)	\$15,000	1.2%
Subtotal	\$400,968	33.0%
Federal Transit Association Funding		
FTA 5311	\$121,118	10.0%
FTA 5311 (f)	\$271,819	22.4%
CARES Act I 5311	\$126,944	10.5%
CARES Act I 5311 (f)	\$70,000	5.8%
CARES Act II 5311	\$132,753	10.9%
Subtotal	\$722,634	59.5%
Total Operating Revenues	\$1,214,602	100.0%
Source: FY 2020-21 Plumas Transit Expense and Revenue Monthly Report, FY 22/23 Draft Transit Budget		

REVENUES

Operating revenues for PTS totaled \$1,214,602 in Fiscal Year 2020-21, as shown in Table 8. The highest contributing source was Federal Transit Authority (FTA) 5311(f) Intercity Transit funds received to support eligible East County and North County runs. This grant source represented 23 percent of the FY 2020-21 operating revenues. Another major funding source was Transportation Development Act (TDA) Local Transportation Funds (LTF), which represented 17 percent of revenues in FY 2020-21. Other state revenue sources include TDA State Transit Assistance (STA) and State of Good Repair funds. Local funding is derived from passenger fares (\$50,000) and contracts with Feather River College and the Far Northern Regional Center for providing transportation services to their respective clients. Total fare revenue (including the fare contracts with the college and regional center) was \$91,000 in FY 2020-21, or 6.9

percent of total funding. In FY 2020-21, PTS also received funding through the Coronavirus Aid, Relief, and Economic Security (CARES) Acts I and II. Together, the funds received through these Acts made up nearly 28 percent of PTS operating revenues in just FY 2020-21.

Expenses and Cost Allocation Model FY 2020-21

Table 9 displays PTS fiscal information and demonstrates the model for how operating costs were calculated. In Fiscal Year 2020-21, PTS's expenditures for transit totaled \$797,267. Personnel costs were the greatest expenditure, followed by vehicle costs (maintenance, gas, etc.) and administrative expenses.

Table 9: FY 2020-21 Operating/Admin. Cost Model				
Item	Total	Fixed	Vehicle Revenue Hour	Vehicle Revenue Mile
Contractor Costs	\$634,762	\$297,462	\$337,300	\$0
Fuel (Pass-through)	\$79,664	\$0	\$0	\$79,664
Fleet Maintenance (Pass-through)	\$82,842	\$0	\$0	\$82,842
Total Expenses	\$797,267	\$297,462	\$337,300	\$162,505
Unit Quantities			5,840	196,775
Cost per Vehicle Hour			\$57.76	
Cost per Vehicle Mile				\$0.83
Cost per Vehicle Hour + Fixed			\$108.70	
<i>Source: Plumas Transit Exp and Rev Monthly Report FY 20-21</i>				

PTS operating costs were analyzed to assess those factors that impact cost levels. Each cost item in Table 9 is allocated to that quantity (vehicle service hour, vehicle service mile or fixed cost) upon which it is most dependent. Fuel costs, for example, are allocated to vehicle service miles and fixed costs do not change depending on the level of service offered by the transit system. When divided by the total quantity of service budgeted, a cost equation can be developed. For PTS, this equation is:

$$\begin{aligned}
 \text{FY 2020-21 Operating Cost Model} = & \$57.76 \times \text{annual vehicle service hours} + \\
 & \$0.85 \times \text{annual vehicle service miles} + \\
 & \$303,027 \text{ in annual fixed costs}
 \end{aligned}$$

An additional amount of TDA funds is set aside for PCTC administration of the transit system as part of Work Element 604 in the PCTC Overall Work Program. This is a separate amount from the LTF allocation for public transit.

PTS Transit System Performance

Operating Costs by Route

To determine the operating costs for each specific route, the cost model depicted in Table 9 was applied to the total vehicle service hours and miles operated by each route in FY 2020-21. The results of these calculations are shown in Table 10. As seen in both tables, total systemwide allocated operating costs in FY 2020-21 totaled \$797,267. The North County route generated the highest cost of any of the PTS routes (\$375,185), followed by the East County route (\$266,352). The two Quincy routes had substantially lower operating costs, with the Quincy Local route only costing \$109,102 and the Quincy Evening route costing \$46,629 in FY 2020-21. The significant difference in operating costs between the Chester and Portola routes compared to the Quincy Local routes is because the first two mentioned operate at a much greater scale: both the Chester and Portola routes record substantially greater vehicle service hours and miles than the Quincy Local routes.

Table 10: Plumas Transit Systems Operating Characteristics					
<i>Fiscal Year 2020-21</i>					
	Quincy	Quincy Evening	Portola	Chester	Total Systemwide
Vehicle Hours	839	355	1,920	2,726	5,840
Vehicle Miles	21,663	9,750	69,828	95,534	196,775
Passenger-Trips	4,459	1,816	3,870	7,152	18,596
Allocated Operating Costs	\$109,102	\$46,629	\$266,352	\$375,185	\$797,267
Allocated Fare Revenue	\$9,968	\$4,645	\$17,656	\$27,689	\$59,958
Operating Subsidy	\$99,134	\$41,983	\$248,696	\$347,495	\$737,309
Cost per Passenger-Trip	\$24.47	\$25.68	\$68.82	\$52.46	\$42.87
Subsidy per Passenger-Trip	\$22.23	\$23.12	\$64.26	\$48.59	\$39.65
Farebox Return Ratio	9.1%	10.0%	6.6%	7.4%	7.5%
Passenger-Trips per Hour	5.31	5.12	2.02	2.62	3.18
Passenger-Trips per Mile	0.21	0.19	0.06	0.07	0.09
<i>Source: PTS Service Workbooks, 2020</i>					

Fare Revenue by Route

Total fare revenue by route is displayed in Table 10. The trend in PTS fare revenues by route is consistent with the number of passenger-trips recorded on each route; the North County route generated the greatest amount of fare revenues (\$27,689) and the Quincy Evening route generated the smallest amount (\$4,645). The East County route generated \$17,656 in revenues and the Quincy Local route generated \$9,968. Overall, in FY 2020-21 there was \$59,958 of revenues collected systemwide, which includes contracts with both the Far Northern Regional Center and FRC.

Operating Cost per Trip

During FY 2020-21, operating costs per passenger-trip varied between \$24.47 per trip (Quincy) and \$68.82 per trip (Portola). The Quincy and Quincy Evening routes had the lowest costs per passenger-trip at \$24.47 and \$25.68, respectively. The operating costs per passenger-trip for both the Chester and Portola routes in FY 2020-21 were each more than double that of the Quincy and Quincy Evening routes. The systemwide cost per passenger-trip was \$42.87.

Subsidy per Passenger-Trip

The systemwide subsidy per passenger-trip was \$39.65 in FY 2020-21 (Table 10). Much like the operating costs per trip, the Quincy and the Quincy Evening routes had the lowest subsidies per passenger-trips (\$22.23 and \$23.12, respectively). The Portola route had the highest subsidy per passenger-trip at \$64.26.

Passenger-Trips per Hour

As shown in Table 10, 3.18 passenger-trips were completed per hour (the productivity performance measure) across the entire PTS system in FY 2020-21. The Quincy Local route had the greatest number of passenger-trips per hour (5.31), followed by the Quincy Evening route (5.12). The lowest rate of passenger-trips per hour was along the Portola, or East County, route with only 2.02 passenger-trips per hour. A generally accepted industry standard for fixed route systems (prior to COVID) is 10 passenger-trips per hour.

Passenger-Trips per Mile

In FY 2020-21, passenger-trips per mile ranged from 0.06 trips (Portola) to 0.21 trips (Quincy), with the systemwide average being 0.09 passenger-trips per mile. This represents a decrease from FY 2019-20 when systemwide passenger-trips per mile was 0.15. Ridership declines resulting from the COVID-19 pandemic contributed to the overall decrease in this PTS performance metric.

Farebox Ratio

The farebox ratio is defined as the total fare revenues divided by operating costs. The farebox recovery ratio is particularly important as a measurement for meeting Transportation Development Act (TDA) requirements. Table 10 shows that the farebox ratio for all PTS services was calculated to be 7.5 percent in FY 2020-21. This farebox ratio is well below the TDA 10 percent farebox ratio requirement for rural transit operators, however the state has suspended the farebox requirement for FY 2020-21 due to the COVID-19 pandemic. Note that the Fiscal and Compliance Auditor is responsible for verifying and calculating farebox ratios for TDA compliance purposes.

In FY 2020-21, the Quincy Evening route had the highest farebox return ratio at 10 percent, and the Quincy Local route had the second highest farebox return ratio (9.1 percent). The Portola route had the lowest farebox ratio at 6.6 percent.

PTS CAPITAL ASSETS

Vehicles

As of December 2022, the PTS fleet consisted of six active vehicles, which are described in Table 11. The vehicles range in capacity from 16 to 28 passengers and all are wheel-chair accessible. PTS also has seven vehicles which the organization is in the process of either auctioning or are designated back-up vehicles. Three new vehicles were recently purchased in 2022. PTS was awarded funding through the FTA 5339 program to purchase an additional large bus and two smaller buses. These purchases will likely be made in late 2023.

Table 11: PTS Vehicle Fleet								
#	Make	Model	Year	Mileage	Capacity (w/o driver)	Est. Replacement Date		Status
						Year	Miles to replacement	
336/2423	Chevy	Cutaway	2008	399,097	30	2017	Past due	Auction
337/2381	Chevy	Cutaway	2008	363,543	30	2018	Past due	Back-up
338/2431	GMC	Cutaway	2009	377,371	28	2019	Past due	Auction
339/2453	Ford	Cutaway	2008	378,064	16	2017	Past due	Auction
340/2770	Ford	Glaval Type E	2011	371,906	24	2018	Past due	Back-up
341/20444	International	AeroElite 320	2013	246,495	28	2026	103,505	Auction
342/20573	Ford	Glaval Legacy	2015	249,295	28	2029	100,705	Back-up
343/20676	Ford	Cutaway	2018	153,711	16	2027	196,289	Active
344/20677	Ford	Glaval Legacy	2018	124,008	28	2031	225,992	Active
345/-----	Ford	Cutaway	2021	49,618	18	2031	300,382	Active
346/-----	Freightliner	Glaval Type E	2022	2,364	24	2036	347,636	Active
347/-----	Freightliner	Glaval Type E	2022	2,274	24	2036	347,726	Active
348/-----	Freightliner	Glaval Type E	2022	2,420	24	2036	347,580	Active
Source: PTS Service Workbooks, 2020, Transit Performance Report Q2 FY 21/22								
Note: Data is accurate as of December 2022.								

PTS will need to consider the California Air Resources Board (CARB) Innovative Clean Transit Rule requirements for Zero Emission Buses beginning in 2026, which will go into effect during this planning period (2022-27). In partnership with the Lassen County Transportation Commission, the Plumas County Transportation Commission received a Caltrans Sustainable Transportation Planning Grant to conduct an Electric Vehicle Feasibility Study for both counties. This study will serve as the required Bus Rollout Plan for the Innovative Clean Transit Rule for PTS.

Facilities

Improving transit infrastructure bus stops has been identified as a high priority action item in recent transportation plans for Plumas County. In response to these plans, there has been a lot of progress towards improving bus shelters and bus stops. As of 2021, 7 new bus shelters had recently been

completed (all illuminated by solar technology), 4 bus shelters were updated to ADA standards, and 4 bus shelters were recently constructed to have solar illumination.

Overall, within the PTS system, there are a total of 81 bus stops, 12 of which have shelters. Bus shelters are distributed along the various fixed routes. Transit vehicles are stored within the Plumas County Public Works Maintenance Yard in East Quincy. Plumas County recently completed the Centralized Bus Parking and Fueling Facility near the county's Public Works Complex. Plumas Transit Systems offices are currently located at 711 E. Main Street in Quincy.

Plumas County Seniors

Plumas County Seniors Transportation is operated by the Plumas County Public Health Agency. The program is funded in part by TDA funds and primarily provides transportation to/from nutrition sites in Plumas County. With 24-hour advance notice (prior to COVID), Plumas County Seniors provided transportation for shopping trips and medical appointments as far as Reno, Truckee, Chico, Sacramento, and San Francisco. Pre-COVID the agency operated a bus between Chester, Westwood, and Susanville.

Plumas Seniors partners with Plumas Transit to provide a weekly Reno trip available for any age to access the airport, Greyhound, Amtrak, and shopping.

For the period beginning on July 1, 2021, up until March of 2022, Plumas Seniors have given 2,522 rides to doctor's appointments. This is a very small number due to COVID-19 restrictions. The agency is slowly opening back up to shopping and other outings. Staff recently restarted weekly bus service to Reno on Thursdays. Ridership is slowly picking up with around 2 – 8 passengers carried each week. The Reno service is advertised through local on-line media outlets and social media.

Other Transportation Providers

In addition to PTS and Plumas Seniors, Plumas County residents have other transportation services available to them as well. Other transportation providers in Plumas County include the Far Northern Regional Center, Plumas Rural Services, and Plumas County Veteran Services, among others. Some of these services are open to the general public, while others are specifically catered towards the organization's clientele. Relevant information on some of the larger, alternative transportation services is included in this section. Information was sourced from the organizations themselves as well as the recently completed Plumas County Coordinated Public Transit Plan (2021).

Far Northern Regional Center

The Far Northern Regional Center (FNRC) is a resource agency for individuals with developmental disabilities and their families. The FNRC provides services and support, such as respite care and supported employment, to residents of nine counties in Northern California (Butte, Glenn, Lassen, Modoc, Plumas, Tehama, Trinity, Shasta and Siskiyou). As noted in Plumas County's Coordinated Public Transit Plan (2021), the FNRC provides transportation services for approximately 34 clients through an agreement with PTS. These clients are served using the normal PTS schedule. The contract between FNRC and PTS allows the former's clients to ride public transit free of charge. The contract for this service was \$11,000 per year in FY 2020-21 (Table 7).

Feather River College

Feather River College (FRC) provides bus passes for all FRC students through an agreement with PTS, allowing FRC students to ride existing PTS routes free of charge. In FY 2020-21, this contract provided PTS with \$23,611 in revenues (Table 7). FRC students have historically made up a large proportion of PTS ridership, in past years averaging between 50 to 55 percent of total boardings. The Coordinated Public Transit Plan (2021) noted that FRC ridership has experienced a downward trend in recent years, causing FRC to renegotiate their contract with PTS and resulting in decreased revenues for the public transit agency. These lower ridership levels have continued even though students were attending in-person classes throughout the pandemic. It remains to be seen how FRC ridership will change as pandemic conditions ease.

Greenville Rancheria Tribal Health Program

The Greenville Rancheria Tribal Health Program operates medical and dental clinics in Greenville. These clinics resumed operations since the Dixie Fire in the summer of 2021. Medical transport is available to residents in both Plumas and Tehama Counties (Coordinated Plan 2021). Fees vary for non-Native Americans depending on the trip. The Greenville Rancheria Tribal Health Program's fleet consists of 9 vehicles, which includes both SUVs and passenger vans (Coordinated Plan 2021).

Plumas Crisis Intervention and Resource Center

The Plumas Crisis Intervention and Resource Center (PCIRC) is a nonprofit organization providing a 24/7 crisis line, a homeless and housing services program, sexual assault crisis centers, an emergency utility program, computer access, and emergency housing, among other supports. PCIRC will provide transportation to clients if needed for them to get to programs or services affiliated with PCIRC.

Plumas Rural Services – A.L.I.V.E. and C.H.A.T. Programs

As described in Chapter 2 of this report, Plumas Rural Services is a nonprofit organization that offers many services to improve the well-being and self-sufficiency of residents in Plumas, Lassen, Modoc, and Sierra Counties. The A.L.I.V.E. program provides support and training for adults with disabilities and the C.H.A.T program provides counseling to children and teens. Both of these programs offer transportation assistance for getting clients to programs, work, or counseling. Plumas Rural Services coordinates with the FRNC to provide 17 clients with monthly bus passes for PTS. Prior to the pandemic, some Plumas Rural Services clients expressed a desire for public transit service to Reno, Nevada. This transit need can now be met by the new PTS service to Hallelujah Junction, which provides passengers with the opportunity to transfer to Sage Stage and travel onwards to Reno.

Plumas County Department of Social Services

The Plumas County Department of Social Services has their own transportation program and also provides clients with PTS passes if needed. The Department itself has a fleet of cars that are used occasionally to coordinate Child Protection Services (CPS) visits between children and their families. This fleet of cars is also utilized to help get any individual to a pre-scheduled court date. When the Department's own transportation cannot be used, they will provide clients in need of transportation services with PTS bus passes. These passes are given to CPS parents, participants in the CalWORKs

program, and residents who need to attend court. Department staff have PTS day passes on hand to give to clients whenever needed in addition to 6 monthly passes that they are actively providing to parents in the CPS program.

Plumas County Veterans Services

Plumas County Veterans Services operates a van service to get local veterans to medical appointments. As mentioned in the Coordinated Public Transit Plan (2021), this van takes veterans to appointments across the region, specifically making roundtrips to the Veterans Affairs Center in Reno, Nevada, on Tuesdays and Thursdays.

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PASSENGER AND COMMUNITY INPUT

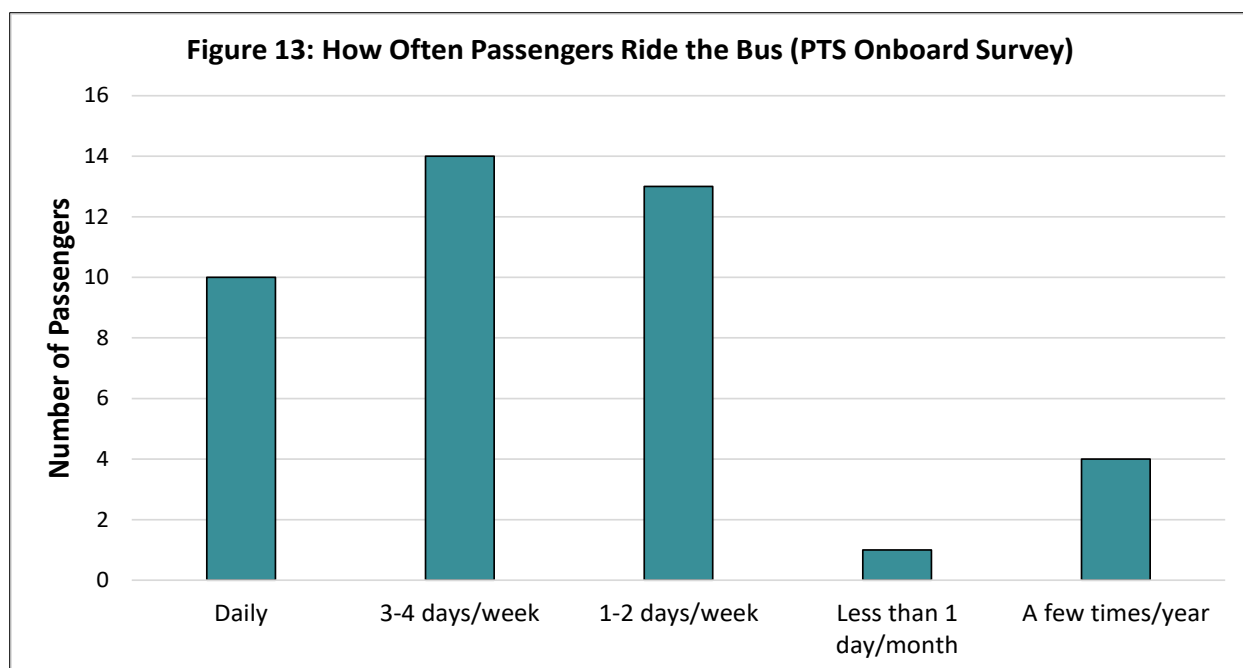
PUBLIC OUTREACH ABOUT TRANSIT USE AND PERCEPTIONS

To gain a better understanding of passenger demographics and transit trip patterns in Plumas County, as well as the greater public's opinions on transit, a three-part public outreach effort was initiated in February 2022. Onboard passenger surveys were made available on both PTS and Plumas Seniors buses, and an online community survey was also made available to the general public.

The onboard survey instruments consisted of a one-page questionnaire in English on one side and Spanish on the reverse side; the PTS survey had 18 questions and the Plumas Seniors survey had 15 questions. These onboard surveys were made available on both PTS and Plumas Seniors buses for passengers to complete by themselves. The online community survey was made available through advertisements in the 20,000 Lives Newsletter, Plumas News, as well as through an email notification sent to 16 stakeholders to be further distributed to their respective networks of contacts. The Quincy Chamber of Commerce also helped publicize the survey. In all, 43 PTS onboard surveys, 1 Plumas Seniors onboard survey, and 50 community surveys were collected. The PTS onboard survey results are provided in Appendix A and community survey results are in Appendix B. Highlights of all three surveys are below.

Passenger Profile (Onboard Surveys)

- Based on the survey answers, it can be concluded that a significant proportion of PTS passengers are “transit dependent.” 88 percent of the PTS respondents reported that they did not have an alternative vehicle available to complete their trip the day of the survey, and 69 percent did not have a driver's license. The only respondent to the Plumas Seniors onboard survey also did not have a driver's license, and when asked how they would have completed their trip without Plumas Seniors, the individual said that they would not have been able to make the trip.
- Although people reported a variety of reasons for why they were riding PTS buses the day they completed the survey, the most common trip purposes were school/college (28 percent) and work (18.6 percent). This reveals that many PTS passengers depend on the bus to get to regular commitments. The Plumas Seniors respondent was traveling for a medical or dental appointment.
- As shown in Figure 13 over 85 percent of passengers who ride PTS buses take advantage of this service multiple times a week: 24 percent ride daily, and 64.3 percent ride 1-4 days per week. Comparatively, the Plumas Seniors respondent only used Plumas Seniors transportation 2-4 days per month.
- Over 50 percent of the respondents to the PTS onboard survey reported that their annual income is either \$20,000 or less, and only 24 percent said that they were employed full time. Almost one third of respondents were students, and 11 percent were retirees.



- Just over 40 percent of passengers were between the ages of 41 to 60 years old, 12 percent were 18 years old or younger, and approximately 14 percent were college-aged (19 to 24 years old). No one over 75 responded to the PTS survey, but the one respondent to the Plumas Seniors survey was over the age of 75.

Respondent Profile (Community Survey)

- Most community survey respondents live in Quincy (42 percent), but many also live in communities not currently served by PTS (Meadow Valley, Twain, Beckwourth).
- A large portion of the community survey respondents have access to and the ability to drive a personal vehicle, suggesting that they are not transit dependent; 88 percent of respondents had a driver's license and 80 percent had a vehicle available.
- Different from the onboard surveys, over half of the respondents to the community survey reported that their annual income is \$50,000 or greater, and 53 percent said that they were employed full time. Only 2 percent of respondents were students, and 26 percent were retirees.
- The respondents to the community survey were generally older than those to the onboard surveys; no one younger than 18 years old participated and only 2 people who were college-aged answered. Almost half of the respondents were 60 years old or older.

Trip Patterns (Onboard Surveys)

- Passengers board PTS buses all along the available routes. From the PTS onboard survey, it was concluded the survey respondents had the strong boarding and alighting activity at the following locations:

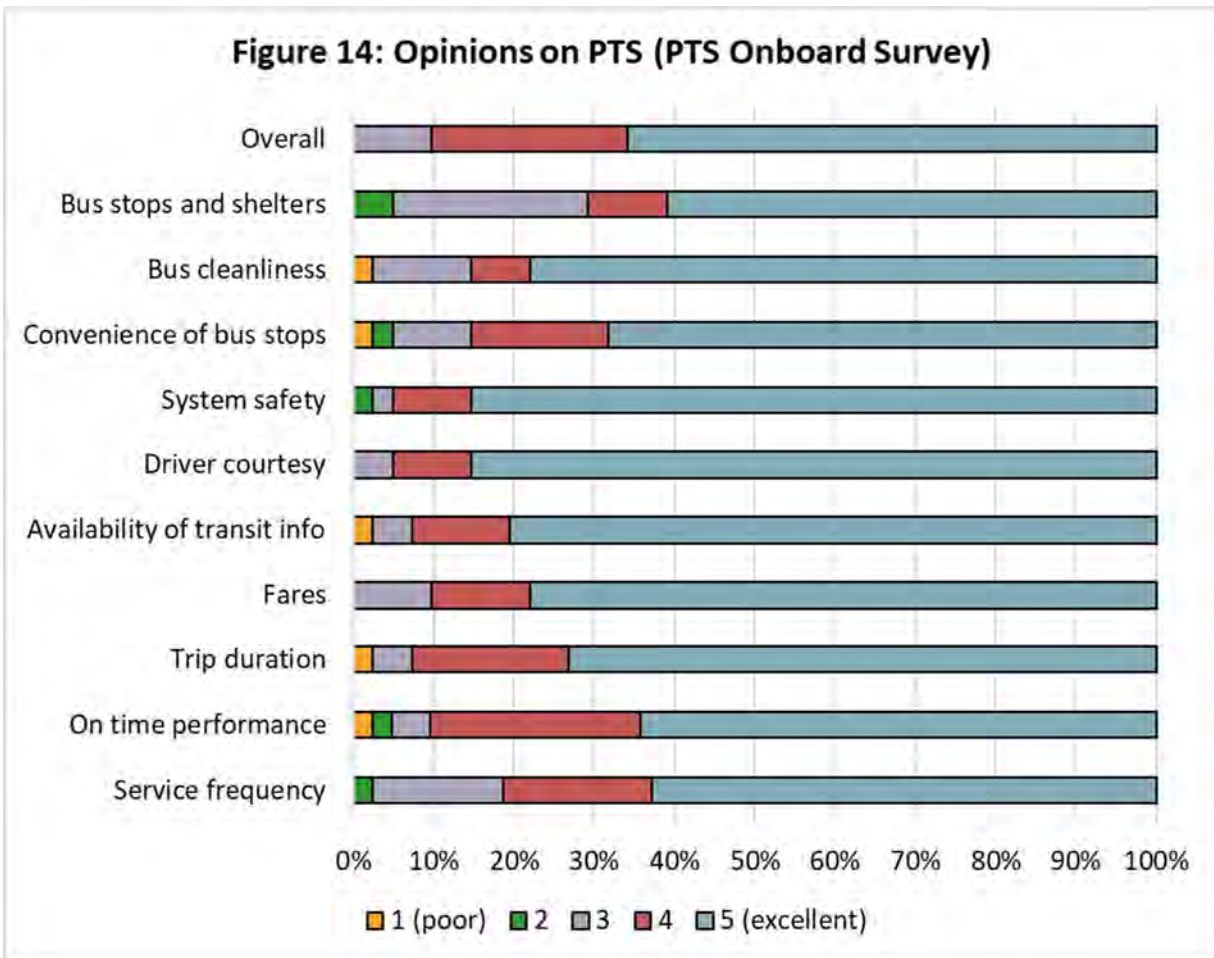
- Safeway (10 percent of boardings and 8 percent of alightings)
- Courthouse Annex (5 percent of boardings and 11 percent of alightings)
- Feather River College (8 percent of boardings and 11 percent of alightings)
- Sav-Mor (8 percent of boardings and 8 percent of alightings)
- The vast majority of PTS passengers get to and from bus stops by walking (91 and 81 percent). Most people walk less than 3 blocks to get to and from bus stops (60.5 and 56 percent).

Travel Patterns (Community Surveys)

- Respondents were asked to identify the communities they travel to for school, banking, groceries, recreation, work, and medical appointments. Quincy was the most popular location for all of these activities. Reno was a popular location for groceries, recreation, and medical appointments.
- The majority of community survey respondents reported that they had not used either PTS or Plumas Seniors transportation services within the last two years (62 percent). Out of those respondents who said that they have used the public transit services, 41 percent ride the bus less than once per month. The most common reason cited for why people don't use public transit frequently is they have their own personal vehicle.
- Of those who had used public transit within the last two years, an almost equal number of individuals reported having used the Quincy Local, North County, East County, and Plumas Seniors services. The Quincy Evening route was the least popular.

Passenger Opinions (Onboard Surveys)

Passengers were asked to rate the various characteristics of the transit system on a scale of 1 (poor) to 5 (excellent). Considering all the responses, passengers generally approve of both PTS and Plumas Seniors services. 88 percent of answers to the PTS survey were either a 4 (good) or 5 (excellent), and the overall service ranked at an average of 4.6 (Figure 14). The highest ranked factors included driver courtesy (4.8) and system safety (4.8). The lowest ranked service characteristics were bus stops and shelters (4.3) and service frequency (4.4). The one respondent to the Plumas Seniors survey ranked every characteristic a 5. and system safety (4.8). The lowest ranked service characteristics were bus stops and shelters (4.3) and service frequency (4.4). The one respondent to the Plumas Seniors survey.



Passenger Opinions (Community Survey)

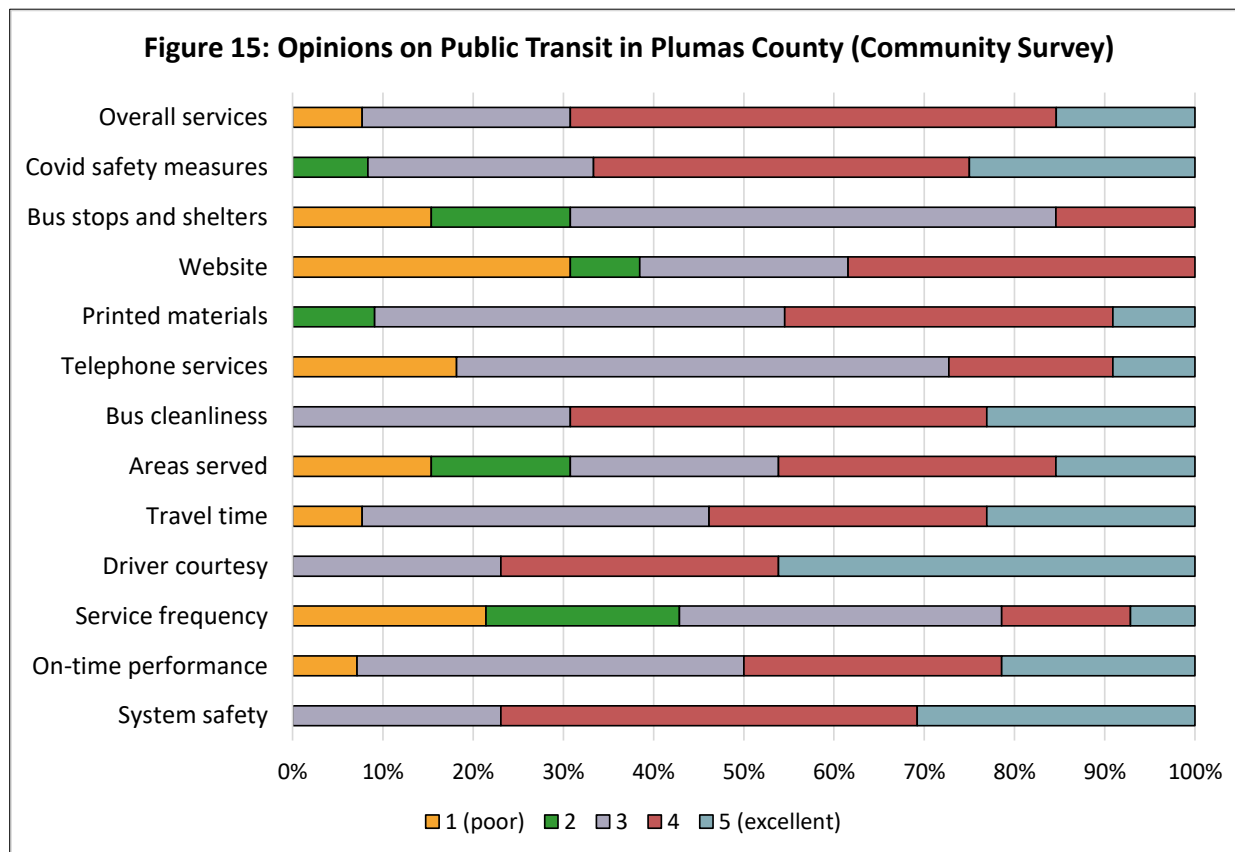
Just like the onboard surveys, the community survey respondents were asked to rate various characteristics of the transit system in Plumas County on a scale of 1 (poor) to 5 (excellent) (Figure 15). Overall, the community survey respondents ranked public transit lower than the passengers (4.1 versus 4.6 in the onboard surveys). However, it is important to note that fully 69 percent of community respondents have a good or excellent opinion of PTS (a 4 or a 5). The community survey respondents also ranked driver courtesy and system safety as the highest two characteristics, and service frequency and bus stops and shelters were the two lowest ranked factors just like the onboard surveys.

Desired Improvements (Onboard Surveys and Community Survey)

PTS passengers were asked to select what improvements they would most like to see on PTS services, and then were provided with specific options. The two most popular improvements among survey respondents were to have Saturday service (62 percent) and to have later or earlier weekday service (34.5 percent). For those who said they would like earlier or later weekday service, most people suggested starting service around 6 AM and ending later than 9 PM.

The community survey respondents who actually use public transit suggested developing a transportation service to get Plumas County residents to Reno and Chico, as well as more frequent service and improving

the website. Those who do not ride public transit also had a variety of suggestions for how to improve both PTS and Plumas Seniors, including expanding service areas, developing transportation options to Reno and Chico, increasing service frequency, and expanding service to help school-aged kids.



PUBLIC OUTREACH ABOUT POTENTIAL SERVICE ALTERNATIVES

The public needs to be involved throughout the entire transportation planning process. It is especially important to gather public input during the evaluation of potential transit service alternatives in order to ensure the final SRTP provides overall benefits to the local community. Therefore, once the service alternatives had been developed for the Plumas County SRTP (Chapter 9), extensive outreach was conducted throughout December 2022, to inform the public about the various options being considered for implementation and to collect feedback. The service alternatives mentioned in this section are explained in depth in Chapters 6 of this SRTP.



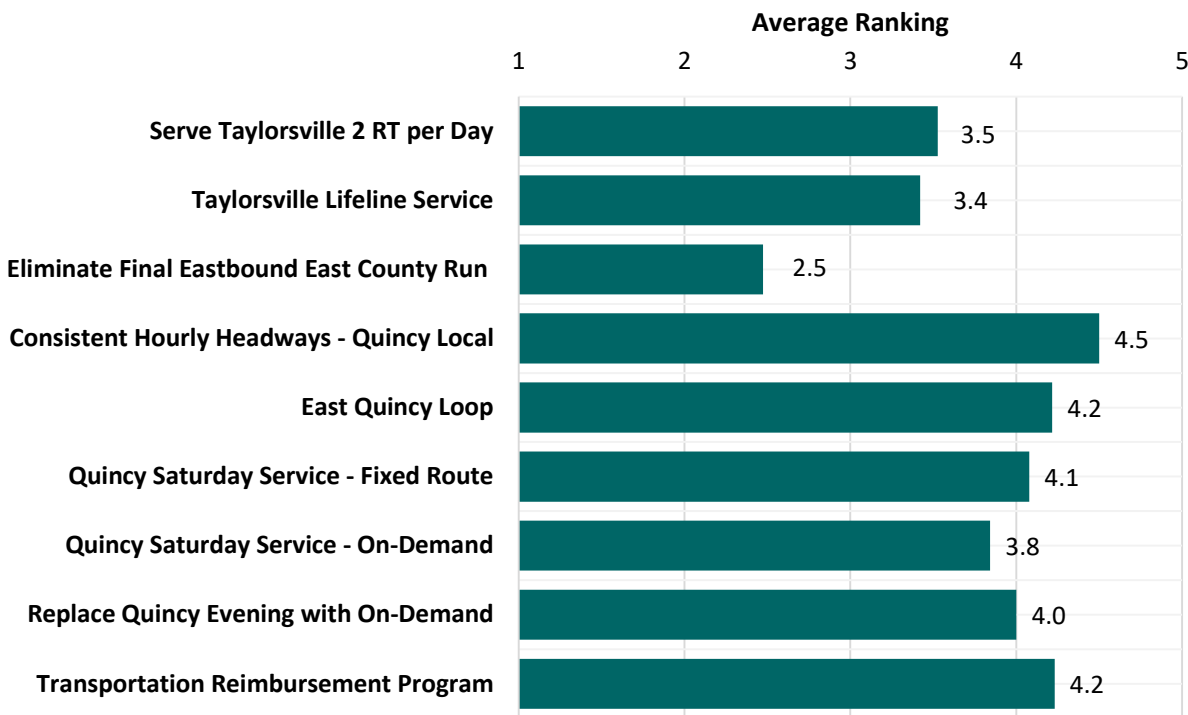
To explain the alternatives, an informational, narrated video was developed and posted on YouTube. At the end of the video, viewers were encouraged to take an online survey to share their opinions on the alternatives presented. Viewers were also provided with contact information for LSC staff if they preferred to provide comments via email or by phone. Similar to the online community survey conducted earlier in the planning process, the video and corresponding survey were advertised through a public notice posted on the Plumas News website and an advertisement in the Quincy Chamber of Commerce's monthly newsletter. Additionally, three separate email notifications were sent throughout the month of December to 20 stakeholders from multiple organizations across Plumas County. These stakeholders were asked to distribute the informational video and alternatives survey to their own respective networks and clientele. Over 100 people watched the informational video and a total of 44 people provided feedback regarding the potential service alternatives either by completing the online survey or by talking with LSC staff over the phone. This section discusses the opinions and suggestions provided by the public regarding the potential service alternatives.

Passenger Opinions (Alternatives Survey)

An online survey was made available for Plumas County residents to provide feedback regarding the service alternatives. The survey was conducted using the Survey Monkey platform and consisted of nine ranking questions, in which participants ranked each alternative on a scale of 1 (do not like the idea) to 5 (love the idea). The final question was open-ended and allowed participants to provide any additional comments they may have had. A total of 40 people completed the survey, with 36 to 38 people answering each question.

Figure 16 shows the average ranking for each alternative based on the survey responses. Overall, participants liked most of the alternatives presented, with only one alternative ranking below the neutral value of 3. As evidenced by the figure, the alternatives that received the greatest support by the participants were to modify the Quincy Local schedule to have consistently hourly headways (4.5), to revise the Quincy Local Route to include the newly proposed East Quincy Loop, and to establish a transportation reimbursement program in Plumas County (both 4.2). A transportation reimbursement program would reimburse volunteer drivers for providing rides to program participants to destinations such as medical appointments, the grocery store, or social service appointments. This type of program is explained further in Chapter 6. The idea with the least support was to eliminate the final eastbound East County Route departure (2.5), with 14 participants (38 percent) indicating they did not like the idea and providing a ranking of only 1.

Figure 16: Public Opinions on Potential Service Alternatives



Additional Comments and Suggestions Provided by Survey Participants

Table 12 displays some of the additional comments and suggestions provided by the alternatives survey participants. The comments included in the table are labeled by whether they are comments on actual alternatives presented, compliments for PTS and the Plumas County Transportation Commission, or new suggestions on alternatives to consider during the planning process. Some of the common themes in the comments include overall support for implementing on-demand services rather than adding new fixed routes and the desire for Saturday fixed route service along the North County and East County Routes in addition to the Quincy Local Saturday services considered.

Public Comments Received via Phone

Four people called LSC staff to provide comments on the service alternatives. All four individuals were residents of Genesee Valley and expressed their support for expanding transit services to Taylorsville. Three of these residents preferred the idea of a lifeline service between Taylorsville and Quincy that would provide one roundtrip, two days per week, as they all said that they do not need to go to Quincy very often and could plan their travels around the limited service. One individual said they preferred for the North County Route to deviate to Taylorsville for a more regular transportation option.

Table 12: Additional Comments, Compliments, and Suggestions from Alternatives Survey

Topic		Comments
Comments on Alternatives Presented	Daily Service to Taylorsville	Please add Taylorsville to regular route, we need it badly. Our kids go to school in Quincy and we live near Taylorsville and would make it so much easier than making them walk from the T or scheduling a ride. Thanks very much.
	Multiple	More daily consistency with routes. More uber-like services. Any way to put a transit stop closer to college buildings...and keep the one at bottom of hill? More "to-door/curb services". You need to add a "companion traveler" to accompany many seniors. Drivers are limited on what they can help with.
	On-Demand	Expanding service while removing unproductive routes is a great way moving forward. It seems on demand might be the way to go for future expansion.
	Staffing Concerns	The only concerns I think are just staffing, I am sure it is a dedicated bunch of drivers and I hope their abilities are taken into consideration when adding and eliminating routes. I feel that if "on demand" Saturdays have the potential to be either wonderful or overwhelming for employees. As much as you can increase quality transportation and maintain quality of work for the staff then it should all work out wonderfully for Plumas County.
	Transportation Reimbursement Program	A supplemental transportation option needs to be provided BY THE COUNTY - not on "friends & neighbors"! Too many seniors are remote and do not have local resources to GET THEM TO the County system - an on-call, County system is the only logical solution.
Comp.	Gratitude	Thank you for this service!
	Gratitude	Thank you for all you do!
	Gratitude	I appreciate all that you have taken into consideration.
New Service Suggestions	Amenities	Buses with a toilet for those of us who are sick and...have to use the restroom often. A 1.5 hour bus ride without a restroom stop is impossible for me.
	Better Info.	Please plan for an information system that may tell potential passengers when the next bus arrives to their stop. Mainly in bad weather, delays and completely disappearing buses happen, and unreliability leads to low ridership.
	Disability Accom.	[Paraphrased] Wasn't listed/discussed, but you need to not only train your drivers how to drive when transporting wheelchair bound riders. The lifts seem to only function about 60-70% of the time & the hand crank has to be used. This is another unacceptable risk, takes extra time, & could lead to big issues.
	Free Fares	The program that has offered free transportation to everyone needs to be kept. It has been a vital service to myself and many who are facing financial hardship like never before. The impact will be tremendous once your service starts to charge 4 dollars per ride again.
	On-Demand	Please consider on-demand service for Portola, especially for seniors/handicapped, also a bus to Reno once or twice a month for shopping at Walmart and Winco.
	Saturday Service	Saturday routes twice per day to East and North [County] Route destinations would be helpful too.
	Saturday Service	I would love to see a bus run on [Saturday] From Greenville to Chester and also Greenville to Quincy.

REVIEW OF PTS GOALS AND PERFORMANCE STANDARDS

INTRODUCTION

Setting transit performance goals provides a long-term vision for the transit agency. To determine whether a transit agency is meeting its outlined goals, it is important to have an adopted set of performance standards to assess current operations as well as evaluate proposed new services or changes to existing services.

It can be difficult for a public transit agency to balance the trade-offs between achieving different objectives because sometimes transit goals can be contradictory. For instance, goals intended to maximize cost effectiveness can tend to focus services on the largest population centers, while goals intended to maximize the availability of public transit services can tend to disperse services to outlying areas. PTS therefore needs a set of goals that are realistic, and which support each other.

Adopting specific performance measures provides transparency about whether PTS is meeting its goals, spending funds well, and providing useful and equitable services. In this chapter, PTS goals outlined in past plans are discussed, and then PTS performance in Fiscal Year (FY) 2021-22 is analyzed in the context of newly recommended quantitative performance standards.

SUMMARY OF PTS GOALS AND STANDARDS

1997 Plumas County Short Range Transit Plan (S RTP)

The 1997 S RTP described the agency's goal as follows: "To develop a public transportation system which ensures that the mobility needs of transportation handicapped residents are met in the most economically efficient manner." There were 7 policies identified to support this main goal:

1. Provide safe equipment and suitable facilities for a balanced transit system.
2. Maintain existing levels of funding while seeking additional sources of revenue and grants to support public transit.
3. Coordinate public transit with private and social service transportation providers using CTSA assistance.
4. Annually meet with the SSTAC, taking their recommendations into consideration to determine if defined needs can be reasonably met prior to the Unmet Needs Public Hearing, and to take into consideration any other major transit issues.
5. Consider mobility needs of all groups when doing transit planning.
6. Analyze changing economic conditions which affect public transit.
7. Promote increased operating and maintenance efficiencies.

2015 Plumas County Short Range Transit Plan (SRTP)

The 2015 SRTP was the first update to Plumas County’s SRTP since 1997 and proposed a new set of transit goals. The new transit goals were developed from other goals described in multiple planning documents between 2008 and 2014. They were organized into six categories:

Expansion and Modification

1. Administration
2. Infrastructure
3. Marketing and Promotion
4. Coordination
5. Financial

The goals were very extensive, ranging from redesigning the Quincy Local route to include a stop at Evergreen Trailer Park to improving the PTS website. Many of the goals stated in the 2015 SRTP have been successfully completed since the plan was adopted. One of the Administration goals was to “Establish quantitative performance measures after completion and adoption of the Triennial Performance Audit for Fiscal Years 12/13 through 14/15.” These performance measures were not established prior to the current SRTP update.

PTS PERFORMANCE STANDARDS REVIEW

While no new goals are recommended for PTS in this SRTP update, new quantitative performance standards have been developed. In this section, PTS operations and performance data from FY 2021-22 are considered in reference to these new quantitative performance standards (Table 11). These performance standards were developed based on recent operations data, data from similar-sized transit agencies, and the requirements of the California Transportation Development Act (TDA). Evaluating PTS performance using these new standards can help to determine if there are potential service or administrative changes that should be implemented to improve the amount of revenue generated, productivity, efficiency, or reliability. These standards will also be used as a tool to evaluate the service alternatives in the next chapter. The following is a brief summary of Table 11:

- Prior to the COVID-19 pandemic, the TDA required that rural transit systems achieve at least a 10 percent farebox ratio in order to receive funding. Although this requirement has temporarily been waived due to the pandemic and has not yet been reinstated as of the time of writing, it is recommended that PTS set a systemwide farebox ratio goal of 10 percent. It should also be noted that the fiscal and compliance auditor has stated that a combined farebox ratio for PTS and Plumas Seniors could be calculated for TDA eligibility purposes. In FY 2021-22, PTS did not have a 10 percent farebox ratio (Table 11). The low systemwide farebox ratio was in part caused by low ridership levels due to the COVID-19 pandemic, as well as drastically lower ridership on the Chester Route due to the loss of local population from the Dixie Fire. Although it is recommended that PTS only adopt a systemwide performance measure for this metric, it is worth noting that

the Portola Route farebox ratio exceeded 10 percent (10.1 percent) and the Quincy Routes were close to 10 percent (9.5 percent) in FY 2021-22.

- Passenger-trips per vehicle service hour is a metric often used to assess the productivity of a transit service. It is recommended that PTS adopt standards of 6 passenger-trips per vehicle service hour on the Quincy Local Routes, 3 per service hour on the intercommunity routes, and 4 per service hour systemwide. As seen in Table 11, PTS did not meet this standard in FY 2021-22 on a systemwide level. None of the specific services met their respective standards either. The low number of passenger-trips completed per vehicle service hour systemwide was likely due to lower ridership levels due to the COVID-19 pandemic and the Dixie Fire.
- Many transit systems use the marginal operating subsidy per passenger-trip to assess the cost efficiency of the system, or of a specific service. Note that this performance indicator excludes fixed costs and therefore is a good means of evaluating service alternatives as total fixed costs will not change with the implementation of each alternative. As seen in Table 11, it is recommended that PTS have a systemwide marginal operating cost per passenger-trip of \$25.00. This is approximately the systemwide marginal operating cost per passenger-trip for FY 2021-22. The Quincy Routes are more cost effective as they do not need to travel as far, so a subsidy per trip standard of \$12 is recommended. The intercommunity routes are by nature less cost effective, so a subsidy per trip standard of \$35 is recommended.
- On-time performance can be used to measure the reliability of a transit service. The systemwide standard for on-time performance adopted in the 2015 SRTP was to have 90 percent of buses arrive on time (arrive to the stop within 5 minutes of the scheduled time) and 0 percent leave the stop early. In this SRTP update, it is recommended that PTS continue to have the same standard for on-time performance. It is important to note that on-time performance is easily influenced by external factors such as the weather or road construction, and that these factors should also be considered when evaluating performance.

As part of the on-board survey effort for this transit plan update, on-time performance checks were conducted by drivers for two days. While the PTS drivers were not able to survey every run for this study effort, according to the results available:

- Quincy Local – 80 percent of runs surveyed were on-time
- Quincy Evening - All runs surveyed were on-time and one was early
- North County – 62 percent of runs surveyed were on-time and two were early
- East County – Of the three runs surveyed, all were on-time

The North County Route had the worst on-time performance, based on the runs surveyed, due to significant construction along the route to repair damage from the Dixie Fire.

SUMMARY

As Plumas County is very rural with dispersed communities, PTS will never be as cost efficient as a more urbanized transit system. Full ridership recovery from the pandemic and the Dixie Fire may be unlikely, at least in the short term; however, some level of recovery could be expected. The recommendations in Table 13 should be reevaluated periodically.

The performance standards presented in this section are also useful tools for evaluating unmet transit needs requests. The next chapter discusses a wide range of service alternatives to improve PTS. At the end of the chapter, the potential performance of each of the alternatives will be compared to the recommended standards in Table 13.

Table 13: Plumas Transit Systems Recommended Performance Standards			
Category	Service	Recommended Standard	Current Status (FY 2021-22)
Farebox Ratio	Systemwide	10.0%	7.3%
Productivity - Passenger-trips per Vehicle Service Hour	Quincy Routes	6.00	5.5
	Intercommunity Routes	3.00	2.1
	Systemwide	4.00	2.8
Cost Efficiency - Marginal Operating Subsidy per Trip	Quincy Routes	\$12.00	\$11.38
	Intercommunity Routes	\$35.00	\$35.09
	Systemwide	\$25.00	\$25.11
On-time Performance	Systemwide	90% on time, 0% leave early	90% on time, 0% leave early
Shading Indicates Does Not Meet Standard		Shading Indicates Meets Standard	
Source: LSC Transportation Consultants, Inc.			

Chapter 6

SERVICE ALTERNATIVES

The following presents a list of service options for PTS and Plumas Seniors Transportation that are designed to increase mobility for Plumas County residents and/or make these transit services more efficient.

BASE CASE SCENARIO FY 2023-24

To begin analyzing service alternatives, a FY 2023-24 cost model (Table 12) was developed by using the PTS draft operating budget from FY 2022-23. To account for inflation in the cost model, FY 2022-23 contract costs were factored upwards by 3 percent, the maximum allowed annually per the contract. Fuel and maintenance costs were increased by 7 percent, or the increase in the Consumer Price Index (CPI) from 2021 to 2022. Estimates of the operating costs for current service levels (“Status Quo”), as well as for each alternative, are based on the forecast PTS FY 2023-24 cost model and are shown in Table 14. Ridership estimates for “Status Quo” assume a mild recovery from the pandemic, or a 15 percent increase over FY 2021-22 levels. With most of Greenville sadly being lost in the Dixie Fire, it is not likely that full recovery of ridership will be seen over the next five years. The “Total Status Quo” value for FY 2023-24 includes both marginal and fixed costs.

On the revenue side of the equation, it is assumed that FTA revenues will increase slightly over time with inflation and that the same level of LTF funds will be available for public transit services as has been in the past (historically around \$230,000). This equates to a Plumas Transit budget in FY 2023-24 of just under \$1,000,000.

Table 14: FY 2023-24 Operating/Admin. Cost Model				
Item	Total	Fixed	Vehicle Revenue Hour	Vehicle Revenue Mile
Contractor Costs	\$803,176	\$396,923	\$406,253	\$0
Fuel (Pass-through)	\$107,000	\$0	\$0	\$107,000
Fleet Maintenance (Pass-through)	\$85,600	\$0	\$0	\$85,600
Total Expenses	\$995,776	\$396,923	\$406,253	\$192,600
			Unit Quantities	6,500
			Cost per Vehicle Hour	\$62.50
			Cost per Vehicle Mile	\$0.88
			Cost per Vehicle Hour + Fixed	\$123.57
Source: Plumas Transit Draft Transit Budget 6 17 22				

SERVICE ALTERNATIVES

The following presents a list of service alternatives for PTS. Estimates of the service levels, ridership, and operating costs generated by each alternative are presented as changes to the status quo. The potential ridership and operating costs for each service alternative are shown in Table 15.

Alternatives Options/Details	Annual				Ridership Impact		Annual	
	Operating Days	Vehicle Service		Annual Marginal Operating Cost	(One-Way Trips)		Farebox Revenue	Subsidy Required
		Miles	Hours		Daily	Annual		
Status Quo - Marginal Costs	251	219,025	6,500	\$598,900	85.3	21,400	\$69,000	\$529,900
Fixed Costs				\$396,900				
Total Status Quo	251	219,025	6,500	\$995,800	85.3	21,400	\$69,000	\$926,800
North County Route								
Serve Taylorsville 2 RT per Day	251	7,028	167	\$16,600	0.2	60	\$180	\$16,420
Lifeline Service to Taylorsville 1 RT, 2 Days per Week	104	4,888	146	\$13,400	0.2	60	\$180	\$13,220
East County Route								
Eliminate Final Eastbound Run	-125	-5,000	-104	-\$10,900	2.5	-313	-\$1,250	-\$9,650
Planned Connection with Sage Stage at Hallelujah Junction	156	14,352	312	\$32,100	3.0	470	\$1,410	\$15,300
Quincy Route								
Saturday Service (8 AM - 5 PM) Fixed Route	52	7,738	277	\$24,100	16	810	\$608	\$23,493
Saturday Service On-Demand	52	1,456	416	\$27,300	24	1,250	\$938	\$26,363
East Quincy Loop with Existing Schedule (5 loops per day)	251	2,008	0	\$1,800	3.2	800	\$800	\$1,000
Replace Quincy Evening with General Public On-Demand Dial-A-Ride	251	-3,696	105	\$3,300	4	1,100	\$1,100	\$2,200
Note: Does not include FTA 5311f funds								

North County Route

Regional Connections

PTS receives Federal Transit Administration (FTA) 5311(f) funding for certain North County Route runs which make connections with intercity transit services. The 6:05 AM and 6:48 PM southbound North County runs receive roughly 50 percent of operating costs from an FTA 5311(f) grant along with the 12:24 PM and 5:10 PM northbound North County runs. The connection is with Lassen Rural Bus's (LRB's) West County route in Hamilton Branch for travel to goods and services in Susanville (and beyond). Given the large amount of funding received, it is worth a review of PTS's connections with LRB.

The LRB West County Route stops at the Holiday Market in Chester on Main Street. Chester residents who live at the Sierra Meadows Apartments or along 1st Avenue could also take the PTS North County 6:05 AM run as far as Hamilton Branch where there is a timed connection to LRB at 6:28 AM. For the return trip from Susanville, Plumas County residents have a close connection with the second northbound run of the PTS North County route or the last non-FRC northbound run. The schedule allows for a 4- or 8-

hour layover in Susanville, depending on which return trip is chosen. This is sufficient time for medical appointments and errands and a short enough layover to not spend the entire day travelling. A one-way trip between Chester and Susanville on the LRB West County Route is 1 hour and 15 minutes.

Quincy residents needing to travel to Susanville can take the 12:24 PM northbound North County PTS run and transfer to LRB in Hamilton Branch at 1:37 PM. For the return trip, the Quincy resident would need to disembark the LRB bus at the Holiday Market in Chester and transfer to the last southbound North County run back to Quincy. A Quincy resident would only have about 2 hours in Susanville to do errands.

Susanville residents could travel to Quincy by taking the morning West County LRB bus to Hamilton Branch and transferring to the first southbound PTS North County run to Quincy at 6:28 AM. A return trip would be possible if one were to take the PTS 5:10 departure from Quincy and transfer to LRB in Hamilton Branch. This trip would make for a long day beginning at 6:00 AM and ending around 7:00 PM.

In summary, timed connections with sufficient layover to conduct business in Lassen County are possible. However, for Quincy residents, this would be an entire day of travelling. According to LRB, roughly 4 - 5 passengers transfer from PTS to LRB each week. PTS and LRB staff have good communication with respect to transferring passengers.

Provide Service to Taylorsville

Serve Taylorsville with Two Runs a Day of North County Route

In the summer of 2021, the Dixie Fire destroyed a large portion of the communities of Greenville and Canyon Dam. Greenville was a community of around 800 people with a higher proportion of low income, disabled and zero- vehicle households than the rest of the county. FY 2021-22 ridership by route indicates that ridership on the Quincy and Portola routes has seen a bit of a rebound since COVID, whereas ridership on the Chester/Greenville Route has continued to decline. Much of this can be attributed to the Dixie Fire. Even post fire, boardings between Greenville and the Taylorsville T account for roughly half of North County route boardings. According to local agencies, many former Greenville residents who lost their home to the fire have moved to Taylorsville or Quincy.

Taylorsville is located about five miles east of SR 89 off Arlington Road (A-22). Serving it would add about 20 minutes to the North County Route to serve Taylorsville. With a population of less than 100, there is not sufficient demand for a high level of transit service to the community. However, it is likely that a large portion of those residents fit into one of the transit dependent categories (over 65, low income, disabled or no vehicle available).

In order to give Taylorsville residents the option to spend a few hours in Quincy while making a round trip in one day, an example schedule would be for the first southbound North County Route departure from Chester to travel the extra distance down Arlington Road to pick up passengers at Young's Market in Taylorsville. As the North County Route and the Quincy Local Route are interlined for the first North County run, the first North County Route departure from Chester would need to leave about 20 minutes earlier so that the bus could make the connection with the Quincy route at the Courthouse Annex at 7:22 AM. However, this schedule shift would eliminate the timed transfer with Lassen Rural Bus at 6:28 AM in Hamilton Branch. Plumas County residents wanting to travel to Susanville would wait an extra 20 minutes

but Lassen County residents wanting to travel to Quincy would miss the connection entirely. This connection is needed to secure FTA 5311f intercity transit funding for this run. One way to eliminate this problem would be for the North County bus and Quincy Route to no longer interline. The North County bus would operate the entire route and passengers would no longer need to transfer from the Quincy bus to the Northbound North County bus for the first run. This would add roughly 8 additional miles to the route daily. This option would have the benefit of adding a small amount of transit service between Quincy and East Quincy in the morning.

The 5:10 PM northbound departure to Chester would leave about 20 minutes earlier to serve Taylorsville. Under this schedule a Taylorsville resident could leave home around 7:00 AM, arrive in Quincy a little after 8:00 AM, depart Quincy at 4:50 PM and be home by 5:30 PM. Although this schedule could generally accommodate a workday, it would have a rather long layover in Quincy for someone going shopping or to a medical appointment.

Another option would be to also have the 2:30 PM northbound run between Quincy and Greenville serves Taylorsville in addition to the northbound North County Run (5:10 PM). This would provide an option to shorten the layover in Quincy for Taylorsville residents to 6.5 hours.

If the North County Route served Taylorsville two round trips per day, it would add less than one vehicle service hour daily and 28 miles daily. This equates to an additional annual operating cost of \$16,600. Ridership was estimated by applying the annual transit trip per capita rate for Greenville to the population of Taylorsville. Adjustments were made to account for the fact that some Taylorsville residents may already be getting a ride to the Taylorsville “T” to catch the bus and the fact that the current population of Taylorsville is likely somewhat larger than the most recent available census data (2020). A small level of ridership would be generated by service to Taylorsville, roughly 63 trips per year and would generate very little fare revenue (under \$200 per year). As this run is currently subsidized with FTA 5311f funding, the annual operating subsidy would be on the order of \$8,200. This alternative may also inconvenience some passengers as it would add to the total travel time for one morning and one evening run. This alternative could be implemented as a pilot program for one year.

Lifeline Service to Taylorsville 2 Days per Week

Another option would be to provide a separate service to Taylorsville only two days per week as a lifeline service. The service would be designed to provide a lifeline to Quincy from Taylorsville so that transit dependent residents could do errands or go to an appointment without spending their entire day in Quincy. This would be a separate service from the North County Route so that two North County schedules are not required. Using a separate vehicle, a bus would deadhead from the yard to Youngs Market in Taylorsville around 9 AM, pick up passengers and return to Sav-Mor in East Quincy around 10 AM. Other stops along SR 70/89 could be designated. The return trip could leave Sav-Mor around 2 PM and arrive in Taylorsville around 2:30 PM. This alternative would require another bus driver and vehicle on the 2 days this service operates. It is possible this shift could be filled by one of the on-call drivers. In terms of additional costs, Lifeline Service between Taylorsville and Quincy would only cost around \$3,200 less than the North County alternative option discussed above or a total of \$13,400. Given its small population, Taylorsville cannot generate significant ridership. It is reasonable to assume a similar number of trips generated by this alternative as the North County Route/Taylorsville option above, despite

operating fewer days a week. Taylorsville residents using either of these options are likely transit dependent and would therefore adjust their schedule to days the lifeline service would run. Therefore approximately 60 one-way passenger-trips per year are estimated for this alternative.

Additional Transportation Services for Residents Displaced by the Dixie Fire

Plumas Rural Services (PRS) recently tried to launch the Dixie Fire Recovery Transportation Program. This program was temporarily funded by the American Red Cross to provide transportation assistance to those relocated by the Dixie Fire to Indian Valley and the FEMA trailers in Westwood. PRS had hoped to hire an employee to drive an 8-passenger van owned by PRS. One day per week the driver would follow a scheduled route and one other day per week the driver would serve passengers on-demand. The program was intended to help people who lack transportation or who have struggled to pay for gas get to stores, doctor's appointments, and to other errands. PRS had always intended for this program to be short-term, as the FEMA trailers will be emptied in February 2023, however they were never able to successfully launch due to not being able to hire a driver.

Connect with Plumas Seniors Meal Delivery

Plumas Seniors delivers around 80 meals a day to residents of Taylorsville. A coordinated alternative would be for Plumas Seniors vans delivering meals in Taylorsville to then pick up passengers at their homes and drop them off at the Taylorsville "T", timed to meet the PTS North County Route is enroute to Quincy. The reverse would need to occur in the afternoon. Discussions with Plumas Seniors indicates that the meals on wheels driver is continuously busy dropping off meals in the communities of Greenville and Taylorsville between 8 AM and 2 PM Monday through Friday. It would be difficult to coordinate a timed transfer between Plumas Seniors and PTS at the Taylorsville "T". Therefore, this option was not considered further.

East County Route

Review Future Intercity Connection with Sage Stage

In the past, the Susanville Indian Rancheria operated general public transit service between Chester, Red Bluff and Redding where Plumas County residents could access intercity transit services such as Greyhound and Amtrak. This service was recently discontinued indefinitely, leaving Plumas County residents with no intercity connection to the west. According to the community survey, a small proportion (5 percent) of respondents need to travel to Redding for medical appointments and no respondents stated that they need to travel to Redding for other purposes such as work, social/recreational or grocery shopping. In the other direction, 29 percent of respondents stated that they go to Reno for medical appointments and 24 percent of respondents go to Reno for recreation. The demand for transit service is clearly stronger for service to Reno than for service to Red Bluff / Redding.

Sage Stage currently offers an intercity transit route from Alturas – Susanville – Reno on Monday, Wednesday, and Friday. With the current service plan, Plumas County residents could transfer to the LRB West County Route in Hamilton Branch at 6:28 AM to get to Susanville. After a 1 hour and 45-minute layover in Susanville, the Plumas County resident could catch Sage Stage and arrive in Reno at 11:30 AM, five hours later. Unfortunately, Sage Stage has a relatively short layover in Reno, 2 hours. It would be possible, however, to return on Sage Stage and arrive in Susanville at 3:30 PM, layover for another 1 hour

and 45 minutes before catching the West County Route back to Hamilton Branch. The entire trip would take about 12 hours.

In order to provide Plumas County residents with a shorter intercity connection, PTS is extending the East County Route from Portola to meet with Sage Stage at Hallelujah Junction (SR 70 and US 395) at 11:00 AM and 2:30 PM beginning in December 2022. With this new service, a Portola resident will be able to leave their home around 10:20 AM, transfer to Sage Stage, and arrive in Reno around 11:30 AM. After a two-hour layover, the Portola resident could reverse the trip and be home around 3:30 PM, making the whole trip only a five-hour commitment. Plumas County residents could also use this new service for overnight trips, or for access to intercity services such as Amtrak, Greyhound, or passenger air service.

Ridership for the new Sage Stage connection was estimated based on ridership per capita rates for the Sage Stage route between Alturas – Susanville - Reno. 2019 data shows a trip per capita rate of 1.23 one-way trips per person per year. Applying this rate to the population of Quincy, Portola and Graeagle and then making a small reduction for having to transfer between PTS and Sage Stage equates to roughly 3.5 trips per service day or 470 passenger-trips annually.

The new trips to Hallelujah Junction have required PTS to adjust the East County Route schedule. In terms of vehicle service hours, the revised schedule requires about 2 additional hours per service day. This new extension will only be operated three days a week (Sage Stage only operates Monday, Wednesday, and Fridays), therefore the new schedule will result in approximately 312 more vehicle hours and 14,350 additional vehicle miles being driven annually. Based on these numbers, the new East County schedule will result in an additional annual operating cost of approximately \$32,100. Caltrans has already approved moving the existing FTA 5311f grant money from the connection with Susanville Indian Rancheria to a connection with Sage Stage at Hallelujah Junction. Therefore, half of the operating costs will be subsidized by the FTA 5311f grant. As the new connection will generate around \$1,400 in additional fare revenue, the annual operating subsidy for this new East County Route extension will be on the order of \$15,300.

Eliminate 8:25 PM/9:07 PM Eastbound Departure from Feather River College

The final daily East County run from Quincy to Portola departs Feather River College (FRC) at 9:07 PM when FRC is in session and 8:25 PM when the school is not in session. During the school year, this last run is intended to serve students who stay late on campus for classes or other academic commitments. However, this is not a large group of students as FRC does not offer many evening classes; during the Fall 2022 semester, only 12 in-person classes ended between 7 PM and 9 PM. There were an additional 7 classes that ended later at night, however these classes ended after 9:07 PM, therefore enrolled students could not take the bus home.

Currently, this final eastbound East County departure only operates on an as-needed basis. Each night the driver goes to the Quincy stops to see if any passengers need to travel east to Graeagle or Portola. If there are no passengers waiting for the bus in Quincy, then the bus driver returns to park the bus; no new passengers are picked up outside of Quincy. If there are passengers, the bus will pick them up but only go as far as they need to go. For instance, if the last passenger gets dropped off in Graeagle, the bus will then turn around to park in Quincy rather than continue on to Portola. When the last East County

eastbound run operates, PTS drivers estimate that 2 to 3 passengers board nightly. By operating only as-needed, PTS is already saving money on the final East County run.

To assess the impacts of eliminating the final eastbound East County run rather than running it on an as-needed basis, it was estimated that the bus picks up passengers 125 days a year, or 50 percent of operating days. Based on this number of service days, eliminating the final eastbound departure would reduce overall PTS operating costs by \$10,900 (Table 3). Despite the cost savings, eliminating the last East County run would also result in reduced fare revenue due to decreased ridership. Based on PTS's assessment that about 2 to 3 people ride whenever the driver actually picks up passengers, it is estimated that eliminating the 8:25 PM/9:07 PM run would cause a loss of over 300 passenger-trips and at least \$1,250 in farebox revenue. Eliminating the final eastbound East County run may result in a further decrease in ridership if the impacted passengers choose not to ride the bus for the first leg of their trip earlier in the day due to needing a new alternative to get home.

Other Intercity Connections to Reno with Plumas Seniors

It is worth noting as part of this discussion that Plumas Seniors recently restarted service to Reno on Thursdays after being suspended during the pandemic. The service carries around 4 riders each week who need transportation to doctor's appointments, shopping, or the airport. Plumas Seniors coordinates to pick-up passengers transferring from PTS at specific departure points before heading into Reno. These connections are subsidized with 5311f funding.

Quincy Local Route

Consistent Hourly Headways

The Quincy Local Route takes anywhere from 33 to 43 minutes to operate one loop, depending on whether the Evergreen Trailer Park is served. As such, the time check points at each stop vary depending on the hour. There is sufficient time in the schedule for the Quincy Local route to be served on a consistent hourly headway. Numerous studies over the last 40 years have found that simplifying transit schedules to be on "clock headways", or headways that are consistent each hour, results in increased ridership, as passengers only need to remember the minutes after the hour their stop is served. It is important to consider, however, that operating the Quincy Local route on hourly headways during the day, and maintaining the same levels of Quincy Evening service, would result in one less run being completed per day, unless a dispatcher could provide lunch relief. This could negatively impact some Plumas County residents.

Loop Through East Quincy

The Quincy Local Route primarily serves commercial, medical, and social service destinations along SR 70 as well as Plumas Mental Health Center, Plumas Hospital and Feather River College. As the town of Quincy is relatively compact, the majority of "in-town" residences are within a quarter mile walk of the fixed route. East Quincy is slightly more spread out with many residences farther than one-quarter mile from the bus route. A slightly higher proportion of East Quincy households do not have a vehicle available to them (9 percent) versus 6 percent for Quincy. East Quincy also has a larger population. In both communities roughly 30 percent of households only have one vehicle.

As part of this alternative, a small 1.6-mile loop through the neighborhoods of East Quincy south of SR 70 is proposed to be added to the Quincy Local Route. As shown in Figure 17, after serving Sav-Mor at the end of the route, the bus would turn left on to Main Street, right on Reese Ave. and do a loop through the neighborhood on Pine St., 4th St. and Center St. before returning to Main Street on S. Mill Creek Rd. The bus could once again serve Sav-Mor before travelling to the beginning of the route at the Drop-In Center. This loop would add approximately five minutes to the Quincy route. The East Quincy loop could be added on runs which do not serve the Evergreen Trailer Park. This way the driver would still have at least a five-minute break (often more) at the end of the run.

It would be reasonable to offer the extra East Quincy Loop for five runs during the day when the Quincy route does not take the extra time to serve the Evergreen Trailer Park. Ridership on the new loop was estimated by applying the annual transit trip per capita rate for the Quincy Local Route to the estimated number of residents within walking distance of the East Quincy Loop. This equates to around 800 one-way passenger-trips per year. Considering the additional vehicle service hours, miles and fare revenue, this alternative would cost around \$14,000 per year in operating subsidy.

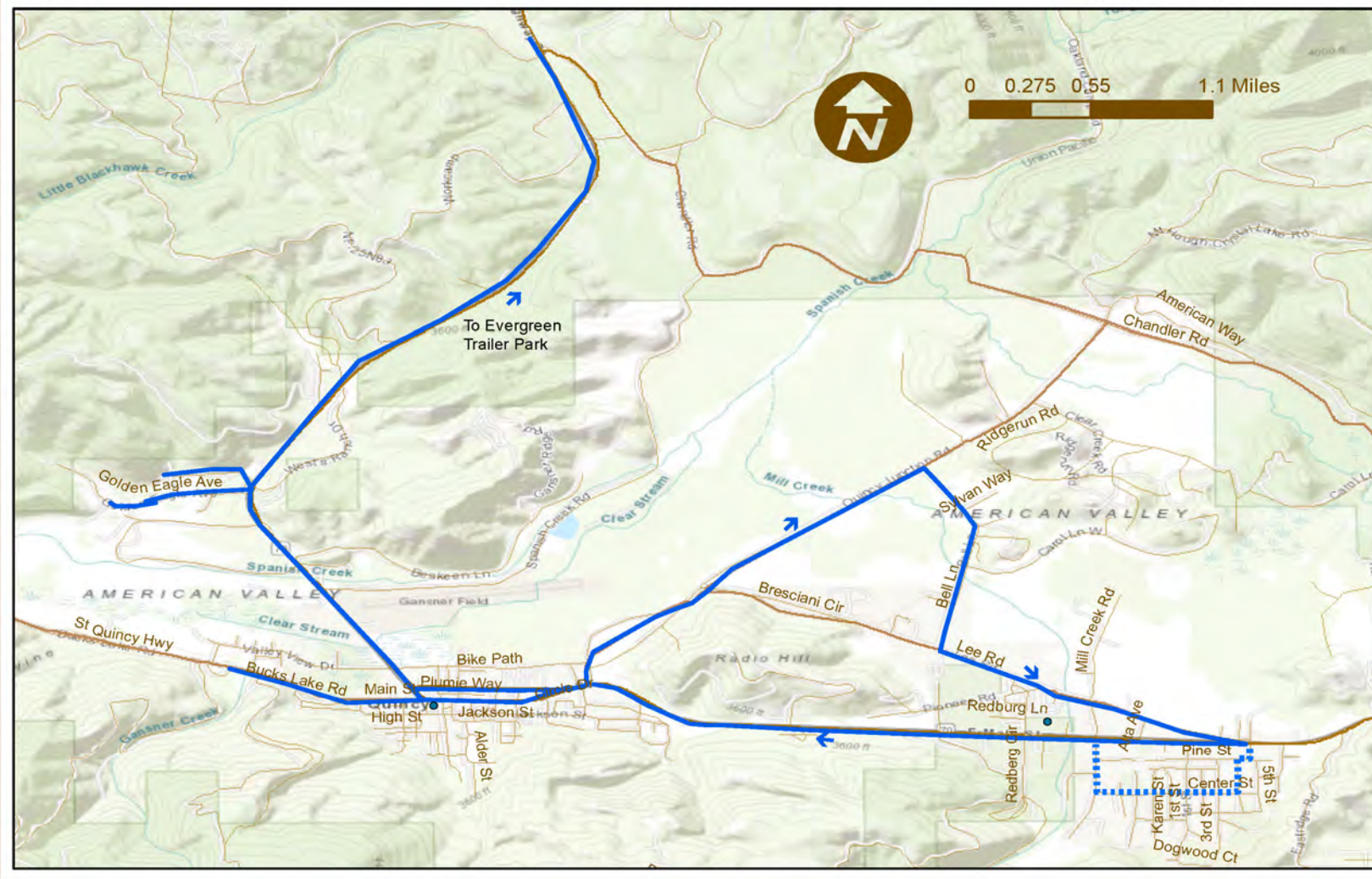
Saturday Service - Fixed Route

Plumas County residents have consistently expressed interest in Saturday service, specifically on the Quincy Local route. Having Quincy service on Saturday from 8 AM to 5 PM would allow for eight full roundtrips of the route (one roundtrip per hour), with each roundtrip including stops at both.

Evergreen Trailer Park and Plumas Rural Services. The service would require one driver, who would work the entire shift with a one-hour lunch.

Transit systems across California have observed that Saturday ridership tends to equal about half of the average weekday ridership on the specific route. Lassen Rural Bus, which is similar to Plumas Transit, is a good example of this. Ridership estimates for Saturday service on the Quincy Local route in Table 3 (884 passenger-trips annually) represent half of estimated FY 2023-24 average weekday ridership. This alternative would cost \$24,138 to operate if implemented in FY 2023-24 (Table 15) and only generate \$884 in extra revenue, as the base cost of a Quincy Local ticket is only \$1.

Figure 17
East Quincy Loop Alternative



Saturday Service – On-Demand

According to the analysis above, the Saturday Service fixed route would carry just under 3 passenger-trips per vehicle service hour. When ridership demand is lower than 3 or 4 trips per hour, it can often be served by a demand response door to door type of service. The benefit of a door-to-door service is that passengers are not limited to certain fixed route stops and therefore passengers are not required to walk far to/from a bus stop. Historically, door to door Dial-A-Ride service required 24-hour advance reservation. This can be seen as a hassle for some passengers in that they must plan the specific time they need a ride in advance. In recent years, many transit agencies are implementing on-demand door to door transit service during non-peak times. In this scenario, passengers can request a ride anytime within the specified service hours and service area and no advance reservation is required. Rides are typically provided anywhere from within 15 minutes to an hour depending on the number of vehicles available for the service, the level of demand and budget for the program.

Quincy and East Quincy are relatively compact communities. A trip across town from Sav-Mor to Feather River College takes around 10 minutes. This makes demand response door to door service attractive as the vehicle would not have long distances to cover in between ride requests and could therefore serve the entire communities of Quincy and East Quincy fairly efficiently.

Saturday Service could be provided as on-demand door to door service where passengers would call dispatch to request a ride between the hours of 8 AM and 5 PM with a break for lunch between 12 PM and 1 PM. Given the size of Quincy it would be possible to meet the ridership demand of around three trips per vehicle service hour with one vehicle and have a response time of around 20 minutes. As this vehicle would be continuously available except during the driver lunch break and Plumas Rural Services bills Plumas County based on the hours in the published schedule, this option would increase vehicle service hours over the fixed route scenario slightly. It is estimated that the On-Demand Saturday Service alternative would cost on the order of \$27,300. If 3 passenger-trips per hour are carried on average, this alternative would carry around 1,250 trips per year. Total annual operating subsidy would be \$26,050. If the On-demand service becomes more popular, PTS may need to add a second vehicle in order to maintain a response time within 20 minutes, essentially doubling the cost.

Microtransit App Option

Dial-a-Ride service can be enhanced by converting the request and dispatching system to a “microtransit” service. Under this option the On-Demand Quincy Saturday Service would use the existing drivers and vehicles along with modern app-based software. PTS would obtain a license to an online application service and make this app available for free download. Passengers can use the app on a phone or computer to make a ride request or continue to make phone requests. (Other areas have found that a majority of riders shift to using the app.) Dispatchers will enter the phone ride requests into the app. Standing subscription trips (such as individuals regularly going to a senior meals program, as one example) could be made, avoiding the need for ongoing individual bookings. The application software will dispatch drivers, following algorithms that minimize service costs and enhance response times. This will free dispatchers to address service issues and work on other tasks. It is not expected that any dispatch positions would be eliminated or reduced. The application software will automatically track ridership patterns, response times and missed trips.



There is a quickly growing list of public transit systems that are implementing microtransit services, including Washoe RTC in Reno/Sparks (Nevada), the Cheyenne Transit Program (Wyoming), the Citibus system in Lubbock (Texas) and Placer County (California). Microtransit has the potential to provide a higher quality demand response service (faster response times), increase the capacity of the system within the existing vehicle-hours of service and to improve the working conditions of PTS staff. The increased convenience of the ride request service could also lead to long-term increases in ridership, and the additional automated data collection could also allow better allocation of resources over time. In addition, the new software program will provide improved reporting capabilities and will allow enhanced management of the service.

There are several companies currently offering such packages (such as Spare Labs, TransLoc, Via and TripSpark), and it would be appropriate to select a vendor through an RFP process. The cost of obtaining and maintaining the software would be determined through the RFP process and is difficult to specify, but it is estimated that a software license for an on-demand transit application could cost around \$500 per vehicle per month on top of \$7,700 in annual support costs and \$10,000 in one-time initial set up costs.

The On-Demand Saturday service option (app or no app) should be implemented as a pilot program initially. Lassen Transit Services Agency (LTSA) recently implemented on-demand Saturday service within the Susanville/Johnstonville region. The service is a pilot program which will be available for four months. The Routing Company offered LTSA the use of their app, “Ride Pingo” for free during this trial period. Passengers request a ride through the app or by calling dispatch directly. Fares are paid in cash on the vehicle as normally would occur.

Ideally, a pilot program should last longer than four months in order to have sufficient time to obtain data for the service. If a short pilot program is implemented, there should be a considerable marketing effort prior to the launch to maximize the time the program is available.

Quincy Evening Route

Offer On-Demand Dial-A-Ride Instead of Fixed Route Service

The limited boarding and alighting data that was obtained as part of this survey effort shows that there were significantly fewer boardings on the Quincy Evening service (beginning at 5:15 PM) than on the daytime service. Only an average of 1 boarding was recorded during the 5:15 PM run and 3 during the 7:15 PM run, while the daily average ridership on the Quincy Evening service is only 2 passenger-trips per day. Boarding and alighting data from the 2015 SRTP (the most recent comprehensive boarding and alighting data available) showed a significant drop in ridership in the 8 PM hour (2 – 12 boardings per run) but still high ridership (20 – 40 boardings per run) prior to that.

Under this alternative, the Quincy Evening fixed route service would become an on-demand, door-to-Door service. Passengers would call dispatch to request a ride. Parameters for the service must be defined. To have a service whose costs are comparable to the existing Quincy Evening fixed route service, the on-demand service could operate from 5:15 PM to 8:15 PM within the communities of Quincy, East Quincy including Feather River College and Plumas Hospital. This service would be operated year-round for consistency and to serve non-college trips as well. While much of the previous ridership on the Quincy Evening service were students at Feather River College, with the increased popularity of on-line classes, transit ridership demand has diminished significantly. As Fall 2022 evening classes end anywhere from 7 PM to 10 PM, the option to call for a ride at any time may increase college student ridership, as they would no longer have to wait for a specific fixed route bus pick up time. This evening on-demand service in Quincy could be initially implemented in the same pilot program as the Saturday Quincy service, described in the previous section.

An example from a similar area: the City of Bishop, California is served by a “Nite Rider” service from 6 PM until 2 AM on Friday and Saturday evenings. This service carried around 2 one-way passenger trips per hour in 2021. A similar level of demand could be expected in Quincy. If the Quincy On-Demand Evening Service is operated from 5:15 PM to 8:15 PM year-round it would carry approximately 6 passenger-trips daily, an increase of 4 average daily passenger-trips over the existing Quincy Evening service. This alternative would increase the operating subsidy by \$2,200 annually, if the same \$1.00 per ride fare is charged. With this level of demand only one vehicle would be required to operate this alternative. If the service is successful, Plumas County could consider purchasing a small electric van to operate the service as a bus would not be required for passenger load reasons. This service could also be provided using a Microtransit App as discussed above.

Volunteer Driver/Transportation Reimbursement Program

Plumas County is quite rural, and the county’s low population density makes it hard to serve all of the various communities effectively with traditional public transit services with a limited budget. Establishing a volunteer driver program could result in a cost-effective mobility alternative for Plumas County residents not easily served by existing services. The program would be designed to reflect the needs and conditions of Plumas County specifically, however there are a few common approaches for how volunteer driver programs are structured:

1. True volunteer programs, where the driver provides transportation to passengers using their own vehicle with no or nominal reimbursement.
2. Transportation reimbursement programs, where the passenger selects a driver of their choosing (either someone known to the passenger or someone from a list provided by the program), and the driver is reimbursed at a per-mile rate using their own vehicle.
3. Supported volunteer programs, where volunteer drivers are recruited and/or vehicles are provided by a public or non-profit entity.

Each of these approaches has its own benefits and challenges. A volunteer driver program is the most cost-effective option, but it can be difficult to recruit and retain enough volunteers. Based on the experiences of other cities and counties across the US, true volunteer driver programs have seemed to have the greatest success in small, tight-knit communities where a local advocate works to organize and launch the volunteer program. Given how far apart the communities of Plumas County are from each other, it is not likely that a true volunteer driver program would effectively help residents with mobility limitations living in the smaller, more remote towns of the county.

Driver reimbursement programs are often used by transit agencies or social programs to “fill in the gap” of transportation needs, particularly in rural areas, after-hours, or for specific populations such as seniors, disabled persons or others with high transit needs. By providing financial compensation to drivers who help other residents, those in need feel more comfortable asking for a ride and those who are volunteering feel more willing to make the commitment. These programs can be supported by more than just the regional transit agency; Area Agencies on Aging, social service organizations, or hospitals may all offer some level of financial or coordination support if the driver reimbursement program will benefit its clients or constituents. A benefit of driver reimbursement programs is that the sponsoring agency, in this case either PTS or Plumas Seniors, is not responsible for assigning drivers for specific trips. Having people use their personal vehicles for a reimbursement program also helps to avoid potential liability issues associated with untrained drivers using agency vehicles.

Finally, some volunteer driver programs receive more support from either the transit agency itself or from other businesses in the community. This support can be in the form of donated vehicles, ongoing financial support, and/or paid administrative support. Funding sources may come through TDA funding, FTA 5310 grants, private donations, or other specialized grants. The benefit of donated vehicles is that volunteers then don’t have to use their own personal cars, an incentive to volunteer for individuals concerned about adding too much wear and tear to their vehicles.

An example of a driver reimbursement program is seen in Tuolumne County, where the County has partnered with local non-profit organizations to provide a reimbursement program called the Tuolumne Trip Program. The program is designed to serve residents who require extra assistance and therefore are unable to use the fixed route or DAR services. Eligible users are responsible for finding and paying their own volunteer driver. The Tuolumne County Transit Agency (TCTA) only provides reimbursement for the trip and therefore the program requires little in the way of administrative costs. The Tuolumne Trip Program is advertised through social service agencies and the TCTA Executive Director approves each users’ eligibility. TCTA provides up to \$10,000 in LTF funding for the reimbursements. In FY 2018-19 a

total of 270 trips were provided with an average cost reimbursement per trip of \$24.67. This is less than the average annual operating cost per trip of the East County and North County routes.

Another example is the Western Placer Consolidated Transportation Services Agency in Placer County (WPCTSA), which recently changed from a volunteer driver program to a transportation reimbursement program funded with TDA funds and administered by a non-profit agency. WPCTSA purchased a license for the Trip Trak program for \$1,500 annually. This program assists the program administrator with recording requested trips and verifying the appropriate mileage to be reimbursed for the program and meeting IRS tracking and accounting requirements.

Any of the approaches described in this section have the potential to greatly benefit Plumas County residents in need of additional transportation assistance. Considering the geography and distribution of population centers across Plumas County, as well as available financial resources, establishing a driver reimbursement program is the most effective approach of those mentioned. There could be an eligibility structure for the driver reimbursement program so that limited funds are used efficiently. For instance, reimbursements could be limited to drivers helping ADA eligible individuals or senior adults traveling to medical or social service appointments, the pharmacy, or shopping trips. The program could also be limited to only Plumas County residents who live more than 0.75 mile away from a fixed route stop (locations outside of the eligible zone for scheduled route deviations). The program could also be limited to rides provided outside of normal transit hours, such as weekends, early in the morning, or later in the evening. TDA funding or FTA 5310 grants could be used to sponsor a driver reimbursement program in Plumas County.

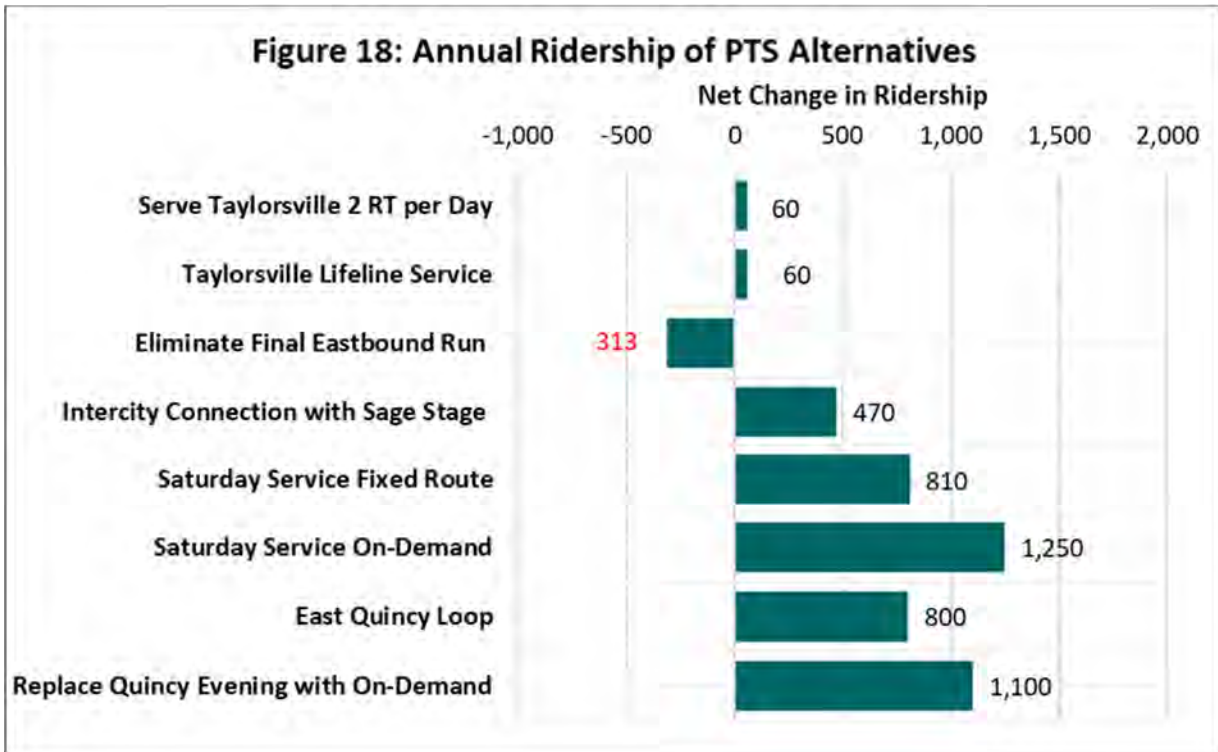
COMPARISON OF SERVICE ALTERNATIVES AND PERFORMANCE ANALYSIS

Table 16 and Figures 18-22 present a quantitative comparison of the service alternatives discussed in this chapter using the newly developed performance standards shown in Table 11 (Chapter 5). Calculations were made using the estimated service levels, ridership levels, and operating costs shown in Table 15 and do not include fixed costs. Table 16 represents the net change from the status quo scenario.

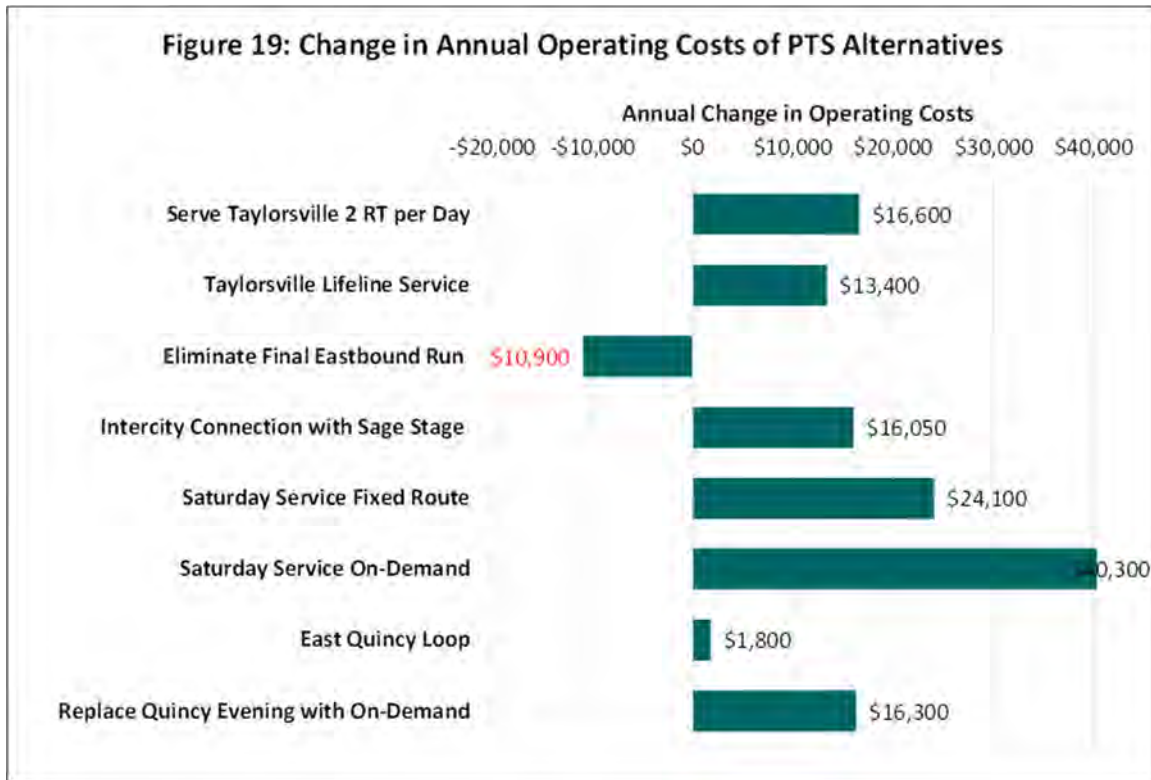
- Annual Ridership (Figure 18) – Replacing Quincy Evening Service with On-Demand Dial-A-Ride and then adding a Saturday Quincy On-Demand Service will have the greatest positive impact on ridership. As ridership on the Quincy Evening service is not tracked separately from all Quincy trips, ridership was estimated based on limited boarding and alighting counts at 360 trips annually. On-demand service is expected to increase ridership by 1,100 trips annually. Adding a Saturday On-Demand Service in Quincy is anticipated to increase annual ridership by 1,250 trips. PTS would lose only 300 trips annually by eliminating the last East County run.

Table 16: Service Alternatives Performance Review
FY 2023-24

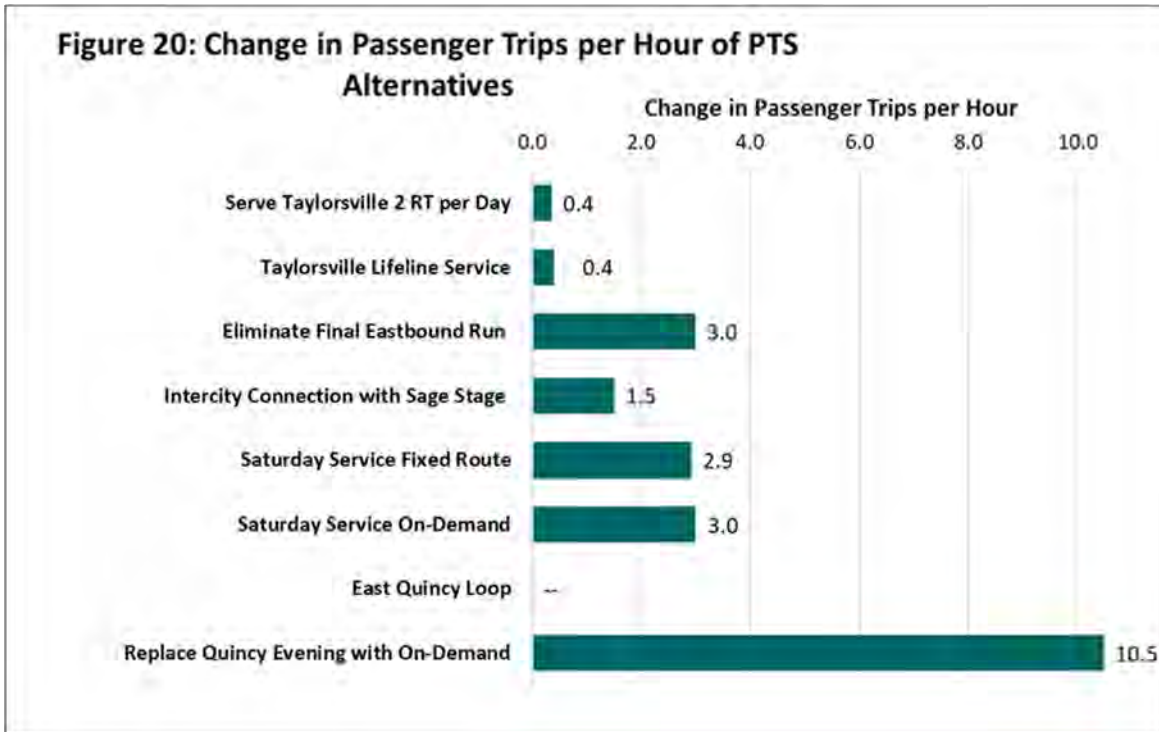
FY 2023-24					Shading Indicates Does Not Meet Standard					
					Shading Indicates Meets Standard					
Alternative	Change from Existing Service				Performance Measures					
	Annual Ridership	Annual Vehicle Hours	Annual Operating Cost	Annual Fare Revenue	Passengers per Vehicle Service Hour		Marginal Subsidy per Passenger-trip		Marginal Farebox Ratio	
					Actual	Standard	Actual	Standard	Actual	Standard
North County Route										
Serve Taylorsville 2 Round Trips per Day	60	167	\$16,600	\$180	0.36	3.00	\$273.67	\$35.00	1.1%	10.0%
Lifeline Service to Taylorsville 1 RT, 2 Days per Week										
	60	146	\$13,400	180	0.41	3.00	\$220.33	\$35.00	1.3%	10.0%
East County Route										
Eliminate Last Daily Eastbound Run	-313	-104	-\$10,900	-\$1,250	3.00	3.00	\$30.88	\$35.00	11.5%	10.0%
Connection with Sage Stage at Hallelujah Junction	470	312	\$16,050	\$1,410	1.51	3.00	\$31.15	\$35.00	8.8%	10.0%
Quincy Route										
Saturday Service (8 AM - 5 PM) Fixed Route	810	277	\$24,100	\$608	2.92	6.00	\$29.00	\$12.00	2.5%	10.0%
Saturday Service On-Demand ⁽¹⁾	1,250	416	\$40,300	\$938	3.00	6.00	\$31.49	\$12.00	2.3%	10.0%
East Quincy Loop	800	0	\$1,800	\$800	--	6.00	\$1.25	\$12.00	44.4%	10.0%
Replace Quincy Evening with General Public On-Demand Dial-A-Ride ⁽¹⁾	1,100	105	\$16,300	\$1,100	10.48	6.00	\$13.82	\$12.00	6.7%	10.0%
Note: Does not include FTA 5311f funds.										
Note 1: Includes annual technology costs but not one-time set-up fee of \$10,000										



- Annual Operating Cost (Figure 19) – The Saturday Service Alternatives have the highest annual net operating cost over status quo service, around \$24,000 to \$40,000. Replacing Quincy Evening Service with On-Demand Service has a relatively low annual operating cost impact of \$3,300 without technology costs but \$16,000 including technology costs. PTS would save \$10,900 if the last run of the East County Route was eliminated.



- Passengers per Vehicle Service Hour (Figure 20) – Productivity of the various alternatives is measured in passenger-trips per vehicle service hour. Replacing Quincy Evening Service with on-demand service alternative clearly is the most productive alternative as it is estimated to carry over 10 trips per additional vehicle service hour over the existing Quincy service. The other Quincy alternatives do not meet the productivity standard of 6 trips per hour. The only alternative which decreases ridership and decreases vehicle-hours (Eliminate Final Eastbound Run of the East County Route) does not meet performance standards as 3 trips per hour are lost. In this case a smaller number is “better” in that less ridership is lost for every hour of service eliminated.



- **Marginal Operating Subsidy per Passenger-Trip (Figure 21)** – Marginal operating subsidy per trip = operating costs (not including fixed costs) minus fare revenues divided by one-way passenger-trips. This measure directly relates the key public input (tax funding) to the key desired output (ridership). As shown in Table 16, The Taylorsville options have a very high marginal operating subsidy per trip of \$220 - \$270. Connecting with Sage Stage at Hallelujah Junction meets the marginal operating subsidy standard as does the East Quincy Loop. The other Quincy Route alternatives have a higher marginal operating subsidy per trip than the \$12 standard. With respect to the alternative which reduces service, a higher figure is better, in that it indicates greater funding savings for every passenger trip eliminated. By eliminating the final eastbound run of the East County Route, PTS would save \$31 for every passenger-trip lost.
- **Farebox Ratio (Figure 22)** – In terms of Transportation Development Act funding eligibility, only a systemwide farebox ratio (fare revenues divided by operating costs) is required to be calculated. However, for the service alternatives analysis it is useful to calculate marginal farebox ratio of each alternative as that is useful in assessing whether individual service alternatives help to attain the overall farebox ratio standard of 10 percent. The East Quincy Loop has a high marginal farebox ratio of 44 percent and therefore would increase the systemwide farebox ratio. None of the other alternatives meet the marginal farebox ratio standard.

Figure 21: Marginal Operating Subsidy per Passenger Trip of PTS Alternatives

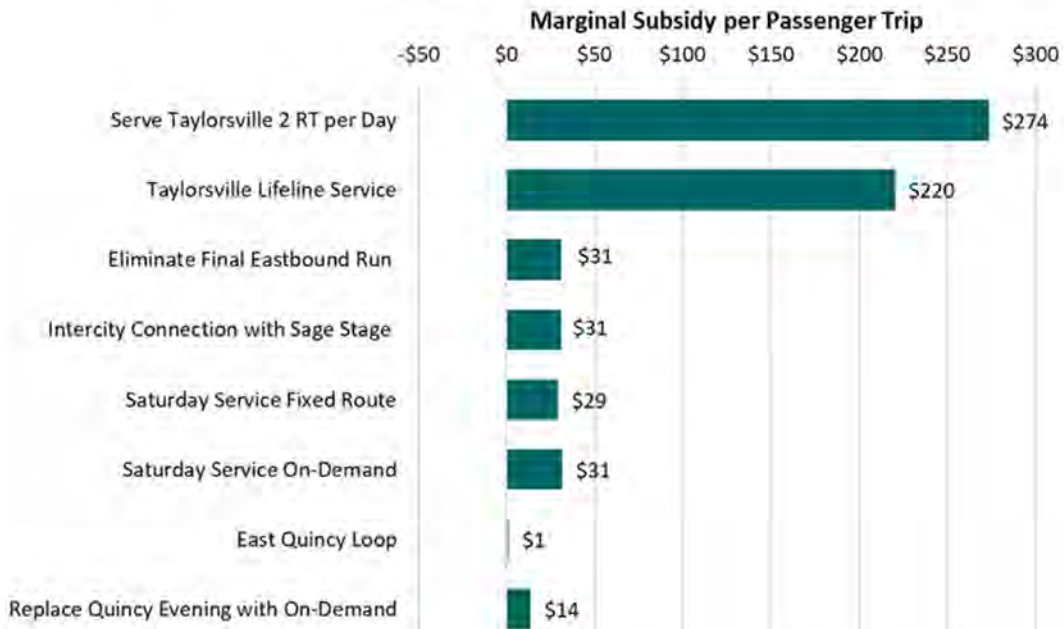
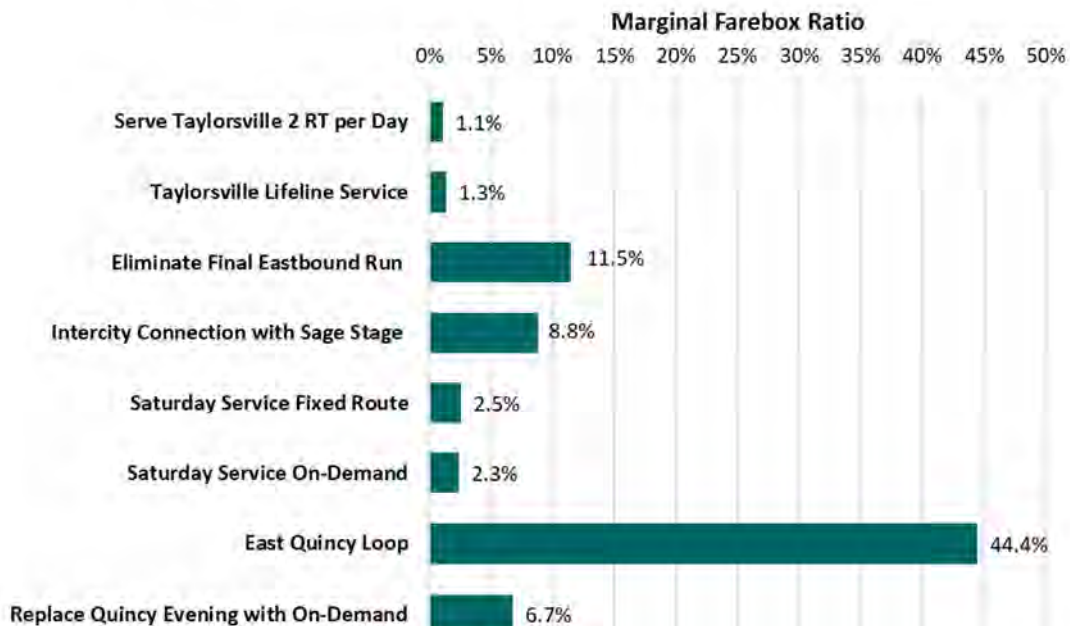


Figure 22: Marginal Farebox Ratio of PTS Alternatives



Performance Analysis Findings

Based on the performance analysis above, replacing Quincy Evening Service with General Public On-Demand Dial-A-Ride is the best option to increase ridership at the lowest cost. Eliminating the final Eastbound Run on the East County route would save around \$10,000 per year without a significant drop in ridership. Although Connecting with Sage Stage at Hallelujah Junction would not increase ridership by more than 470 trips per year, the marginal operating subsidy per trip meets standards due to the fact half of the operating costs will be subsidized through FTA 5311(f) funds. Serving Taylorsville is not a productive alternative; however, providing lifeline transportation to disadvantaged residents displaced by a natural disaster is an important service which PTS can provide. Neither of the Saturday Service alternatives meet standards, though the on-demand option is slightly more cost effective. In terms of implementing an on-demand service, a reasonable process would be to first try the evening on-demand service in Quincy and, if successful, expand to Saturday service, as funding allows.

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Chapter 7

CAPITAL ALTERNATIVES

In this chapter, projects related to the physical capital of PTS and Plumas Seniors, such as vehicles, bus stops, and maintenance/storage facilities, are considered.

VEHICLE REPLACEMENT

PTS has recently made significant investments to update its fleet of vehicles. Three new replacement vehicles arrived in late 2022. Plumas County plans to procure another three new buses in mid-2023 using FTA 5339 funds, costing approximately \$656,000 (Table 17). By the end of 2023, the PTS fleet will have 6 active vehicles and 3 backup vehicles in the fleet and none of the active vehicles will be beyond their useful life.

Table 17: PTS Fleet Replacement Requirements				
Fiscal Year ²	Fixed Route Vehicles			
	Number of Vehicles			Total Cost of Vehicle Needs
	Gas/Diesel Vehicles	Electric Vehicles	Total	
22/23	3	0	3	\$656,000
23/24	0	0	0	\$0
24/25	0	0	0	\$0
25/26	0	0	0	\$0
26/27	0	0	0	\$0
27/28	1	1	2	\$791,200
28/29	0	0	0	\$0
29/30	0	0	0	\$0
30/31	0	1	1	\$665,100
31/32	0	3	3	\$2,055,000
Total	4	5	9	\$4,167,300
Estimated Current Cost of Vehicles	Gas/Diesel	Electric		
	\$150,000	\$500,000		

Note 1: All costs include 5.0 percent annual inflation in 2022/23, and 3.0 percent thereafter.

Note 2: By 2026, 25% of PTS new vehicle purchases over 14,000 lbs are required to be zero emission. By 2029, this increases to 100%.

Note 3: Fleet replacement schedule considers new buses scheduled to be delivered this FY

Source: LSC Transportation Consultants, Inc.

At the end of this planning period another two buses will be due for replacement (2028). The State of California's Innovative Clean Transit Regulation requires that 25 percent of small fleet bus purchases be zero-emissions buses (ZEBs) beginning in 2026 unless the transit agency requests to be exempt. To qualify for an exemption, PTS must provide documentation that one of the following applies: there was an

uncontrollable delay in construction of ZEB infrastructure, current ZEB buses available on the market cannot meet the PTS's daily mileage needs, or current ZEB buses do not have adequate gradeability performance to meet PTS's needs. To be exempt from the bus purchasing requirements for a specific calendar year, PTS must request an exemption by November 30th of said year. Given Plumas County's mountainous terrain and the long distances PTS buses travel, especially on the East and North County Routes, it is likely that PTS will qualify for the previously mentioned exemptions. PTS can also potentially qualify for a financial exemption if the agency can demonstrate that is not financially feasible to purchase ZEBs once the Clean Transit Rule has gone into effect.

Table 17 shows estimated costs if PTS purchases buses according to the Innovative Clean Transit Regulation requirements rather than applying for exemptions. In this scenario, one of the bus purchases in 2028 would need to be zero-emissions. As demonstrated in the table, a battery-electric bus costs approximately two times more than the average diesel bus. Hydrogen-fuel cell buses cost even more than electric buses. The two buses that will be purchased in FY 2027-28 will cost PTS approximately \$791,200, based on current prices and expected inflation (Table 17).

Beginning in 2029, all vehicles purchased by rural transit agencies in CA will have to be ZEBs. Although it is likely PTS will be granted an exemption from the Innovative Clean Transit Regulation for some time, if PTS does not get an exemption, then the transit agency will need to begin planning when and how to install charging infrastructure during the current planning period and what type of zero-emission vehicles will be used. It is possible to apply for FTA 5311 or 5339 funding to both purchase ZEBs and to modify facilities to accommodate charging infrastructure.

Plumas Seniors will need to replace two vans in the next couple of years. The agency will apply for FTA 5310 funding to pay for a portion of the cost of these vehicles.

ZERO-EMISSION VEHICLE ROLL-OUT

In partnership with the Lassen County Transportation Commission (LCTC), the Plumas County Transportation Commission received a Sustainable Transportation Planning Grant to study zero-emission vehicle and charging infrastructure requirements for both counties. The objective of the study is to evaluate the costs and infrastructure requirements of switching PTS and Lassen Rural Bus transit fleets to ZEBs by 2040. The study will evaluate the range of electric and hydrogen buses and how they relate to PTS routes, as well as power grid requirements for electric vehicle charging stations and the feasibility of a hydrogen fueling facility in the region. Although the study may not be complete until January 2024, the preliminary analysis could be used to develop the required Bus Rollout Plan for the PTS fleet by June 30, 2023. The Bus Rollout Plan should be considered a living document and include basic timeline information for vehicle replacement, type of fuel, and how that fuel or power will be provided.

CENTRALIZED BUS FUELING FACILITY

Most of the PTS fleet is stored at the newly constructed Centralized Bus Fueling Facility, located at Plumas County Public Works in Quincy. The facility consists of a 12,000-gallon fuel tank with pumping infrastructure, allowing for bulk fueling at a cheaper cost.

Currently, this facility does not have the infrastructure to charge electric or hydrogen-fuel buses. As PTS incorporates ZEBs into their fleet, as described in the prior sections, they will need to consider installing charging infrastructure at the Centralized Bus Fueling Facility in Quincy. Installing this infrastructure may require the facility to be expanded, or it may just require a redesign of the interior areas. The need for charging infrastructure will be considered in the previously mentioned Zero-Emission Vehicle Rollout Plan.

There are two buses that do not park at the Centralized Bus Fueling Facility: one bus for the East County route parks in Portola at the Veteran's Hall and one bus for the North County route parks in Chester at the Sheriff's Office. Due to the length of both the East County and North County routes, it would significantly add to operating costs to deadhead these vehicles back to the Centralized Fueling Facility each day. When the PTS fleet switches to zero emissions vehicles it could be possible to recharge/refuel these vehicles when they are in service in Quincy if the schedule allows, or they could be swapped out daily for fueled/charged vehicles.

GENERAL TRANSIT FEED SPECIFICATION (GTFS) TECHNOLOGY

General Transit Feed Specification (GTFS) is a method of recording transit data that allows the data, once published, to be easily read by a number of software applications used for trip planning, timetable creation, data visualization, ridesharing, and real-time information, among others. PTS staff have expressed interest in implementing a GTFS real time system for PTS, or a GTFS system with an additional specification that publishes current information regarding arrival and departure times. By PTS providing data in GTFS and GTFS-Realtime (GTFS-RT) formats, free third-party applications, such as Google Maps, can publish the information.

Before real-time data can be posted, PTS needed to publish a basic GTFS feed. There are free and open-source online tools available to develop a GTFS feed. Examples of these tools include Google Feed Validator, Google Transit Feed Report, and Transit Data Feeder. At the time of writing, PTS recently completed publishing its GTFS Feed, including information for the new connection to Hallelujah Junction. PTS is now looking into a pilot program for GTFS-RT technology, possibly through the vendor Rebel Group

The basic components required to generate GTFS-RT feeds are an onboard computer-aided dispatch system, automatic vehicle location (AVL) technology, and software to exchange information being collected onboard with other sources. Hardware and software are often sold together through a contract with a single vendor. One option being pursued by PTS is to put tablets onboard each bus and use a smartphone application to publish real-time schedules. The California Integrated Travel Project (Cal-ITP) has developed an application for this purpose: GTFS-RT as a Service, or GRaaS. To implement this GTFS-Realtime solution, PTS will need to budget for the costs of new onboard GPS devices for each vehicle, onboard Wi-Fi or cellular connectivity, and eventually software maintenance and data server access. The tablet would be the user interface for the driver to interact with onboard technology, such as the GPS. Besides Cal-ITP, other vendors that sell the hardware and software needed for real-time data generation include Bishop Peak Technology, Clever Devices, Omnimodal, and TheTransitClock, among others. The GRaaS app is much cheaper than many of the other options on the market.

AUTOMATIC PASSENGER COUNTERS AND ELECTRONIC FARE PAYMENT SYSTEMS

Currently, most PTS operations data is recorded manually. Drivers complete Daily Vehicle Reports (DVRs) before each run, in which they record the mileage of the vehicle, hours worked, and vehicle inspection notes. Drivers then use rider tracking sheets to record the number of passengers who board in each fare category per run, as well as the number of individuals picked up at deviated stops, the number who use the wheelchair lift, and the number who use an FRC pass. Each form is labeled with the name of the driver completing the run, the date, and time the data was collected.

PTS fareboxes and reconciliation are also done manually. Buses have manual Diamond fareboxes installed onboard. At the end of the day, the farebox vaults are then taken off the bus and stored in the Plumas Rural Services office, where the transit coordinator counts and secures the fareboxes before they are deposited the following day.

There are many technological innovations available that can collect transit operations data in real time. These tools improve the accuracy of a transit system's data and help alleviate some of the responsibility of the driver to record information. Although there is always a measurable cost up front when purchasing new technology, PTS could use the detailed, digital data collected by automated passenger counters (APCs) or electronic fare payment systems to assist with more accurate planning of the transit system.

APCs are tools that can be used to collect detailed boarding information. Units are installed over each door on the bus to track people entering and exiting through video. Counting software detects how many people are entering and exiting in the video, generating boarding and alighting counts. The counts data is then sent via the internet to generate a live report. Automatic passenger counters can be integrated with the onboard GPS to develop a map of boardings and alightings. Companies that make APCs for buses include ETA Transit, Dilax, and Acorel. Prices vary depending on the vendor and the size of the transit fleet; however, approximate costs to purchase and install APC hardware are about \$4,000 per bus. Software to interpret APC data costs about \$1,000 annually.

Electronic fareboxes collect both cash and digital payments. Data can be exported from electronic farebox and downloaded into reports for PTS to keep on file. Examples of electronic payment systems that accept both cash and card payments are the Aries 5 Farebox by Payment in Motion and the Fast Fare® Farebox by Genfare. New fareboxes cost between \$12,000 and \$18,000 each, excluding annual software costs.

PASSENGER FACILITIES

If the East Quincy Loop alternative is implemented, PTS should consider installing additional bus stop signs along 4th Street, Center Street and S. Mill Creek Road. At another site, discussions have begun between Lassen and Plumas counties with respect to moving the transit stop in Hamilton Branch, as the business owner at the current location has complained of misbehaving passengers. The fire department could potentially be a good location.

MARKETING

Below, PTS's marketing methods are summarized followed by a list of recommendations on how to improve marketing to better communicate with passengers and increase ridership.

Printed Materials

PTS has printed brochures with route information available for residents trying to learn more about the transit system. These brochures contain route maps, schedules, rider rules, and fare information. To improve the brochures and make them more easily understood, the route maps should be made larger and with a clearer indication of the direction the bus travels. Major cross streets should be indicated to help passengers less familiar with local landmarks orient themselves to the route map. To clarify bus stop locations for people less familiar with Plumas County, the time schedule should indicate the town where each stop is located. This information could be conveyed by explicitly stating the community or town, different shading for each town, or a color-coded schedule.

Website

There have been several improvements to the PTS website since the last SRTP in 2015, some of which were recommended in the SRTP itself. For instance, the website now has information on which routes are run only when FRC is in session. The website also shows PTS phone information and lists civil rights protections and how to file a complaint. Each route has its own page with the daily schedule. People can find information on rider rules, fares, and special services such as the High Sierra Music Festival on the website as well. The website provides contact information for other regional transit agencies (Lassen Rural Bus, etc.).

This SRTP recommends further changes to the PTS website to improve the availability of transit information. On each route's page, it would be helpful to have the route map embedded in addition to the schedule. The website should have resources for Spanish speaking individuals to learn about the bus system, or information on how to be connected with assistance. Both the route map and schedule should be updated, as described earlier, to be more easily understood. It is recommended that PTS indicate on the "Fares" page that FRC students can ride for free using their college IDs. Lastly, it is important that the website be up to date: all outdated information should be removed (such as references to connections to Red Bluff and Redding), recent news should be published (there has been no news since 2018), and route schedules should be current and show possible connections to other transit systems.

Phone

Residents and passengers can call PTS to get information on existing services. Staff can also assist in planning an upcoming trip via phone if needed. Another option is to subscribe to text alerts for any of the PTS fixed routes, but charges may apply depending on the person's cell phone plan. While the text alert system is currently advertised on the PTS website, it would be helpful to increase awareness of this program.

Social Media

As of September 2022, PTS has no social media of its own. Plumas Rural Services, the agency responsible for daily operations, does occasionally post news or updates related to PTS on its Facebook, Instagram, and Twitter accounts. Most of the recent social media activity about PTS has been promoting awareness of the transit system and advertising opportunities to receive discounted fares. These social media posts are irregular, as Plumas Rural Services has many other programs to advertise.

It is recommended that PTS establish its own social media account, either Twitter or Facebook, which can be used to share quick but time-sensitive announcements related to the bus system such as delays related to road construction or severe weather alerts. By having a social media page for passengers to follow, passengers can then receive news more directly regarding any schedule or service changes rather than following Plumas Rural Services social media accounts. The PTS social media account could also promote the service by providing general information about the different routes, advertising free fare days, and announcing opportunities for residents to provide public input regarding the bus system for ongoing planning efforts.

RECOMMENDED MARKETING IMPROVEMENTS

Marketing is extremely important as a tool to communicate relevant information to current riders, as well as to increase awareness of the transit system among the greater community and recruit new riders. The marketing recommendations discussed in this section are summarized below:

- Redesign route maps to be larger, more clearly show the direction the bus travels, and show more cross streets to provide reference for people less familiar with local landmarks.
- Design the time schedule to include information about which town the stops are located in.
- Embed route maps on all the fixed routes' pages on the PTS website.
- Include resources on the PTS website for Spanish speaking individuals to get information on the transit system.
- Update the website: remove outdated information, verify information on possible connections, and post recent news.
- Advertise the text alert system.
- Establish either a Twitter or Facebook account to increase awareness of PTS; post important route updates, promote free fare days, and gather public input for ongoing planning projects.

These recommended actions assume PTS has not yet acquired GTFS-RT technology, as once PTS begins publishing GTFS feeds PTS could easily reformat its schedule and maps. The real-time information would also relieve some of the need to publish service updates on the website or on social media. Once PTS route information becomes available on online trip finders such as Google Transit, PTS should add a link to Google Transit on the main page of its website to help people with their trip planning.

In general, PTS should increase advertising. Promotions could be done through the radio, physical advertisements around the community, or the internet. PTS's marketing efforts have historically been limited due to financial and time constraints; however, it is important to increase awareness of the bus system to recruit new riders, and to encourage past riders to return after the COVID-19 pandemic and Dixie Fire.

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FINANCIAL ALTERNATIVES

PTS receives funding from federal, state, and local sources. This section will review possible changes that could affect PTS's revenue sources.

FARE STRUCTURE

Peer Transit System Fares Analysis

Fare revenue is an important, albeit small, portion of a transit system's budget. To qualify for funding through the California Transportation Development Act (TDA), transit systems are required to meet a minimum farebox ratio. This requirement has been suspended through FY 2022-23 as most transit agencies have seen significant declines in ridership after the pandemic and the specific date for re-establishing the farebox ratio requirement along with any changes in these requirements have yet to be determined. This SRTP recommends that PTS continue to try and achieve a 10 percent farebox ratio annually (Table 13). The fare structure must therefore be designed so the transit system collects enough revenues, but also so passengers can afford the fares.

To determine whether the PTS fare structure is reasonable, a peer analysis was conducted. The peer transit systems were selected based on having a similar number of service offerings, being in California, and serving rural areas. None of the transit systems selected serve large universities or colleges, and none have services geared specifically towards tourists. Table 18 compares the peer transit systems' fares for intercommunity and in-town trips, using slightly simplified fare structures. Table 19 summarizes how each of the transit systems defines their various fare categories. The findings of the analysis for each system are as follows:

- **PTS – East County Route (Quincy to Portola):** The East County route is about 40 miles one-way from the first stop in Quincy to the last stop in Portola. As discussed in previous chapters, PTS charges \$4.00 for most intercommunity trips. Trips made within the same town cost \$1.00. Passengers can also purchase a monthly pass for use on all PTS services for \$100, and for \$50 for those eligible for discounted fares. PTS provides discounted fares to seniors ages 60 and older and disabled individuals. Children who are 7 and younger ride for free.
- **STAGE – Yreka to Mount Shasta:** Siskiyou County's public transit system is known as STAGE. STAGE operates transit services between Yreka and Mount Shasta, a distance of about 37 miles. The base fare for this trip is \$4.00, and the discounted fare is \$2.75. STAGE charges passengers \$1.75 for trips made within the same town, and \$1.25 for in-town trips made by passengers who qualify for discounted fares. STAGE passengers must prove that their household income qualifies for the discounted fare rate.

- Lassen Rural Bus – South County Route Susanville to Doyle:** Lassen Rural Bus is the public transit system in Lassen County, just north of Plumas County. One of the system’s services is a long-distance route (South County) between Susanville and the community of Doyle, approximately a 43-mile trip. The Lassen Rural Bus fare structure is nearly identical to that of PTS: the base, discount, and in-town fares are all the same. The only difference is Lassen Rural Bus charges slightly less for monthly passes. Lassen Rural Bus provides discounts to the same groups as PTS, except children ages 6 to 17 also qualify for the discount and kids under the age of 6 ride for free.
- Amador Transit – Upcountry Route Sutter Creek to Amador Station:** Amador Transit operates a service from the City of Sutter Creek to Amador Station, located in the community of Pioneer in the Sierra Nevada foothills. The base fare for this 25-mile trip is \$3.50, and the discounted fare is \$2.00. If a passenger is traveling within the same town, the fare is \$1.00. There is no discount available for in-town trips. Monthly passes cost \$120 as a base, and \$80 if the passenger qualifies for the discounted price. Amador Transit provides discounted fares to seniors ages 62 and older, persons with a disability, and children ages 6 to 17. Children younger than 6 ride for free.

Comparison to PTS Fares

The average costs for each of the fare types considered are shown in Table 18. As seen in the table, PTS is within the range of the other peer transit system for each fare category. As all four routes are different distances, it is useful to consider the base fare per route mile in order to analyze whether the fare cost is appropriate for the service being provided. The base fare per route mile for the East County route is \$0.10, which is very comparable to the average across the four systems of \$0.11.

Table 18: Peer Transit System Fares Analysis					
Transit Program	PTS	STAGE (Siskiyou)	Lassen Rural Bus	Amador Transit	
Service Area - Route	Quincy to Portola	Yreka to Mount Shasta	Susanville to Doyle	Sutter Creek to Amador Station	Average
Fare Structure					
Base Fare - One Way	\$4.00	\$4.00	\$4.00	\$3.50	\$3.83
Discount - One Way	\$2.00	\$2.75	\$2.00	\$2.00	\$2.25
In-Town Fare	\$1.00	\$1.75	\$1.00	\$1.00	\$1.25
Discount - In-Town Fare	\$0.50	\$1.25	\$0.50	--	\$0.88
Monthly Pass	\$100.00	--	\$90.00	\$120.00	\$105.00
Monthly Pass Discount	\$50.00	--	\$45.00	\$80.00	\$62.50
Operating Statistics					
One-way Route Mileage	40	37	43	25	35
Base Fare per Route Mile	\$0.10	\$0.11	\$0.09	\$0.14	\$0.11
<i>Source: LSC Transportation Consultants, Inc.</i>					

Table 19: Peer Transit System Fare Categories

Transit System	County	Fare Category			
		Regular	Discount	Children	Young Children
Plumas Transit Systems	Plumas	All Others	Seniors 60+ Disabled	--	7 & Under
STAGE	Siskiyou	All Others	Qualifying Household Incomes	--	--
Lassen Rural Bus	Lassen	All Others	Seniors 60+ Disabled	6 - 17	Under 6
Amador Transit	Amador	All Others	Seniors 62+ Disabled	6 - 17	Under 6

Source: LSC Transportation Consultants, Inc.

Potential Fare Changes

The peer transit system fares analysis indicates that PTS's fare structure is similar to its peers. The fare values for each category are comparable across all four systems, and PTS's base fare per mile is near the peer average. The PTS fare categories are also similar to the peer agencies except that PTS does not provide older children with discounted fares and allows seniors 60 and older to pay the discounted rate instead of 65 and older. Overall, these results indicate that PTS's fare structure is reasonable.

Given the importance of making the farebox ratio requirement, it is still valuable to consider how increasing fares would impact overall revenues. While increasing fares would result in PTS collecting more revenues per passenger, it would also likely cause a decrease in ridership. Another fact to consider is that passenger fares paid on the bus and for monthly passes represent only 35 percent of fare revenue. To have a real impact on farebox ratio, PTS would not only need to raise fares charged on the bus but also increase the contract amount with Feather River College and Far Norther Regional Center. According to an elasticity analysis, the PTS average fare paid would need to increase by 50 percent for PTS to make farebox ratio in the status quo scenario, unless ridership rebounds more than the 15 percent forecast in Table 3. This represents a significant fare increase for a population which is highly transit dependent (88 percent of passengers surveyed do not have a vehicle available for transportation) and therefore not recommended.

Monthly passes are intended to provide discounts to regular riders. Assuming that a passenger rides the East County or North County Routes twice per day and five days per week during the month, purchasing a \$100 monthly pass from PTS would save that individual 47 percent compared to paying the regular fare every time they boarded the bus. While this is comparable to the peers considered in Table 19, this is a far greater discount than the past industry standard of monthly passes providing a 20 percent discount on

the price of normal fares. For PTS, providing a 20 percent discount would mean the monthly pass for the East and North County Routes would cost around \$150. Given the demographics of transit passengers in Plumas County, it is not recommended that PTS raise its monthly pass price by \$50.

If PTS were to raise the price of its \$100 monthly pass for the East County and North County Routes to \$120, the discount provided by the monthly pass would still be 36 percent. Based on PTS financial data, there are approximately 160 \$100 monthly passes purchased annually, but the increased cost of the monthly pass would likely result in a 10 percent decrease in the number of passes sold. Considering the impacts of both the increase in pass cost and the resulting decrease in ridership, PTS would experience around an 8 percent increase in fare revenues earned from monthly passes by increasing the price by 20 percent. This increase would equate to about a 2 percent increase in fares over the status quo scenario projected for FY 2023-24.

During the COVID pandemic, the state suspended farebox ratio requirements through the end of the current fiscal year (FY 2022-23). In the interest of reducing private vehicle use and reducing greenhouse gas emissions, there has been some discussion that farebox ratio requirements will be changed so that transit agencies can focus more on increasing ridership through free or low fares instead of raising fares which can decrease ridership.

PTS recently received \$23,000 in LCTOP funds to provide passengers with free fares on certain days during FY 2022-23. Offering free fares has resulted in increased ridership levels. Given the positive ridership response to the free fare days, it is not recommended that PTS raise its fares at this time. PTS should continue to utilize these free fare days as an opportunity to promote and market the transit system.

PLUMAS TRANSIT SERVICES SHORT-RANGE TRANSIT PLAN

INTRODUCTION

The following plan presents service enhancements, capital improvements, and marketing strategies to enhance public transit services in Plumas County, within the constraints of realistic funding projections. It is based on a review of existing transit service and demand conditions, analysis of a wide range of alternatives, as well as public and stakeholder input. This chapter presents the individual plan elements in brief, based on the substantial discussions presented in previous chapters; refer to previous chapters for additional background on the plan elements.

SERVICE PLAN

The recommended service enhancements are described below. Annual operating cost estimates for each plan element are displayed in Table 20, while ridership impacts as shown in Table 21. If marketing strategies are implemented, a small increase (2 percent) in ridership can be expected to result. Fare revenue estimated to be generated from each plan element is shown in Table 22.

North County – Serve Taylorsville 2 RT per Day – Pilot Program

To address the fact that many displaced and disadvantaged residents now live in Taylorsville instead of Greenville, an extension of the North County Route to Taylorsville (two roundtrips per day) is recommended as part of this plan element. This option is preferred to the lifeline transit service option as these North County runs are eligible for FTA 5311(f) funding and would provide more consistent service. Draft schedules for the revised northbound and southbound North County Route are shown in Tables 23 and 24. Assuming FTA 5311(f) funding is obtained, this plan element will require \$8,300 for one year of operation. Only around 60 one-way passenger-trips will be carried annually. This plan element should be implemented as a six-month pilot program.

PTS drivers should conduct boarding and alighting counts in the Taylorsville area after three and six months of operation. If after the six-month pilot period, there is fewer than 1 boarding per week or the overall productivity of the North County Route dips below 2.5 trips per hour, this service should be reconsidered. PTS will need to conduct an outreach effort to the Taylorsville area to make residents aware of the program.

In order to provide an evening connection between Taylorsville and Quincy, Plumas Seniors could shuttle residents between the Hwy 89 at Arlington Road stop at 5:45 PM and Taylorsville. This is dependent on if Plumas Seniors can find drivers to work in the evening.

Table 20: Plumas Transit Services SRTP Estimated Annual Operating Cost

Plan Element	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Base Case Marginal Operating Cost ¹	\$614,950	\$639,550	\$658,730	\$671,910	\$685,350
North County Route - Serve Taylorsville 2 RT per Day	\$8,300	\$8,630	\$8,890	\$9,070	\$9,250
On-Demand Quincy Evening Service	\$16,300	\$16,950	\$17,460	\$17,810	\$18,170
Saturday On-Demand Service	\$0	\$41,910	\$43,170	\$44,030	\$44,910
Quincy Route Revisions (Hourly Headways, East Quincy)	\$9,500	\$9,880	\$10,176	\$10,380	\$10,588
One-time Technology Costs	\$10,000	\$0	\$0	\$0	\$0
Plan Element Subtotal	\$44,100	\$77,370	\$79,696	\$81,290	\$82,918
Fixed Costs	\$396,900	\$412,780	\$442,170	\$483,130	\$538,440
Total Operating Cost	\$1,055,950	\$1,129,700	\$1,180,596	\$1,236,330	\$1,306,708
<i>Change Over Base Case</i>	4%	7%	7%	7%	7%

Table 21: Plumas Transit Services SRTP Estimated Annual Ridership

Plan Element	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Base Case Ridership ¹	21,870	22,307	22,754	23,209	23,673
North County Route - Serve Taylorsville 2 RT per Day	60	60	60	60	60
On-Demand Quincy Evening Service	1,100	1,120	1,120	1,120	1,120
Saturday On-Demand Service	0	1,280	1,280	1,280	1,280
Quincy Route Revisions (Hourly Headways, East Quincy)	1,400	1,430	1,430	1,430	1,430
Plan Element Subtotal	2,560	3,890	3,890	3,890	3,890
Total Ridership	24,430	26,197	26,644	27,099	27,563
<i>Change Over Base Case</i>	12%	17%	17%	17%	16%

Note 1: Base Case ridership is estimated based on FY 2021-22 trends.

Table 22: Plumas Transit Services SRTP Estimated Annual Fare Revenue

Plan Element	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Base Case Fare Revenue	\$69,000	\$70,380	\$71,788	\$73,223	\$74,688
North County Route - Serve Taylorsville 2 RT per Day	\$180	\$184	\$187	\$191	\$195
On-Demand Quincy Evening Service	\$1,100	\$1,122	\$1,144	\$1,167	\$1,191
Saturday On-Demand Service	\$938	\$956	\$975	\$995	\$1,015
Quincy Route Revisions (Hourly Headways, East Quincy)	\$1,050	\$1,071	\$1,092	\$1,114	\$1,137
Plan Element Subtotal	\$3,268	\$3,333	\$3,400	\$3,467	\$3,537
Total Fare Revenue	\$72,268	\$73,713	\$75,187	\$76,691	\$78,225
<i>Change Over Base Case</i>	5%	5%	5%	5%	5%

Table 23: Southbound North County Route (Chester/ Greenville to Quincy) - Serving Taylorsville

Bus Stop	Departure Times			
	Revised Taylorsville		Mid-day Taylorsville	
	AM	AM	Run	PM
Marie Road at Lorraine Drive	6:05	10:00	--	Stops are served in the NB Direction
Hwy 36 at Watson Road	6:07	10:02	--	
Hwy 36 at Irwin Way	6:08	10:03	--	
271 Main St. (Holiday Market)	6:09	10:04	--	
218 Laurel Lane - Chester Post Office	6:11	10:08	--	
460 Melissa Ave. (Sierra Meadows Apts.)	6:12	10:10	--	
Hwy 36 at Melissa Avenue	6:17	10:12	--	
Hamilton Branch / 3881 A-13	6:28	10:23	--	
29571 Hwy. 89 Canyon Dam	6:39	10:34	--	7:15
Wolf Creek at Higbie Avenue	6:48	10:43	--	7:24
111 Crescent Street	6:51	10:46	3:35	7:27
427 Crescent St. (Evergreen Mkt.)	6:53	10:48	3:36	7:29
Hwy 89 @ Carter Street	7:00	10:55	3:44	7:36
Hwy 89 at Arlington Road	7:02	10:57	3:47	7:38
Young's Market Taylorsville	7:12	--	3:57	
39300 Hwy 70 (Evergreen Trailer Park)	7:38	11:13	4:23	7:54
270 Hospital Rd (Courthouse Annex)	7:42	11:17	--	--
570 Golden Eagle Ave. (FRC)	7:47	11:18	4:28	7:59
1065 Bucks Lake Rd. (Hosp./Clinic)	7:52	--	--	--
586 Jackson St. (PRS)	7:54	--	--	--
Court Street / Dame Shirley	7:55	--	--	--
1750 Main Street (Quincy Post Office)	7:57	--	--	--
Hwy 70 at S. Lindan Avenue	7:58	11:26	4:36	8:07
1987 E. Main (Sav Mor)	8:02	11:30*	4:39	8:10*
Connection with Lassen Rural Bus		= Eligible for FTA 5311f grant funds		
*= Drop off only				

Table 24: Northbound North County Route (Quincy to Greenville/Chester) - Serve Taylorsville

Bus Stop	Departure Times				
	Revised Taylorsville		Mid-day Taylorsville		
	AM	PM	Run	PM	FRC PM ⁽¹⁾
1987 E. Main (Sav Mor)	8:07	12:24	2:30	5:10	9:06
1355 E. Main St. (Relay Station)	8:08	12:25		5:11	9:08
Hwy 70 at Quincy Junction Rd.	8:12	12:29	2:34	5:15	9:10
Lawrence St. at Railway Ave.	8:14	12:31		5:17	9:14
270 Hospital Rd (Courthouse Annex)	8:17	12:34	2:37	5:20	--
570 Golden Eagle Ave. (FRC)	8:18	12:35	2:38	5:21	9:18
39300 Hwy 70 (Evergreen Trailer Park)	8:22	12:39	2:42	5:25	--
Hwy 89 at Arlington Road	8:36	1:00	3:03	5:45	9:39*
Young's Market Taylorsville	8:46	--	3:13		
Hwy 89 at Carter Street	8:59	1:03	3:26	5:49	9:41*
427 Crescent St. (Evergreen Mkt.)	9:08	1:12	3:34	5:58	9:48*
111 Crescent Street	9:09	1:13	3:35	5:59	9:50*
Wolf Creek at Higbie Avenue	9:13	1:17	--	6:03	--
29588 Hwy. 89 Canyon Dam P.O.	9:22	1:26	--	6:12	--
Hamilton Branch / 3881 A-13	9:33	1:37	--	6:23	--
Hwy 36 at Melissa Avenue	9:44	1:48	--	6:34	--
460 Melissa Ave. (Sierra Meadows Apts.)	9:46	1:50	--	6:36	--
271 Main St. (Holiday Market)	9:49	1:53	--	6:41	--
Hwy 36 at Irwin Way	9:52	1:56	--	6:45*	--
Hwy 36 at Watson Road	9:53	1:57	--	6:48*	--
Marie Road at Lorraine Drive	9:55	1:59*	--	6:50*	--
↓ To Canyon Dam					
<p>Note 1: FRC is in session from late August through late May. FRC is not in session during winter and spring breaks.</p> <p>Intercity connection to Lassen Rural Bus = Eligible for FTA 5311f grant funds *Drop off only</p>					

Quincy Evening On-Demand

As discussed in the alternatives section, many transit agencies are switching low performing fixed route services to on-demand services similar to Uber/Lyft. For this type of service, a passenger can request a ride using an app on their mobile phone for service within a defined area and time period. The Quincy Evening service carries very few passenger-trips per run and is designed to provide transportation for college students taking evening classes, making this route a good candidate for an on-demand pilot program. As part of this recommendation, the Quincy Evening fixed route service would become an on-demand, door-to-door service. Passengers would call dispatch to request a ride between 5:15 PM to 8:15 PM within the communities of Quincy, East Quincy, including Feather River College and Plumas District Hospital. This service would be operated year-round for consistency so as to also serve non-college trips. Only one vehicle would be required, and the Quincy PM driver shift would remain the same.

The pilot program should be operated for at least 6 months. Feather River College should be in session for at least three months of this time frame. This would allow PRS to determine how many students versus non-students are utilizing the service. Prior to implementation, Plumas Transit would need to procure on-demand technology. If at the end of the 6-month pilot program, ridership on the Quincy Evening service has not increased by at least 2 passenger-trips per day, the program should be reevaluated. A second evaluation period should occur after 1 year when the new service should be serving an additional 4 passenger-trips per day over January 2023 levels. This program is anticipated to cost an additional \$3,300 in operating costs annually and around \$15,000 annually in technology costs (for the on-demand app and on-going support). An additional \$10,000 would be required as a one-time set-up fee.

In order to accurately record ridership on the Quincy Evening service, operating statistics should be recorded based on the time of day (Quincy Day-time until 5 PM and Quincy Evening after 5 PM) instead of what is currently done where ridership is divided based on the driver schedule (AM driver ends at 2 PM).

Saturday On-Demand Service

If the Quincy Evening On-Demand Pilot Program is successful, on-demand service should be expanded to Saturdays in FY 2024-25. Saturday Service should be offered within Quincy and East Quincy between 8 AM and 5 PM with a break for lunch between 12 PM and 1 PM. It is estimated that the on-demand Saturday Service alternative would cost on the order of \$42,000 and carry around 1,250 trips per year. If the on-demand service becomes more popular, PTS may need to add a second vehicle in order to maintain a response time within 20 minutes, essentially doubling the cost. The primary challenge with this plan element will be finding an additional driver. It is expected that the labor shortage will ease somewhat by FY 2024-25.

Consistent Hourly Headways. Serve East Quincy. On-Demand Stops

The alternatives section discussed several options for improving transit service in the community of Quincy. According to public outreach results, modifying the Quincy Route to have consistent hourly headways and serving East Quincy received the highest marks. The existing conditions analysis also showed there are limited daily boardings at some of the outlying bus stops along the route such as Evergreen Trailer Park, Plumas District Hospital and the Drop-In Center. Replacing the Daytime Quincy

Route with Microtransit on-demand service was considered but it estimated this would require an additional vehicle and additional operating costs to serve the same number of passengers as currently is served. A hybrid option is therefore recommended in this plan which incorporates hourly headways, serving East Quincy and providing some on-demand flexibility to outlying bus stops.

Specifically, as shown in Figure 23 and Table 25, one run would operate every hour between 7 AM and 5 PM with a lunch break between noon and 1 PM for the driver (unless a dispatcher or supervisor is able to provide lunch relief during this time). The recommended route begins and ends at Highway 70 & Lee Road, serves Quincy then East Quincy. The following stops would be on-demand, meaning that passengers would either need to call dispatch in advance for pick up or use the same app employed for the Quincy On-Demand Evening Service:

- Drop-in Center
- 2 stops on the East Quincy loop
- Evergreen Trailer Park

The schedule is designed such that if no on-demand stops are requested, the driver would have around a 10-minute layover at Highway 70 and Lee Road as well as at the Courthouse Annex (both ends of the route). It is not likely that all stops will be requested during the same hour, but if that occurred, the driver should still remain on-schedule and could take their break on the following run. As with the Evening Quincy Route plan element, the Quincy AM driver schedule would not need to change. It is estimated that this plan element would cost an additional \$3,500 in annual operating costs. Technology costs could be shared with the Quincy Evening On-Demand service and would therefore cost an additional \$500 per month for the additional vehicle used in the program. It is estimated that this plan element would increase ridership by 1,400 trips per year.

Transportation Reimbursement Program

A cost-efficient way to increase mobility for Plumas County residents living far from transit services or with needs outside of normal operating hours is to provide a Transportation Reimbursement Program.

Around \$5,000 in TDA funds should be set aside annually for the program. Eligible program participants would recruit friends or family to give them a ride to qualified destinations such as medical appointments and social service appointments within Plumas County. Designated facilities out-of-county such as Truckee or Reno could also be included in the program. The driver would then be reimbursed for gas at the IRS mileage reimbursement rate. Reimbursements should not be made for trips which could be made on Plumas Transit Services. Passenger eligibility should be based on income level, disability status, or age. Some administrative staff time would be required to establish passenger eligibility, confirm trip eligibility and process payments. Insurance would not be required as Plumas County would not be providing volunteer drivers. The administrative duties could be performed by Plumas Seniors staff. If the program focuses on elderly and disabled residents, it could be eligible for mobility management funding under the FTA 5310 grant program.

Figure 23
Quincy Local Routes Extension

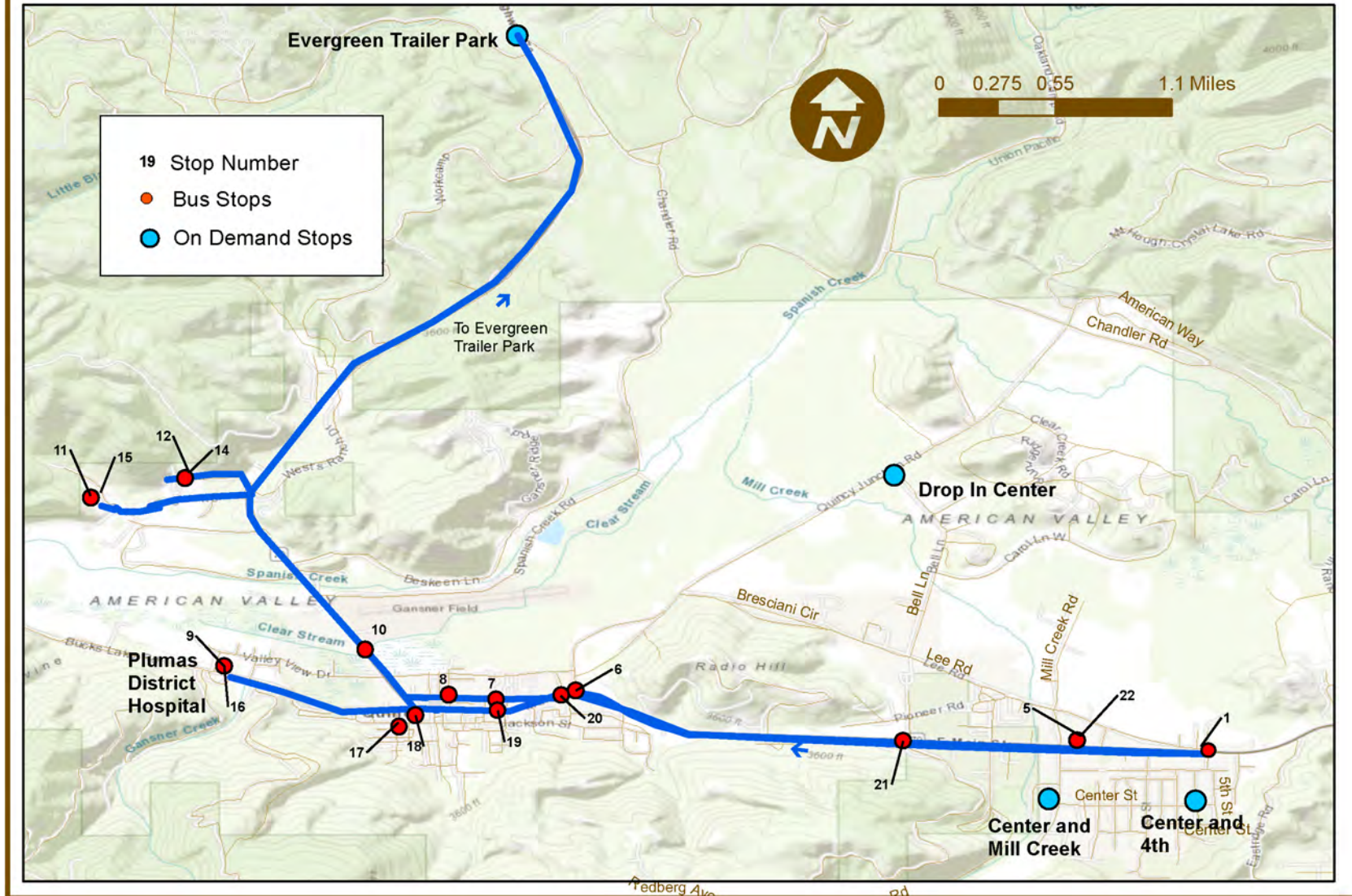


Table 25: Revised Quincy Local Route Daytime Schedule

Hourly Headways and East Quincy Loop

#	Stop	Time
1	Hwy 70 & Reese/Lee Road	:00
2	529 Bell Lane (Drop In Center)	:05
3	Center St & 4th St (East Quincy Loop)	:11
4	Center St & Mill Creek Road (East Quincy Loop)	:13
5	1987 E. Main (Sav Mor)	:14
6	Hwy 70 at Quincy Junction Rd.	:18
7	Lawrence St. at Post Office	:19
8	Lawrence St. at Railway Ave.	:19
9	Plumas District Hospital	:22
10	332 Crescent St. (FRC Fitness Center)	:25
11	570 Golden Eagle Ave. (FRC)	:30
12	270 Hospital Rd (Courthouse Annex)	:32
13	Evergreen Trailer Park	:37
14	270 Hospital Rd (Courthouse Annex)	:41
15	570 Golden Eagle Ave. (FRC)	:44
16	1065 Bucks Lake Rd. (Hosp./Clinic)	:50
17	586 Jackson St. (PRS) (7 AM and 2 PM Hour Only)	:52
18	Court Street at Dame Shirley	:53
19	1750 Main Street (Quincy Post Office)	:55
20	Hwy 70 at S. Lindan Ave.	:56
21	1350 E. Main (Valley Heights Apts.)	:58
22	Hwy 70 at Mill Creek Road (across from Sav-Mor)	:59

Source: LSC Transportation Consultants, Inc.

No service between Noon and 1 PM

On-Demand stops

CAPITAL PLAN

Vehicle Replacement

Plumas Transit is using FTA 5339 funds to replace 3 vehicles this year which have reached the end of their useful life. This will leave the fleet in good condition until the last year of the planning period when 2 vehicles will be eligible for replacement. Per CARB regulations, one of these vehicles should be zero-emission, which are much more expensive and will require charging infrastructure. Plumas and Lassen counties recently kicked off a study to analyze zero-emission vehicle options for the Plumas and Lassen County transit fleets. This study will guide Plumas County as to what types of vehicles should be purchased in 2028, and if application for an exemption to the Innovative Clean Transit Rule is needed.

Other Technologies

Plumas Transit manually records operating data such as passenger-trips. This requires a dispatcher or other staff member to re-input that data into spreadsheets for monthly and annual reports. In the process of procuring on-demand technology for the Quincy Evening plan element, Plumas Transit should consider adding software which could ease the ridership data collection process. This change would reduce data entry time and improve accuracy. This could include the drivers recording passenger-trips on a tablet where the data could be downloaded directly into ridership reports.

MARKETING STRATEGIES

Plumas Transit Services

The following marketing strategies are recommended to better communicate with passengers and increase ridership. Additionally, specific marketing campaigns should be undertaken for pilot programs recommended in the plan.

- Redesign route maps to be larger, more clearly show the direction the bus travels, and show more cross streets to provide reference for people less familiar with local landmarks.
- Design the time schedule to include information about which town the stops are located in.
- Embed route maps on all of the fixed routes' pages on the PTS website.
- Include resources on the PTS website for Spanish speaking individuals to get information on the transit system.
- Update the website: remove outdated information, verify information on possible connections, and post recent news.
- Advertise the text alert system.
- Establish either a Twitter or Facebook account to increase awareness of PTS; post important route updates, promote free fare days, and gather public input for ongoing planning projects.

These recommended actions assume PTS has not yet acquired GTFS-RT technology, as once PTS begins publishing GTFS feeds, PTS could easily reformat its schedule and maps. The real-time information would

also relieve some of the need to publish service updates on the website or on social media. Once PTS route information becomes available on online trip finders such as Google Transit, PTS should add a link to Google Transit on the main page of its website to help people with their trip planning. Although these marketing strategies are anticipated to increase ridership, PTS is limited by a small population.

In general, PTS should increase advertising. Promotions could be done through the newspaper, TV, radio, or internet. PTS's marketing efforts have historically been limited due to financial and time constraints; however, it is important to increase awareness of the bus system to recruit new riders, and to encourage past riders to return after the COVID-19 pandemic and Dixie Fire. The new plan elements discussed above will need to be heavily marketed to be successful.

Plumas Seniors

The following strategies are recommended for Plumas Seniors:

- Expand marketing for the Reno program – This program was discontinued during COVID and recently reimplemented; therefore, this program should be considered as a new program. Marketing strategies include notices in the local newsletter and flyers at the various nutrition sites and on PTS buses.
- Update the Plumas Seniors website with recent ridership information and highlight the Reno service.

FINANCIAL PLAN

Table 26 presents a five-year financial plan for Plumas Transit Services. Total operating costs, including the recommended plan elements, are increased for inflation annually and compared to projected revenues. A five-year capital plan is also included in the table.

Plumas Seniors

The amount of TDA-LTF funds allocated to Plumas Seniors has been increasing steadily over the past five years from around \$222,806 in FY 2017-18 to \$324,906 in FY 2022-23, a 9 percent annual increase. Over the past few years, services were reduced due to COVID. Table 26 assumes that LTF funds will only increase by three percent annually. In order to ensure financial stability of the program, Plumas Seniors should apply for other sources of revenue. The FTA 5310 program provides both operating and capital assistance to non-profit agencies and local governments who provide transportation for seniors and disabled.

Table 26: Plumas Transit Services Financial Plan						5-Year Plan Total
	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	
Operating Costs						
Total Operating Costs⁽¹⁾	\$1,055,950	\$1,129,700	\$1,180,596	\$1,236,330	\$1,306,708	\$5,909,284
Operating Revenues						
Fare Revenue	\$72,268	\$73,713	\$75,187	\$76,691	\$78,225	\$376,083
LCTOP	\$53,705	\$55,316	\$56,976	\$58,685	\$60,445	\$285,127
FTA 5311	\$196,180	\$202,065	\$208,127	\$214,371	\$220,802	\$1,041,544
FTA 5311f	\$417,233	\$212,614	\$218,992	\$225,562	\$232,329	\$1,306,729
TDA - LTF ⁽²⁾	\$126,604	\$130,402	\$134,315	\$138,344	\$142,494	\$672,160
TDA - STA	\$254,487	\$262,122	\$269,985	\$278,085	\$286,427	\$1,351,106
Total Operating Revenues	\$1,470,476	\$1,321,232	\$1,387,082	\$1,457,637	\$1,533,222	\$7,169,649
Annual Balance	\$414,526	\$191,532	\$206,485	\$221,307	\$226,515	\$1,260,365
Capital Plan						
Vehicle Replacement ³	\$656,000	\$0	\$0	\$0	\$791,200	\$1,447,200
Total Capital Requirements	\$656,000	\$0	\$0	\$0	\$791,200	\$1,447,200
Local Match Requirements (20 percent)	\$131,200	\$0	\$0	\$0	\$158,240	\$289,440
Total Grant Funding Required ⁴	\$524,800	\$0	\$0	\$0	\$632,960	\$1,157,760
<div>Potential Capital Funding Programs</div> <div>FTA 5339 Capital</div> <div>FTA 5311</div> <div>Infrastructure Investment and Jobs Act</div>						
<p>Note 1: As presented in Table 18, rounded. Includes annual inflation.</p> <p>Note 2: Based on FY 2021-22 LTF allocation. The LTF allocation varies based on level of funding from other sources. COVID relief funding will end during the planning period.</p> <p>Note 3: Vehicle replacement as presented in Table 15.</p> <p>Note 4: Typically 80 percent of capital equipment needs are covered through federal grants.</p>						

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PLUMAS TRANSIT SYSTEMS (PTS) ONBOARD SURVEY RESULTS

PTS SURVEY RESULTS

PTS passengers were invited to complete onboard surveys as part of the planning process for the Plumas County Short Range Transit Plan (SRTP) during February 2022. Surveys were available on all buses for passengers to complete individually. Detailed results of the survey effort are provided in this appendix, with highlights provided in the text of the SRTP.

The survey instruments consisted of a one-page questionnaire in English on one side and Spanish on the reverse side, printed on card stock. The surveys included a simple introduction, with 18 questions in multiple choice, short-answer, or comment format. Most respondents did not answer every question, therefore the number of answers per question varies.

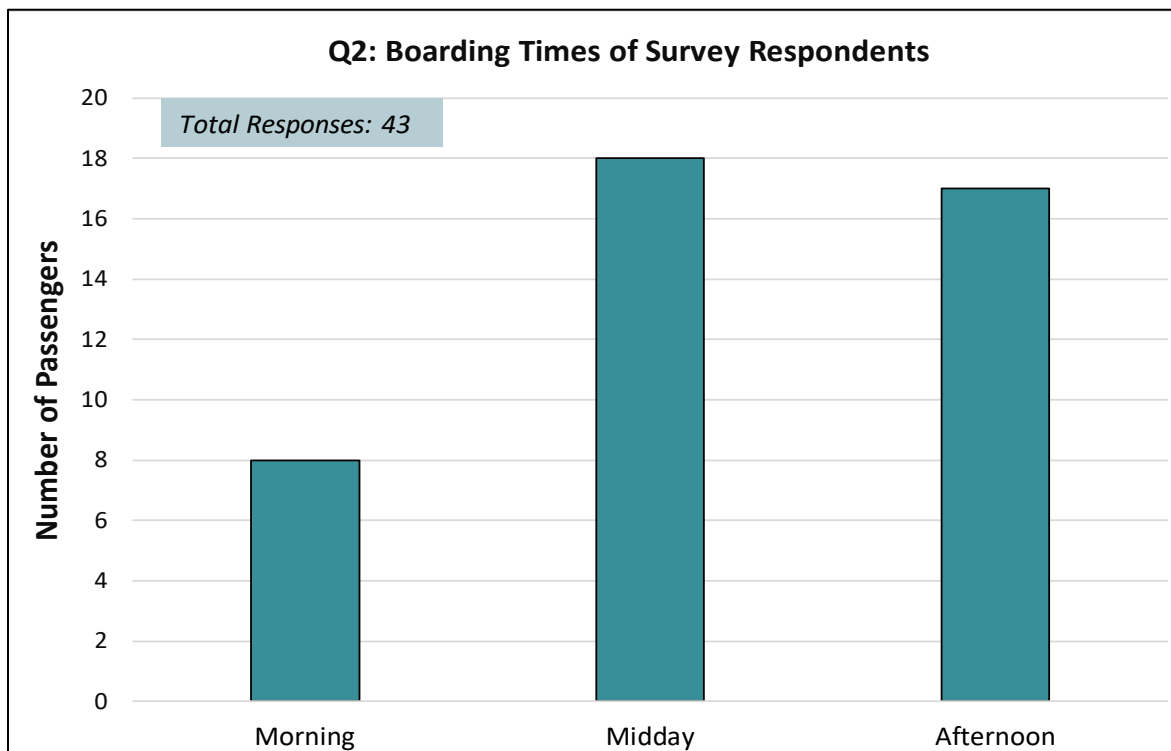
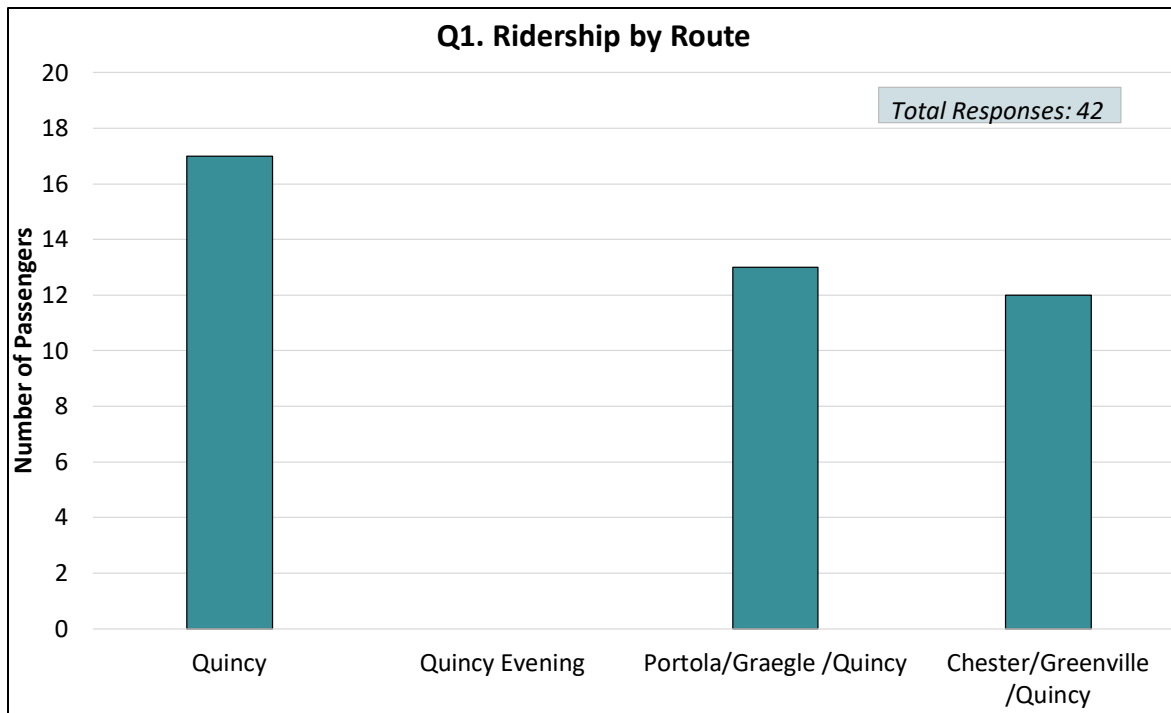
A total of 43 passengers participated in the survey. While this is not a very large sample size, the survey results can still provide meaningful insight into the characteristics and perceptions of PTS passengers. Everyone completed the survey in English. Results by question are presented below.

Q1. Ridership by route (42 responses)

Passengers completed onboard surveys on the Quincy Local, Portola/Graegle/Quincy, and Chester/Greenville/Quincy routes. No one answered the survey on the Quincy Evening route. The most common route that the survey respondents were on was the Quincy Local (40.5 percent). 31 percent of respondents were on the Portola/Graegle/Quincy route and 28.6 percent were on the Chester/Greenville/Quincy route.

Q2. Boarding times (43 responses)

Boarding time results are summarized by whether the individual boarded in the morning (between beginning of service and 10 AM), midday (from 10 AM to 2 PM) or afternoon (after 2 PM until the end of the service day). Approximately 40 percent of respondents boarded either during midday or the afternoon, while less than one fifth boarded in the morning.



Q3. Boarding and alighting locations (39 and 37 responses)

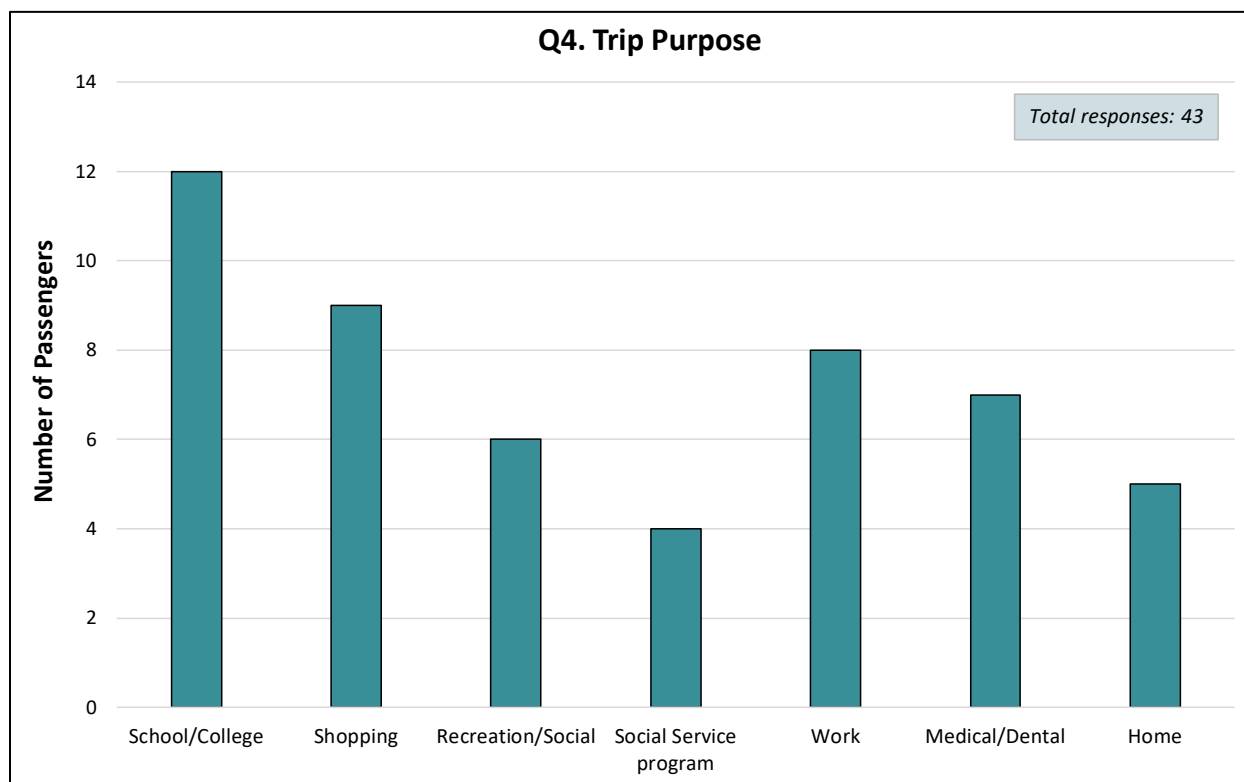
Respondents were asked to identify where they had boarded the bus and where they planned on departing. The most popular boarding and alighting locations are included in the adjacent and below tables.

Q4. Trip purpose (43 responses)

It is especially important since the COVID-19 pandemic to understand why people are traveling and using public transit, as many people have had their commitments and daily lives change. Respondents were asked the main purpose of their trip the day they completed the onboard survey. Many people reported more than one reason for riding the bus. The most common reasons people were using PTS were to get to and from school/college (27.9 percent) and shopping (20.9 percent). The least likely reason was to attend a social service program (9.3 percent). This data indicates that PTS is providing key transportation services to local students, mostly from the college. Students with a Feather River College ID can ride PTS for free through an established contract with the college.

Q3: Boarding Locations of Survey Respondents		
Boarding Locations	Responses	
Courthouse Annex	2	5%
Feather River College	3	8%
Evergreen Market	1	3%
Mill Creek	3	8%
Post Office	3	8%
Safeway	4	10%
Sav-Mor	3	8%
Wolf Creek @ Higbie	3	8%
Wolf Creek @ Landon Ave	3	8%
Hwy 70 @ Lawrence	1	3%
Hwy 89 @ Carter St	1	3%
Other	12	31%
Total responses	39	100%

Q3: Alighting Locations of Survey Respondents		
Boarding Locations	Responses	
Courthouse Annex	4	11%
Feather River College	4	11%
Plumas District Hospital	2	5%
Post Office	2	5%
Portola	2	5%
Safeway	3	8%
Sav-Mor	3	8%
Rocky Point Road	2	5%
Blairsden	1	3%
Graegle	1	3%
Mill Creek	1	3%
Other	12	32%
Total responses	37	100%

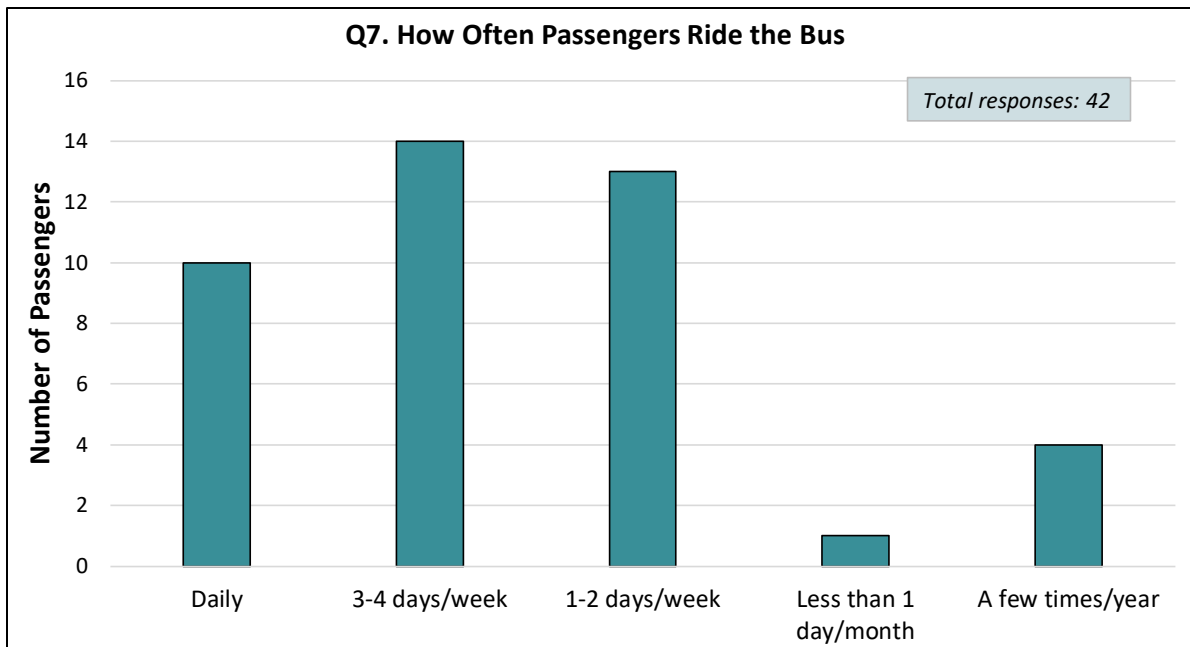


Q5 & Q6. How passengers arrived at the bus (43 responses), and then completed their journey after alighting (43 responses)

Respondents were asked to identify what mode of travel they used to get to and from bus stops. The vast majority of passengers reported that they walk to the bus (90.7 percent), with 60.5 percent of passengers saying they walk less than 3 blocks to get to the bus stop and 30.2 percent walking more than 3 blocks. Only 5 individuals reported getting to the bus by another method. Similarly, most people reported that they walk from the bus stop to their final destination (81.4 percent). Over half of the respondents walk less than 3 blocks to their destination and one quarter walk more. The fact that many of the survey respondents walk to and from the bus is supported by a later survey question where the majority of respondents said they do not have a personal vehicle available to them.

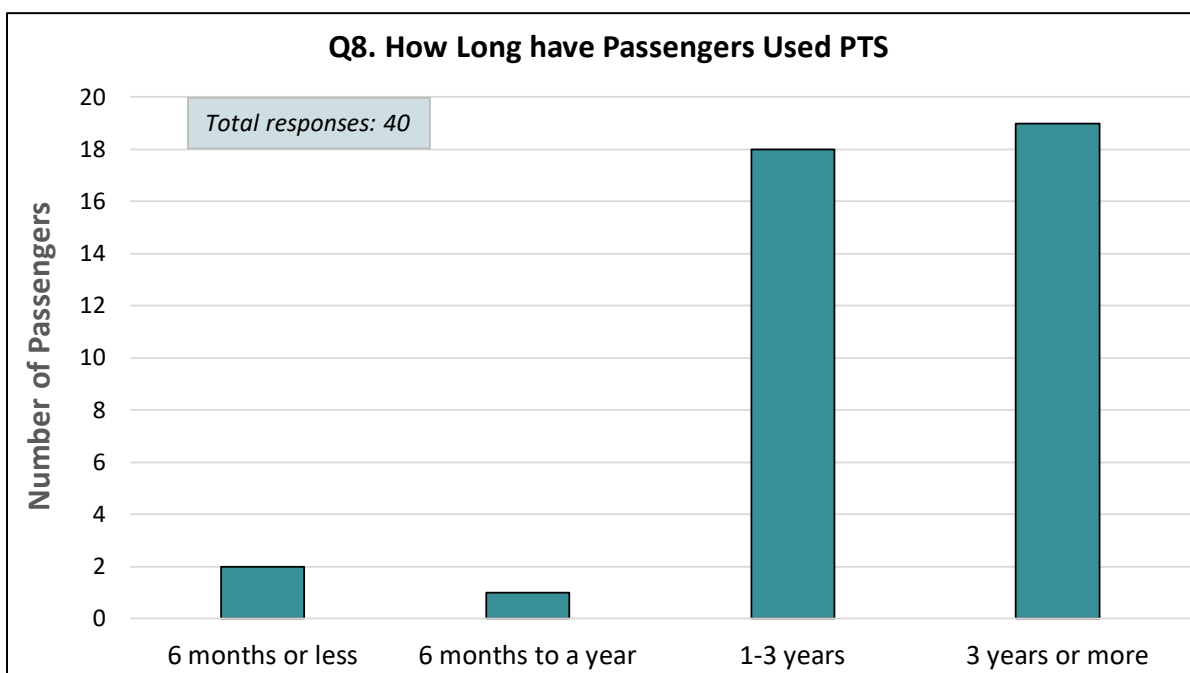
Q7. How often passengers ride PTS buses (42 responses)

The frequency that each individual rides PTS buses provides insight into the travel patterns of typical passengers, as well as how people utilize PTS to meet their transit needs. Roughly one quarter of respondents said they ride PTS buses daily (23.9 percent). 64.3 percent of passengers ride the bus between 1 to 4 days per week. This data suggests that most PTS riders use the service regularly, with far less people taking advantage of the service for special circumstances.



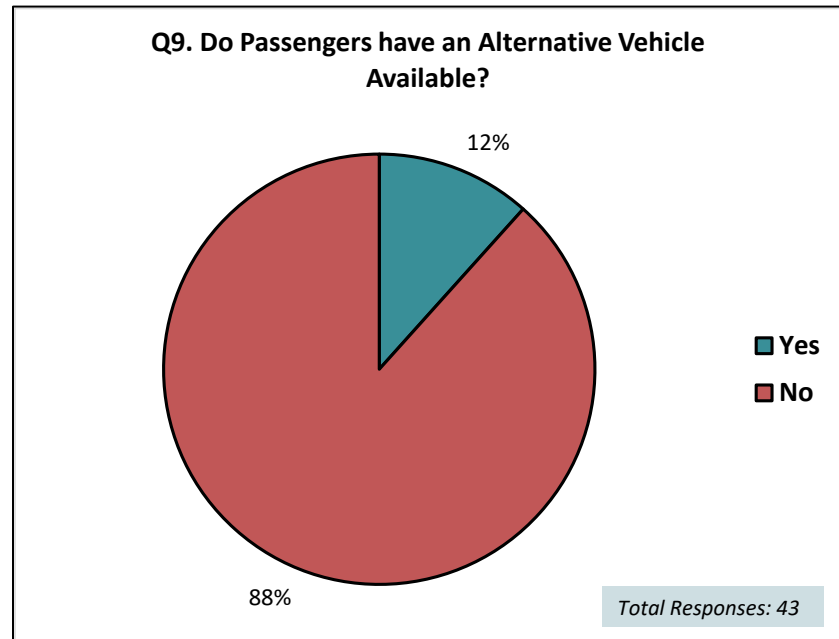
Q8. How long have passengers used PTS services (40 responses)

It is important that a public transit system not only retain passengers for multiple years, but also gain new passengers over time as well. Over 47 percent of passengers said that they have been using PTS for more than 3 years, and another 45 percent said they have used the services for 1 to 3 years. Only 7.5 percent of survey respondents said that they have used PTS for a year or less. This data suggests that most PTS passengers have likely been riding the buses for many years and that there are not as many new passengers.



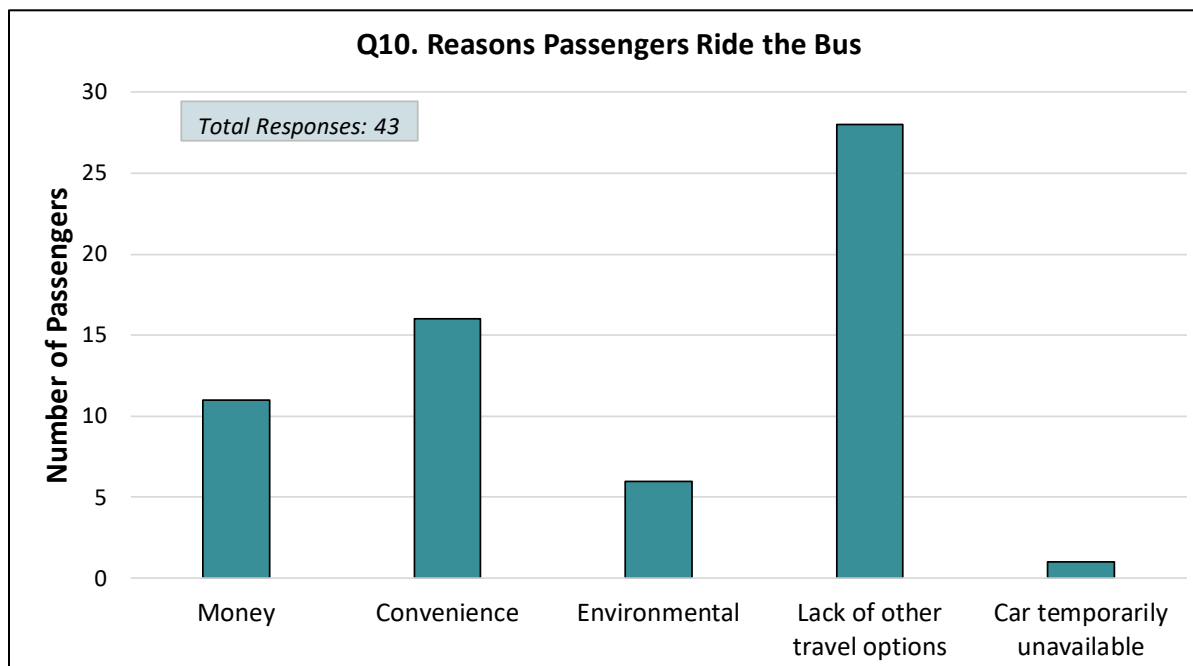
Q9. Did passengers have an alternative vehicle available that they could have used instead of riding the bus? (43 responses)

A key indicator of potential transit dependency is whether or not someone has a personal vehicle available to them. Most of the respondents did not have a car they could have used the day that they answered the survey (88.4 percent).



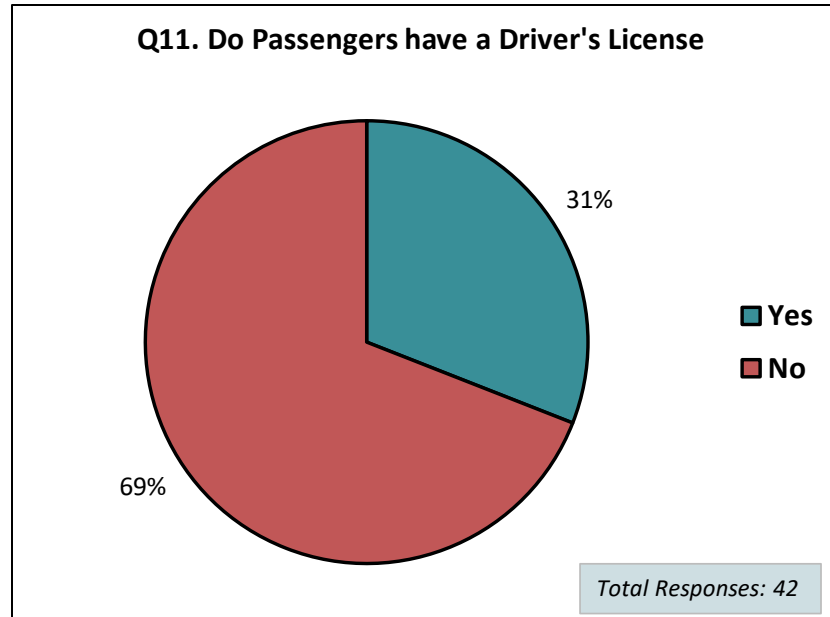
Q10. Reasons passengers ride the bus (43 responses)

Understanding the motivations for why passengers choose to ride PTS/Plumas Seniors can provide context for what passengers may desire from the service. Almost two thirds of respondents said that they ride the bus because of a lack of other travel options. 34.9 percent of passengers said they ride the bus for its convenience and 25.6 percent ride the bus because its affordable. One individual explained that they were using the bus because their car was currently being serviced.



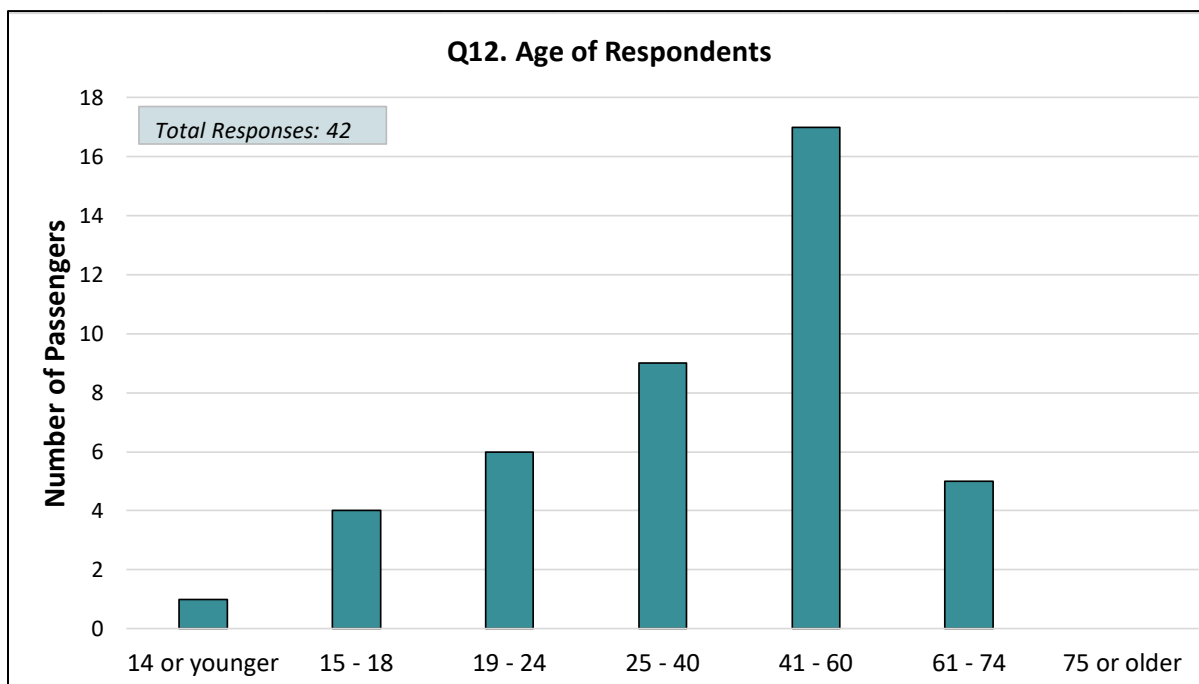
Q11. Do passengers have a driver's license? (42 responses)

Whether or not an individual has a driver's license is another excellent indicator of potential transit dependency. Most respondents reported that they did not have a driver's license (69 percent), while the remaining portion does.



Q12. Age of respondents (42 responses)

To better describe the demographics of the survey respondents, each individual was asked their age. A significant amount of the respondents reported being within the ages of 41 to 60 years old (40.5 percent). Over one fifth of respondents were aged 25 to 40 years old, and approximately 14 percent were aged 19 to 24 years old. Only one person 14 or younger responded, and no one responded who is 75 or older.



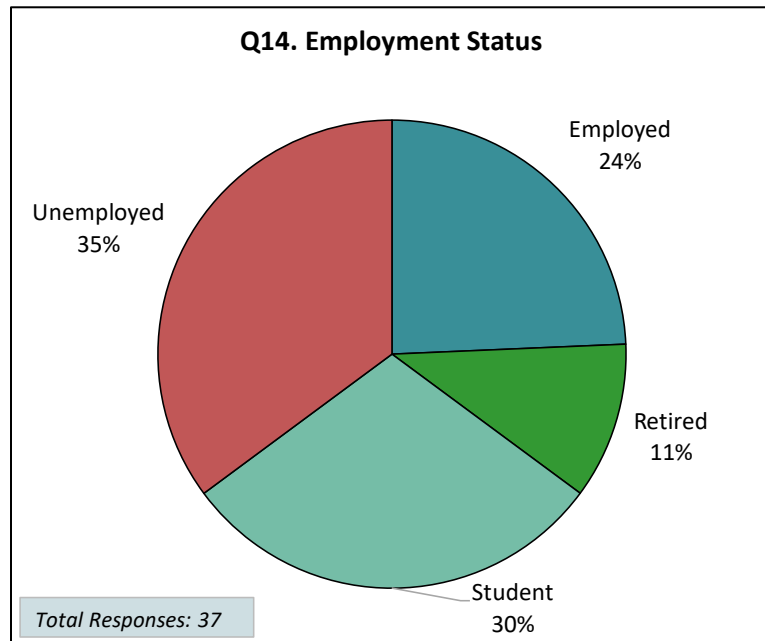
Q13. Annual household income (37 responses)

Some of the passengers taking the onboard survey reported their annual household income. More than half of the individuals said they earn less than \$20,000 per year. Only 4 people, or 11 percent of the survey respondents, said they earn more than \$50,000 per year. This data suggests that many PTS riders are lower income and that any changes to the fare structure may impact riders' ability to utilize these transit services.

Q13. Annual Household Income		
< \$20,000	19	51%
\$20,000 - \$34,000	8	22%
\$35,000 - \$50,000	6	16%
> \$50,000	4	11%
Total responses	37	100%

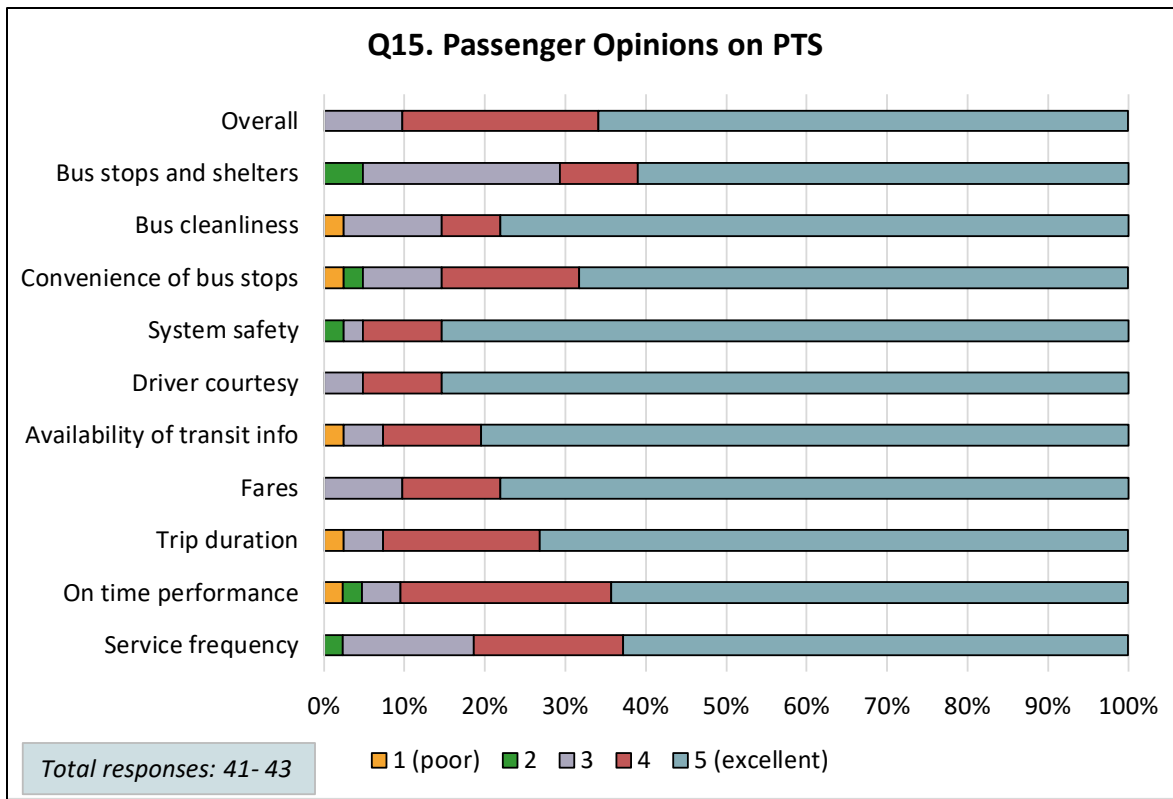
Q14. Employment status (37 responses)

Respondents were asked to describe their current employment status. There was an almost equal amount of people who were either a student or unemployed (about one third each). Only one quarter of the respondents reported being employed.



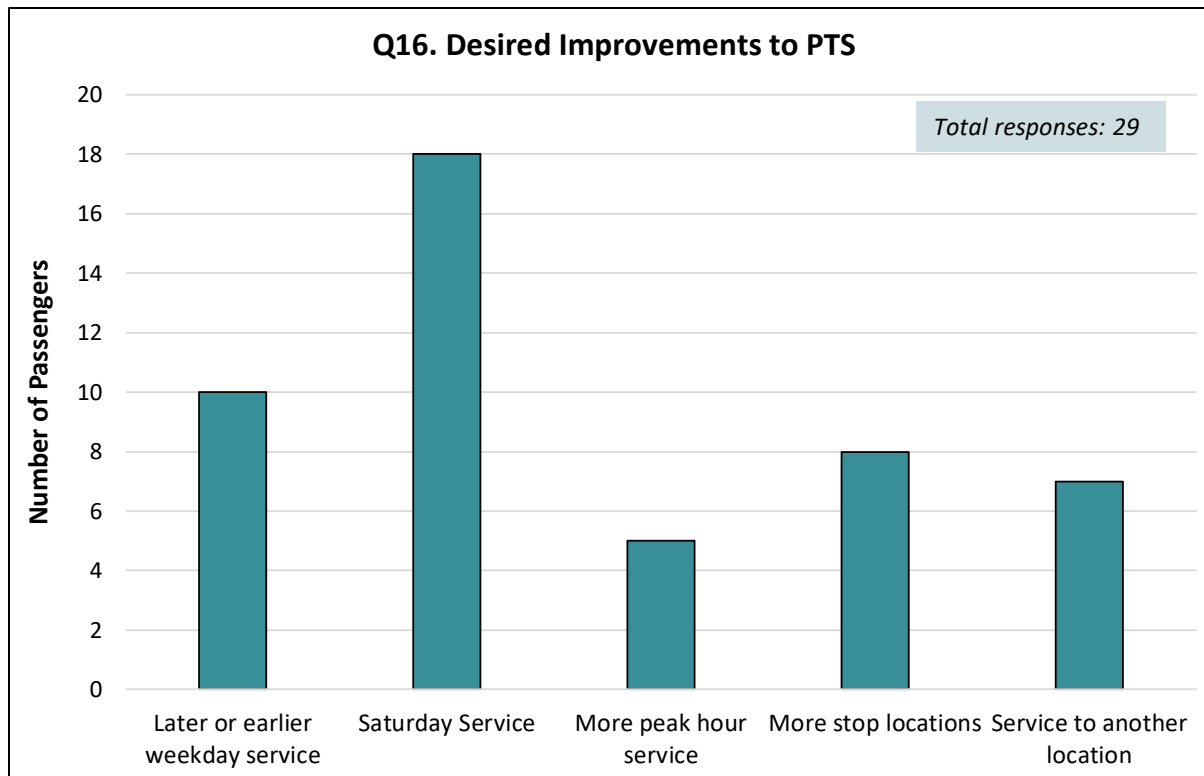
Q15. Passenger Opinions on PTS (41-43 responses)

Passengers were asked to rank various components of PTS service on a scale of 1 (poor) to 5 (excellent). The number of people that ranked each feature ranged from 41 to 43 individuals. Considering all the responses, 88.1 percent of answers were either 4 (good) or 5 (excellent), and the overall service ranked an average of 4.6. The highest ranked PTS service characteristics were driver courtesy (4.8), system safety (4.8) and fares and availability of transit information (both 4.7). Although every service component averaged a "good" rating, the lowest ranked components were bus stops and shelters (4.3) and service frequency (4.4).



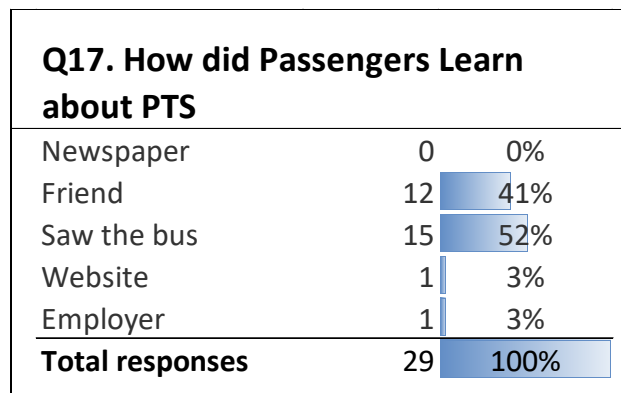
Q16. Desired improvements to PTS (29 responses)

Respondents were asked to select what improvements they would most like to see on PTS out of a list of specific options: later or earlier weekday service, Saturday service, more peak hour service, more stop locations, or service to another location. The most popular improvement among survey respondents was to have Saturday service (62 percent). This was followed by having later or earlier weekday service (34.5 percent) and more stop locations (27.6 percent). A much smaller group of passengers wanted more peak hour service (17.2 percent), which may indicate that the respondents work outside of the traditional 9 to 5 schedule or that they use the bus for other purposes besides work. For those people who said they would desire to have later or earlier weekday service, most said they would want service beginning at 6 AM and ending at a time later than 9 PM.



Q17. How did passengers learn about PTS (42 responses)

Most passengers said that they learned about PTS by seeing buses around the community (52 percent). Very few people reported that they learned about the transit system from their employer or the PTS website.



Q18. Compliments to PTS – per the comments (42 responses)

Passengers were given the opportunity to provide any additional comments that they might have. Most of the additional comments were a compliment for some aspect of PTS service. Some of these compliments have been listed in the below table.

Compliments
"Larry is the best driver"
"Services great as always"
"The drivers: Love them!"
"Larry does a great job!"
"Better than most towns and cities I have lived in"
"David is an excellent driver"
"Bus drivers are very polit and drive bus softly"
"Thanks for getting me to school"
"The service is working fine for me"
"Great job"
"The drivers are all courteous, professional, and good at their jobs. Much appreciated."

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PLUMAS COUNTY COMMUNITY SURVEY RESULTS

COMMUNITY SURVEY RESULTS

Plumas County residents and community members were invited to complete an online community survey as part of the planning process for the Plumas County Short Range Transit Plan (S RTP) during the month of February 2022. The survey was advertised around the community, and people were able to either scan a QR code or follow a link to reach the online survey. Detailed results of the survey effort are provided in this appendix, with highlights provided in the text of the S RTP.

The survey was entirely online, with a simple introduction and 16 questions in multiple choice, short-answer, or comment format. There was an English and Spanish version of the survey available, but everyone answered the survey in English. Most respondents did not answer every question, therefore the number of answers per question varies.

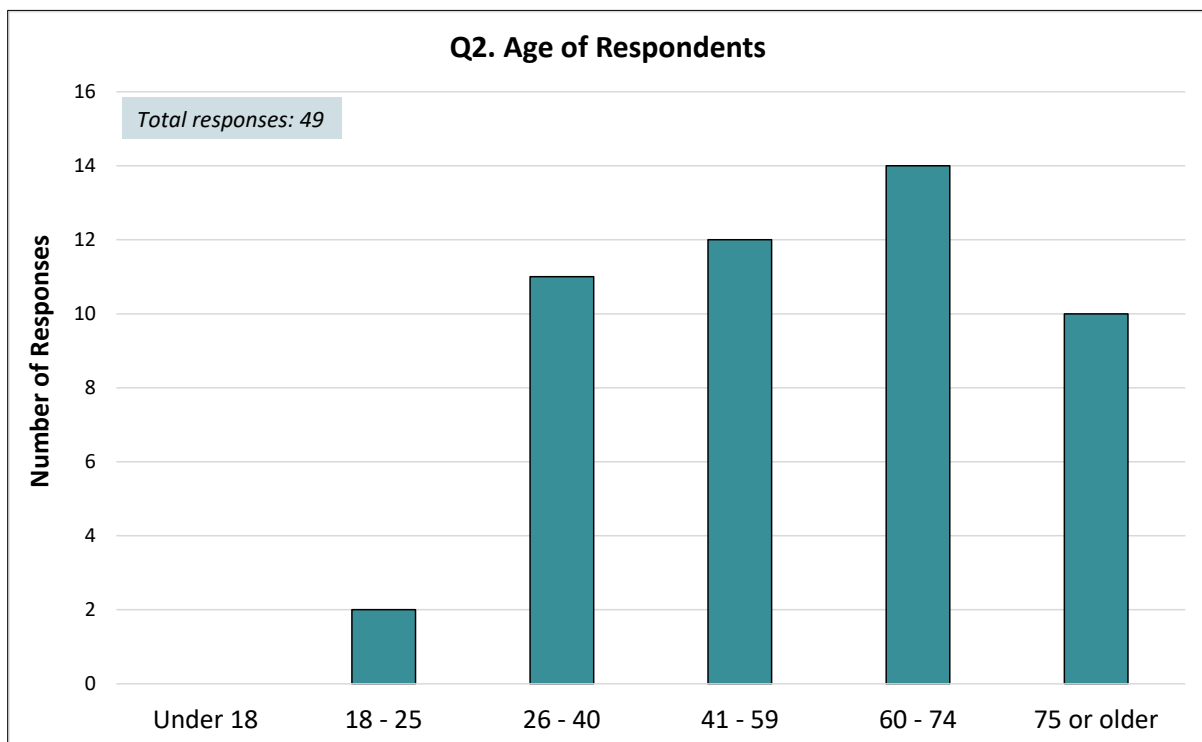
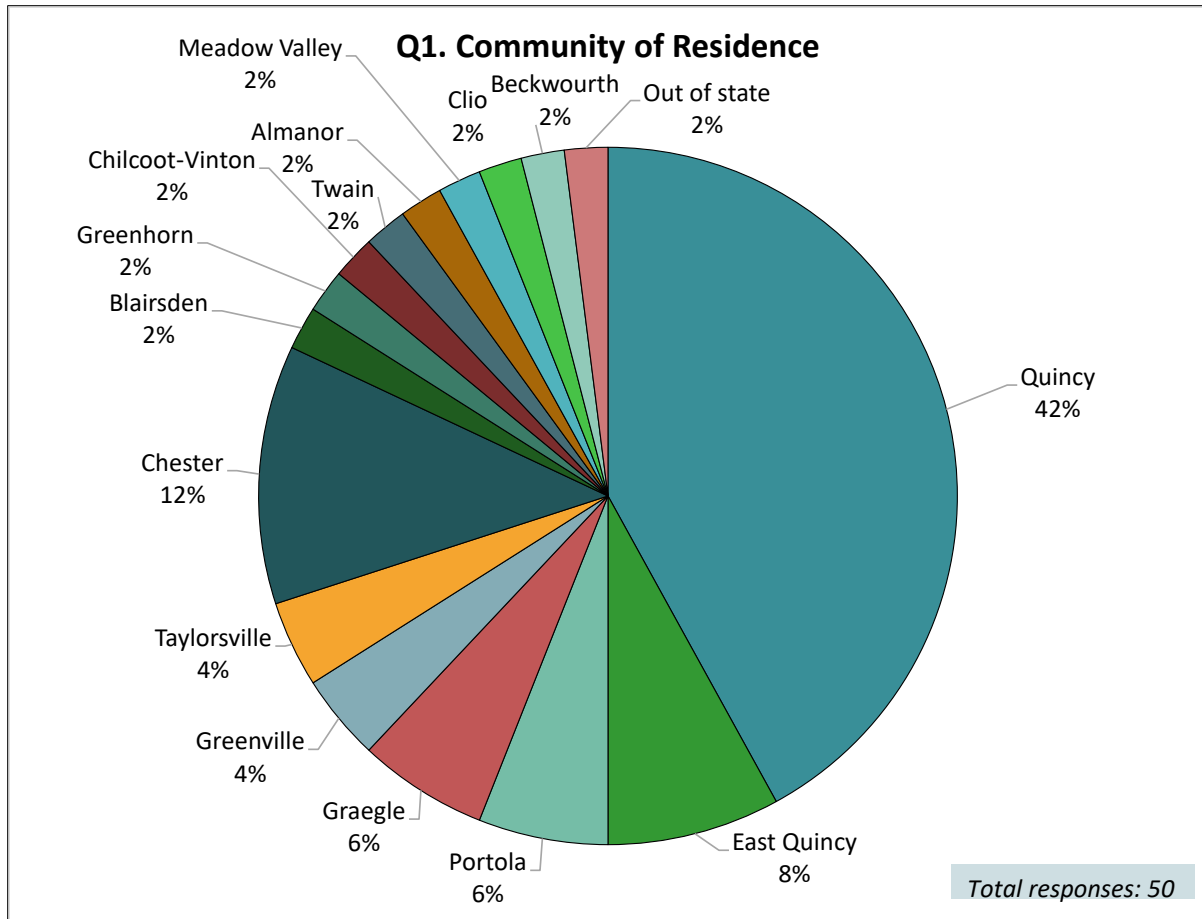
A total of 50 community members participated in the survey. While this is not a very large sample size, the survey results can still provide meaningful insight into the opinions and perceptions of community members at large, therefore potentially revealing what improvements could be made to PTS or Plumas Seniors to encourage more people to use these services. Results by question are presented below.

Q1. Community of Residence (50 responses)

To better understand the demographics of the survey respondents, people were asked to identify the community where they live. Most of the respondents live in Quincy (42 percent), while 12 percent live in Chester, and 8 percent live in East Quincy. The figure below provides further detail on where the respondents live. Many of the respondents live in communities not directly served by PTS.

Q2. Age of Respondents (49 responses)

Respondents were asked to identify how old they are. Between 20 to 29 percent of respondents were in each of the following age categories: 26 to 40, 41 to 59, 60 to 74, and 75 or older. No one younger than 18 years participated, and only 2 people between the ages of 18 to 25 years old responded to the survey.



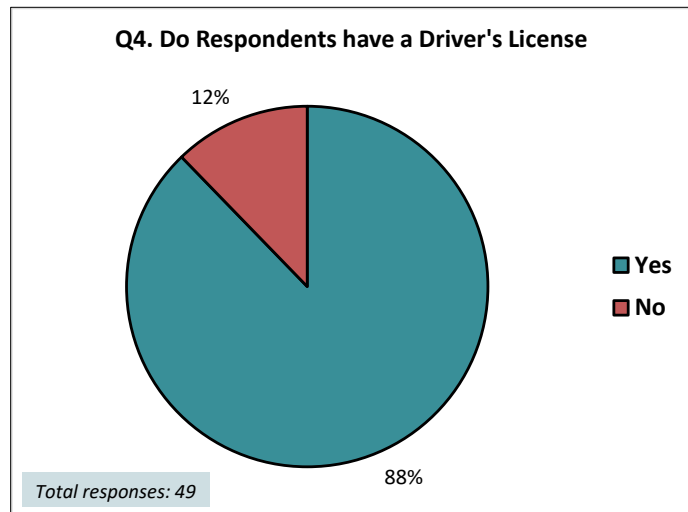
Q3. Annual household income (45 responses)

More than half of the individuals said they earn more than \$50,000 per year. 16 percent of people said they earn less than \$20,000 annually. The respondents to the community survey represented higher incomes compared to respondents of the onboard survey.

Q3. Annual Household Income			
< \$20,000	7		16%
\$20,000 - \$34,000	7		16%
\$35,000 - \$50,000	8		18%
> \$50,000	23		51%
Total responses	45		100%

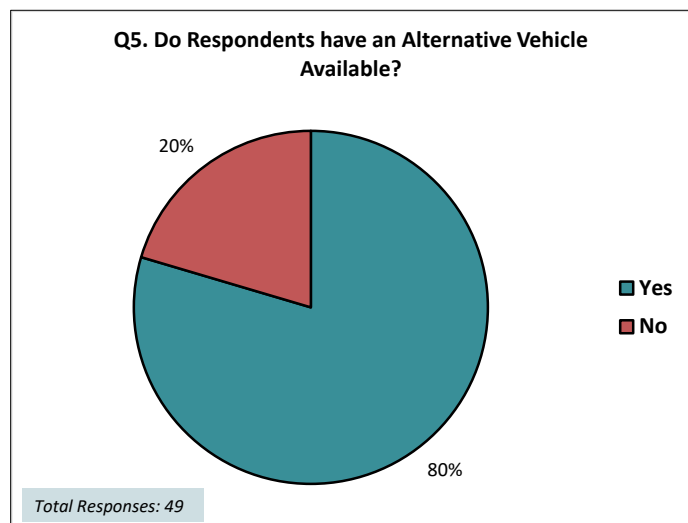
Q4. Do respondents have a driver's license? (49 responses)

Whether or not an individual has a driver's license is an excellent indicator of potential transit dependency. Most respondents reported that they do have a driver's license (88 percent).



Q5. Do respondents have an alternative vehicle available for travel? (49 responses)

Another key indicator of potential transit dependency is whether or not someone has a personal vehicle available to them. Most of the respondents did have a car available to them to use for any travel-related needs (80 percent). The fact that the community survey respondents earn higher incomes compared to the onboard survey respondents may also contribute to why more community survey respondents have a personal vehicle available for travel.



Q6. Typical travel patterns (44 responses)

To gain insight into where and why people are traveling around Plumas County, respondents were asked to identify what community they go to for work, medical appointments, school, recreation, grocery shopping, and banking. The responses to this question are compiled into the tables below.

Q6. Destination for School		
Chester	1	7%
Chico	1	7%
Quincy	11	73%
Reno	1	7%
Other	2	13%
Total responses	15	100%

Q6. Destination for Banking		
Chester	2	6%
Graegle	1	3%
Greenville	1	3%
Portola	4	12%
Quincy	22	65%
Reno	1	3%
Other	5	15%
Total responses	34	100%

Q6. Destination for Groceries		
Chester	3	7%
Chico	2	5%
East Quincy	2	5%
Greenville	3	7%
Portola	1	2%
Quincy	28	67%
Reno	13	31%
Susanville	3	7%
Truckee	1	2%
Other	2	5%
Total responses	42	100%

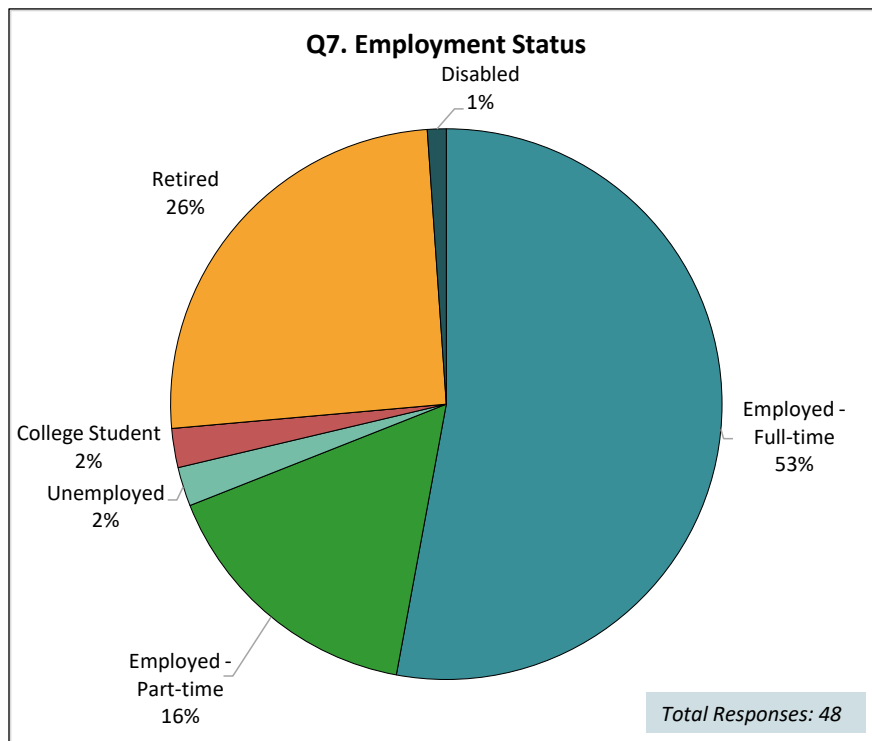
Q6. Destination for Recreation		
Almanor	1	3%
Blairsdan	1	3%
Chico	2	7%
Graegle	8	28%
Lake Almanor	1	3%
Lakes Basin	2	7%
Portola	2	7%
Quincy	15	52%
Reno	7	24%
Other	5	17%
Total responses	29	100%

Q6. Destination for Work		
Blairsden	1	3%
Chester	4	13%
Graegle	1	3%
Portola	3	9%
Quincy	24	75%
Reno	1	3%
Susanville	1	3%
Other	3	9%
Total responses	32	100%

Q6. Destination for Medical Appts.		
Chester	1	2%
Chico	2	5%
Graegle	1	2%
Greenville	1	2%
Portola	2	5%
Quincy	23	55%
Redding	2	5%
Reno	12	29%
Susanville	1	2%
Truckee	4	10%
Other	4	10%
Total responses	42	100%

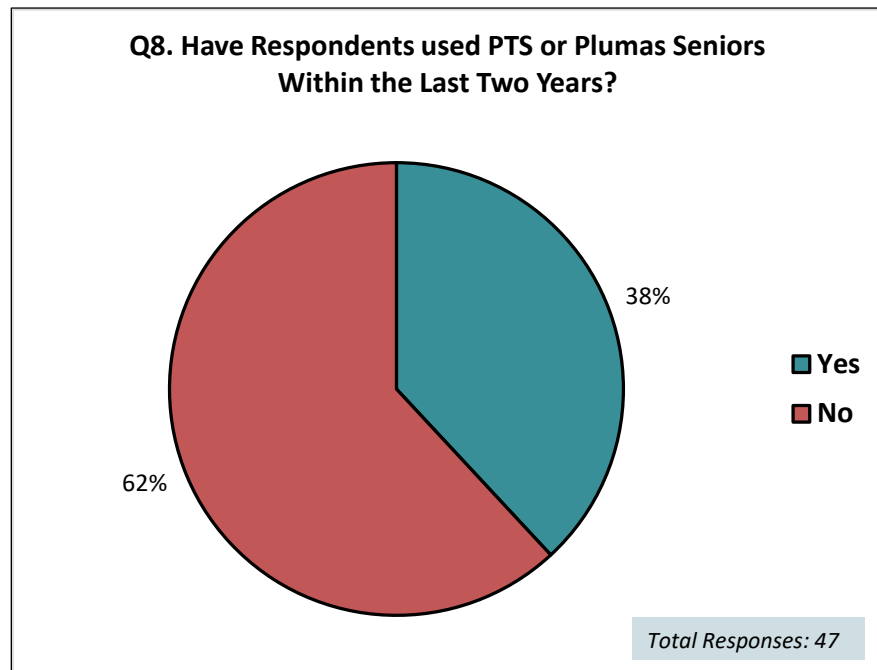
Q7. Employment status (48 responses)

Respondents were asked to describe their current employment status. Most people said that they are employed full time (53 percent). About 16 percent of the respondents are employed part time and one quarter of the respondents are retired.



Q8. Have respondents used PTS or Plumas Seniors within the last two years (42 responses)

Although there are multiple public transit services in Plumas County, many community members do not use these programs. Most of the survey respondents have not ridden PTS or Plumas Seniors buses within the last two years (61.9 percent), indicating that many Plumas County residents do not take advantage of these transportation services.

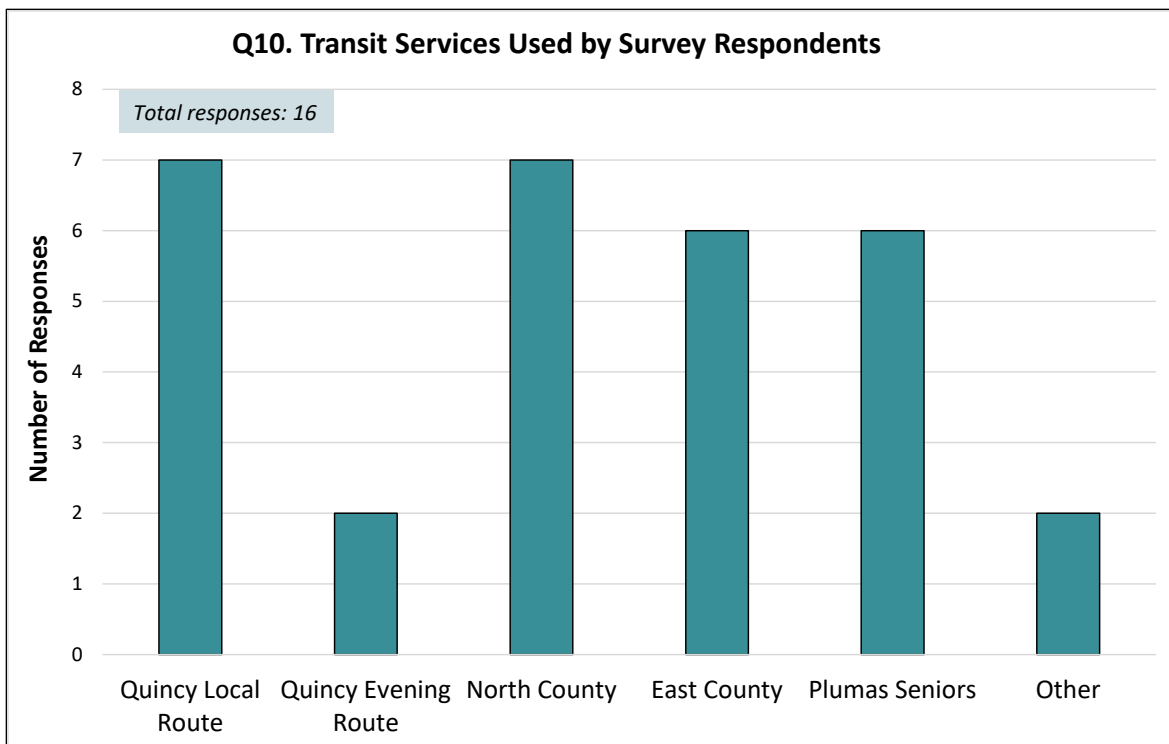
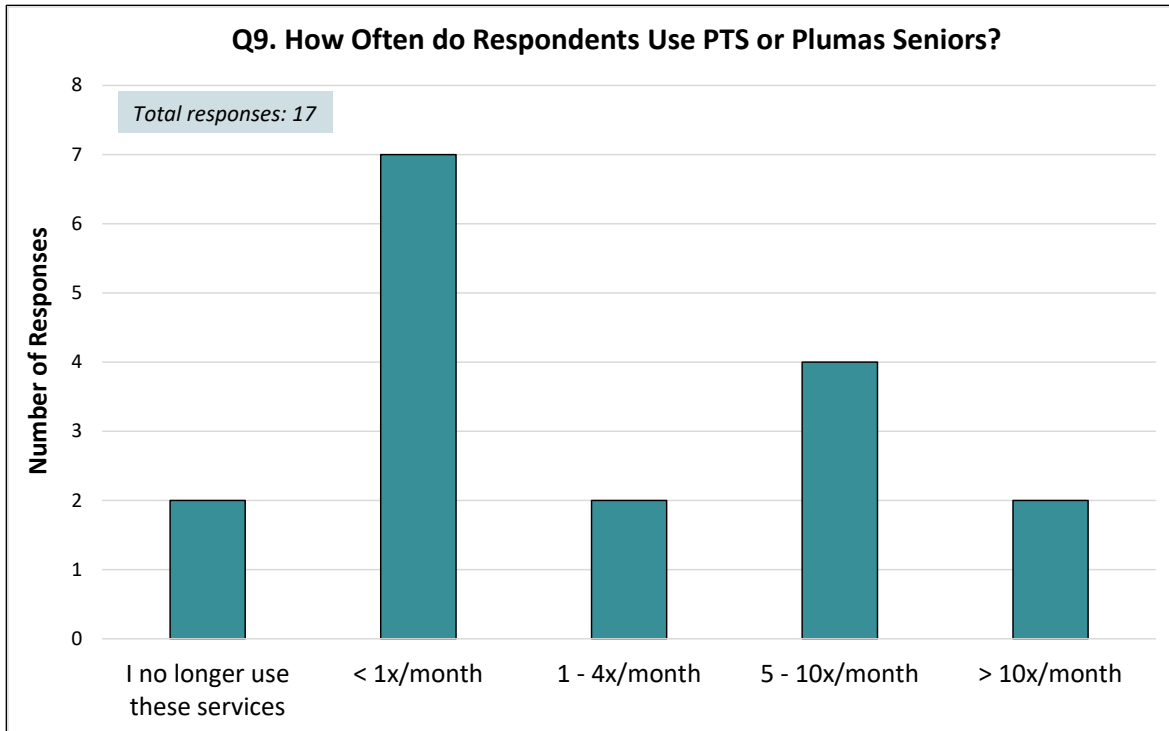


Q9. How often do respondents use PTS or Plumas Seniors (15 responses)

Those respondents who said that they have used either PTS or Plumas Seniors in the last two years were asked how often they use either of these services. The most common answer was that people use these transit services less than one time per month (41 percent). Just under one quarter of the respondents said they ride the transit services 5 to 10 times per month. Rather than use public transit services regularly, most of the survey respondents seem to use public transit for more unique circumstances.

Q10. Specific transit services used by respondents (16 responses)

The respondents who said that they have used public transit in Plumas County in the last two years were asked to specify which routes and programs they have used. The Quincy Local Evening route was the least popular (12.5 percent) while the Quincy Local route and the North County route (Chester/Greenville/Quincy) were the most popular (43.8 percent each).

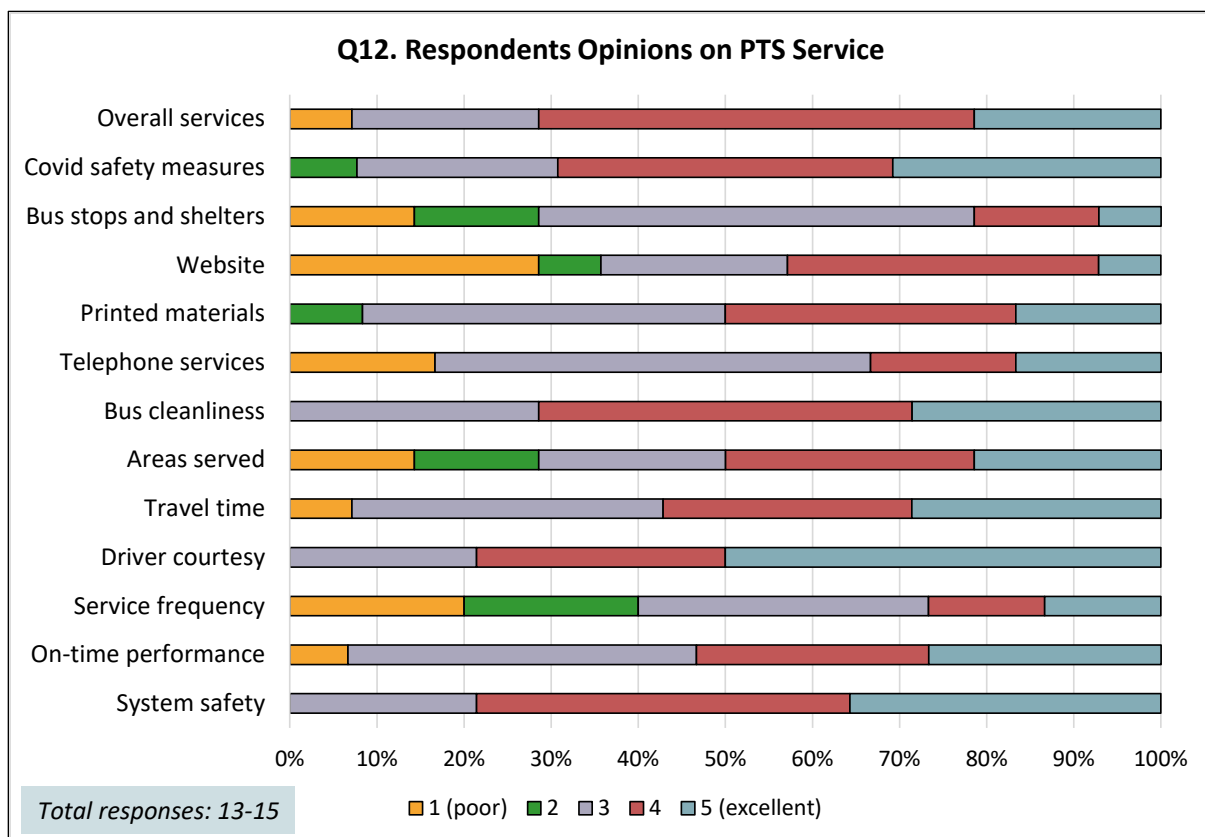


Q11. Boarding and disembarking locations for last trip on public transit (14 responses)

The recent public transit passengers were asked to document where they boarded and disembarked the bus the last time they used public transit. Popular boarding and disembarking locations were Feather River College, the Holiday Market in Chester, SavMor, and the Courthouse Annex.

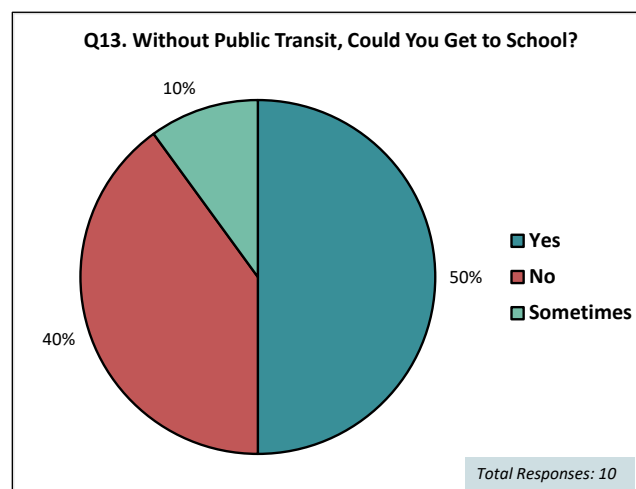
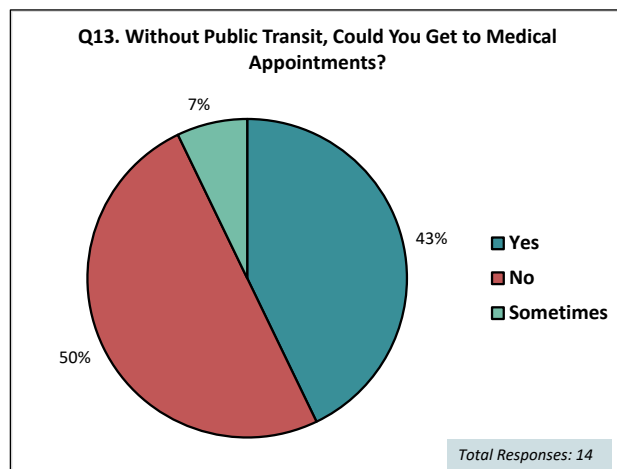
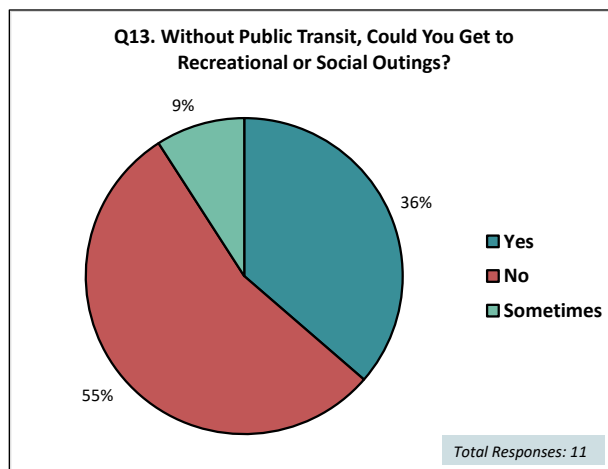
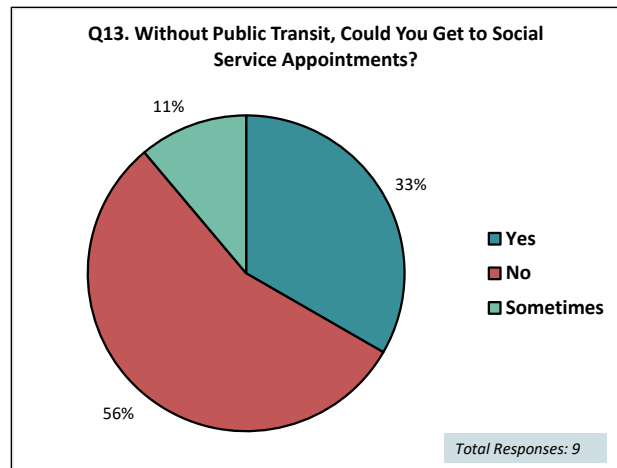
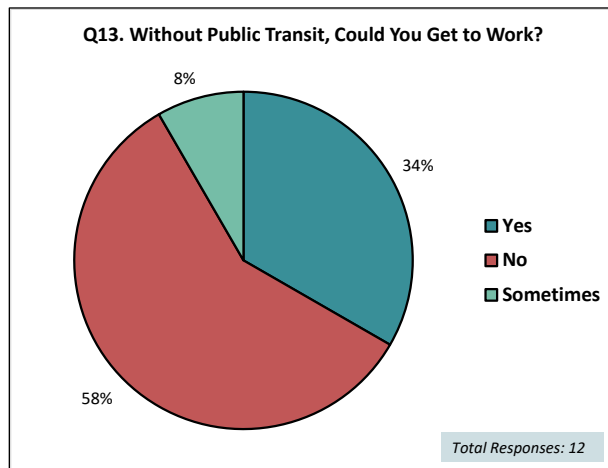
Q12. Respondents opinions on PTS and Plumas Seniors (13-15 responses)

The recent public transit passengers were asked to rank various components of PTS and Plumas Seniors service on a scale of 1 (poor) to 5 (excellent). The number of people that ranked each feature ranged from 13 to 15 individuals. Considering all the responses, 54.2 percent of answers were either 4 (good) or 5 (excellent), and the overall service ranked an average of 4.1. This is considerably lower than the onboard survey, in which the participants ranked the overall service an average of 4.6. The highest ranked public transit service characteristics were driver courtesy (4.6) and system safety (4.5), just like the onboard survey. The lowest ranked components were service frequency (3.0), the website (3.1), and bus stops and shelters (3.1).



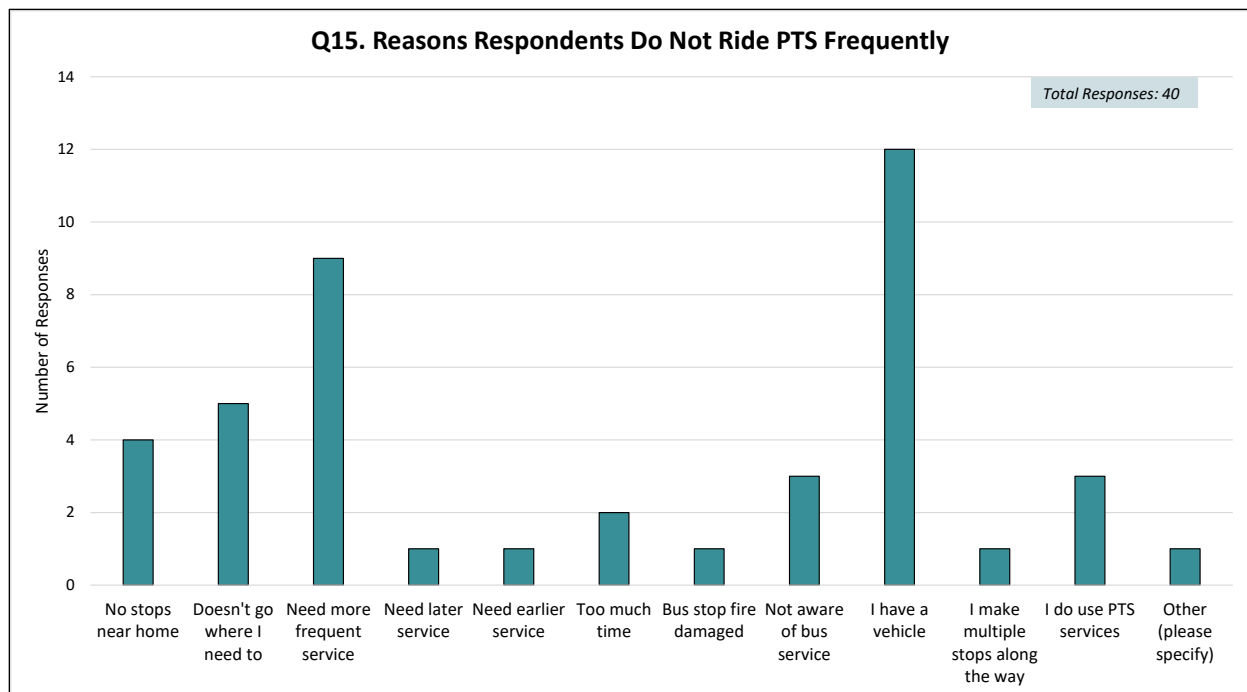
Q13. Would respondents be able to get their destinations if public transit was not available (8-13 responses)

The survey posed a hypothetical situation, and asked respondents to identify if they would be able to travel to various destinations in the case that neither PTS nor Plumas Seniors was available to meet their transportation needs. The results to this question are explored in the below figures.



Q15. Reasons respondents do not ride PTS or Plumas Seniors frequently (40 responses)

All respondents were asked to identify reasons they do not use public transit in Plumas County more frequently. The survey provided a list of potential reasons for the respondents to select from. The two most likely reasons that people do not use public transit are that they have their own vehicle (22.9 percent) and the service is infrequent (20 percent). Only 2 people said they would ride public transit more if there was earlier or later service.



Q14 & Q16. Suggested improvements to PTS or Plumas Seniors by transit riders (11 responses) and non-transit riders (20 responses)

Respondents were given the opportunity to provide any suggestions they might have for improving PTS or Plumas Seniors. These suggestions were differentiated by whether the person said they used public transit in the last two years or if they had not. These suggested improvements are included in the below tables.

Q14. Suggestions for improving PTS or Plumas Seniors (Transit Riders)

"Service to Chandler Rd and return"

"Update website and actually use text notification system"

"Add a taxi or two to improve reliability"

"We need a senior bus to Reno and Quincy for shopping. We need better communication if such bus becomes available, i.e. website"

"More frequent runs. GPS tracking"

"More options"

"Connections to Reno, Chico, Sacramento"

"Bus stops that are clearly marked so the driver doesn't go past you and leave you waiting for another hour. Also, bus stops that are protected from rain and wind."

Need route to Red Bluff/Redding and Chico from Chester. More frequent bus service would be nice. Otherwise excellent and very affordable.

Q16. Suggestions for improving PTS or Plumas Seniors (Non-transit riders)

"Wheelchair van service, like in Modoc County"

"Expand service areas"

"Availability for trips out of town to Reno or Chico"

"Need more frequent bus services between communities. More outreach regarding schedules and fares. Weekly Reno/Truckee route option for medical appointments."

"Would like to take a bus to the Reno airport and save on parking fees."

"More buses, more often, more routes, longer hours, more stops, several buses to and from Reno and Truckee"

"Senior bus to Quincy and Reno for shopping"

"If the bus stops in Taylorsville, I am unaware of it. If it did, I would maybe use it. I would like to see more information about this PTS."

"Figure out another stop near the East Shore of Almanor. Maybe the lookout area on 147? It's not completely burned and has a place to leave vehicles."

"Having stops scheduled for Butterfly/Old Hwy Road; no schedule information is given and drivers will drive by."

"Expansion for school-aged kids would be the biggest priority for a number of people in this community. If junior and senior high school students live within the unincorporated town of Chester, they are not allowed to ride the bus to school, even if they live at least a mile away from the school and the parent is willing to pay the bus fare. This makes things extremely difficult as a working parent, and gives an unfair advantage to parents who live outside Chester, e.g. in the country club, hamilton branch, and the west shore - all of which have higher value homes and presumably higher income."