

# Short-Range Transit Plan

Western Contra Costa Transit Authority

2016-2026





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# About WCCTA

This chapter presents background information on the history and organizational structure of Western Contra Costa County Transit Authority, and describes the transit service, service area, and any planning or development changes that may impact the provision of transit both within the service area and outside of it. The information in this chapter will provide a context for identifying current and future transit needs of service area residents, and for evaluating how well WCCTA's services are positioned to meet those needs. This will provide a basis for understanding the recommendations contained in the Operations Plan.

## Organizational Structure

Western Contra Costa Transit Authority (WCCTA) was established in August 1977 as a Joint Exercise of Powers Agreement between Contra Costa County and the cities of Hercules and Pinole. The Authority was created with the purpose of owning, operating and administering a public transportation system serving the area between the Richmond/El Sobrante border to the west and the Carquinez Bridge to the east.

WCCTA is governed by a seven-member board of directors and is supported by professional staff. The two cities of Pinole and Hercules are each represented on the Board by two members. The unincorporated communities of Crockett and Rodeo each have one representative while Montalvin Manor, Tara Hills and Bayview have one joint representative. These three former positions are appointed by the Contra Costa County Board of Supervisors.

Within the Board, there is one standing committee and two ad hoc working groups. The Finance and Administrative Committee (F&A) oversees major issues involving contracts, operational changes, capital acquisitions and other topics related to the staffing and operation of the Authority. The ad hoc Legislative

Committee is convened when necessary to respond to proposed or pending state and federal legislation that may affect the Authority and to formulate recommendations for the full Board's consideration. The ad hoc Marketing Committee provides input on the Authority's public and media relations.

The organizational charts for the Authority, including administration and operations, are presented in figures 1-1 and 1-2.

## Administration/Service Planning and Operations

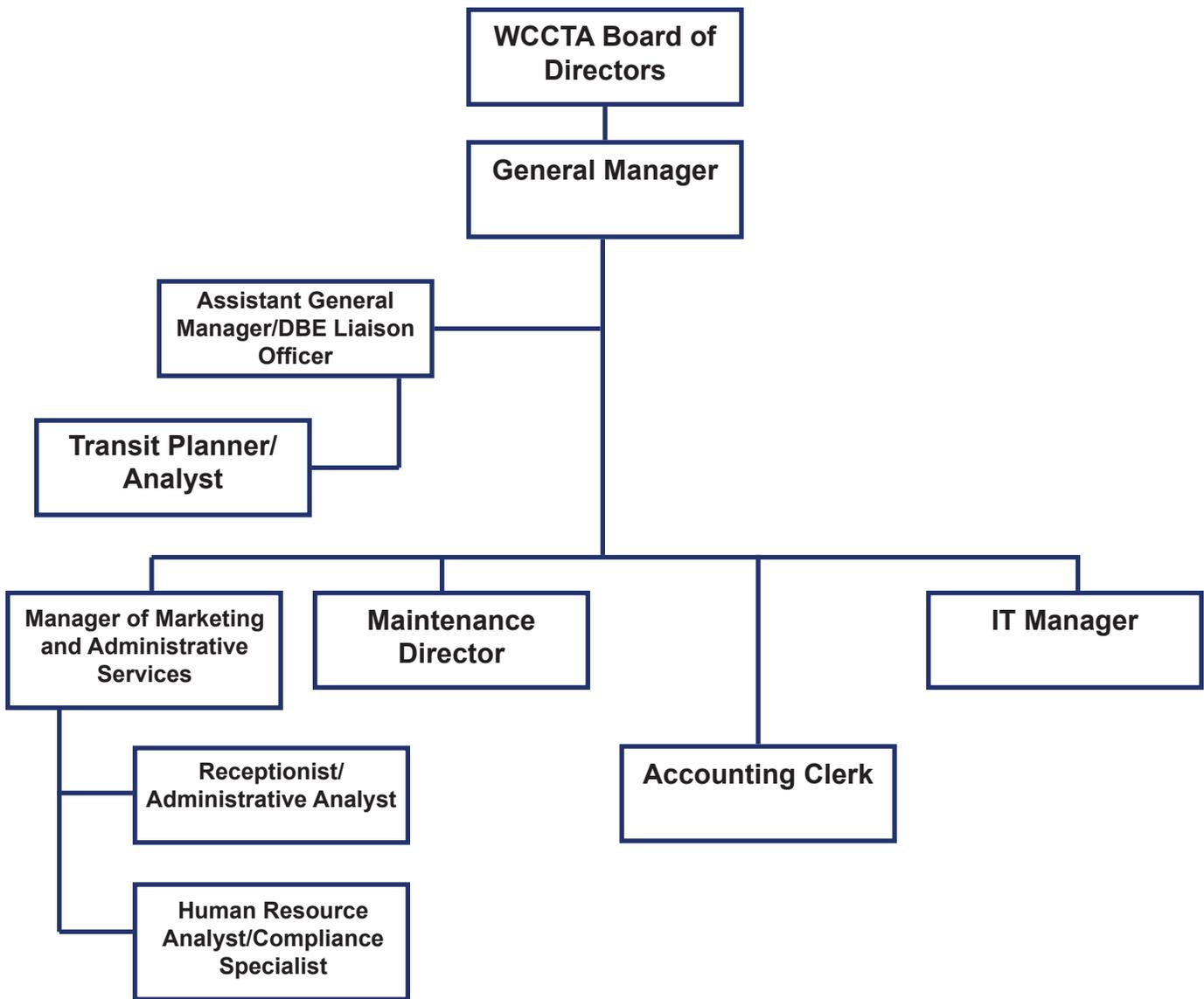
WCCTA's planning, scheduling, budgeting, marketing, procurement, community outreach and compliance activities are handled by its administration division, which is headed by the General Manager.

Operations, including dispatch and road supervision, are handled by a private contractor (currently MV Transportation) and supervised by WCCTA's General Manager, who oversees overall contractor performance. The contractor is also responsible for maintaining the Authority's fleet, facility and communications systems, and for collecting and reporting operating data. WCCTA is currently in contract with MV Transportation, the latest contract was initiated in July 2013 for a four year period with three one year options. The Authority directly employs a Maintenance Director to oversee the maintenance of its vehicle fleet and facility.

## WCCTA's History of Contracting

Since WCCTA's founding in 1978, the Authority has contracted with private firms for all labor and supervision required to operate the WCCTA fixed-route and dial-a-ride systems. In February 2013, WCCTA solicited bids for a new contract for the operation of its transit services. After assessing the

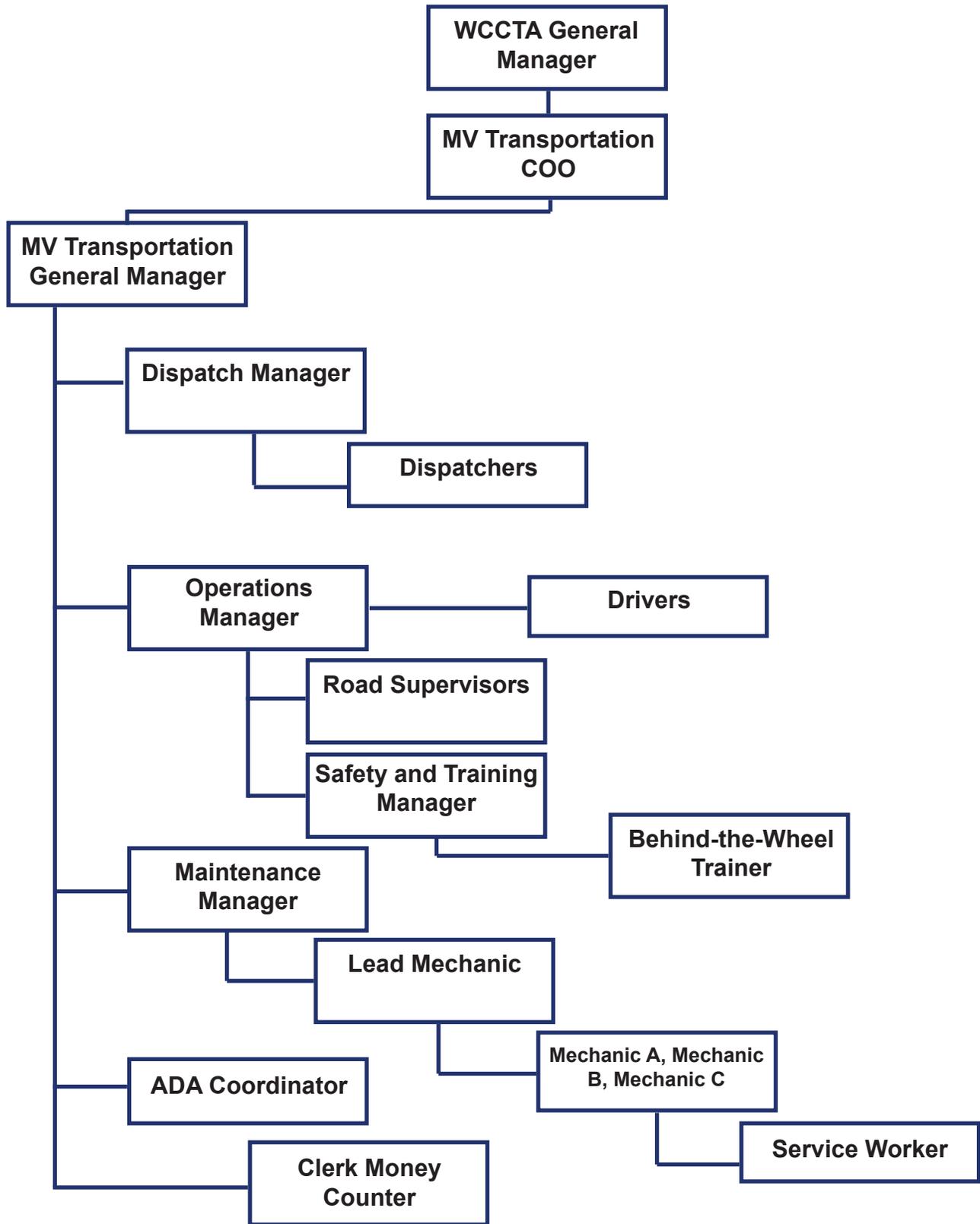
**Figure 1-1: WCCTA Administration Organizational Chart**



proposals, the WCCTA Board of Directors awarded the contract to MV Transportation Services for the period of July 1, 2013 to June 30, 2017. The contract includes three additional one year options which the Board may choose to exercise to extend the agreement. The contract with MV includes a

single rate for Dial-A-Ride (DAR), local fixed route and express services, which allows for maximum flexibility in terms of driver assignments and for a reduction of the high DAR driver turnover rates observed in other systems.

Figure 1-2: WCCTA Operations Organizational Chart



WCCTA provides the contractor with all necessary vehicles and facilities to operate fixed route and DAR service, but retains responsibility for service planning, scheduling, marketing, and administrative activities. The contractor maintains the Authority's vehicles and major capital assets, directly employing bus drivers, mechanics, dispatchers, trainers, and supervisory personnel.

## **Background**

Since its inception, the Authority has experienced dramatic changes in the provision of its services. At the beginning of its operations, the Board of Directors contracted with a private company to provide service on three fixed routes. After that contract was terminated in September 1979, the Board concluded that local needs would be better addressed with a demand-responsive system. WCCTA started its Dial-A-Ride (DAR) service that year, which was designed to serve a broad range of local transportation needs. DAR attracted a larger share of commute, shopping, and social trips than the previous fixed-route service. The percentage of school trips made up approximately 50% of the total boardings. While the new service focused on local transportation needs, it also offered connections to the regional BART Express and AC Transit bus lines for transportation to destinations outside of the WCCTA service boundaries.

Although the DAR service adapted well to the changing population and commercial development patterns, it had increasing difficulty keeping pace with demand as the population grew. After conducting a feasibility study for converting to fixed route service, the Board took formal action to implement fixed route service throughout the southern portion of the WCCTA service area. The demand-responsive service was retained to serve seniors and disabled passengers in areas north of Highway 4 and for the general public in these areas without convenient access to public transportation, although as WCCTA's local fixed

route service was expanded to offer better coverage throughout the service area, general public access to the Dial-a-Ride system has been restricted. WCCTA is currently one of the few transit operators in the Bay Area that provides public Dial-A-Ride (DAR) services to all area residents over the age of 65, regardless of their status under the Americans with Disabilities Act (ADA). WCCTA also operates a seamless network of local and regional express fixed route services, which provides excellent coverage to established neighborhoods and commercial areas throughout the service area and to major transit hubs in the region.

Fixed-route service was re-introduced in July 1987. Because this change was coordinated with other transit agencies serving the area, the fixed route system provided enhanced connections to BART Express buses and AC Transit buses serving regional destinations. The new fixed route system had an immediate positive impact on the Authority's productivity and overall system performance. The system showed steady and continued growth, more than tripling its annual ridership in the first decade of fixed route operations. In FY 98/99, WCCTA took over operation of express bus services formerly operated by BART, which had the immediate effect of pushing WestCAT's annual ridership to more than 1,200,000 passengers in the first year following this change.

A contractor employed directly by BART, using the marketing name of BART Express, formerly operated express service to BART from the WCCTA service area. In July 1998, WCCTA assumed operation of this service and has continually restructured service to enhance performance. The express J (JL/JR), JX, and JPX routes have taken over this role.

Performance has been variable over the last 15 years, with ridership levels changing in response to trends in the Bay Area economy. In the first recession, WCCTA was able to keep service cuts to a minimum. Ridership levels dropped slightly with the slowing economy

during this period, but rebounded in subsequent years, reaching a peak in FY 06-07. The more serious recession at the end of the decade, however, reduced operating support and forced WCCTA to significantly cut its local fixed route service, causing a sharp drop in ridership. Since that time, ridership has increased at a modest pace, reflecting growth in local travel demand as employment has started to recover.

WCCTA continues to take pride in operating a transit service that has offered stable and cost-effective service within an area that is undergoing growth and development. This growth, combined with the limited funding streams available, requires the agency to evaluate trade-offs between increasing existing service and providing service to new development areas. WCCTA staff is fully committed to serving the public and will vigorously pursue and new funding opportunities available in order to maintain the high level of transit accessibility it currently provides to the community.

### **Service Area**

The WCCTA service area comprises just over 20 square miles of Western Contra Costa County, including the cities of Pinole and Hercules and the unincorporated areas of Montalvin Manor, Bayview, Tara Hills, Rodeo, Crockett and Port Costa. The service area is bounded to the north by the Carquinez Straight, the city limits of Pinole and Hercules to the east, the Richmond city border to the south and by San Pablo Bay to the west. WCCTA operates a regional express bus service between Martinez (the Contra Costa county seat) and El Cerrito del Norte BART station. The Authority also runs a number of express routes between Hercules and Del Norte BART station, and an express Transbay service between Hercules and the Transbay Terminal in San Francisco. Figure 1-4 shows a map of the current WCCTA service area.

The boundaries of the service area have remained

virtually unchanged since WCCTA was created in 1977. WCCTA's service, however, has expanded as communities have developed, and as WCCTA has taken the operation of the BART Express routes to regional destinations outside service area boundaries. With the introduction of the Lynx service in September 2005 WCCTA expanded the reach of its transit services across the bay to San Francisco's Transbay Terminal. Route C3 to Contra Costa College has extended WCCTA's service into San Pablo and Richmond.

### **Transportation Network in Western Contra Costa County**

There are four major traffic arteries in the system's service area. Interstate 80 and San Pablo Avenue are the main north-south traffic corridors. Highway 4 is an important east-west route carrying traffic from Central and Eastern Contra Costa County to the Western part of the county and into the WCCTA service area. Another important east-west route is the Richmond Parkway, which connects traffic coming to and from Marin County with Interstate 80 and Western Contra Costa County.

Interstate 80 carries heavy volumes of freeway traffic during the a.m. and p.m. peak periods, and is currently the most congested freeway within the San Francisco Bay Area. It carries commuters from fast growing areas in Solano County and developed areas of Western Contra Costa County to employment centers in Oakland and San Francisco. High Occupancy Vehicle Lanes (HOV) on I-80 provide significant benefits to buses in terms of system reliability. An ITS project (I-80 Integrated Corridor Mobility or ICM Project) that was recently completed aims to increase mobility and improve traffic flow in future years and therefore keep the advantage for buses that currently exists. Project elements include metering lights on all on-ramps in the WCCTA service area, HOV bypass lanes where space on the on ramp allows, integrated traffic signals along San Pablo Ave and changeable

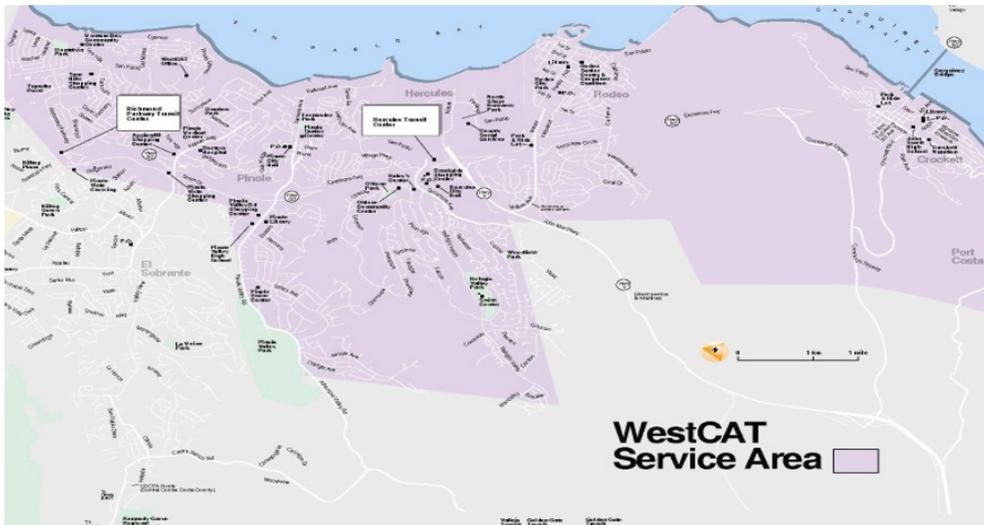


Fig. 1-3: Current WestCAT Service Area

message displays, and gantries to better inform drivers about travel times, delays and accidents. This is a critical project for I-80 considering the high volume of traffic, especially during the peak commute. The overall project may benefit WCCTA buses traveling to BART and San Francisco, as well as Solano County commuters.

San Pablo Avenue is a north-south route that runs parallel to I-80 connecting all of the communities in the service area. During periods of severe congestion on I-80, motorists often use San Pablo Avenue as an alternative route. The ICM project includes real-time incident management capabilities, allowing Caltrans to guide any diverted traffic back to the freeway after it has passed the site of an incident. Since San Pablo Avenue is subject to delays due to traffic lights, additional traffic worsens this condition and occasionally, buses traveling on San Pablo Avenue experience longer travel times. As part of the I-80 ICM project Caltrans will install TSP (Transit Signal Priority) at the main intersections along San Pablo Avenue and connecting arterials in order to improve transit travel times along the corridor. This project is expected to be completed in late 2016.

Highway 4 is a four-lane road linking the WCCTA service area to the county seat in Martinez. This road

carries significant traffic volumes, especially during commute hours, since it is the only direct route to Martinez and to employment centers in Central and Eastern Contra Costa County. Route 30Z travels from the WCCTA service area to Martinez on Highway 4.

Richmond Parkway is a four-lane road that provides a connection between I-80 and I-580, providing access between Western Contra Costa communities and Marin County via the San Rafael-Richmond Bridge. This parkway facilitates commute and freight movement between Marin and Contra Costa Counties, and it offers a shorter path of travel for inter-county express buses in this corridor. There are currently no transit routes on Richmond Parkway south of Atlas Road, though the JR/JL route travels briefly on the section of Richmond Parkway just to the north of Atlas.

The City of Hercules is now building an extension of John Muir Parkway (connected to Highway 4) to a yet-to-be-constructed Regional Intermodal Station at the Waterfront. Plans call for a Capitol Corridor train station as well as bus and ferry facilities. WCCTA remains an active and supportive partner in the Intermodal Station project, and will continue to participate as the project moves forward. WCCTA is working closely with the City of Hercules to plan

and implement a temporary bus stop location in the vicinity as a first stage of transit service in the Waterfront Area.

### **Park and Ride Lots**

There are three primary park and ride lots in the WCCTA service area. In addition, there are some smaller lots with fewer than 50 spaces and some de facto lots at local shopping areas used as spillover parking for established lots. Growing demand for Transbay and regional connections from the WCCTA service area and its surroundings have imposed a tremendous burden on the existing park and ride lots in the service area. Two of the largest lots are the Hercules Transit Center (HTC), located on Willow Avenue in Hercules, and the Richmond Parkway Transit Center (RPTC), located on Richmond Parkway at I-80.

Hercules Transit Center is a hub for WestCAT buses; attracting commuters going to BART and San Francisco as well as local passengers making transfers. HTC currently has 422 parking spaces, 66% larger than the previous location on San Pablo Avenue. HTC is owned and operated by BART and there is a charge to park at the facility for daily commuters. All parking permits, daily and monthly, are available online or via mail. The purchase of a one-day permit includes a round trip bus ticket good for travel to Del Norte BART station. Those who purchase monthly permits can choose to include a monthly bus pass for an additional fee. Currently, no fare discounts or other incentives are offered to Lynx passengers paying to park at the facility. Current usage of the lot has risen to approximately 95% of available capacity.

The Richmond Parkway Transit Center has approximately 180 spaces that fill completely by early morning. Approximately 50 to 70 spaces in the adjoining shopping center were being used informally for overflow parking, although the merchants recently started issuing citations to

commuters who park there. Currently, there is a daily fee to help pay for maintenance and an on-site security guard at the facility. A possible parking structure was studied though it was ultimately determined not to be a cost effective investment at the present time. Parking constraints in this area may intensify if transit services increase.

One very small lot exists in Crockett along San Pablo Avenue, near the Westbound I-80 onramp. Another modest lot, with approximately 60 spaces, is located along Willow Avenue, at I-80 in Rodeo. This lot is physically split, with one part situated along Eastbound Willow to the West of I-80, and the other along Westbound Willow to the East of I-80. This lot is mainly utilized by riders of the Lynx service, and is full early in the morning

WCCTA has been in communication with the City of Pinole to explore the potential to develop a location for a park and ride facility, along with other access improvements that will help to encourage the residents to consider transit as an alternative to driving.

### **Regional Transit Network**

The design of the WestCAT route system is intended to reflect the travel patterns of local residents. The WCCTA area is served primarily by WCCTA's local fixed route, express and Dial-A-Ride (DAR) services. Connections to BART are made at El Cerrito del Norte BART station, which is a major regional transit hub. Route JX provides residents with fast, direct service to the BART station from the HTC during commute hours. The JPX express route, which originates at the HTC, and which serves bus stops in Pinole before accessing the freeway, offers a convenient express connection to BART for Pinole Valley residents BART. Another transportation option is Route J, which runs along San Pablo Avenue, stopping at the RPTC (JR) or at Hilltop Mall (JL) en route to El Cerrito del Norte BART. The Lynx route connects Hercules with the Transbay Terminal in San Francisco. By offering

these routes, WCCTA increases its catchment area and gives its riders more destination options. Route 30Z is a regional lifeline service providing a needed link to county services in Martinez. The 30Z is timed to connect with Amtrak and County Connection service in Martinez and further open up the travel options both within and outside of the WCCTA service area.

Connections to AC Transit routes take place at Pinole Vista Shopping Center, RPTC, Hilltop Mall, Contra Costa College and El Cerrito del Norte BART. WCCTA's C3 route connects with the AC Transit 72R Rapid Bus at the Contra Costa Community College, enhancing connections along San Pablo Avenue between San Pablo and Oakland for WCCTA's passengers. AC Transit operates regional and Transbay routes from the RPTC, while other fixed routes connecting to Oakland, Berkeley and Richmond operate from Hilltop Mall, Pinole Vista Shopping Center, and El Cerrito del Norte BART station. A more detailed discussion is presented later in this document about anticipated service changes at neighboring transit agencies and their potential impact on riders in the WCCTA service area.

### **Ongoing and Active Studies**

WCCTA is actively involved in two major studies evaluating Express bus options within Contra Costa County. The Contra Costa Transportation Authority (CCTA) is undertaking an evaluation of the Express Bus network throughout the county, including the connections to the regional transit system and key destinations in neighboring counties. The options under consideration that may affect WCCTA include Express bus trips from West County to areas such as Berkeley, Oakland and Emeryville, and strengthened links to destinations in Central County.

The Western Contra Costa Transportation Advisory Committee (WCCTAC) is managing a separate study that is evaluating High Capacity options within the I-80 corridor. Currently a number of alternatives are

being evaluated at a high level and will be narrowed down and evaluated further as the study continues. Options currently under evaluation include increased express bus service, new and expanded bus rapid transit service, commuter rail options and potential BART extensions. This study is likely to wrap up in early 2017 and have a set of potential near term and long term options to be considered and evaluated further.

# Area Demographics

## Jobs

Employment centers within the service region are concentrated in downtown Hercules, the Pinole Vista area of Pinole, and a small industrial area of Crockett, with lower density employment sites distributed along the San Pablo Avenue corridor throughout the service area. Outside of the WCCTA area, employment is concentrated within the region in the cities of Richmond, San Pablo, El Sobrante and Martinez. Survey information indicates that San Francisco and Oakland also represent major employment centers for residents of the area.

The commercial area around Hilltop Mall is currently an important mid-point or terminus for several of WestCAT's southbound lines. Route C3 also connects residents of the less job-dense areas of Hercules with the area around Contra Costa College in northern San Pablo, which contains a higher density of employment opportunities (likely related to services geared towards the students and faculty). Beyond the immediate service area, users can connect with both AC Transit and BART through several local and express routes to access employment in Alameda and San Francisco counties.

Of the county's twenty-five major employers defined by the State's Economic Development Department, only one is located directly within the WCCTA service area (Bio-Rad Laboratories). The implication this has for WestCAT commuter service is that WCCTA should build upon its success in providing strong connections to the regional transit network, while exploring opportunities to initiate direct services to major employment centers outside its boundaries where demand warrants.

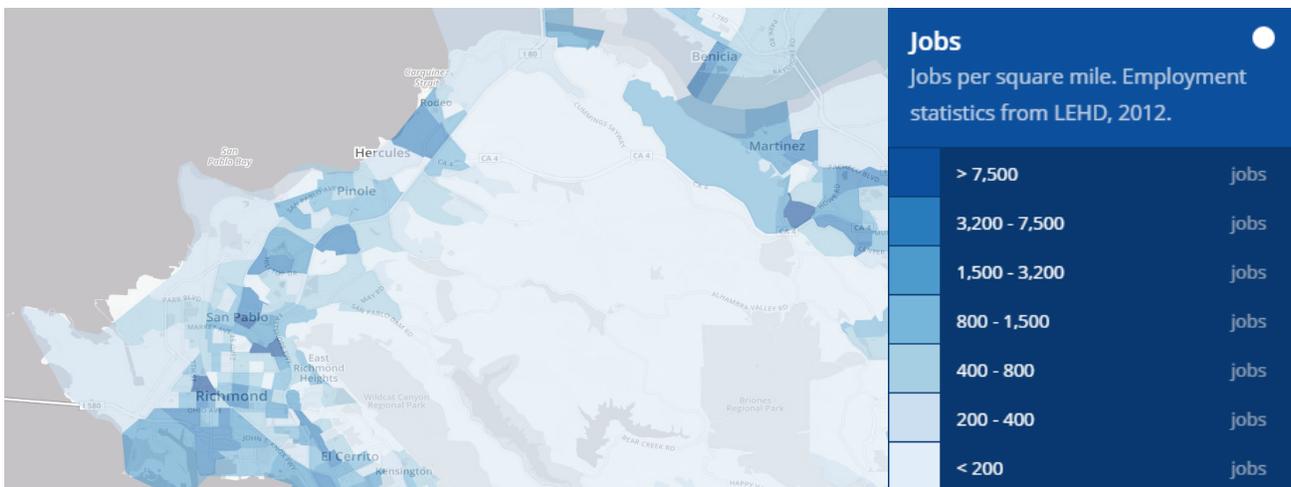


Fig. 2-1: Distribution of Jobs in western Contra Costa County. Generated using Remix.

## Poverty

Due in part to the service area’s predominantly low-density suburban character, the distribution of low-income households that exists in the region is not highly concentrated. More urban areas in Richmond and San Pablo have more residents per square mile whose incomes fall below the poverty line, but also have a generally higher residential density. One area of higher-density poverty within WCCTA’s service area is located in the area surrounding the Hercules transit center, both in the Village Park neighborhood and near City Hall. Parts of the Tara Hills and Bayside areas also experience a slightly higher rate of poverty than the rest of the service area. These neighborhoods are currently served by several

WestCAT routes, including routes that connect to hubs at the Hercules Transit Center and Hilltop Mall. While transit riders in some towns served by WCCTA routes earn less on average than their car-driving counterparts, this is not true in the towns of Hercules and Pinole. As many of our Lynx riders reside in these two cities, this suggests that this service offers a viable commute alternative to a new market, allowing higher-income commuters in these areas to shift from driving themselves to taking public transit. The lower income level for transit riders in Rodeo and Tara Hills may be connected to the larger proportion of older residents in these areas.

Median Earnings				
City (Larger Cities Divided by Census Tract)	Median Earnings All Modes	Median Earnings Car, Driving Alone	Median Earnings Carpool	Median Earnings Public Transit
Bayview-Montalvin CDP	42098	43061	33173	45735
Crockett/Port Costa CDP	50256	51733	42586	53750
Hercules CDP	61005	58558	62752	81797
Hercules CDP	54049	52875	34813	72014
Hercules CDP	53036	49567	65583	59327
Hercules CDP	55076	58833	42778	72523
Hercules CDP	51945	50873	66513	51441
Hercules CDP	63454	64852	66193	45469
Pinole CDP	37625	38125	26111	59081
Pinole CDP	45272	48542	31111	38516
Pinole CDP	51593	60087	39375	51563
Pinole CDP	43085	38477	49599	120227
Pinole CDP	36196	32032	50173	58924
Rodeo CDP	37969	40230	47000	19318
Rodeo CDP	34679	38333	45694	21827
Tara Hills CDP	38895	38110	43571	12137

Source: ACS 5-Year Summary, Census Tract Level, 2009-2013

Fig. 2-2: Median earnings of residents in WestCAT’s service area, separated by mode and municipality.

## Minority Population

More residents within WCCTA's service area identify as white than as members of any other racial group. Several municipalities are home to large Asian communities. Within Hercules, for example, Asian residents make up just over 40% of the city's total population. In the more rural areas of Crockett and Port Costa, the population is nearly entirely white. The more central, suburban municipalities are also home to small African-American communities.

## Environmental and Public Health

The WCCTA service area contains one of the California EPA's designated disadvantaged communities, Rodeo. This designation is determined through an index of environmental, public health and demographic factors called CalEnviroScreen. This index communicates the community's sensitivity to environmental factors (due to age or poverty) as well as the degree of pollution that is experienced in the community.

For communities like Rodeo, transit access is not only a mobility issue but also a public health issue. The majority of the WCCTA service region is above the 70th percentile of traffic density as compared to other census tracts in the state. Predictably, tracts along the I-80 corridor are the most traffic-dense, as are several along the San Pablo Ave. corridor. The EPA points to asthma attacks which necessitate emergency care as an indicator of general environmental health. Though it is caused by a number of factors, asthma can be triggered or worsened by the types of pollutants emitted by dense traffic. Encouraging a decrease in car traffic along these corridors may decrease health issues in communities without easy access to health care.

## Racial Self-Identification

### Bayview-Montalvin

White	66.7%
Asian	18.6%
African-American	7.6%
Other	4.8%

### Crocket/Port Costa

White	85.8%
Two or More Races	13.0%
Other	4.6%
Asian	1.9%

### Hercules

Asian	41.2%
White	29.6%
African-American	17.7%
Two or More Races	14.5%

### Pinole

White	50.7%
Asian	23.9%
Two or More Races	17.5%
African-American	11.7%

### Rodeo

White	55.5%
Asian	21.7%
Two or More Races	13.7%
African-American	12.2%

### Tara Hills

White	58.7%
Two or More Races	15.3%
Asian	14.0%
African-American	11.7%

*List shows the categories with the four highest percentages of residents for each community.*

*Source: ACS 5-Year Summary, Block Group Level, 2009-2013*

## Limited-English Speaking Populations

### Bayview-Montalvin

Limited English Households 9.7%  
Asian and Pacific Island Languages

### Crockett/Port Costa

Limited English Households 1.2%  
Spanish

### Hercules

Limited English Households 9.5%  
Asian and Pacific Island Languages  
Indo-European Languages

### Pinole

Limited English Households 6.2%  
Asian and Pacific Island Languages  
Spanish

### Rodeo

Limited English Households 7.0%  
Indo-European Languages  
Spanish

### Tara Hills

Limited English Households 14.6%  
Asian and Pacific Island Languages  
Indo-European Languages  
Spanish

*Languages listed above are those spoken at home in at least one percent of the limited English-speaking households within the community listed.*

*Source: ACS 5-Year Summary, Block Group Level, 2009-2013*

## Limited-English Population

WCCTA regularly examines local language proficiency information as part of our Title VI access planning to ensure that language barriers do not separate local residents from accessing WestCAT's services.

Though the west county area contains a linguistically diverse population, very few of these residents are considered to have limited English ability. The highest percentage of households with limited English ability are in Tara Hills; this group is made of roughly equal numbers of Spanish speakers, speakers of Asian languages and speakers of Indo-European languages. In Hercules, the majority of limited English speakers are speakers of Asian languages (primarily Tagalog and Chinese), which is a factor of the large Asian community residing in this city. The Crockett/Port Costa area has few speakers of other languages who have limited English proficiency.

## Seniors and Persons with Disabilities

Residents over age 65 are highly concentrated in the town of Rodeo. This highlights the importance of the service provided by Route 11 to connect these residents with services and commercial areas both in Crockett and along the whole San Pablo corridor. It is likely that the higher concentration of older residents in this community is correlated with the lower household income profile of the area.

The Tara Hills area is also home to a larger than average number of both residents with disabilities and residents over the age of 65. Route 18 connects these residents with several commercial districts. A number of regional routes also travel through this area via San Pablo Ave., allowing those who are unable to drive the ability to use transit to connect with the larger transit network in the Bay Area.

WCCTA's Dial-a-Ride system is in place to provide service to both Senior residents of the area and to persons with disabilities.

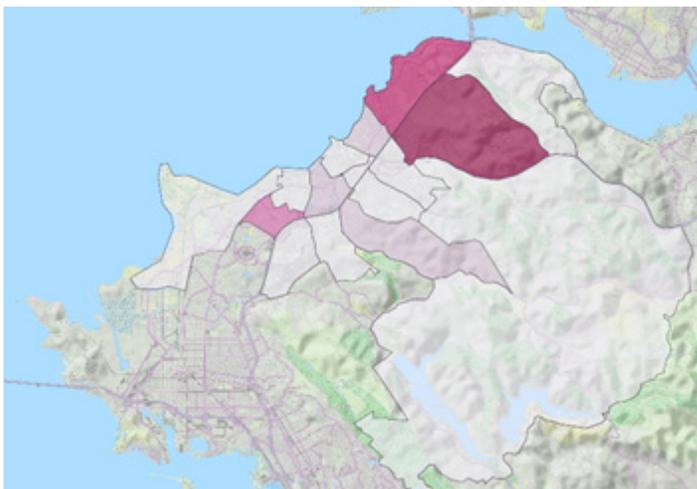
## Regional Transportation Patterns

### Car-Free Population

Though the region is primarily suburban and follows the driving-oriented street grid that is traditional for this type of environment, there are still a number of households without vehicle access. Because the patterns of non-car-ownership within the area mirror the locations of residents living below the poverty line, there could be a relationship between these two factors.

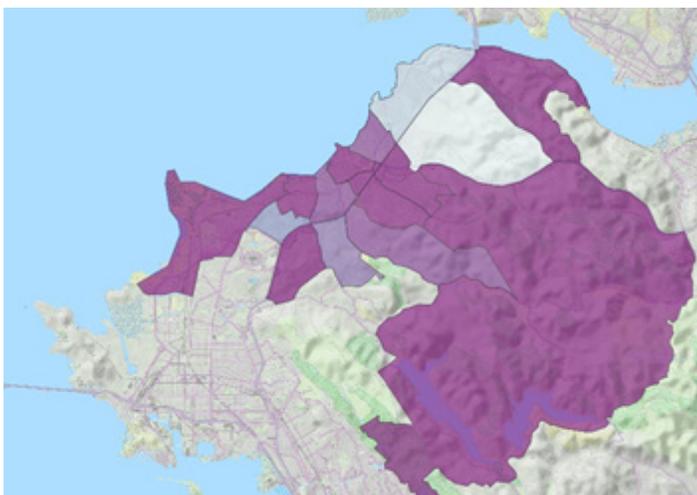
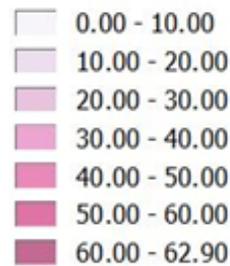
Car-free households are more plentiful in San Pablo, Richmond and El Cerrito, particularly in areas adjacent to transit lines served by BART and AC Transit. To the east of WCCTA's service area, a moderate number of residents in downtown Martinez also do not have car access. This is important to remember when considering the impact of route 30Z. While this route is a lifeline service for residents of western Contra Costa county needing access to the City of Martinez, it also provides access for car-free residents of downtown Martinez needing to connect to the jobs and commercial locations in Hercules, Pinole, and Richmond.

**Fig. 2-3, 2-4: County of Employment, Transit Users Only**



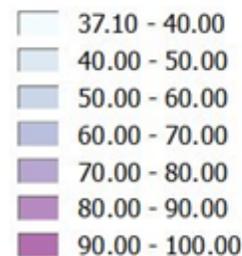
#### Legend

Percent of Transit Users Working Inside the County



#### Legend

Percent of Transit Users Working Outside the County

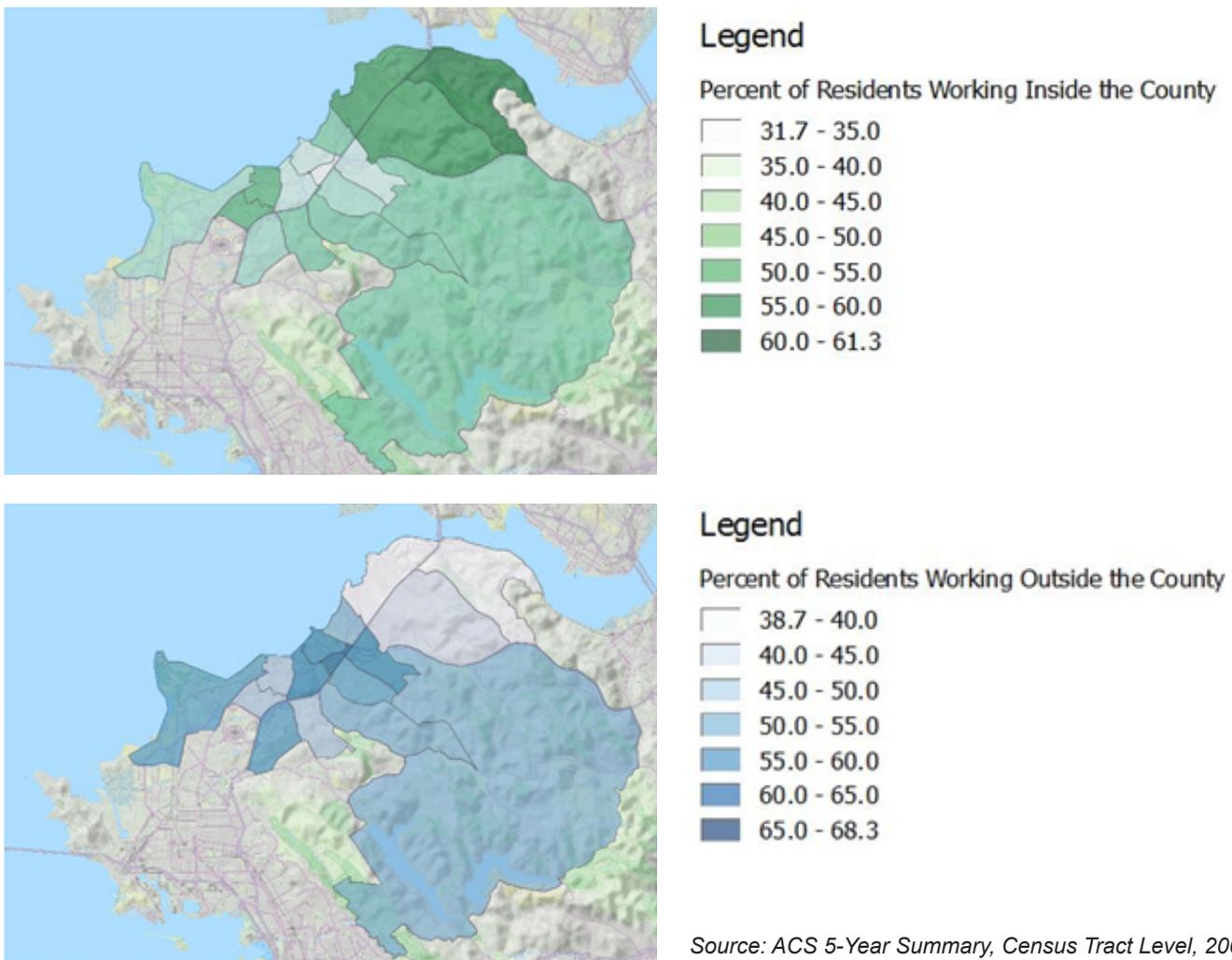


Source: ACS 5-Year Summary, Census Tract Level, 2009-2013

The majority of residents in the northern part of WCCTA's service area (Rodeo, Crockett, Port Costa) who are currently employed work within Contra Costa County. This is also true of many residents within the Tara Hills area. In contrast, more than half of the residents of downtown Pinole and Hercules, the Trees and Flowers neighborhoods of Hercules, and the Bayview-Montalvin area commute to jobs outside of Contra Costa County.

The California State Employment Development Department estimates that the majority of Contra Costa residents who leave the county for work go to Alameda or San Francisco County. Smaller numbers are estimated to travel to Santa Clara, San Mateo and Solano Counties . Though WCCTA currently serves San Francisco County with an express commuter service, this commute pattern may indicate potential demand for express commuter service to downtown Oakland.

**Fig. 2-5, 2-6: County of Employment, All Modes**



Source: ACS 5-Year Summary, Census Tract Level, 2009-2013

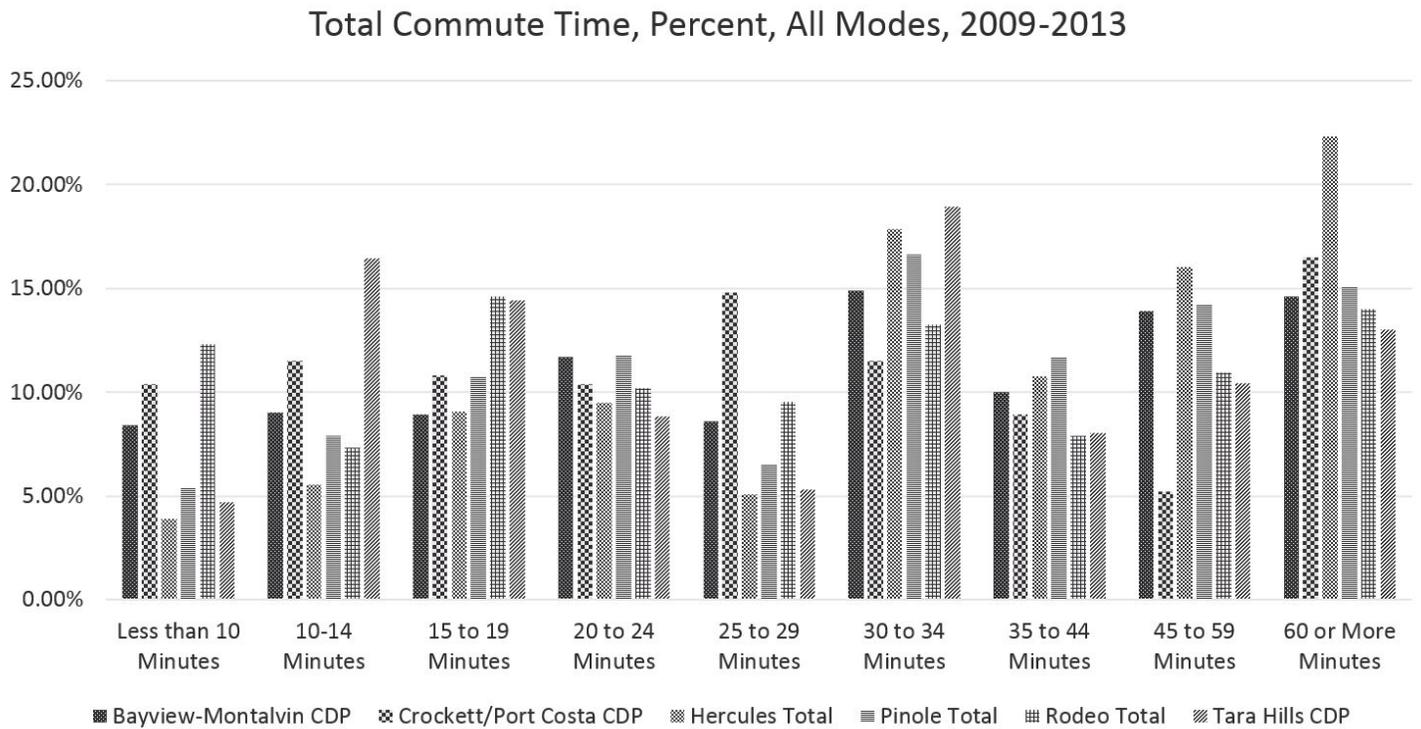
## Commute Duration

Among transit users, commute patterns within each census tract match trends among all commuters. Across most of the service area, the concentration of transit users working outside the county is even greater than that of all commuters. This draws attention to the importance of regional transit network connectivity and scheduling that allows users to seamlessly transfer to other agencies' routes without experiencing a transfer penalty.

The reliance on transit of residents in Rodeo to commute within the county may suggest a need to consider whether route 11 can be easily adjusted to best suit the needs of these commuters based on their work location. However, given the small population of this town (particularly in the area south of I-80) this percentage of commuters does not necessarily suggest a high ridership potential even with altered routing.

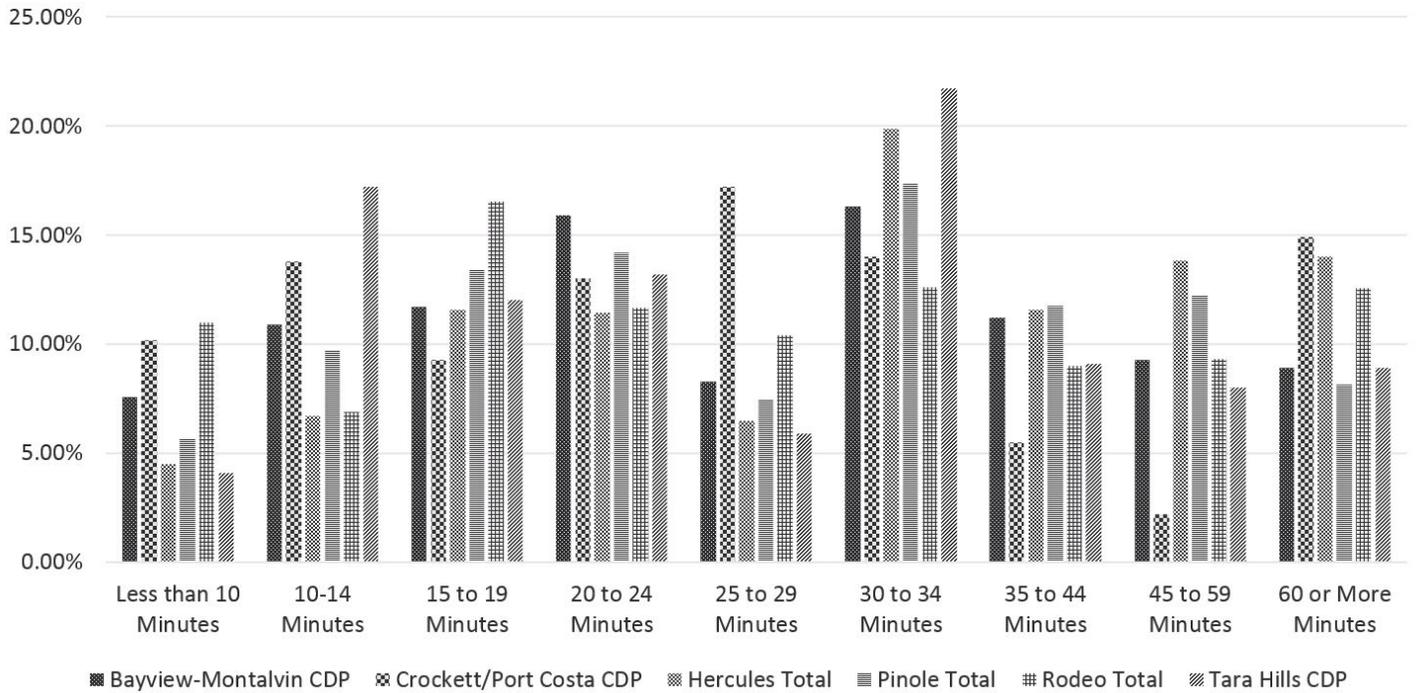
Throughout WCCTA's service area, commute times for drivers in single-occupancy vehicles are distributed roughly evenly regardless of town of residence, with slightly more drivers taking 30-35 minutes to complete their commute. For transit commuters, the majority of commute times are over 45 minutes. For commuters in the Crocket and Port Costa area, where transit commutes are primarily within the county, the most typical commute duration is between 35-44 minutes. Over 30% of transit commuters departing from Tara Hills experience an unusually short transit commute. This division suggests that this portion of users commutes within the county, while those commuting more than 60 minutes (nearly half of transit users in Tara Hills) are commuting outside the county.

**Fig. 2-7: Commute Duration, All Modes**



**Fig. 2-8: Commute Duration, Solo Drivers Only**

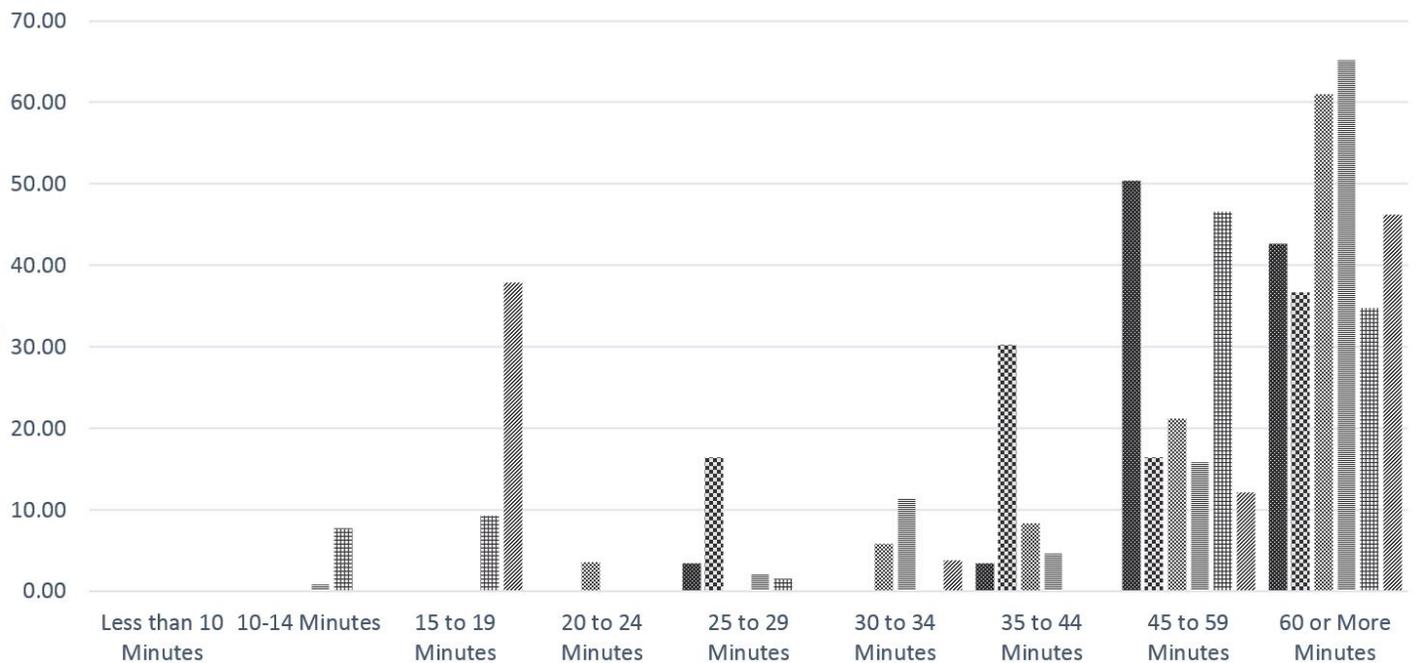
Travel Time to Work, Percent, Car/Truck Alone, 2009-2013



Source: ACS 5-Year Summary, Census Tract Level, 2009-2013

**Fig. 2-9: Commute Duration, Transit Users Only**

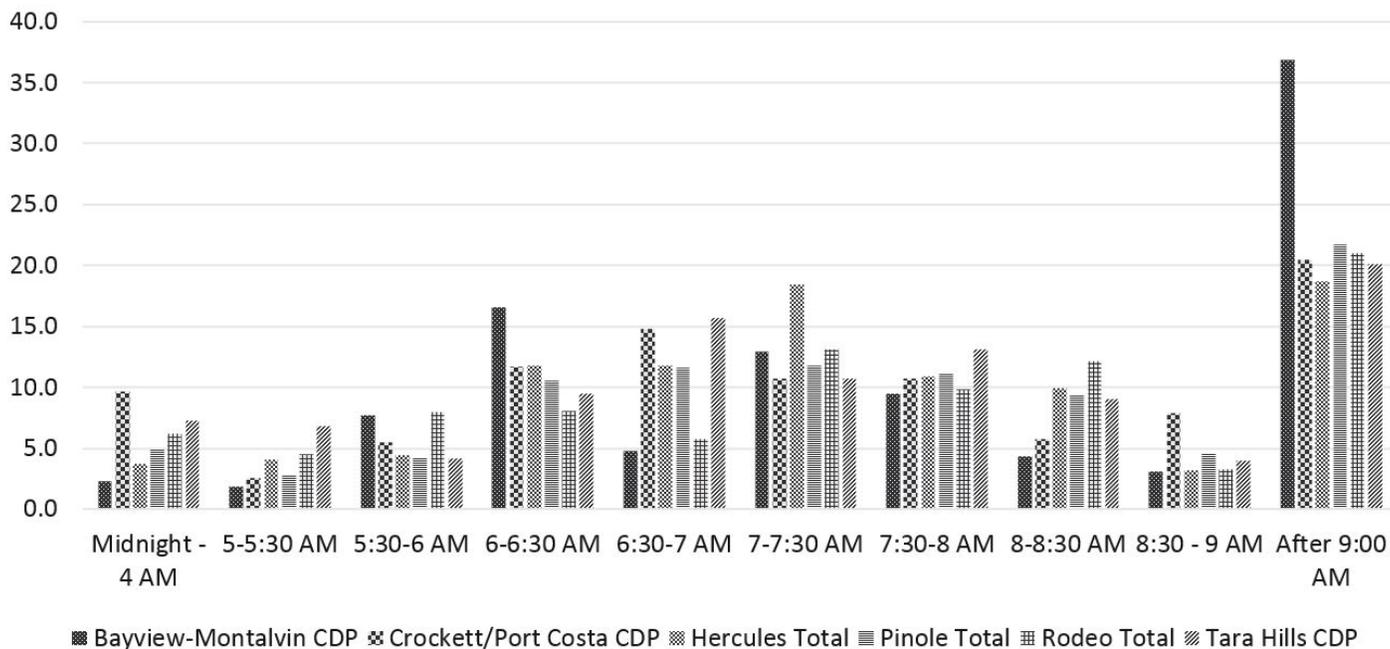
Time to Work, Percent, Public Transit Only, 2009-2013



Source: ACS 5-Year Summary, Census Tract Level, 2009-2013

**Fig. 2-10: Time Leaving for Work, All Modes**

Time Leaving for Work, Percent, 2009-2013



Source: ACS 5-Year Summary, Census Tract Level, 2009-2013

**Morning Commute Time**

Within the morning peak commute time, the majority of commuters leave for work between the hours of 6:00 and 7:30 AM. A number of other commuters also leave after 9:00 AM (particularly in the Bayview-Montalvin area), though the structure of the source data does not allow for a finer-grained look at later-morning or afternoon commute patterns. This data supports the peak period for commute trips currently scheduled on WCCTA’s local and regional routes.



# Demand Generators and Future Development

The WCCTA service area includes several trip generators comprised of retail centers, commute transfer points, government agencies, schools, and health care facilities. Cities within WestCAT's service area have had limited growth during the past five years, mostly within infill residential development and redevelopment of retail, medical and business park facilities. Trip generators for Dial-a-Ride service mostly include health care facilities and shopping centers, as well as recreational centers for seniors or disabled individuals. However, development projects that stalled during the recession have recently moved closer to completion. As the region grows and changes, new developments will need to be considered when planning service changes so that WestCAT's routes continue to reflect the needs and travel patterns of the communities.

The two largest cities in the service area are Hercules and Pinole, with a combined population of around 45,000. The east side of Hercules is nearly built out and most of the current development is occurring on the west side of Hercules between Interstate 80 and San Pablo Bay. Though real estate development continues to grow with regional population increases, several major projects have experienced set-backs and delays over the past five to ten years. The City of Pinole is similarly built-out but has planned for infill development primarily within two Priority Development Areas that include portions of San Pablo Avenue, Pinole Valley Road, and Appian Way. Pinole's has a downtown area along San Pablo Ave known as "Old Town Pinole" and regional commercial development along Interstate 80 which bisects the city. The city has future retail and office and residential development planned within its Priority Development Areas.

The town of Rodeo, an unincorporated community north of the Hercules city limits, is divided by Interstate 80. An older section, located west of I-80, is a community of approximately 5,000 residents. The newer part of Rodeo, known as Viewpointe, was developed in the 1970's. Parker Avenue has in recent years undergone a significant undergrounding and reconstruction project aimed at improving the pedestrian environment. Since pedestrian accessibility is an important factor related to transit usage, this streetscape project has improved WCCTA's ridership on Route 11, which serves this corridor. In 2015, the County approved applications that could result in some infill residential development along Parker Avenue, but not in sufficient concentration to spur major changes to WestCAT's service.

Crockett is another older residential community at the northern edge of the WCCTA service area. It is home to a major sugar refinery and number of unique retail businesses in the downtown area served by Route 11. Narrow streets and steep terrain limit access by larger buses Crockett as well as Rodeo and Port Costa. Large tracts of undeveloped land are retained as buffers around chemical plants and oil refineries to separate developed portions of the northern communities, and limit residential and commercial growth. A large proportion of the transit trips from Crockett are to the Hercules Transit Center to transfer to other destinations, including the Social Services facilities in Hercules. School trips are also a significant proportion of transit activity within this area. Growth in Crockett is limited at this time.

At present, the town of Port Costa is only served by dial-a-ride (DAR) service. The inherently hilly topography renders many areas in those communities

inaccessible to fixed route vehicles. Additionally, with a population of only 190, Port Costa does not have the density necessary to support regular transit service.

During the planning stages for the many development projects within these cities, WCCTA's staff have actively participated in the design workshops, TAC meetings and charrettes to ensure coordination between the Cities and the Authority and to provide input on the provision of transit service. Pertinent issues range from providing developers with physical requirements for bus turnouts to the discussion and evaluation of innovative funding strategies to support transit service within the city.

Communities bordering the WCCTA service area include the City of Richmond to the south, the unincorporated communities of El Sobrante, EBMUD water district land, and underdeveloped portions of Contra Costa County to the east. In the past, there have been requests from residents of El Sobrante to have WCCTA service extend into their community. However, El Sobrante is located in an AC Transit district and serving the area would require the State legislature to act, which is unlikely to happen in the near future. Nevertheless, WCCTA, CCTA and AC Transit staff members will continue to evaluate alternatives for coordinating services in El Sobrante, and connecting it with the WCCTA service area and the central part of Contra Costa County.

### **Mixed-Use Development**

The Aventine development, also on Sycamore Ave. in Hercules, opened in spring of 2016 and 90% of the residential units are occupied with the building 100% complete. The mixed-use project contains 147 upscale apartments and 10,000 square feet small retail options with 166 residential parking spaces below grade. The city has established a preferential parking district surrounding the development in order to allow 45 residents to apply for a permit to park on Sycamore between San Pablo and Tsushima Ave. Since the

development is in close proximity to several bus stops and the Hercules Transit Center, the leasing office is focusing of marketing to transit users, and parking being a premium, it is anticipated the some of the renters will utilize the transit system.

Located within the City of Hercules, the fully entitled and environmental cleared 1100- unit Bayfront Waterfront transit oriented development project will be a mixed-use neighborhood that will combine approximately 1,400 multi-familying residences, 115,000 square feet office space, 90,000 square feet retail, 134,000 square feet flex space, and open space along the bay. This project is divided into three neighborhoods, each of which has a different mix of building types in order to create different experiences, over approximately 20 acres of land. A new development team recently purchased the property and targeted the commencement of the first block of residential development slated for the last quarter of 2017.

### **Residential Areas**

In the Victoria-by-the-Bay development of the New Pacific Properties Specific Plan in Hercules, 880 homes have been constructed, which include over 100 apartments for low-income households. This plan includes the adjacent Victoria Crescent and Alexandria-by-the-Bay sub-developments. The last 43 homes within Alexandria-by-the-Bay have been completed as of April 2016. The neighborhood includes a park and 3.6 acres of open space. A new bus turn-out was constructed within the development along San Pablo at Victoria Crescent, with sidewalks and a pedestrian pathway that leads directly into the subdivision. Victoria-by-the-Bay is served by the Lynx, which travels along Victoria Crescent adjacent to the neighborhood, and by Routes 11 and 15 on San Pablo Avenue. The Lynx allows local passengers to ride within Hercules and Rodeo for the regular local fare.

In June of 2014, EPS prepared a market and fiscal impact analysis for the City of Hercules on the Muir Pointe development. The site would be along John Muir Parkway, adjacent to future waterfront-area development. The developer broke ground in late 2015, model homes are under construction, and the developer anticipates the project will open in December 2017. Construction of the 144 single-family unit development is anticipated to be completed by December 2019.

The City of Hercules is in the process of building a project called Path to Transit, which extends John Muir Parkway westward and connects to the waterfront district with a bridge on Bayfront Boulevard. This will constitute Phase 2 of the Regional Intermodal Transit Center with completion anticipated by December 2016. The City of Hercules has requested that transit service be provided within a few months of Phase 2 completion to serve existing residents and businesses. At full buildout of the entitled Hercules Waterfront mixed use project, including the addition of rail service and longer term ferry service, more frequent transit service will be needed.

### **Office Parks and Industrial Developments**

While local industrial facilities have significantly influenced the organization of land use in the WCCTA area, their influence on transit demand has not been significant. Commercial and institutional destinations, which attract the largest share of transit trips, have generally remained concentrated in the southwestern portions of the WCCTA area.

Substantial private investment has added potential demand for transit service within the past ten years. Tenant improvements at the newly redeveloped Pinole Valley Shopping Center and other commercial sites along Fitzgerald Drive in Pinole continue to sustain demand for transit service on routes 16, 17, 19, and JPX.

The North Shore Business Park, located west of San Pablo Avenue along Alfred Nobel Drive and Linus Pauling Drive, is the center for professional offices, light industrial facilities, and research and development within Hercules. More than 200,000 square feet of office and warehouse space has been built in recent years. The area is zoned as Planned Office–Research and Development. The development has a vacancy rate of less than two percent, so it has the potential for major transit demand. Bio-Rad Laboratories, the only company in the WCCTA service area that ranks among the 25 largest employers in the county, is located in the North Shore Business Park and they have an approved Development Agreement with the City to add a substantial amount of additional square footage of space over the next 20 years. WCCTA provides service to the North Shore Business Park with Route 15, and the Lynx service which provides a reverse commute option for employees of the Business Park.

In April of 2015, the Pinole City Council approved a plan for the Gateway Shopping Center, located on approximately five acres along Pinole Valley Road. The site is between Interstate 80 and Henry Avenue and totals 45,000 square feet. This shopping center buildings is now under construction. The commercial development will include a grocery store, a coffee shop, other retail uses, and a medical services building. The Council prohibited trucks from making deliveries via Henry Avenue during school pick-up and drop-off times at nearby Collins Elementary School. Parking also remains an ongoing concern in this area since on-street parking is informally used by transit riders to meet park and ride needs. The City approved a fifth commercial building of approximately 9,000 square feet, known as the Gateway Medical Office Building in March 2016 bordering the Kaiser facility, across from the Gateway Shopping Center project. An increase in overall traffic activity and parking demand is expected as a result of the projects. It is hoped that WestCAT will be able to provide

sufficiently attractive service to alleviate some parking demand.

A new CVS Pharmacy is planned to replace an existing medical office building at the Appian Way and Canyon Drive intersection. This project will involve a minor relocation of the bus stop adjacent to this parcel. Construction of the new building is expected to commence in early 2017.

## Retail Centers

The Pinole Vista Shopping Center in Pinole is the largest local retail center and the primary destination for local shopping trips. This center is served by four routes: 16, 17, 19 and JPX. Moreover, it serves as a connection point between WCCTA routes and AC Transit Line 70 (El Sobrante/Rheem Ave/Richmond BART).

Smaller retail centers in the service area that generate meaningful demand for transit service include:

- Appian 80 Shopping Center, Pinole Valley Shopping Center, and Old Town, and Del Monte Shopping Center, Pinole
- Creekside Shopping Center and Park Lake Plaza, Hercules
- Parker Ave., Rodeo
- Downtown Crockett

The Sycamore Crossing development is at the corner of Sycamore Avenue, San Pablo Avenue, and Tsushima Street. The project once had a large mixed use development and specific plan on it. The site has faced substantial difficulty in the past, as one previous developer spent substantial time getting entitlement for an all retail shopping center without beginning construction, and other developers have abandoned plans for the site. The site is also constrained by current utility infrastructure placement and offhaul of large quantities of dirt. However, the site was just sold by the City of Hercules to a new developer that

is proposing to phase the two sides of the site. Phase 1 anticipates all-retail development on the eastern-most portion of the project with a construction beginning target for 2017. It is unclear what type of development might occur on the westerly half of the property behind Ohlone Creek at this time.

The Market Town development, located near the existing Hercules Transit Center, was begun in 2009 as the first phase of the New Town Center specific plan project. The goal of this phase was to construct parking spaces to be used by visitors to the eventual mixed use buildings as well as a scenic courtyard space. Though the property changed hands between several development firms and went through a period of turmoil, the site remains nearly vacant. The current owner has shared conceptual drawings with the City that would include the development of a Safeway supermarket, restaurant, and gas station.

Over the last decade, Contra Costa County has made significant investments along Parker Avenue in Rodeo, improving circulation and public amenities along this main commercial thoroughfare. The town of Rodeo intends to encourage waterfront development focused on tourism. Should this development trend continue, ridership on route 11 may increase.

Located one mile south of the WCCTA service area in the City of Richmond, the Hilltop Shopping Center is a major destination for shopping and employment trips from the WCCTA area. Currently, WCCTA provides service to the Hilltop Mall on routes 18, 19, and JL, with limited service on route JR. This shopping center was recently put up for sale after having gone into foreclosure three years ago. This may mean that a new developer may increase foot traffic in this area to match the increased residential and office development surrounding it.

Though the residential and office sections of the Hilltop neighborhood are experiencing modest growth, the Hilltop Mall has seen diminishing levels

of commercial activity through the past five years. Because retail development in the U.S. is shifting away from this centralized style of indoor shopping mall, there has been interest in redeveloping the property may in the near future, which could result in a broader mixture of uses in the area. It remains to be seen whether this would stimulate or depress transit demand in the future.

## **Schools**

The WCCTA area includes the West Contra Costa Unified School District and the John Swett Unified School District as well as Contra Costa College. Demand for service is the highest at school entry and release times. At these times the number of passengers regularly exceeds available seating.

As a result of the passage of Proposition 13 in 1978, the West Contra Costa Unified School District eliminated most of its school bus program. This move indirectly passed the responsibility for student transportation onto public transit operators. When the WCCTA operated its first fixed-route system from 1978 to 1979, over 90 percent of the passengers were students.

The John Swett Unified School District, serving the northern communities of Rodeo and Crockett, provided school busing until recently. However, budgetary constraints have forced the district to phase out its service. Route 11 currently provides a limited amount of service to John Swett students.

Pinole Middle School and Pinole Valley High School are the primary destinations for students using local transit. Overcrowding on Route 16 became a problem at Pinole Valley High School, often causing delays to the rest of the route. In order to evenly distribute passengers, two morning and two afternoon supplemental Route J trips deviate off of the main route and start/end at Pinole Valley High school providing connections to Del Norte BART and AC

Transit lines. These trips operate on school days only.

The Pinole Middle School campus southwest of the intersection of Appian Way and Mann Drive has been redeveloped during the past five years. This campus is in close proximity to existing transit service on Appian Way and Canyon Drive. Construction of the new Pinole Valley High School campus along the west side of Pinole Valley Road north and east of Shea Drive has been underway since a temporary campus was established in 2014 and it is expected to continue into 2018. This public facility project will include improved transit access and will be one of the largest construction projects undertaken in the City of Pinole in many years.

Hercules Middle/High School students represent a considerable proportion of WCCTA local routes' riders in Hercules. WCCTA anticipated this demand by designing two supplemental trips along Routes 10 and 12 on school days. In the morning only, a supplemental Route J begins at San Pablo/Oakridge and ends at Hercules Middle/High School, via Hercules Transit Center.

Contra Costa College, a community college in the Contra Costa Community College District, has a student population of around 8,000 each year. This campus also includes Middle College High School, a program in which students can earn college credit during high school. In the near term, WestCAT is preparing to increase service on the C3 in order to better serve students from the area, and may eventually coordinate a student transit pass with the college.

## **Medical Centers**

Doctor's Hospital, located in Pinole, which had historically generated significant demand for transit, closed its doors over a decade ago, and consolidated its services within its main campus in San Pablo. WCCTA Routes 16 and 17 still serve the former

location as it is adjacent to other small medical offices as well as some retail. Within the last two years, the San Pablo Doctor's Hospital facility was closed as well, leaving Martinez as the closest location for many west county residents to access medical services.

WCCTA's Route 30Z serves both the Contra Costa Regional Medical Center and the Veterans' Administration Hospital in Martinez (as well as many County buildings in the downtown Martinez area). Despite the recent hospital closures in west county, there has not been a noticeable increase in Route 30Z trips to medical facilities in Martinez. It is not clear whether this is due to a lack of awareness about the 30Z service, or the availability of alternative means of travel.

A Kaiser facility has been built on Pinole Valley Road between I-80 and Henry Ave. The location is served by Routes 16, 19 and JPX at the transfer point on the corner of Pinole Valley Road and Henry Avenue. Route 19 provides service on Saturdays, making this location accessible 6 days per week.

### **Regional Transit Network and Hubs**

The El Cerrito del Norte BART station is an important hub for regional transit service. Demand has grown for service to the station since July 1998 when WCCTA assumed operation of the BART Express service. Commuters residing in Hercules, Rodeo and Crockett use Route J services to access the station. Route J serves the Del Norte station every day, including Saturdays, Sundays and holidays. Express service on Route JX is available weekdays during commute hours from the Hercules Transit Center. Some JPX routes departing the del Norte BART station either connect with the Martinez Link (Route 30Z) at the Hercules Transit Center, or arrive at Hercules as the JPX and continue to Martinez as the 30Z route. In either case, this service provides a relatively direct regional connection between the Richmond and El Cerrito areas and Central Contra Costa County.

Around 700 buses service El Cerrito del Norte BART on an average day and the City of El Cerrito has adopted a San Pablo Avenue Specific Plan that examines into the circulation issues of this large number of buses. As part of the I-80 ICM project, access improvements have been implemented to allow buses to cross San Pablo Avenue directly along Cutting Blvd, thereby allowing buses to avoid delays at the intersections on San Pablo Avenue. WCCTA now saves several minutes on every trip into Del Norte BART, a significant savings of time on trips that are time sensitive in regards connecting with BART trains.

In 2016, BART and the City of El Cerrito will be working together to make improvements to the Del Norte station and the surrounding area. The City of El Cerrito will be making improvements to the Ohlone Greenway to increase bike and pedestrian access and visibility at mid-block crossings. Bus stops along the greenway will be improved, passenger drop-off will be re-located, and the greenway path will be widened. BART will be expanding its paid area within the station in order to increase station capacity and make design improvements. Construction is expected to be completed in phases as funding allows, with the first phase finished as soon as late 2017.

The City of Hercules is working with a number of agencies in the development of a multi-modal transit center located at Bayfront Boulevard and the terminus of John Muir Parkway. Union Pacific has given approval for a rail station and the Water Emergency Transportation Authority has identified a site for a ferry terminal. Bus stop locations are planned to allow easy transfers between all modes of transit offered from the location. Parking structures are also planned in the vicinity of the transit development. Service provisions will be more fully defined as the development occurs. Sycamore Avenue runs through the waterfront area and a waterfront transit-oriented district is being planned consisting of retail and residential properties.

There have also been changes to the location of the Transbay Terminal in San Francisco, the current terminus for the Lynx. The old terminal was torn down and a temporary facility was opened in 2010, with an anticipation of being in operation for approximately 7 years. The temporary terminal is located between Main, Folsom, Beale and Howard streets, in the financial district south of Market Street. Work on the new Transbay Transit Center is now underway and is expected to be completed in early 2018. When the new Transbay Terminal opens, the bus level of the facility will be connected directly to the Bay Bridge via exclusive bus ramps, which will immediately benefit transbay passengers with reduced travel times.

AC Transit serves the Richmond Parkway Transit Center, and this provides WestCAT riders with essential connections to El Cerrito and Alameda County. Several transbay lines (LA and LC) also operate from this transit center. Line LA now only operates trips in the commute direction with no mid-day service, providing 9 inbound trips in the morning, and 12 return trips in the afternoon/evening period. Line LC operates during the afternoon only, providing a total of 15 northbound trips out of San Francisco. AC also operates three local routes that serve the Richmond Parkway Transit Center, (Lines 70, 71 and 376).

In 2015, both AC Transit and WestCAT tested a double-deck bus as a possible higher capacity option for existing transbay commuter coaches. AC Transit has elected to move forward with this fleet replacement plan, and expects to execute a contract for these vehicles in late summer, 2016, allowing vehicles to be placed into service as early as mid-2017. AC Transit did a joint procurement for the vehicles, including WCCTA as a named participant.

AC Transit also started the San Pablo Rapid (72R) service in summer 2003. The Rapid uses 40', low floor buses with three doors, limited stops, and signal

preemption to increase the route's operation speeds between Contra Costa College and Jack London Square in Oakland. Relatively high frequency on the line offers convenient service along San Pablo Avenue. Connections between the 72R and WCCTA's C3 route at Contra Costa College are convenient in the southbound direction, but for northbound passengers, there is often a long transfer time due to the 72R operating on 12 minute headways, while the C3 operates only once an hour. This situation will improve in the fall of 2016, when a service increase on the C3 will reduce the route's headways to 30 minutes. Ultimately AC Transit would like to extend the Rapid to Richmond Parkway; this connection would provide an even greater connectivity between this route and the WCCTA system.

In early 2016, BART received the first of a set of new train cars that will slowly replace its aging fleet. The agency will also be making changes to its onboard and in-station information system, including LED screens with graphic information about the train's location within the system. This will allow the agency to change its information system to focus on the line color rather describing lines using the station endpoint, as it is currently.

In addition to the regular BART operations, BART is also the operating agency for the Capitol Corridor commuter rail services. Currently, WCCTA's Route 30Z offers connections to the Capitol Corridor trains at the Martinez Amtrak station, but future plans call for a station in Hercules at the Waterfront District. WCCTA is working to plan services to the new Hercules Intermodal Center, in collaboration with the City of Hercules, Water Emergency Transit Authority, and Capitol Corridor Joint Powers Authority.

Increasing capacity constraints on BART and growing congestion on the Bay Bridge warrant examination of transit alternatives that are more economical than a BART extension. While BART is pursuing enhancements to its train control system that could

allow the operation of additional trains in the peak period, and while there are now calls for a second transbay BART tube, these options can probably not be delivered for years to come.

In 2004, in response to growing congestion on I-80, WCCTA added a new route, the JPX, which increased the level of feeder bus service to the El Cerrito del Norte BART station. This route, which was designed to provide a fast and direct express option for Pinole residents to the BART system, saw its ridership grow quickly, and the JPX now carries more passengers than the route it supplemented, the JX. In 2005, WestCAT introduced direct transbay Lynx service from Hercules into San Francisco.

As of July 2012, Vallejo Transit and Benicia Breeze merged to form SolTrans. SolTrans operates Route 80 between the Vallejo Transit Center, Curtola Park and Ride and the El Cerrito del Norte BART station. In January of 2015, SolTrans made substantial changes to most routes in their system, which were then updated a second time in August of 2015. However, this did not change route 80. SolTrans does not offer intermediate stops between the Carquinez Bridge and the Del Norte BART station, so west county residents desiring to travel to Vallejo or other Solano County destinations must first travel to BART in order to transfer to the Route 80.

FAST (Fairfield and Suisun Transit) operates Route 90 between Suisun Amtrak, the Fairfield Transportation Center and the El Cerrito del Norte BART station. FAST Transit's route 90 has expanded service to Saturday as of February 2016. Like the SolTrans Route 80, transfers to and from the Route 90 occur only at Del Norte BART.

Golden Gate Transit provides the quickest service from WCCTA service area to points of interest in Marin County. GGT operates two routes from El Cerrito del Norte BART to the San Rafael Transit

Center, via the Richmond-San Rafael Bridge, making Marin County accessible. Route 40 operates Monday-Friday between San Rafael TC, Point Richmond, Cutting Blvd, and Del Norte BART. Route 42 operates everyday between San Rafael TC, San Quentin, Point Richmond, Harbor Way, Richmond BART and Del Norte BART. The agency is currently revisiting the structure of several routes travelling from San Francisco through Marin County, including the 10 and 70. This should not have any noticeable impact on WestCAT's service. Beginning in July of 2016, the agency intends to implement its annual fare increase, raising the cost of a ride by 4%. The increase will apply to both bus and ferry routes, though not routes operated on behalf of Marin Transit.

County Connection has undergone some similar service updates to WestCAT – offering wi-fi onboard, real-time arrival information and adding Clipper fare collection to their fixed-route buses. Although WestCAT's Route 30Z connects to County Connection in Martinez at the Amtrak Station, the lack of a convenient transfer location between the two systems near Highway 4 in Martinez creates considerable out of direction travel for transferring passengers, adding inconvenience and delay to certain trips between west county and Concord, Walnut Creek, Pittsburg and Pleasant Hill. Tri-Delta doesn't connect directly to WestCAT, but users can travel to its service area by combining WestCAT's route 30Z with any of a number of County Connection routes. Tri-Delta, LAVTA and County Connection all partner with WestCAT to offer a multi-agency pass to users looking to move across the northern part of Contra Costa County.

# Current Service

Figure 5-1 lists some basic performance statistics for the different service types operated by WCCTA. Each type of service performs a unique role within the transit network and this is reflected by the wide variations in performance.

Local and regional routes provide essential service for residents of the Western Contra Costa County area who do not have access to a car. These routes tend to have lower ridership numbers than the express routes, but are an accessible means of transportation for local residents. Local routes also tend to be longer, so headways are longer than those of the express routes. Express and transbay routes have higher productivity rates due to higher ridership combined with higher

speeds, coupled with the fact that there is more concentrated travel demand to the destinations served by these routes.

The express and regional routes provide access to cities outside of the WestCAT service area, such as Oakland, Berkeley, Emeryville, Richmond and Martinez. This allows users to access essential services and job opportunities in these cities, including the Contra Costa County offices and court in Martinez, and Hilltop Mall in Richmond.

Dial-A-Ride by its very nature provides the highest degree of accessibility through curb-to-curb service and through the Americans with Disabilities Act

Performance		2014-15 Average Monthly Passengers			
Route	Passengers	Revenue Hours	Passengers Per Revenue Hour	Revenue Miles	
<b>Local Fixed Routes</b>					
10	2819	248	11	3007	
11	6857	441	16	6781	
12	3556	266	13	3843	
15	2758	266	10	3641	
16	7464	602	12	8296	
17	721	114	6	1437	
18	1041	102	10	1239	
19	500	59	8	787	
<b>Express</b>					
JL/JR	34059	1708	20	29199	
JPX	12994	664	20	13178	
JX	8087	431	19	10783	
<b>Regional</b>					
30Z	2897	430	7	9274	
C3	4968	276	18	3483	
<b>Transbay</b>					
LYNX	19323	1023	19	30100	
<b>Non-Fixed Route</b>					
Dial-a-Ride	3463	1103	3	16322	

Fig. 5-1: WestCAT System Productivity, 2014-15

(ADA). However, providing this level of access requires a correspondingly higher level of service hours per trip, which translates into inherently lower productivity for this service. In planning future route and service changes, WCCTA will have to continue balancing these somewhat conflicting demands of coverage and productivity.

Figure 5-2 summarizes the current service times and frequencies of service for fixed routes. While most local routes typically run every 30-45 minutes, express routes have up to 15 minute headways during peak commute times. The JX express route does not run during off-peak hours, and the JPX route expands to 60-75 minutes in the mid-day period. The Lynx transbay route also operates on 15 minute headways during commute hours, with current headways of up to 75 minutes during mid-day.

Figure 5-3 shows the system’s weekend service characteristics. Two local routes, 11 and 19, operate on Saturdays between 8:37 AM and 8:17 PM. Express Route J operates on Saturdays between 6:03 AM and 11:49 PM and on Sundays between 7:39 AM and 8:14 PM. Both route variations (JR and JL) operate on weekends.

The most recent changes to the regular fixed-route schedule took place in July 2012. Minor timing changes were made to the schedule to achieve reduced wait times between express runs during the peak periods, and better connectivity between routes. In June 2016, schedule adjustments were made to further

WCCCTA Weekday Service Characteristics			
	Service Span	Peak Headway	Off-Peak Headway
<b>Local Fixed Routes</b>			
10	6:10 AM - 7:49 PM	45 Minutes	45 Minutes
11	5:40 AM - 9:43 PM	30 Minutes	45 Minutes
12	5:30 AM - 8:24 PM	45 Minutes	45 Minutes
15	5:55 AM - 7:55 PM	45 Minutes	45 Minutes
16	5:05 AM - 8:02 PM	30 Minutes	45 Minutes
17	6:21 AM - 10:33 AM	70 Minutes	70 Minutes
	1:11 PM - 6:33 PM		
18	5:59 AM - 9:51 AM	70 Minutes	70 Minutes
	12:40 PM - 5:55 PM		
<b>Express</b>			
JL/JR	4:34 AM - 12:32 AM	15 Minutes	20-40 Minutes
JX	5:20 AM - 8:36 AM	15 Minutes	-
	3:39 PM - 8:10 PM		
JPX	5:27 - 8:08 PM	15 Minutes	60-75 Minutes
<b>Regional</b>			
30Z	6:16 AM - 7:40 PM	45 Minutes	45 Minutes
C3	7:30 AM - 8:44 PM	45 Minutes	45 Minutes
<b>Transbay</b>			
LYNX	5:00 AM - 8:33 PM	15 Minutes	75 Minutes

Fig. 5-2: WestCAT Weekday Service Characteristics

WCCCTA Weekend Service Characteristics			
	Service Span	Peak Headway	Off-Peak Headway
<b>Local Fixed Routes</b>			
11 (Saturday)	8:59 AM - 7:48 PM	45 Minutes	No Service
19 (Saturday)	8:18 AM - 8:41 PM	45 Minutes	No Service
<b>Express</b>			
JL/JR (Saturday)	6:00 AM - 10:58 PM	40 Minutes	40 Minutes
JL/JR (Sunday)	7:20 AM - 9:18 PM	40 Minutes	40 Minutes

Fig. 5-3: WestCAT Weekend Service Characteristics

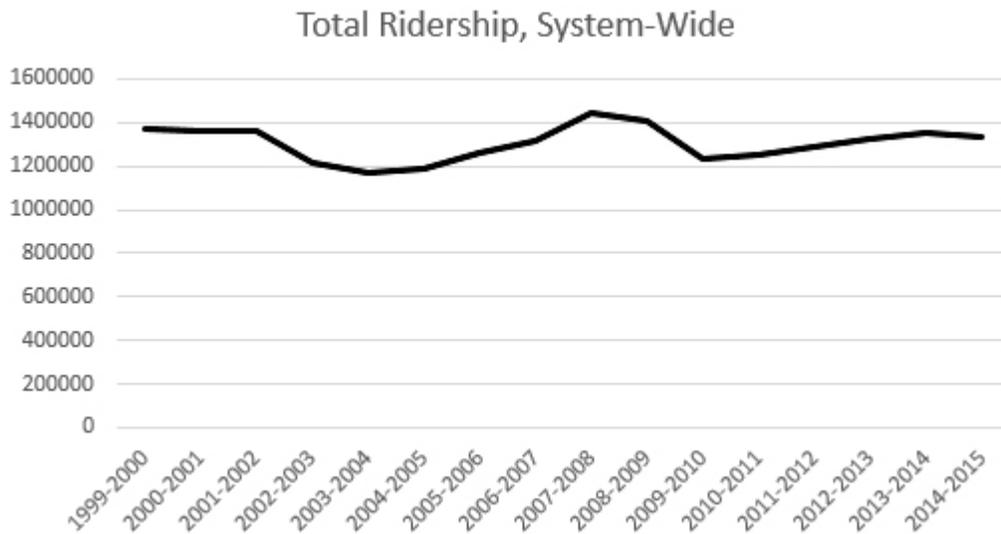


Fig. 5-5: Total Ridership, 1999-2015

shorten peak headways and extend evening service on the Lynx route. These service improvements are intended to address ever-increasing congestion on the I-80 corridor. Other schedule changes are anticipated to be made in late 2016 and consist of minor improvements to connections of the local and express bus routes.

### System Performance

The average monthly productivity of 16 passengers per revenue hour on fixed routes during FY 14-15 is slightly below the productivity level of FY 13-14. However, the average productivity has increased since the publication of the last short-range transit plan in 2013. The express routes, which run both on weekdays and on weekends, are some of the most productive routes in the system with 19 and 20 passengers per revenue hour. The transbay Lynx route is equally productive, despite the somewhat unique feature for Transbay routes of operating in revenue service on the reverse commute leg of the trip.

### The Lynx

WCCTA implemented the WestCAT Lynx in September 2005. The Lynx is a Transbay service from the Rodeo/Hercules area to the Financial District in San Francisco operating weekdays only

on roughly 15 to 20 minute headways during the commute time. The implementation of the service is the result of several studies substantiating the fact that an express bus service from Hercules to San Francisco would be one of the most cost-effective alternatives to the private automobile in the I-80 Corridor.

A very important research project that led to the successful implementation of the WCCTA Lynx was the Bay Area Regional Express Bus Study, commissioned by Caltrans and conducted by the University of California Transportation Center (UCTC). The UCTC study shed light onto the different commute markets in the WCCTA service area and identified other productive destinations to take into consideration for future service expansion. Congestion on I-80, the oversubscribed Hercules Transit Center, the intense carpool activity, and the results from the UCTC study were the determining factors for the Authority's aggressive pursuit of funding for the service through Regional Measure 2 (RM2).

In July 2010 WCCTA started operating limited midday service on this route to provide an option for riders who needed to return from San Francisco during the day, and also in anticipation of increased demand as a result of the implementation of a charge for crossing the Bay Bridge in a carpool. While ridership on these trips was initially low, WCCTA has seen ridership

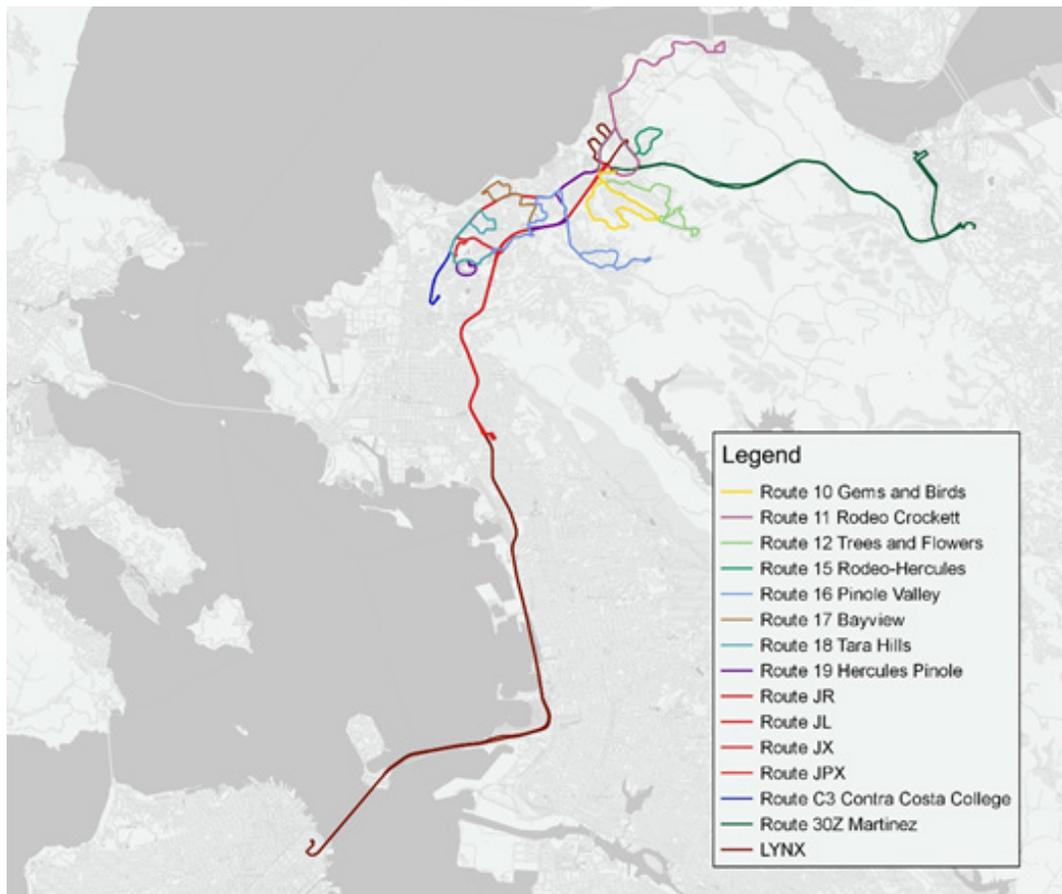


Fig. 5-4: Map of all WestCAT Routes

grow over time as more people have become aware that the service is now offered during non-commute times. As demand has grown on this service WestCAT has tried to accommodate the increasing ridership demands by operating 57 seat over the road coaches, and by expanding the number of trips provided Demand during the peak has given rise to WestCAT seeking funding to purchase 80 passenger double decker vehicles to further accommodate the demand on this service. In April 2015 WestCAT completed a successful pilot operation of a double decker vehicle and recently received regional funding from MTC to purchase three double decker vehicles.

### Fixed-Route Local and Regional Service

WCCTA operates nine local fixed routes that are timed to provide convenient connections with the system's express buses serving the El Cerrito del Norte BART station, the Richmond Parkway Transit

Center and the Hilltop Mall. Routes 10 through 15 serve Hercules and points north and Routes 16 through 19 serve Pinole and points south. The local routes operate on weekdays only with the exception of Routes 11 and 19, which also provide Saturday service. Route 19 only operates on Saturdays.

The Contra Costa College Connection, (C3) is a Hercules to Contra Costa College route that was introduced in September 2005 thanks to a Low Income Flexible Transportation Fund (LIFT) federal grant. The purpose of LIFT is to help low-income families get the adequate training to be able to find and maintain jobs to make them less dependent on public services. This service was initially put in place in response to comments from the community citing the lack of direct transit service between the WCCTA service area and Contra Costa College. In the past, for some residents of the service area, it could take anywhere between one hour and thirty minutes to

two hours to get to the college. The new C3 Route has reduced travel time to less than 30 minutes from Hercules to the college, offering significantly improved access to learning centers, and employment opportunities. Moreover, the C3 provides enhanced regional accessibility through connections to AC Transit's Rapid service at Contra Costa College, which closes a gap between WestCAT's service area and activity centers in Berkeley, Emeryville, and Oakland, and Health Centers in San Pablo and Richmond. Additional Lifeline funding was secured in 2015 and WestCAT plans to double frequencies on this route in the near future, further enhancing the connections to the College and to the AC Transit Rapid system. The ridership growth on the C3 route confirms the important role WestCAT's services play in providing transportation for students in the service area.

Figure 5-6 shows monthly changes in dial-a-ride usage patterns. The average ridership per revenue hour now stands at around 3 riders.

Figure 5-7b illustrates the variation in productivity by route. Most of the local routes have remained consistent year to year, while some have experienced a slight decline due to the conditions of the economy. Because the 30Z has longer travel distances and different operating conditions, it is not easily compared to other fixed routes. Route 30Z has been operated by WCCTA on behalf of the region since the mid 1980's to provide basic mobility between West and Central Contra Costa County, and to the healthcare facilities, the county court system, and other county offices located in the county seat in downtown Martinez.

Monthly trends in ridership have remained consistent with previous year's figures. Traditionally ridership peaks in September/October, to coincide with school starting, and there is above average ridership in the spring and below average ridership in the summer. The whole system averages 14.4 passengers per revenue hour. This average considers all local, express, and Transbay services. It is affected by the fact that WestCAT provides some level of service on every day of the year, and that some of the express routes have a span of service of more than 20 hours each weekday (from 4:30 AM until 12:30 AM the following morning). In general, productivity and ridership on the fixed-route service have followed fairly consistent seasonal patterns. There is an increase in passengers per revenue hour during the school year and a decrease during the summer months and the holiday season in December. Figure 3-2 illustrates productivity for the past two and a half fiscal years. It can be observed that from September through November productivity increases in all three fiscal years, and after a dip in December, productivity picks up again for the rest of the fiscal year declining again in the summer months.

## System Trends

## DIAL-A-RIDE AVERAGE RIDERS PER REVENUE HOUR

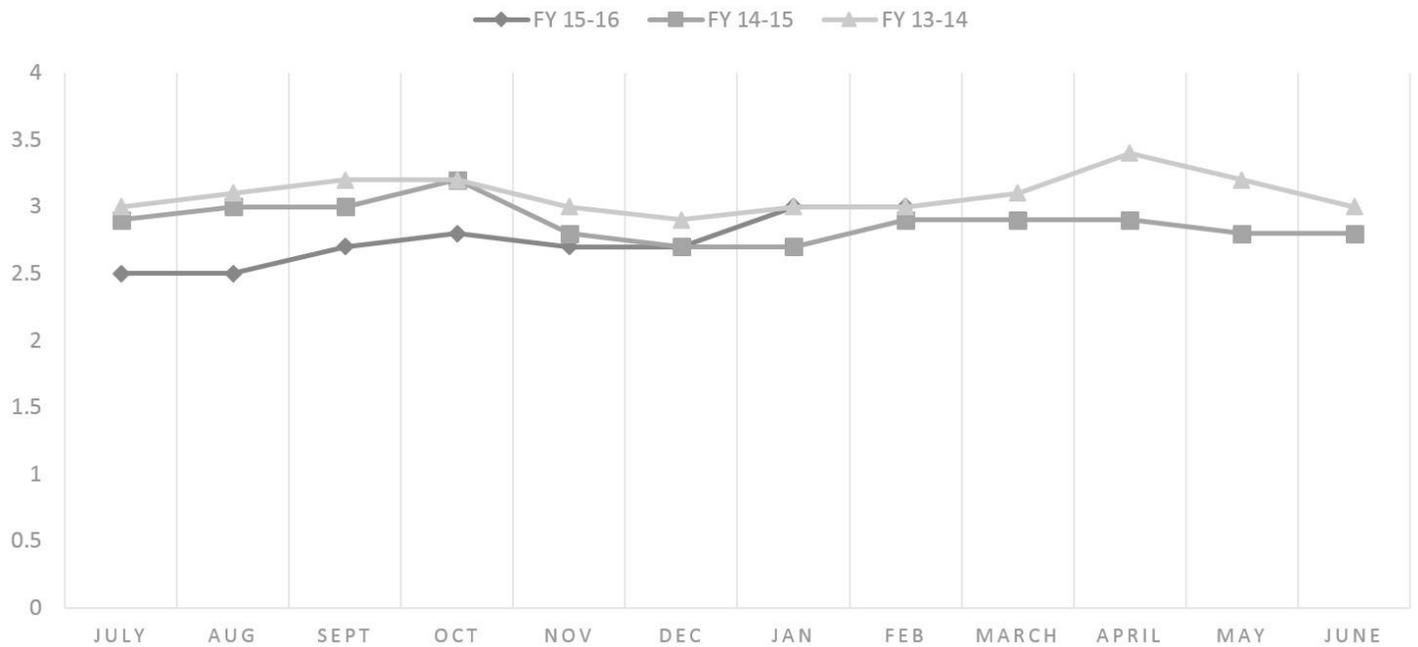


Fig. 5-6: Dial-a-Ride Productivity

## PASSENGERS PER REVENUE HOUR, SYSTEM-WIDE

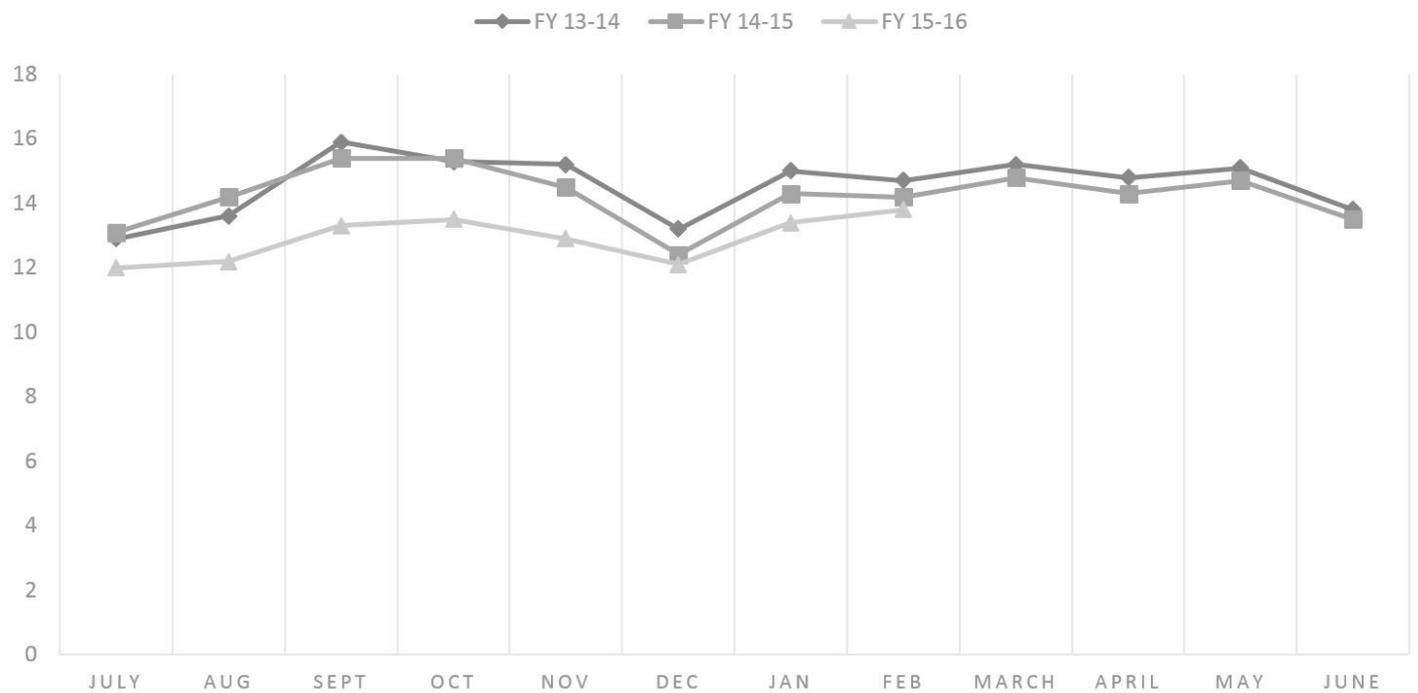


Fig. 5-7a: System Productivity

## FY 14-15 PASSENGERS PER REVENUE HOUR, BY ROUTE ALL ROUTES

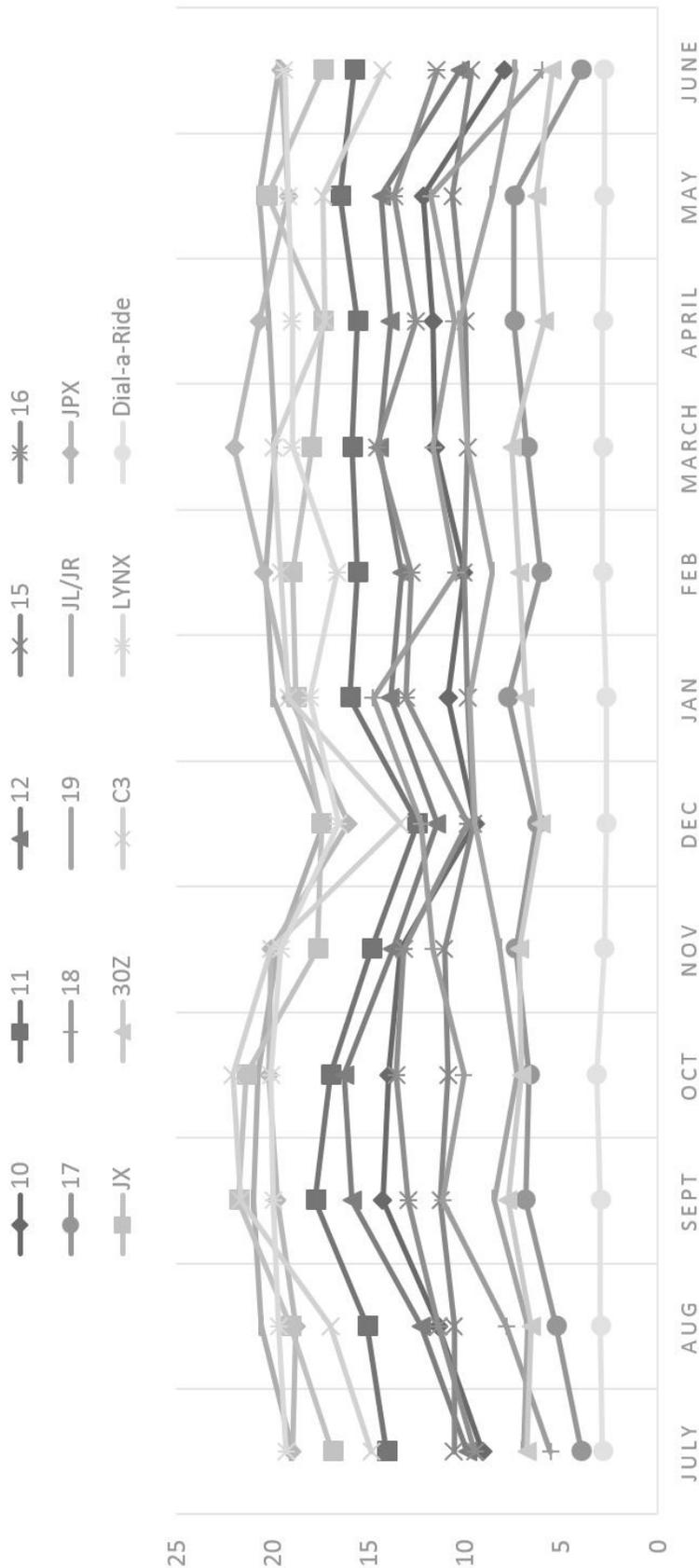


Fig. 5-7b: Fixed-Route Productivity by Route, 2014-15

## JX AVERAGE RIDERS PER REVENUE HOUR

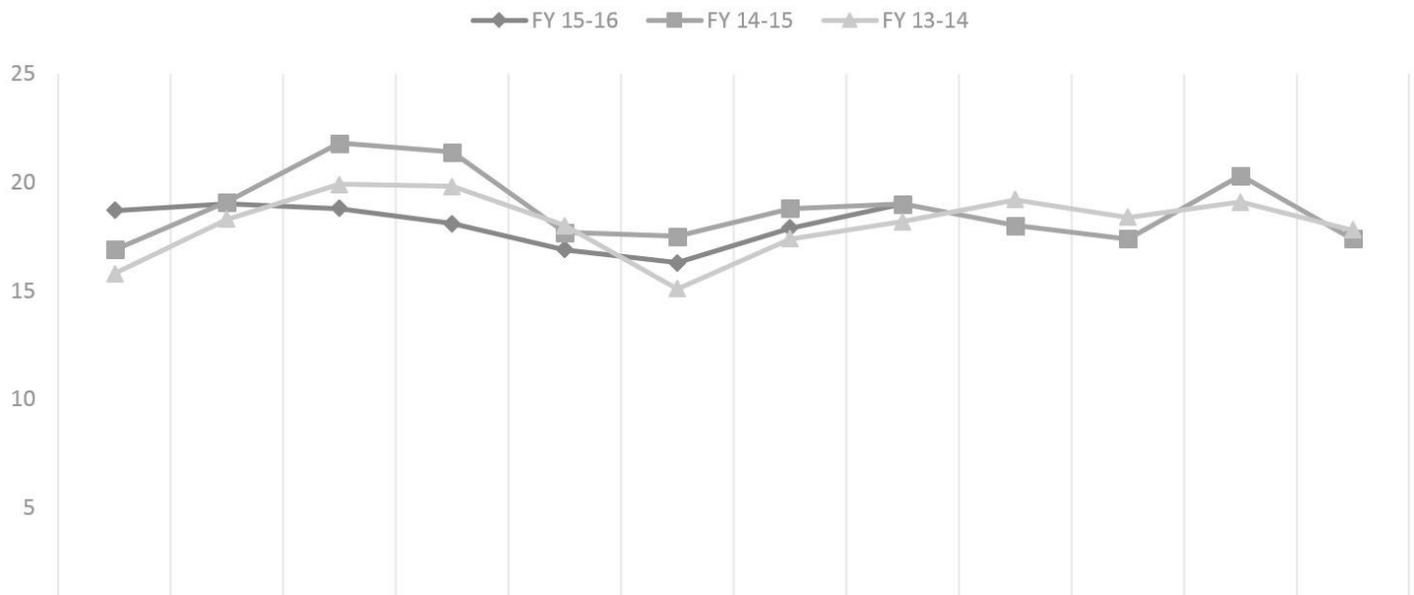


Fig. 5-8: Route JX Productivity, 2014-15

### Express Routes

WestCAT’s express routes offer fast and convenient connections to the BART trains. Average productivity on the express routes has remained steady in recent years at 19-20 passengers per hour.

The routes provide connection not only to BART, but to bus routes that connect throughout the wider Bay Area. El Cerrito Del Norte BART is a hub with stops served by AC Transit, Golden Gate Transit, SolTrans and Napa VINE Transit as well as the Department of Human Services shuttle.

Ridership is fairly similar within these routes, and month-to-month trends follow similar patterns. This suggests that for many users the routes may be interchangeable, and that a certain number of users might take each route based on the one which best fits their transfers to or from another route. The dip in ridership around December may be related to the holiday season, as these routes are commuter-focused and many workers take vacations during this time.

### Route JX Hercules-BART

The WCCTA JX express service makes only two stops, one at each terminal. The route uses the HOV lane on I-80, which makes the service a fast and convenient BART feeder. This route is operated on 15-minute headways on weekdays between the Hercules Transit Center and El Cerrito del Norte BART station. This route caters to commuters, with a previous survey showing that over 85% of trips on the route are work trips.

Currently, the service is operated during peak hours only from 5:20 AM to 8:36 AM and from 3:39 PM to 8:10 PM. As with all of the express routes, average productivity has stayed at 19 passengers per revenue hour. In past years, ridership has had its highest rates in the early fall and its lowest in the late fall and early winter. FY 15-16 ridership rates have followed this trend, though the variation between high and low ridership values is not so great as it has been in the past.

## JR/JL AVERAGE RIDERS PER REVENUE HOUR

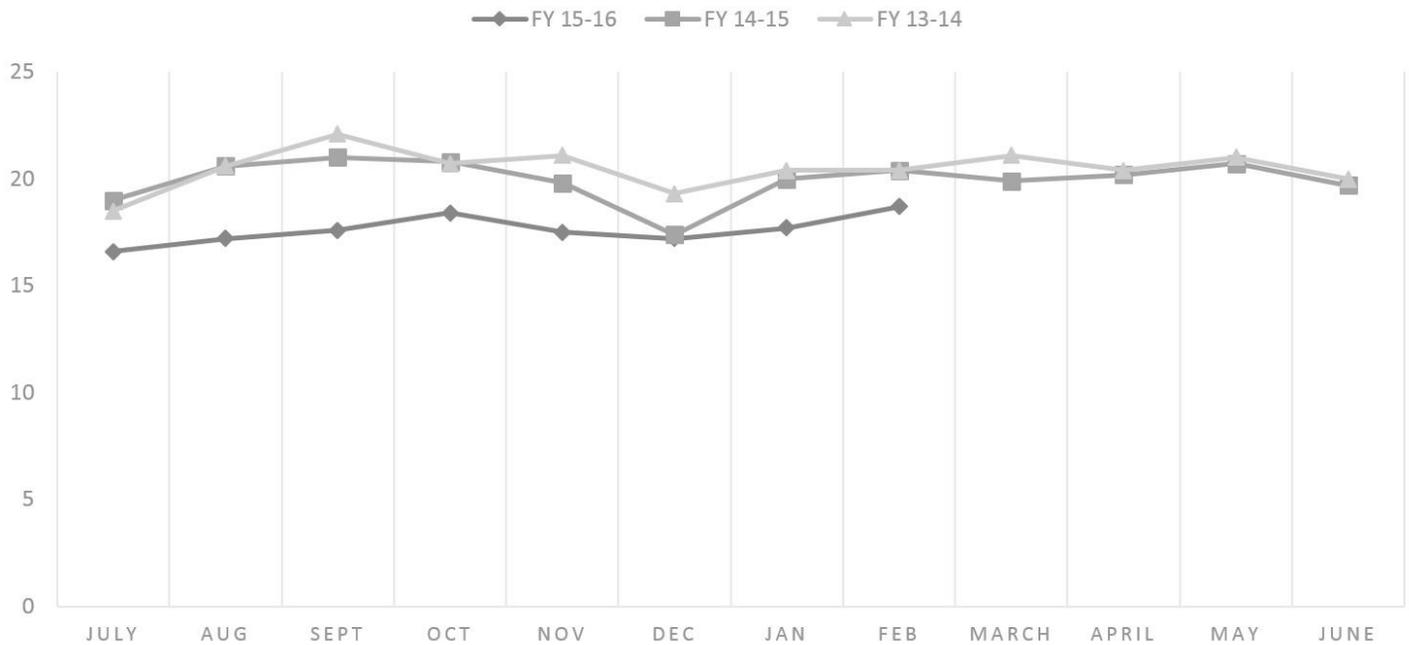


Fig. 5-9: Route JR/JL Productivity, 2014-15

### Route J (JL/JR) Hercules-BART

Route J provides similar service between the Hercules Transit Center and BART, but goes along San Pablo Avenue and through the Hilltop area, and then travels directly utilizing the HOV lane on I-80 to the El Cerrito del Norte BART station. Route J service alternates between Lakeside Drive (JL) and Richmond Parkway (JR). During evenings and weekends, the JR serves Hilltop Mall via Blume Drive.

Route J operates on weekdays from 4:34 AM to 12:32 AM, on Saturdays from 6:00 AM to 10:58 PM, and on Sundays from 7:20 AM to 9:18 PM. During weekdays, Route J operates on 15-minute headways during the peak period and 30-minute headways during the off-peak. On weekends and holidays, service is provided approximately every 45 minutes.

During the school year Route J provides tripper service to the Pinole Valley High School from the

Del Norte BART station in the morning and from the school to the station in the afternoon. On school mornings, one J trip begins at San Pablo and Oakridge and continues onto the Hercules High/Middle School via the Hercules Transit Center.

Route J has maintained a high productivity mark within the WCCTA system, with an average productivity rate of 20 passengers per revenue hour. Ridership is typically steady from month to month, and in FY 15-16 passenger counts have seen less fluctuation. This year has also seen fewer riders overall than previous years.

## JPX AVERAGE RIDERS PER REVENUE HOUR

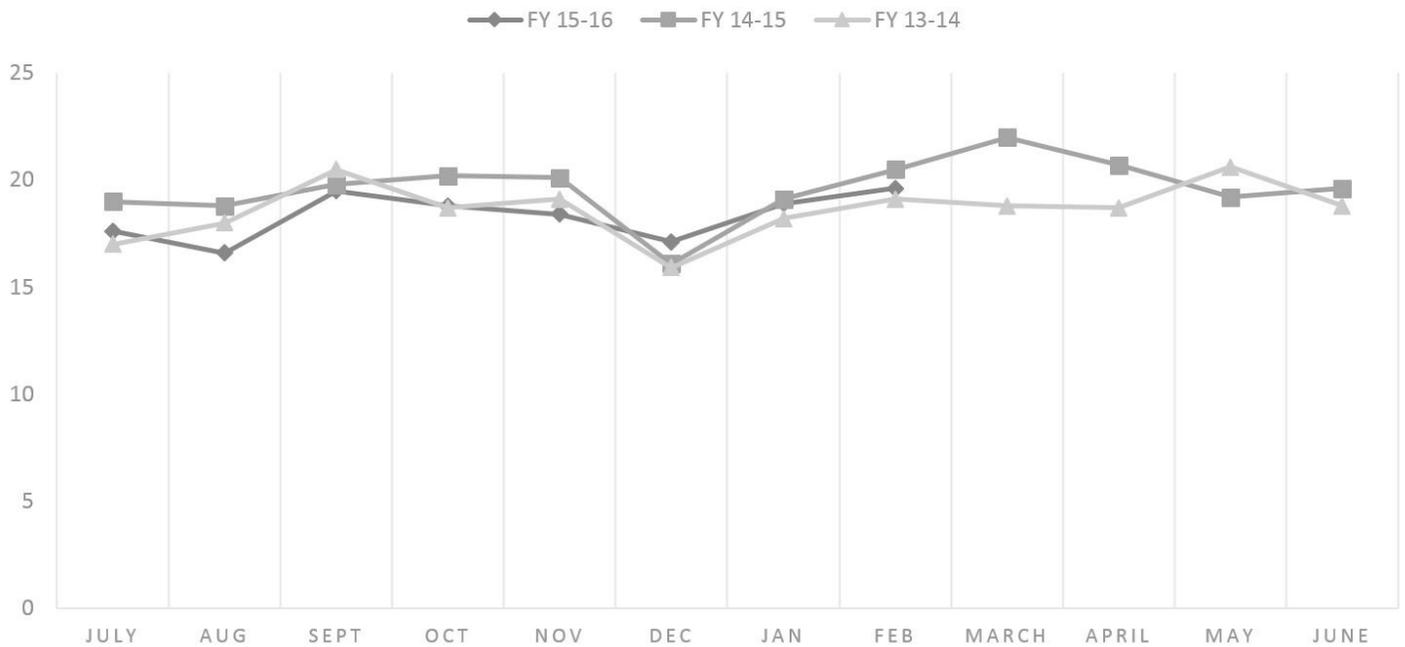


Fig. 5-10: Route JPX Productivity, 2014-15

### Route JPX Hercules-BART

Route JPX operates between El Cerrito del Norte BART and the Hercules Transit Center throughout the week. During the peak service, the JPX operates at 30 minute headways, shifting to 60-70 minute headways during the off peak hours. It is tied with route J for the highest average ridership per revenue hour, with 20 riders per revenue hour. From July of 2013, ridership has been steady and followed similar ridership patterns from month to month, with the lowest ridership point occurring in December and the highest points occurring in mid-Spring and early fall.

## Regional and Transbay Routes

WestCAT's Regional and Transbay routes provide vital connections to the larger network of transit options and allow residents of the region to efficiently access job and educational opportunities in Richmond and San Francisco as well as County services in Martinez.

Service on the Route 30Z started in 1983 in response to a court finding that defendants being tried in Martinez were unable to get a fair hearing due to a disproportionately low representation of West County residents on juries as a direct result of limited transportation options between West and Central Contra Costa County. After the scheduled revisions of 2005, Route 30Z experienced another change because the County Health Department did not renew the transportation contract that it had with WCCTA and the Authority discontinued its service stop at the Richmond Clinic. Another change affected the loop alignment in Martinez. The bus now accesses downtown Martinez via Alhambra Avenue and ends at the Amtrak train station. WCCTA has initiated a transfer agreement with the Capitol Corridor Joint Powers Authority (CCJPA) to increase the regional connectivity between their transit systems.

In 1985, recognizing the importance of a public transit connection providing West County residents access to not the court system, as well as other governmental and medical services located in Martinez, five parties (AC Transit, BART, Contra Costa County, County Connection, and WCCTA) developed an initial financial agreement to support this service. Under the terms of the agreement, AC, BART and the County each provided 25% of the annual budget for the service, while the smaller agencies split the remaining 25%. As part of this agreement, the service was transferred to the lowest cost provider, WCCTA. Because of funding reductions, service levels were cut by more than half.

Throughout the next decade, WCCTA fought to maintain funding for the service, as the other four

original parties to the agreement withdrew, citing financial hardship. WCCTA was successful at augmenting 30Z operating revenues through new funding arrangements. The route went through a significant restructuring in February 2004 when its frequencies were increased to 30 minutes during the peak and service was interlined with Route JPX thanks to a Traffic Congestion Relief Program (TCRP) grant. Currently, Route 30Z is being funded in part by Measure J revenues, and Route JPX is being funded with support from Regional Measure 2 (RM2) funds.

The LYNX was started in 2005 to provide Western Contra Costa residents a fast and efficient route to get to San Francisco. Initial operations support was provided by the Regional Measure 2 fund, which raised bridge tolls and directed the new funds toward relieving traffic congestion on highways across the Bay Area. The route quickly met its goal of removing 100,000 peak commute hour car trips from the I-80 corridor, and has had an average 12% annual ridership increase for the past ten years. In 2010, the hours of service were expanded to include mid-day trips with 75 minute headways. In 2015 peak service was increased to 15-minute headways. As of 2007, the buses also offer free wi-fi to all travelers to make the trips to and from San Francisco more enjoyable.

Route C3 provides connectivity from local routes to Contra Costa College, a community college in the city of San Pablo serving around 8,000 students. Contra Costa College also hosts Middle College High School, a public school that allows students to blend college coursework into their high school curriculum. This route receives Job Access and Reverse Commute funds which are particularly interested in providing employment access in a manner that recognizes that complex nature of commuting trips. The C3 links employment trips with job training, an essential part of long-term economic stability.

## 30Z AVERAGE RIDERS PER REVENUE HOUR

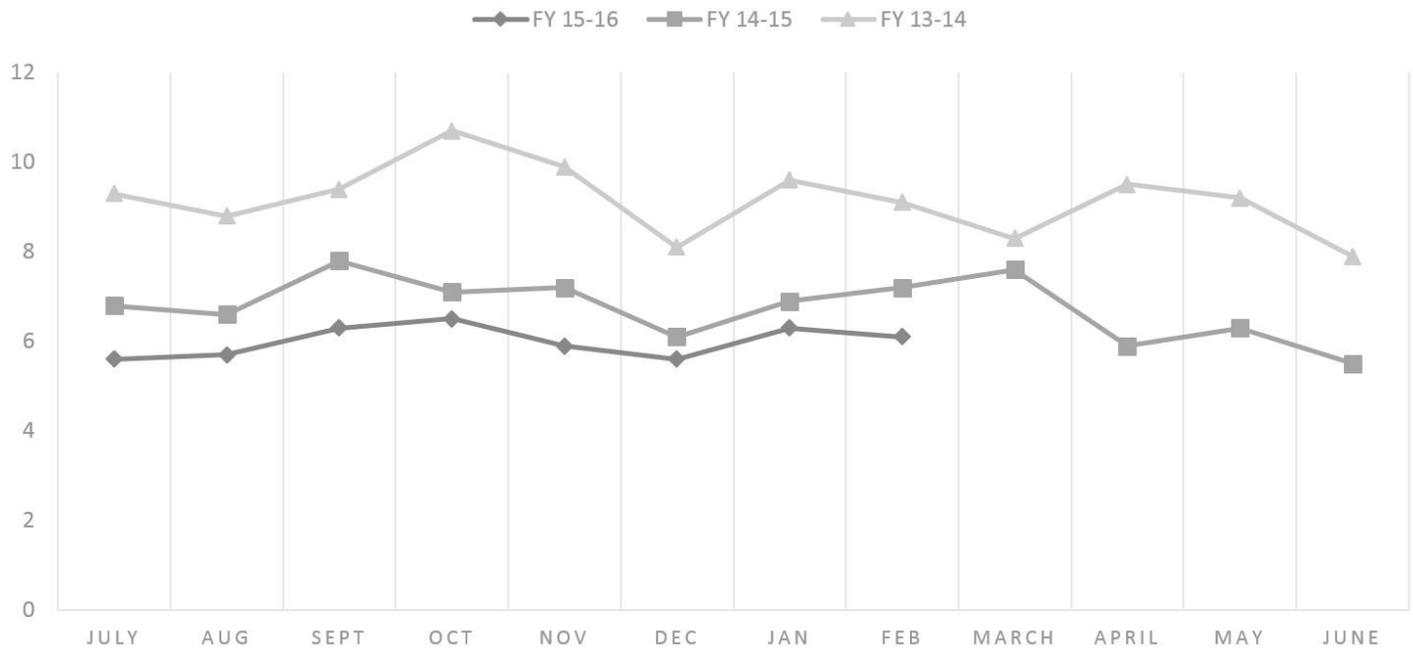


Fig. 5-11: Route 30Z Productivity, 2014-15

### Route 30Z Martinez Link

Route 30Z is a regional service connecting the WCCTA service area to the Contra Costa County seat in Martinez. This route operates on weekdays from 6:16 AM to 7:40 PM from Hercules Transit Center to downtown Martinez and the Amtrak station. The route has seen a decline in ridership over the past three years, with the highest monthly ridership average moving from 11 riders per hour in October of 2013 to just over 6 in the same month of 2015.

service is necessary for those who cannot otherwise travel to the City of Martinez.

Although Route 30Z provides a necessary regional service since it is the only public transit route connecting western and central Contra Costa, its productivity has been historically low in the WCCTA system. Currently, it stands at 7 passengers per revenue hour, a decrease as compared to previous years. This route has been classified as a “lifeline” service for funding purposes, as it is unable to meet the ridership standards of a typical local route, yet its

## C3 AVERAGE RIDERS PER REVENUE HOUR

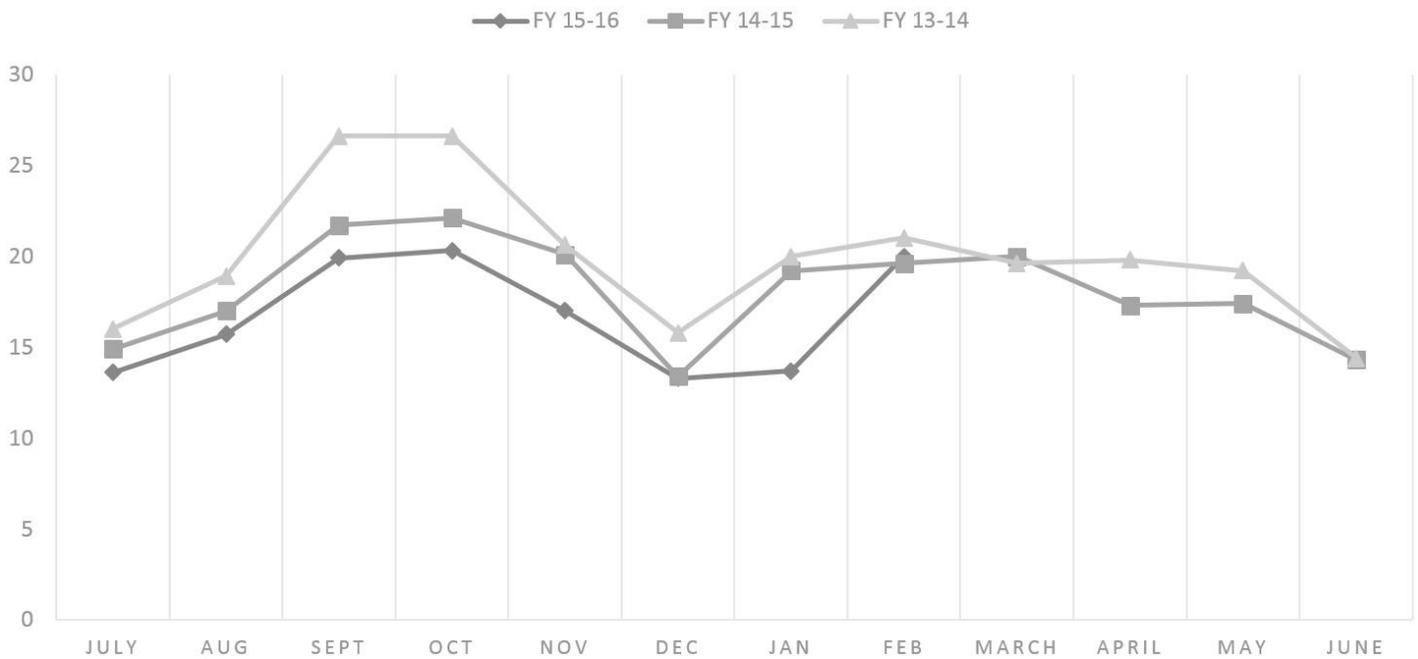


Fig. 5-12: Route C3 Productivity, 2014-15

### Route C3 Contra Costa College

Route C3 is an hourly service between Contra Costa College and the Hercules Transit Center via San Pablo Avenue. The C3 was created in 2005 after it was discovered that many passengers in the WCCTA service area have a difficult time getting to Contra Costa College and the San Pablo area. This route stops in the cities and towns of Hercules, Pinole, Tara Hills, and San Pablo.

Currently, service operates between 7:30 AM to 8:44 PM at 60 minute frequencies. Transfers are available to AC Transit lines including the 72R Rapid Bus. The Rapid Bus runs on 12 minute headways providing service to San Pablo, Richmond, El Cerrito and cities in Alameda County.

Ridership on Route C3 has been fairly steady since its inception. The number of passengers per revenue hour in FY 14-15 has remained at 18 passengers per revenue hour. Though FY 15-16 began with lower ridership counts, as of February the route is on track to return to its typical ridership numbers. Due to its close relationship with the college, ridership is predictably lower in the summer and winter months when school is not in session.

## LYNX AVERAGE RIDERS PER REVENUE HOUR

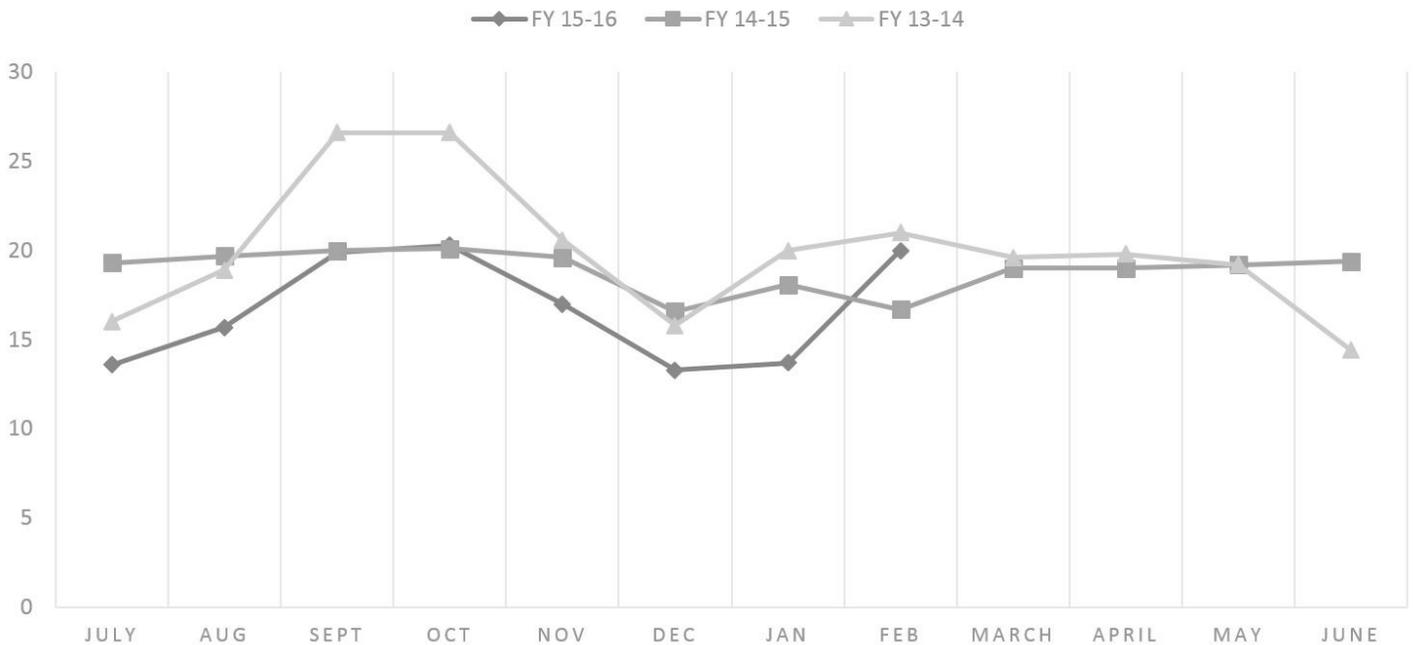


Fig. 5-13: Lynx Route Productivity, 2014-15

### Lynx

The Lynx route primarily serves commuters who reside in Hercules and Pinole. Though ridership has increased an average of 12% each year over the course of its ten-year history, ridership in FY 15-16 is lower than in previous years. In FY 14-15, the route was one of the most productive across the entire WestCAT system, with an average of 19 riders per revenue hour. The route follows a typical express routing by having few stops on the north end of the route and only one at the south end. The pattern of stops within Rodeo and Hercules allows the route to be both convenient for residents of the Willow Pass neighborhood and efficient for reverse-commuters coming from San Francisco to work at BioRad.

Future changes to the Lynx service will address the demand for more service in the peak commute hours. WestCAT is currently seeking funds to replace some vehicles with double-decker buses. If this phase of

the capacity expansion is successful, WestCAT may eventually return the single-decker buses to use in order to shorten headways.

Current year productivity has been affected by the expansion of mid-day service, and the extension of service to later evening hours, where demand is lower than in peak periods.

## ROUTE 10 AVERAGE RIDERS PER REVENUE HOUR

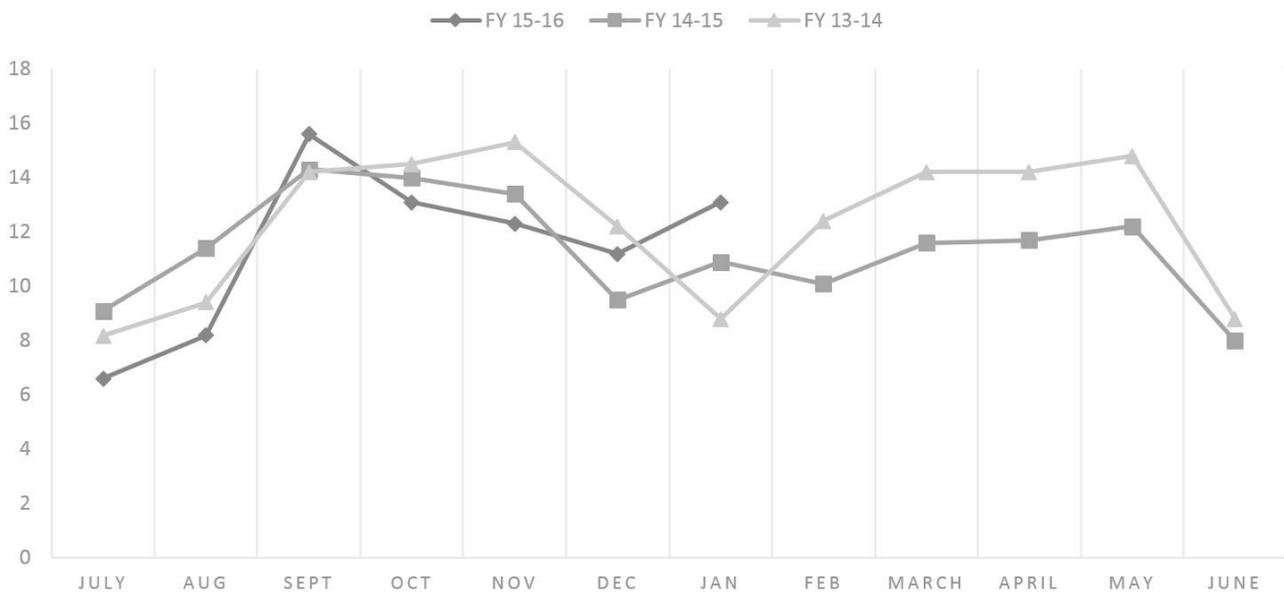


Fig. 5-14: Route 10 Productivity, 2014-15

### Local Routes

#### Route 10 Gems and Birds/Hercules

Route 10 serves the residential areas in eastern Hercules, traveling along Turquoise, Pheasant, Tanager, Sparrow, Falcon, and Refugio Valley Road in a counterclockwise loop. Ohlone Park is one of the non-residential trip generators along the route. The route originates at the Hercules Transit Center and operates weekdays at frequencies between 45-60 minutes. After major route changes in 2009, Route 14 was combined with Route 10 to form the current route 10 alignment. Route 10 has two supplementary trips from Hercules Middle and High School to HTC on school days only.

is toward the lower end of ridership figures within the system. In spite of this, the route provides essential coverage to residential areas in the city of Hercules and the Hercules Middle and High School. Because of this student service, ridership decreases regularly in the summer months and during the winter holidays, then increases during the school year.

Two months of data were removed from the FY 13-14 data in the above table because the average hourly ridership was well outside of the typical range. This suggests a potential error in collection. Ridership in FY 14-15 was 11 passengers per revenue hour. This

## ROUTE 11 AVERAGE RIDERS PER REVENUE HOUR

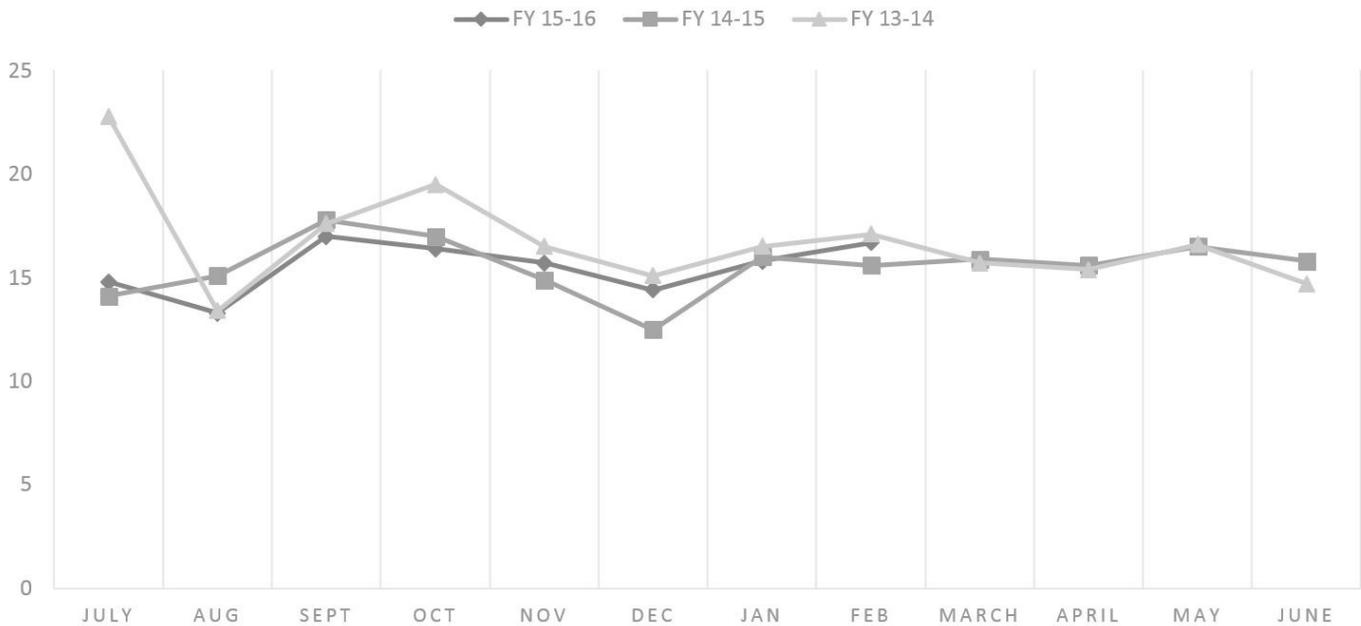


Fig. 5-15: Route 11 Productivity, 2014-15

### Route 11 Crockett/Rodeo/Hercules

Route 11 serves the area of Crockett in the northern part of the service area. The route starts at the Hercules Transit Center and then follows Willow Ave, Parker Ave, San Pablo Ave, and Pomona Street to Crockett. It then completes a clockwise loop following 2nd, Starr, Rolph and returns to Pomona. Important trip generators along this route include John Swett High School, the library, a park and ride lot, the local post office, and C&H refinery. The route operates on weekdays on 45-minute headways throughout the day, from 5:40 AM to 9:43 PM.

In August 2003, Saturday service was initiated on Route 11 in response to customer requests. Saturday service operates between 8:59 AM and 7:48 PM on 45-minute headways. Route 11 is interlined with Route 19, which is very convenient for passengers wishing to travel to shopping areas and connecting points.

Ridership on this route is traditionally at the higher end of average rates for the system, with an average monthly rate of 16 passengers per revenue hour. This has remained steady for the past few years. Though there are some fluctuations which follow the school holiday schedule, ridership on Route 11 tends to remain constant through the year.

## ROUTE 12 AVERAGE RIDERS PER REVENUE HOUR

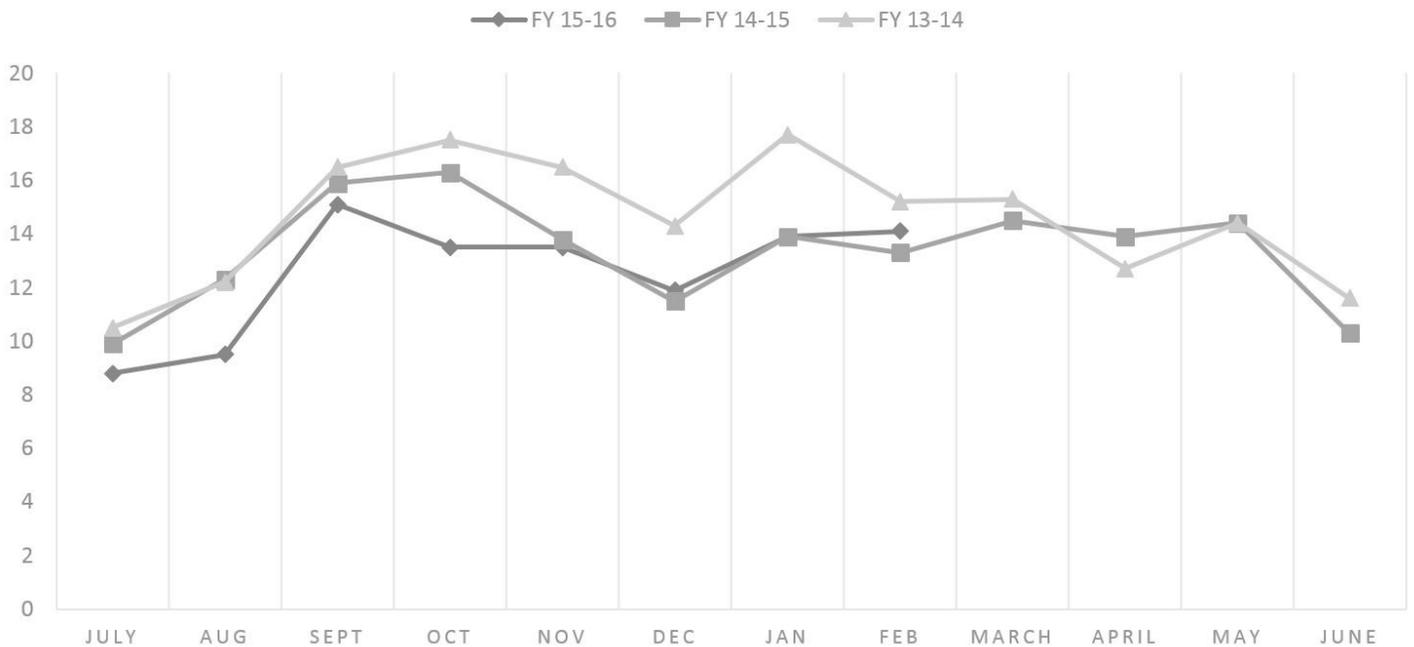


Fig. 5-16: Route 12 Productivity, 2014-15

### Route 12 Trees and Flowers/Hercules

Route 12 operates on weekdays from 5:30 AM to 8:24 PM on 30-50 minute headways from the Hercules Transit Center to the residential areas in east Hercules north of Refugio Valley Road. The route leaves the Hercules Transit Center, following Refugio Valley Road to Mandalay where it begins a loop around Bonaire, Carson, Grissom, Coronado, Redwood, Lupine, Violet, Lupine, and Sycamore back to HTC. During major route changes in 2009, routes 12 and 13 were combined to form the current route 12 alignment. Route 12 has two supplementary trips from Hercules Middle and High School to HTC on school days.

Similar to Route 10, route 12 serves a number of students through its stop at Hercules Middle and High School. This rider group makes up an

important portion of the population served by this route. Ridership has been steady at an average of 13 passengers per revenue hour for the past few years. In the beginning of FY 15-16, ridership numbers were down compared to the two years prior. However, its ridership numbers are average for the system.

## ROUTE 15 AVERAGE RIDERS PER REVENUE HOUR

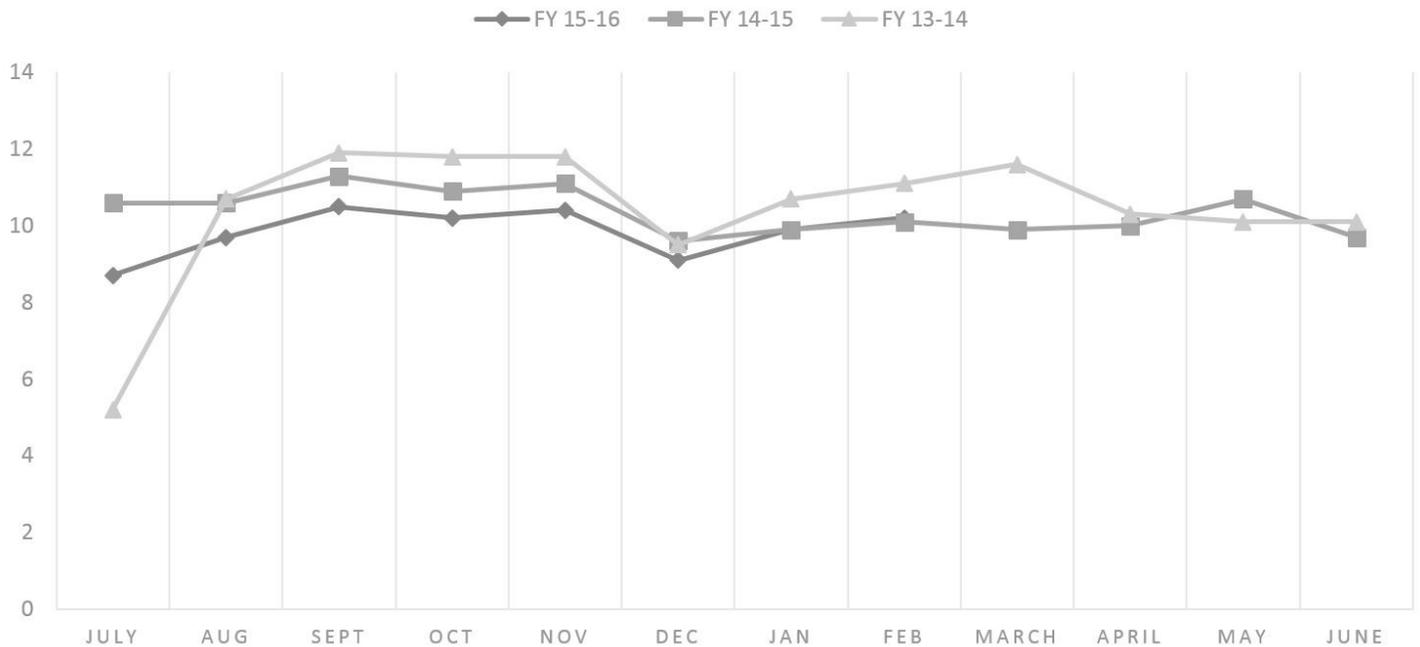


Fig. 5-17: Route 15 Productivity, 2014-15

### Route 15 Viewpointe

Route 15 operates on weekdays from 5:55 AM to 7:55 PM every 45 minutes. Route 15 begins at the Hercules Transit Center and serves the North Shore Business Park and the Viewpointe neighborhood in the town of Rodeo, following a clockwise loop along Viewpointe Boulevard and Coral Drive. In addition to the North Shore Business Park, important trip generators along the route include the park and ride lot at Willow and Contra Costa County Health and Human Services. This route stops at the Hercules Transit Center, meaning that riders using the route to access the business park can easily transfer to other local routes to travel to and from work.

for the system and similar to the ridership so far within FY 15-16.

Route 15's productivity has remained fairly steady over the past few years. The FY 14-15 ridership of 10 passengers per revenue hour is approximately average

## ROUTE 16 AVERAGE RIDERS PER REVENUE HOUR

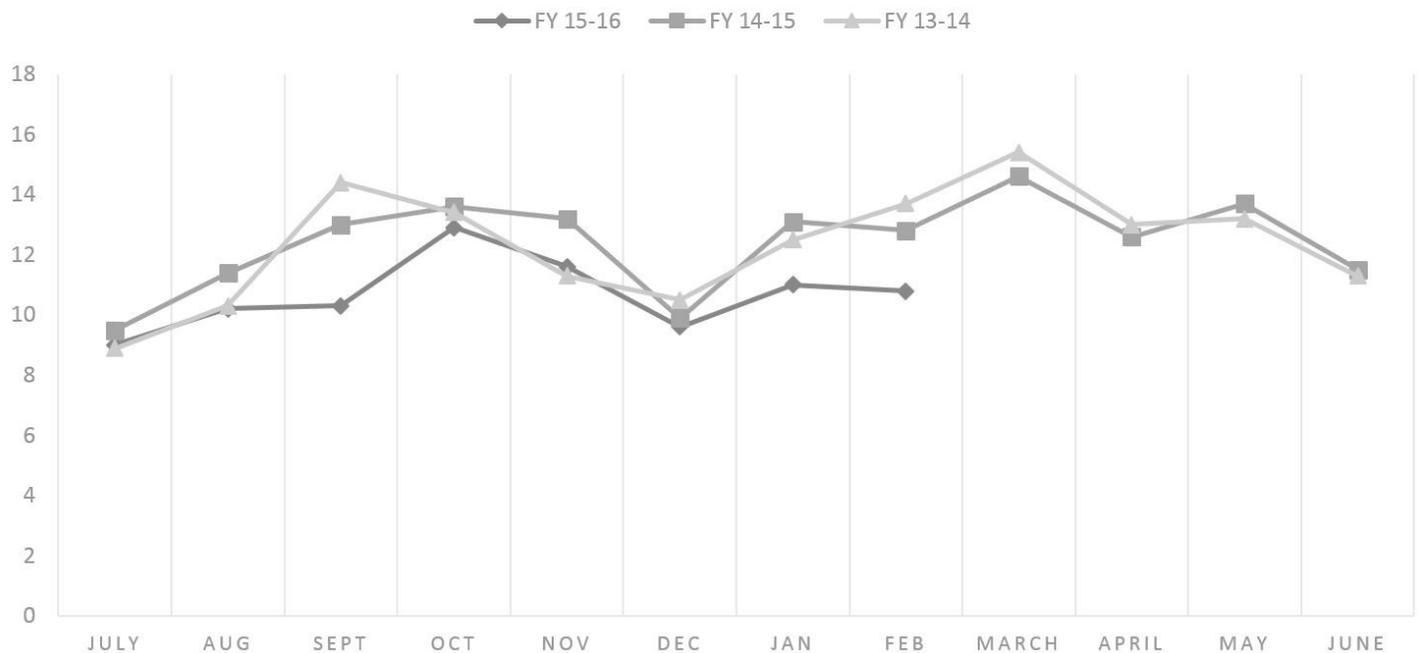


Fig.5-18: Route 16 Productivity, 2014-15

### Route 16 Pinole Valley

Route 16 provides service between the Richmond Parkway Transit Center (RPTC) and the Pinole Valley area. The route operates along Fitzgerald Drive, Ridgecrest Road, San Pablo Avenue, Pinole Valley Road, Simas Avenue, and Wright Avenue. Route 16 is the longest local route in the WCCTA system, taking approximately 52 minutes to complete a run. This route has the second longest service span of all local WCCTA routes, operating on weekdays from 5:00 AM to 8:02 PM on 30-minute headways. Route 16 serves a wide variety of major destinations, including three shopping centers, three schools, the Pinole City Hall, Pinole Swim Center, and Pinole Valley Park. Route 16 has timed transfers with the JPX at the intersection of Pinole Valley Rd and Henry Ave for passengers going to BART in El Cerrito.

While Route 16 continues to carry the largest passenger volume of any WCCTA local fixed routes, its productivity has remained 12 passengers per revenue hour for the past few years and through FY 14-15. In the beginning of FY 15-16, ridership has been slightly lower than in the two years prior. The large number of students who ride this route contributes to the dip in ridership during the winter and summer holidays.

## ROUTE 17 AVERAGE RIDERS PER REVENUE HOUR

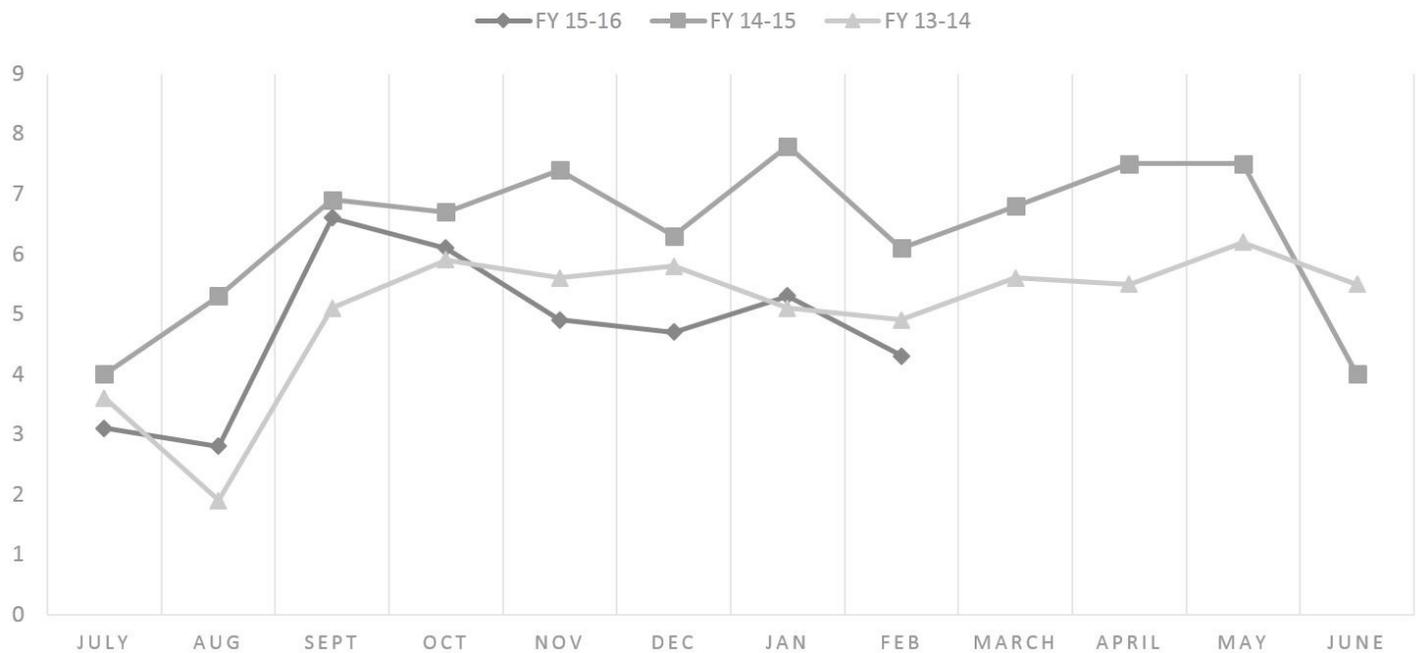


Fig. 5-19: Route 17 Productivity, 2014-15

### Route 17 Bayview/Pinole Vista

Route 17 serves the Richmond Parkway Transit Center and the Bayview area of Pinole. Originally, this route started and ended at the Pinole Vista Crossings Shopping Center, but after the modifications took place in August 2000, the route origin and terminus was changed to the Richmond Parkway Transit Center. The route follows Fitzgerald Drive, Appian Way, Marlesta, and Sunnyview to the Bayview area and then makes a clockwise loop via San Pablo Avenue, Del Monte Drive, Cypress Avenue, and Pinole Shores Drive. Along its route, the line serves Pinole Vista Crossings Shopping Center, Pinole Vista Center, and Pinole Middle School. Route 17 operates on weekdays from 6:21 AM to 6:33 PM on 70-minute headways. As of 2009, there is no service between 10:33 AM and 1:11 PM. This route is interlined with Route 18 at the Richmond Parkway Transit Center.

Productivity on this route for FY 14-15 averaged 6 passengers per hour, the lowest for fixed routes in the system. The route mostly serves low-density areas, providing transit access to a number of residents who don't have access to cars. Because this route serves Pinole Middle school, it is more productive during the school year.

## ROUTE 18 AVERAGE RIDERS PER REVENUE HOUR

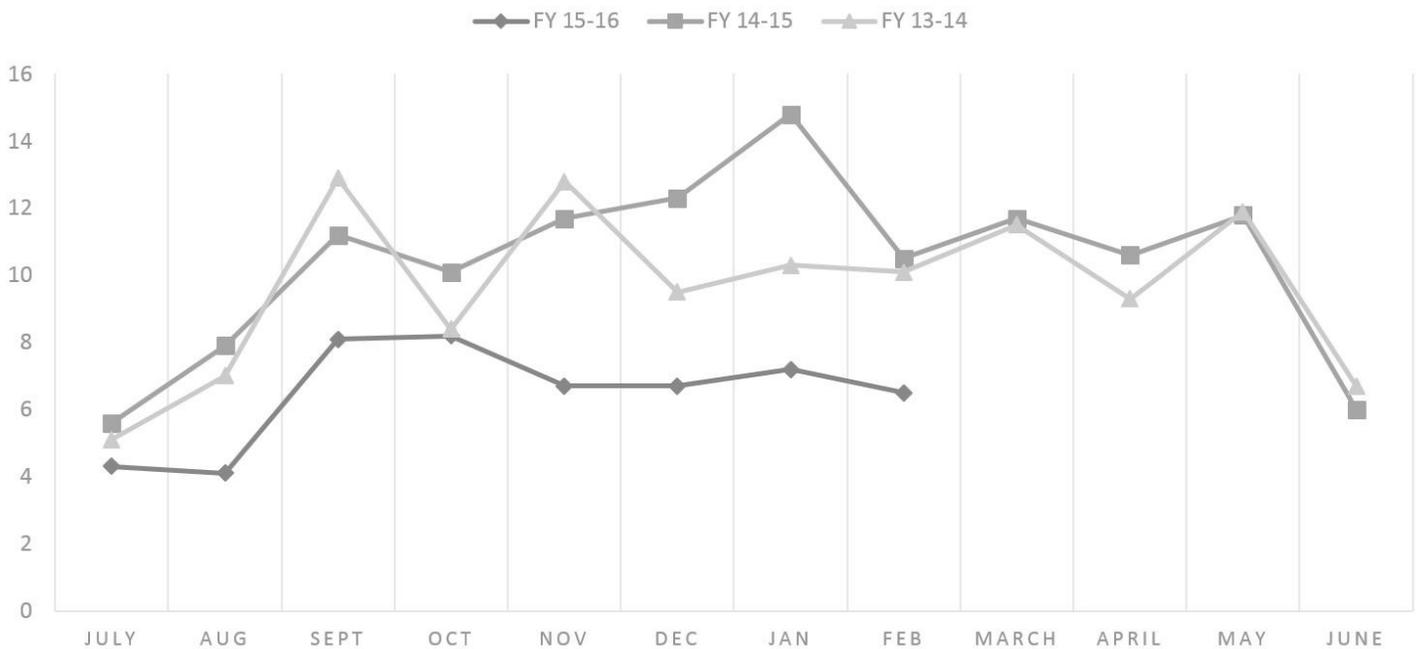


Fig. 5-20: Route 18 Productivity, 2014-15

### Route 18 Tara Hills/Hilltop Mall

Route 18 interlines with Route 17 and operates from the Richmond Parkway Transit Center to the Tara Hills area of Pinole. The route alignment follows Blume, Hilltop Mall, Hilltop Drive, and San Pablo Avenue and completes a clockwise loop along Tara Hills, Flannery, Dolan, and Shamrock. Major trip generators along the route include the Hilltop Mall, Hilltop Plaza, and the Tara Hills Shopping Center. The service spans 5:59 AM to 5:55 PM on weekdays with 70-minute headways. As of 2009, there is a gap in service between 9:51 AM and 12:40 PM.

In 2009 the routing was changed to provide more convenient service to the North Campus Continuation High School, with a stop being constructed close to the school on Dolan Drive. This campus has since closed. Timings on this route were also changed after meetings with local residents and school officials. This new stop also allows students at the Harbour Way Elementary

Community Day School to walk a short distance to school from the stop.

Productivity on this route has remained steady over the past two fiscal year levels at 10 passengers per revenue hour. However, in recent months ridership has been consistently lower than 10, hovering around 7 passengers per hour. Further investigation into the cause of this drop-off may be necessary. While this route serves Harbour Way Elementary and the Spectrum Schools campus in Tara Hills this route does not follow the typical school ridership patterns. Average ridership each month has varied considerably and does not follow a monthly trend from one year to the next. This may be due to the connection to Hilltop Mall, which does not always have consistent demand coming from the Tara Hills area.

## ROUTE 19 AVERAGE RIDERS PER REVENUE HOUR

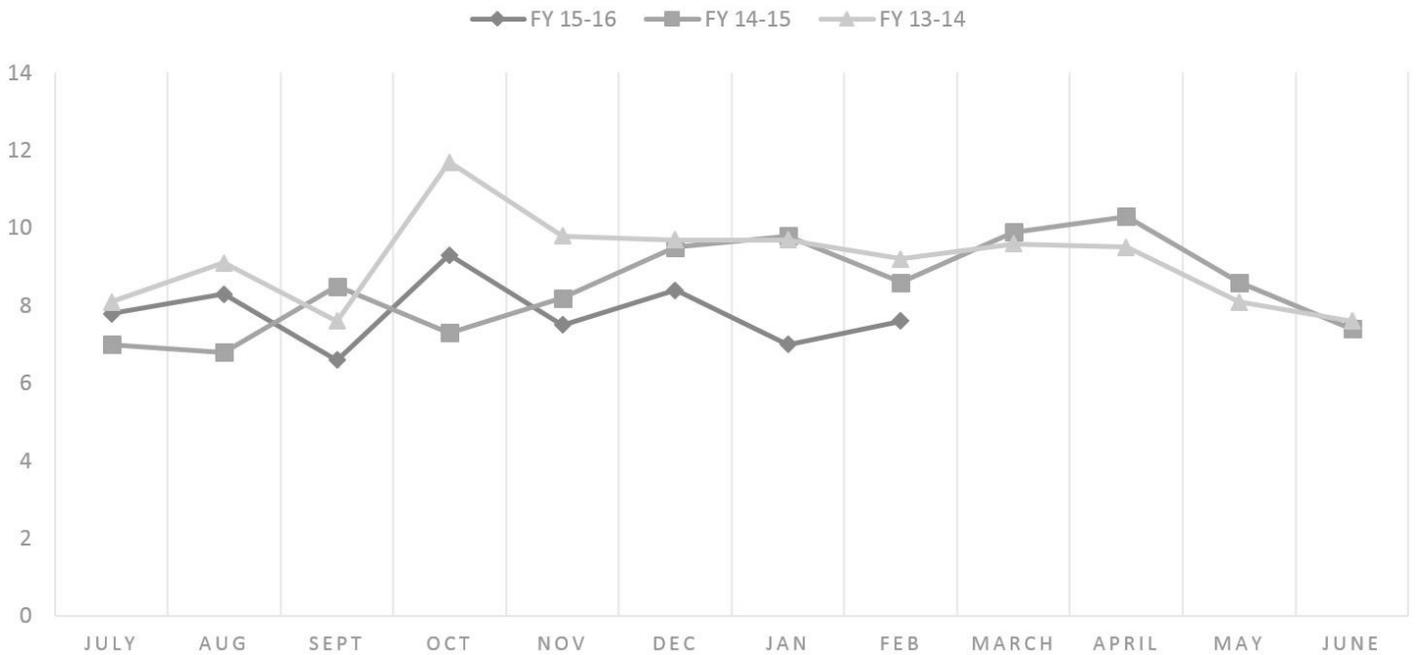


Fig. 5-21: Route 19 Productivity, 2014-15

### Route 19 Hilltop-Hercules

Route 19 was introduced in February 1999 as a Monday through Saturday service, linking several key destinations along the I-80 corridor. The route operates between Hilltop Mall and the Hercules Transit Center via Fitzgerald Drive, I-80, Pinole Valley Road, and San Pablo Avenue. Route 19 serves Pinole Vista Crossings Shopping Center, Pinole Vista Shopping Center, Pinole City Hall, and the Pinole Senior Center. In 2009, as part of overall service reductions on the local fixed route system, Route 19 was changed to operate Saturdays only. Route 19 operates from 8:18 AM to 8:41 PM with 45-60 minute headways.

Productivity on Route 19 is slightly below the fixed route system average with 8 passengers per revenue hour in FY 14-15. This low number is due to the fact that service only operates on Saturdays when local connecting routes are not in operation. As a weekend-

only service, the route also doesn't serve student populations or most commuters. For the same reasons, this route also maintains fairly steady ridership from month to month without the typical spikes and dips of other routes.

# Fares

Adult fares apply to passengers from 6 to 64 years of age. Seniors 65 and over qualify for a reduced fare of \$0.75 or \$2.00 depending on type of service. WCCTA does not offer a separate student or youth fare.

According to the last system wide rider survey of 2014 (see Appendix B), 11% of the respondents were using the bus to get to school.

The majority of riders in FY 14-15 used the standard local fare of \$1.75 without using a monthly pass. This pattern is also shown among senior and disabled users, with slightly more riders electing to pay for an individual ticket than a 31-day pass. This may suggest that more WestCAT riders take transit occasionally rather than as a part of their typical daily commute.

Among LYNX users, 31-day passes were more common than cash fares. This is expected, considering

the large number of LYNX users who take this route daily, who would benefit from the cost savings of a monthly pass. Only a small percentage of LYNX riders qualified for senior and disabled fares, which also reinforces the image of the LYNX as a commuter-heavy route.

In November of 2015, WestCAT introduced Clipper terminals to all buses. This may encourage use of monthly passes for regular users and decrease the purchase of day passes, as riders can easily store cash fares and passes on the same card without needing to save multiple passes or tickets.

The current fare structure has been in place since 2008 when a fare increase was necessary to close a budget gap. There are currently no fare increases planned.

<b>Adult/Student (age 6+)</b>	
Fixed Route/Express (Includes Martinez Link 30Z)	\$1.75
Dial-A-Ride	\$4.00
Lynx Transbay (To/from San Francisco)	\$5.00
<b>Senior Citizens (age 65+)</b>	
Fixed Route/Express (Includes Martinez Link 30Z)	\$0.75
Dial-A-Ride	\$1.25
Lynx Transbay (To/from San Francisco)	\$2.00
<b>Persons with Disabilities</b>	
Fixed Route/Express (Includes Martinez Link 30Z)	\$0.75
Dial-A-Ride	\$1.25
Regional Paratransit	\$3.00
Lynx Transbay (To/from San Francisco)	\$2.00
<b>Medicare Card Holder</b>	
Fixed Route/Express (Includes Martinez Link 30Z)	\$0.75
Dial-A-Ride	\$1.25
Lynx Transbay (To/from San Francisco)	\$2.00

Fig. 5-22: Current Fare Structure

All Routes	Total	Percentage
<b>Adult Local</b>		
Full Adult Fare (\$1.75)	268763	21%
Adult Day Pass	20644	2%
Local Adult 31-Day Pass	159237	12%
Parking Voucher with 31-Day Pass	17357	1%
Local 20-Ride Pass	50961	4%
Adult Transfer from Other Operator (\$1.00)	165315	13%
Free Transfer from WestCAT Local Routes	159504	13%
<b>Local Senior and Disabled</b>		
Local Senior and Disabled (\$0.75)	62299	5%
Local Senior and Disabled Day Pass	29664	2%
Local Senior and Disabled 31-Day Pass	46505	4%
Local Senior and Disabled Value Pass	2557	0%
Local Senior and Disabled Transfer (\$0.50)	21177	2%
<b>Adult LYNX</b>		
Adult LYNX Fare (\$5.00)	75536	6%
LYNX Adult 31-Day Pass	102928	8%
LYNX Adult Transfer (\$3.25)	2371	0%
LYNX Adult 1-Ride Free Transfer	2231	0%
<b>Senior and Disabled LYNX</b>		
LYNX Senior and Disabled (\$2.00)	8225	1%
LYNX Senior and Disabled 31-Day Pass	6913	1%
LYNX Senior and Disabled Transfer (\$1.25)	494	0%
LYNX Senior and Disabled 1-Ride Free Transfer	258	0%
<b>Other</b>		
Summer Youth Pass	2150	0%
12-Ride Student Pass	12729	1%
Capital Corridor Vouchers	1210	0%
Complimentary Free	18358	1%
Short Fare	27617	2%
BART Plus	7183	1%
East Bay Value Pass	1861	0%
<b>Total Fare Count</b>	<b>1274047</b>	<b>100%</b>

Fig. 5-23: Rate of Fare Use on Fixed-Route Service, by Fare Type, 2014-15

## Dial-a-Ride

WCCTA Dial-A-Ride (DAR) offers curb-to-curb transit service on weekdays and Saturdays to persons with disabilities and to anyone 65 years of age or older within the Authority's service area.

By making DAR available to the senior community and the general public, WCCTA provides a higher level of service than most other systems in the Bay Area. Typical DAR systems are only available to individuals with qualifying disabilities under the Americans with Disabilities Act (ADA), however because of the mobility needs of older residents of the WestCAT service area, WCCTA expanded eligibility for DAR to include seniors. DAR service had been available to general public residents of Port Costa, Crockett and Rodeo because the steep topography and street networks in these communities make it difficult to accommodate larger coaches. DAR service for the general public seemed, at the time, to be both a cost-efficient and practical approach to serving the transit needs in areas where providing local fixed route service is not an option, however the proportion of general public passengers using the DAR system has dropped significantly as the Route 11 service was enhanced in the Crockett and Rodeo areas.

WCCTA staff screens ADA applicants using the forms and guidelines developed by MTC. Staff regularly attends regional eligibility meetings to remain abreast of any changes to the certification procedures. Currently, there are approximately 600 individuals who have been registered as ADA-eligible for WCCTA. Because ADA certification is not strictly required for access to the local WestCAT DAR services, this number may not reflect all Dial-a-Ride users who may be ADA-eligible. Many individuals choose not to go through the certification process.

WCCTA recommends full ADA certification in cases where a disabled individual travels outside the WestCAT service boundaries and where another transit

provider requires such a certification. In order to provide transit service to disabled individuals traveling outside the service area, the Authority coordinates regional trips with other paratransit systems in the Bay Area. Disabled individuals may request trips up to 14 days in advance but WCCTA requires reservations be made 24 hours in advance. This policy change was made several years ago, motivated by the need to improve productivity through improved trip scheduling. WCCTA accommodates same day trip requests, as space is available. Sunday service is available to ADA registrants through the East Bay Paratransit Consortium, but few individuals use this service.

### Dial-A-Ride Productivity and Fare Structure

The WCCTA DAR system productivity falls within the typical range of the other transit operators in the area. DAR productivity during FY 14-15 averaged 3 passengers per revenue hour. Over the past two and a half fiscal years, ridership has remained constant, with very little variation from year to year.

With "regional" service – trips traveling outside the typical WestCAT service area – representing 21% of the total dial-a-ride fares in FY 14-15, ridership productivity may appear lower than in years prior. This is owing to regional trips taking longer than typical local trips, while carrying the same number of passengers. These trips also require more standby time waiting for the transfer vehicle to arrive, particularly when the user is transferring from another system. Despite these challenges, however, WCCTA and its operating contractor have made it a priority to achieve productivity improvements through more efficient scheduling, better enforcement of passenger no-show policies, and changes to driver work schedules to more closely match actual DAR demand.

By law, WCCTA may charge up to twice the general public fixed-route fare for complementary ADA paratransit service. The current fare of \$1.25 is well below the allowable \$3.50. Figure 5-24 presents the current fare categories within the WCCTA's DAR service.

The majority of dial-a-ride services are used by seniors and disabled members of the community. The most frequently used fare type is the discounted paratransit fare, followed by the regional discounted paratransit fare (for rides going outside the typical WestCAT service area). This suggests that dial-a-ride is primarily serving seniors and disabled residents who register for discounted fares with MTC. Fewer than one percent of trips made using dial-a-ride served members of the general public who were neither senior or disabled, which is consistent with previous years. These users have successfully been directed to fixed-route routes.

Dial-a-Ride	
General Public	\$4.00
Seniors	\$1.25
Persons with Disabilities	\$1.25
Medicare Card Holders	\$1.25
Up to 2 Children Under Age 6	Free with Fare-Paying Adult
Transfers	Free
Special Service Outside of WestCAT Area	\$3.00
ADA Paratransit	
Regular Fare	\$1.25
Discounted Ticket	\$1.00
Special Service Outside of WestCAT Area	\$3.00

Fig. 5-24: Current Dial-a-Ride and Paratransit Fares

Dial-A-Ride	Total	Percent
General Public (\$4)	20	0%
General Public Transfer (\$1)	20	0%
Senior and Disabled (\$1.25)	9471	23%
Free Transfer	396	1%
Nutrition Program Ticket	3918	9%
ADA Paratransit		
Paratransit Discounted (\$1)	17478	42%
Senior and Disabled Transfer (\$0.50)	65	0%
Regional Paratransit (\$3)	2624	6%
Regional Paratransit Discounted (\$2.50)	6250	15%
Free	1320	3%
<b>Total Riders</b>	<b>41562</b>	<b>100%</b>

Fig. 5-25: Rate of Fare Use on Demand-Responsive Service, by Fare Type

## Bus Maintenance Program

The maintenance department at WCCTA strives to provide clean, reliable and properly maintained vehicles and facilities. This goal is achieved through a comprehensive maintenance program and the teamwork of competent mechanics. Through the program outlined below, WCCTA's maintenance staff ensures that every vehicle is in compliance with applicable regulatory requirements.

The maintenance process includes the following key components:

Daily maintenance procedures include the following:

- Driver defect card analysis
- Fuel island servicing
- Interior and exterior cleaning

### Preventative maintenance

Preventative maintenance is performed at regularly scheduled intervals to ensure reliable and optimal performance. Preventive maintenance inspections are completed within 500 miles of the scheduled

## Inter-Agency Coordination

The success of the inter-agency programs involving WCCTA is proof that cooperative efforts pay off. WCCTA has always been very aggressive in advancing bus transit and paratransit projects whenever there is the opportunity to do so. For example, WCCTA staff actively participated in the reauthorization of Measure C process and in the proposal for a one-dollar increase in tolls on the Bay Area's state-owned bridges. Both programs were successful when submitted for referendum and resulted in the new Measure J and Regional Measure 2 (RM2), respectively.

RM2 is now funding the operations of Route JPX and 30Z, and the WestCAT LYNX Transbay service. In 2016 MTC approached WCCTA and offered additional funding for new Lynx service. WCTA has worked to enhance and improve the Lynx schedule by

cycle. The following list shows WCCTA's preventive maintenance cycles:

- Safety inspection 3,000 miles
- Intermediate inspection and LOF3\*
- Air brakes 6,000 miles
- 40,000 miles or every year
- Hydraulic brakes 15,000 miles or every year

*\*Lube, Oil, Fluids*

### Ongoing maintenance

This refers to the established procedure for fixing mechanical problems identified by drivers en route. These are generally minor repairs that do not require removing the vehicle from service.

adding more trips.. The LYNX service, for instance, is a direct result of two studies that documented the need for Transbay service in the 1-80 corridor and identified a strong demand for the service (the Contra Costa Express Bus Study [CCTA, DKS and Associates, December 2001] and the Regional Express Bus Study [Caltrans, December, 2004]).

WCCTA has also made an effort to be partners in the planning processes of the jurisdictions and unincorporated neighborhoods in its service area and as such, staff has participated in several meetings that pertain to the future urban development of the area and will shape upcoming transit and transportation demand. The City of Hercules has a number of large projects that are likely to create additional demand for transit service that may significantly alter the role of WCCTA, and the structure of transit service within the

boundaries of the city. WCCTA expects to continue its long-standing partnership with the City and County administrative staff to more thoroughly coordinate transit services with land use and development planning within the local communities.

## **Safety Program**

### **Safety Program**

WCCTA has the following ongoing safety programs in place:

#### **On-board video surveillance**

Surveillance cameras are installed on all WCCTA buses to document any incident taking place inside a vehicle, and to assist in the investigation of passenger complaints or potential liability claims. The systems have also been useful in identifying and prosecuting individuals involved in vandalism or other prohibited behavior while on Authority vehicles.

#### **DriveCam System**

All WCCTA vehicles are equipped with motion triggered event recorders, provided by DriveCam. WCCTA's contractor, MV Transportation, has made the use of this technology a corporate priority. The company downloads all DriveCam video clips on a daily basis, reviews and classifies each incident by severity, and requires consultation with the driver triggering the incident and counseling or retraining as appropriate. The use of the technology has been shown to help drivers improve their driving habits, resulting in thirty to forty percent fewer accidents over the long term.

#### **Automatic Vehicle Locator (AVL)**

WCCTA implemented a new AVL system in FY 09/10 that tracks the position of WCCTA's vehicles in real-time. This project was funded by a Regional Measure 2 grant through MTC for the purposes of establishing

a real-time prediction system coordinated with the Regional 511 Transportation Information System. The system has been very useful in checking authenticity of claims regarding issues of speed, schedule adherence, and location of buses. Although totally implemented, there are still some refinements to make for the AVL system to operate properly. Through the RM2 Program, WCCTA was awarded a grant for the implementation of technology improvements that delivers a real-time stream of data for every stop along the WestCAT service area to the MTC database, the Internet, and the phone via 511.org. Real-time signs are located at key stop locations throughout the service area to provide arrival data for services at that location, currently 6 signs are installed, and additional installations are planned for the near future.

## Customer Service

WCCTA has always worked to provide outstanding customer service to its patrons, responding promptly to customer complaints and compliments. In order to maintain communication with its passengers, WCCTA maintains updated schedules online through 511 and its own website, WestCAT.org. 511 is the Bay Area Traveler Information resource, which offers transit information including each transit property's service area, route maps, and schedules. It features a trip planner interface, which allows users to plan transit trips throughout the region. In May 2011, the 511 trip planner was introduced as a feature on the front page of WCCTA's own website as part of a planned redesign of the site. At the same time Google Translator was added, allowing patrons the option to change the language of the written text on the website. In addition, hyperlinks to social media platforms such as Twitter and Facebook were added along with a live Twitter feed of WCCTA's most recent tweets allowing for real-time alerts to be feed directly to the front page. In addition, the site allows patrons to write comments about the service or proposed route changes and to receive direct responses from WCCTA staff.

WCCTA's Manager of Marketing and Administrative Services works to develop new forms of public information, outreach and media relations. The WCCTA website was redesigned during the summer of 2016. The website currently includes and will continue to include information on the members of the board of directors, meeting schedules and agendas, ticket and pass ordering, news releases, promotions, system policies, federal and state regulations, and more. The website can be accessed either through a link from 511.org, or directly at WestCAT.org. Individuals may also send in commendations, service requests, or complaints using the customer service form on the website or by direct email to [info@westcat.org](mailto:info@westcat.org).

As part of WCCTA's continuing efforts to address

the concerns and issues of its patrons in a timely and professional manner, the Human Resource Analyst/ Compliance Specialist schedules monthly quarterly WCCTA Technical Advisory Committee meetings that include participation by several members of the Authority's staff and contractor staff. These discussions include all manner of customer service and passenger related issues; some involving ADA paratransit policies and procedures, issues pertaining to driver-customer relations, safety concerns, etc.

The Manager of Marketing and Administrative Services marketing coordinator actively maintains and manages all of the Authority's Social Media accounts, media relations, customer service, and public outreach. Regular attendance at health fairs, transit/commuter fairs, business expos, and similar public events allow the coordinator WCCTA staff to meet face-to-face with patrons and potential patrons to receive their input and to directly respond to their concerns and questions. It is hoped that through these efforts in combination with all of the latest technology available for public outreach, the Authority reaches all segments of the community and increases its participation in the decision-making process.

The Authority believes that the coordination of many of its regional marketing activities is essential in order to provide adequate public outreach and promotional services to the various communities throughout the WCCTA service area and the region, and therefore, is continually working closely with the West Contra Costa Transportation Advisory Committee (WCCTAC)/511 Contra Costa, the MTC, the Cooperating Area Transit Systems (CATS) marketing group, the cities of Hercules and Pinole and other Bay Area cities and agencies.

### Onboard Passenger Survey

WCCTA last completed a system wide survey in 2014. WCCTA has also conducted smaller, targeted

surveys to support specific service planning activities related to proposed changes or additions to the Lynx route. WCCTA's first system wide survey was completed in February 2001 in order to capture information on passenger origin and destinations, route utilization, fare category and to evaluate how schedule changes suited the community's transit needs. While information from system surveys are useful for guiding the development of short range plans, WCCTA has chosen to coordinate its next survey with a region-wide onboard survey process the Metropolitan Transportation Commission is conducting for all Bay Area transit operators. MTC's current schedule calls for the WCCTA survey work to be done in mid 2017.

One of the more surprising finding in the 2014 survey was related to the mode riders use in order to access transit. 53% of survey respondents walked to transit, which may lead the agency to examine where concentrated areas of walking-to-transit may be, and

## Conclusions

### Conclusions

In spite of limited bus transit funding at the state and federal levels, WCCTA has been striving to provide the best quality, customer-oriented transit service to meet its community's demands. In providing this service, the Authority faces several challenges that range from competitive processes for funding to transportation policy decisions coming from higher levels of administration that are difficult to define and control. Consequently, service expansion will be difficult to achieve in either the near or long term. New avenues for funding and service provision should be explored in order to meet future needs. These efforts should emphasize obtaining adequate funding levels for small transit operators that serve geographic areas with a substantial number of transit-dependent individuals, such as the case of WCCTA. It is recommended that the WCCTA Board participate

where pedestrian access to our routes can improve. The next highest percentage (27%) either drove themselves or were driven by someone else. Over half of respondents also noted that a car was not available to them, which shows that for many of our riders transit may not be a choice, but a necessity.

*An excerpt from the 2014 survey can be found in Appendix B.*

in political advocacy efforts to increase the system's regional profile and to explore additional funding opportunities.

Despite all the challenges the Authority faces in providing its transit service, productivity in its local and express bus routes is faring well given WCCTA's suburban operating environment.

# Performance Measurement

This chapter outlines WCCTA's goals and the performance measures used to monitor the Authority's progress toward meeting them. Some of these performance measures are required as conditions for receiving federal or state grants, while others have been put in place because of their usefulness to WCCTA in conducting internal monitoring.

WCCTA goals are intended to guide the long-range policy of the agency. Objectives are a set of policy statements aimed at achieving the established goals. In order to measure the degree of attainment under each objective, WCCTA established a series of performance measures that provide the mechanics of the performance monitoring system.

WCCTA regularly undergoes performance audits conducted by the Metropolitan Transportation Commission (MTC) and the federal government. The Triennial Performance Audit, done under contract to MTC, checks compliance with Transportation Development Act (TDA) regulations and has a goal of improving transit productivity. The federal government on the other hand, conducts the Triennial Review to verify that the agency complies with applicable federal regulations and policies that are prerequisites for the receipt of capital funds. Because the Agency also receives Regional Measure 2 funds (RM2) for capital and operating projects, it is subject to audit processes specifically designed for the RM2 program. These are focused primarily on verifying that recipient agencies meet or exceed target farebox-recovery and service productivity standards to ensure cost-effectiveness of investments using local funds.

Given the changing environment in which WCCTA functions, the relevance and appropriateness of some of the measures, and of the performance targets themselves, inevitably change over time. Accordingly, after first documenting WCCTA performance against

the currently adopted set of measures below, staff has included a series of recommended changes to the performance monitoring system to increase its value and utility going forward.

The standards should be reviewed by the Board on an ongoing basis to ensure that they are still suitable in the context of actual performance.

*Metrics listed in the following section refer to Fiscal Year 2014-15 except where noted. As of June 2015, the 12-month Bay Area CPI-U was 2.3%.*



## Goal 1:

**Provide cost-efficient transit services that meet the demands of WCCTA area residents**

WestCAT strives to provide transit to area residents in a cost-efficient manner, minimizing the cost of service while maintaining necessary services. To this end, goals within this category seek to track fare revenue and operating costs, and to support a comprehensive maintenance program that will maximize vehicle lifespan.

A steady increase in fixed-route ridership played a role in the increased farebox recovery ratio system-wide through increased route productivity. This ratio has remained stable for dial-a-ride services within the past three years as ridership has slightly decreased. The change in farebox recovery for DAR services from year to year was within the targets defined by our performance standards. The percent change in cost per revenue hour rose slightly for fixed-route services within the past year, and more so for dial-a-ride service. Gross operating costs, cost per revenue

mile and net subsidy per passenger showed a similar pattern. These can be tied in part to contractual increases in our purchased transportation agreement with the operations and maintenance contractor, in conjunction with a minor decline in system-wide ridership.

Maintenance and administrative costs both increased during fiscal year 2014-15. Maintenance costs per vehicle mile increased by 17%, which is a significantly larger percent change than either of the previous two years. The number of maintenance staff per 100,000 vehicle miles increased slightly during this year, which may account for some of the increase in maintenance costs. However, the majority of the cost increases can be attributed to rising cost of parts, and increasingly complicated technologies associated with new fare collection, communications, and surveillance equipment. Administrative costs increased by one percentage point as a percent of total operating costs, but still remain well below the threshold set by the performance standard.

**0.4%**

**Percent Change  
in Operating Cost  
per Revenue Hour,  
Systemwide**

**Standard:** Not to exceed 5 percentage points above the % change in Bay Area CPI (7.3%)

**Fixed-Route:** -1.3%  
**Dial-a-Ride:** -0.1%

**2013-14, System:** 1.6%  
**2013-14, Fixed:** 0.4%  
**2013-14, DAR:** 1.3%

**2012-13, System:** 1.5%  
**2012-13, Fixed:** 2.5%  
**2012-13, DAR:** 2.8%

**1.3%**

**Percent Change in Gross  
Operating Cost per  
Passenger,  
Fixed Route**

**Standard:** Not to exceed 5 percentage points above the % change in Bay Area CPI (7.3%)

**Dial-a-Ride:** 6.5%

**2013-14 Fixed:** -1.2%

**2013-14 DAR:** 0.5%

**0.8%**

**Percent Change in  
Cost per Revenue Mile,  
System-Wide**

**Standard:** Not to exceed 2 percentage points above the Bay Area CPI (4.3% target).

**Fixed-Route:** 6.5%

**Dial-a-Ride:** 6.5%

**2013-14 System:**

**2013-14 Fixed:** 0%

**2013-14 DAR:** 0.2%

**2012-13 System:** 2.6%

**2012-13 Fixed:** 0.3%

**2012-13 DAR:** 0.1%

**10.91%**

**Administrative Costs  
as Percentage of Total  
Operating Expenses**

**Standard:** Not to exceed 13% of total Operating Expenses

**2013-14:** 9.90%

**2012-13:** 9.82%

# 17.4%

**Percent Change in  
Maintenance Cost per  
Vehicle Mile**

**Standard:** Not to exceed 2 percentage points above the Bay Area CPI (target 4.3%)

**2013-14:** 8.6%  
**2012-13:** 12.0%

# 0.58 FTE

**Maintenance Employees  
per 100,000 Vehicle Miles**

**Standard:** Maintain or improve prior year fiscal levels.

**2013-14:** 0.54 FTE  
**2012-13:** 0.53 FTE

# 23.52%

**Farebox Recovery Ratio,  
System-Wide**

**Standard:** Not to exceed 1 point lower than the previous year levels

**Fixed-Route:** 27.12%  
**Dial-a-Ride:** 4.2%

**2013-14 System:** 23.23%  
**2013-14 Fixed:** 26.8%  
**2013-14 DAR:** 4.4%

**2012-13 System:** 23.12%  
**2012-13 Fixed:** 26.6%  
**2012-13 DAR:** 4.2%

# 1.2%

**Percent Change in Net  
Subsidy per Passenger,  
System-Wide**

**Standard:** Not to exceed 5 percentage points above the % change in Bay Area CPI (7.3%)

**Fixed-Route:** 0.7%  
**Dial-a-Ride:** 6.7%

**2013-14 System:** -8.4%  
**2013-14 Fixed:** -1.5%  
**2013-14 DAR:** 0.3%

**2012-13 System:** 0%  
**2012-13 Fixed:** -7.8%  
**2012-13 DAR:** -0.8%



## Goal 2:

Provide efficient transit services in the WCCTA service area that offer an attractive alternative to the use of a private automobile

Efficiency, reliability, and safety are the cornerstones of a transit network that is attractive to users looking to replace car trips. Performance goals within this category track ridership, timeliness, and delays as well as the safety record of our system’s vehicles.

Service reliability has remained excellent on fixed-route trips, with only 0.1% of fixed-route trips missed this year and an improvement in trips operating within the “on time” window (five minutes before and five minutes after the scheduled time). DAR service is similarly punctual, and was more reliable this year than in years prior.

Average weekday ridership is up on fixed routes, and slightly down on dial-a-ride service. This change in fixed-route ridership caused a per-capita increase in trips throughout the service area. While total passengers increased, the number of revenue passengers has decreased by a small percentage, which fails to meet the agency’s performance standard and is a marked change from the previous two years. The number of passengers per revenue vehicle hour and the number of passenger boardings per revenue vehicle mile have stayed stable over the past three years. In order to be able to respond better to customer needs, we performed an on-board ridership survey during the current performance review period.

The workforce productivity measures involving service hours per full-time employee proved to be a difficult one to measure, as WCCTA’s services are provided by an outside operations contractor. A further complication is that individual drivers can be assigned to any of the three different modes, (Dial-a-Ride or DAR, Fixed Route, and Commuter Bus), making it

# 14.24

Passengers per Revenue Vehicle Hour, System-Wide

**Standard:** Maintain or improve on previous year’s levels.

**Fixed-Route:** 16.29%  
**Dial-a-Ride:** 2.88%

**2013-14 System:** 14.52  
**2013-14 Fixed:** 16.61  
**2013-14 DAR:** 3.08

**2012-13 System:** 14.17  
**2012-13 Fixed:** 16.34  
**2012-13 DAR:** 3.05

# -0.9%

Percent Change in Revenue Passengers, System-Wide

**Standard:** Maintain a positive percent change.

**2013-14:** 2.6%  
**2012-13:** 2.7%

# 21.41

Number of Passenger Trips per Capita in WCCTA Service Area

**Standard:** Maintain or improve on previous year’s levels.

**2013-14:** 20.89  
**2012-13:** 20.41

difficult to accurately allocate employees' time to specific modes. For this reason, we are removing this measure from future short-range plans. During the review period, the DAR mode did not meet internal standards on service hours per full-time employee, though the number of hours in the past two years is nearly unchanged. Fixed-route employee hours continue to be within the target range, while Commuter Bus did not have an established standard and was not tracked separately.

Preventative maintenance was performed on-time nearly 100% of the time for both fixed-route and DAR vehicles. In FY 14/15, the total miles between road calls decreased substantially as compared to the two years prior. It should be noted that performance in all three years on this measure far exceeds industry standards, which typically are set at 50,000 miles between road calls. The decline in FY 14/15 could be related to WCCTA's fleet expansion needs which have to the introduction of vehicles acquired from other transit agencies into the fixed route fleet. These vehicles were typically retired, or otherwise released by the other transit agencies in the middle to end of their usable life, and the WCCTA maintenance staff has not had the luxury of a complete overhaul before putting the vehicles into service. While the measure of vehicle service hours per employee will continue to be reported, the benchmarks previously set for this category will be removed from future performance standards, as it no longer represents a meaningful measure of service performance. This measure calculates the total number of revenue hours per FTE employee system-wide as well as on each service type. This is a measure of staffing efficiency, and our current performance boundaries seek to ensure that the contractor maintains a staffing level sufficient to run our current service levels consistently.

As in past years, our total mileage between preventable accidents on fixed-route buses remains well above the performance standard. In contrast, for the past two years the DAR service has not met our goal of 80,000 miles between preventable accidents.

While the accidents have been minor, this issue is receiving additional investigation and attention on the part of both WCCTA's the contractor's staff. Our passenger injury performance metric continues to signal our commitment to passenger safety, as the total number of reported injuries remains below our standard of 1 injury per 100,000 miles.

## 0.79 **Passenger Boardings per Revenue Vehicle Mile, System-Wide**

**Standard:** Maintain or improve on previous year's levels.

**Fixed-Route:** 0.87  
**Dial-a-Ride:** 0.21

**2013-14 System:** 0.79  
**2013-14 Fixed:** 0.87  
**2013-14 DAR:** 0.21

**2012-13 System:** 0.78  
**2012-13 Fixed:** 0.86  
**2012-13 DAR:** 0.21

## 93.45% **Percent of Fixed-Route Trips Operating on Time**

**Standard:** Greater than 95% (within five minutes early or late).

**2013-14:** 92.83%  
**2012-13:** 94.45%

## 93.06% **Percentage of Dial-a-Ride Trips Operating on Time**

**Standard:** Greater than 85% (within a 30-minute window)

**2013-14:** 88.79%  
**2012-13:** 93.53%

**378,002** Total Miles between Road Calls

**Standard:** Greater than 500,000 miles

2013-14: 923,871  
2012-13: 939,278

**0.1%** Percent of Fixed-Route Missed Trips

**Standard:** Not to exceed 0.5% of scheduled fixed-route trips

2013-14: 0.1%  
2012-13: 0.25%

**5504** Average Weekday Ridership, Fixed Route

**Standard:** Maintain or improve on previous year's levels.

Dial-a-Ride: 154

2013-14 Fixed: 4888  
2013-14 DAR: 166

2012-13 System: 4792  
2012-13 Fixed: 159

**Met** Conduct On-Board Ridership Survey

**Standard:** One on-board survey every five years or less

2013-14: Met  
2012-13: Met

**183,849** Total Vehicle Miles Between Preventable Accidents, Fixed Route

**Standard:** Greater than 100,000 miles (fixed-route) and greater than 80,000 miles (dial-a-ride)

Dial-a-Ride: 54,208

2013-14 Fixed: 200,756  
2013-14 DAR: 59,960

2012-13 System: 177,856  
2012-13 Fixed: 219,687

**0.32** Passenger Injuries per 100,000 Miles

**Standard:** Fewer than 1 per 100,000.

2013-14: 0.00  
2012-13: 0.05

**1402** Vehicle Service Hours Per Employee, System-Wide

**Standard:** Maintain or improve on previous year's levels.

Fixed-Route: 1421  
Dial-a-Ride: 1311

2013-14 System: 1373  
2013-14 Fixed: 1361  
2013-14 DAR: 1315

2012-13 System: 1416.15  
2012-13 Fixed: 1426.32  
2012-13 DAR: 1274.36



### Goal 3:

**Increase the proportion of DAR trips furnished to senior and disabled individuals as a percentage of total trips**

This goal was originally adopted at a time before fixed route service was extended to the northern communities of Crockett and Rodeo, and when a separate General Public Dial-a-Ride zone covered these areas. With the expansion of Route 11 north to Crockett, the Board sought to shift passengers to the less expensive fixed route service through the introduction of a higher general public fare on Dial-a-Ride. It should be noted that WCCTA has not sought to impose eligibility limitations on the Dial-a-Ride service, choosing instead to allow anyone 65 years or older to use this mode anywhere within the service area boundaries.

Since the publication of the last SRTP, the annual number of DAR trips that served riders who were neither seniors nor disabled was less than one percent. Previous strategies to encourage general public riders to transition to fixed-route service appear to have been very successful. As discussed later in this chapter, staff recommends removing this goal from the performance monitoring system.

Dial-a-Ride is intended primarily as a service to provide mobility for vulnerable users who would otherwise be unable to access transit. Increasing ridership is not a goal in the same way that it is for fixed-route service. In the future, this measure of transition to fixed-ride service will be replaced by other measures of demand-responsive coverage, including the proportion of rides serving health services appointments.

# Met

**Participate in a Regional Paratransit Service Program That Increases Opportunities for Paratransit Users to Connect with the Regional System**

**Standard:** Continue Participation in the Regional Paratransit Program

**2013-14:** Met  
**2012-13:** Met

# 0.0%

**Percent of Dial-a-Ride Passengers Who are Not Senior or Disabled**

**Standard:** Less than 25%.

**2013-14:** 0.0%  
**2012-13:** 0.0%

# Met

**Ensure Public Outreach Before Schedule Changes**

**Standard:** Engage the public when major schedule and route changes take place.

**2013-14:** Met  
**2012-13:** Met



## Goal 4:

Maximize coordination with neighboring transit operators, as well as with other local government agencies.

Throughout the past three years, 100% of fixed-route trips outside the region have been timed to connect with BART or AC Transit schedules. This coordination allows us to better serve customers who travel longer distances throughout the region. These trips meet BART and AC Transit at El Cerrito del Norte station and AC Transit at the Richmond Parkway Transit Center.

WCCTA's long standing cooperation with the other suburban operators in the East Bay, (County Connection, Tri Delta Transit, and Livermore Amador Valley Transit Authority) has been formalized through participation in the "CATS" group, which meets on an as-needed basis to discuss and work on issues of mutual interest. Most recently, the "CATS" operators worked together in cooperation with MTC to implement common fare rules necessary to jointly implement Clipper fare collection equipment on all four agencies' systems. These agencies have also maintain a joint fare discount pass in order to encourage multi-agency trip linking.

Staff continue to participate in regional, inter-agency planning efforts, including the WCCTAC Technical Advisory Committee, which puts staff in a position to respond to changes in the network of regional routes.

# Met

Ongoing Staff Reviews of Development Proposals and Participation in Inter-Agency Activities

**Standard:** Staff Review Development Proposals and Participate in Regional Planning Activities

**2013-14:** Met  
**2012-13:** Met

# 100%

Percent of Local Fixed-Route Trips Outside the Area that Connect with Regional Transit Providers

**Standard:** 100%

**2013-14:** 100%  
**2012-13:** 100%

## Future Goals, Performance Measures and Targets



### Improving Public Engagement

Providing regular engagement with transit riders will allow the agency to collect regular feedback from the public and establish regular outlets for distributing information about service changes. At present, WestCAT receives public comment sporadically, primarily in the form of customer complaints. In the past, the agency ran a Rider Advisory Committee, though participation waned over time. A revival of this group will need to be constructed and facilitated in such a way that avoids the trap of merely informing participants, but instead forming a true partnership.

Transparency on the part of government agencies establishes trust among residents and allows for open dialogue between transit providers and users. This flow of information will allow the agency to both reach riders with information and will establish input mechanisms for times when the agency requires feedback on service changes.

Targeted communications will intentionally encourage interaction with the information provided. As another facet of this effort, select performance measures should be reported to the public on a regular basis in a manner that is accessible and easily understood by those unfamiliar with transit operations. This will give the public the opportunity to learn about the decisions that transit providers make, and will allow them to be more engaged and better-informed at times when funding ballot measures and other public decision-making opportunities require their participation.

**Target:** At least one monthly targeted interaction with the public, either through community meetings or through social media.

**Target:** The agency will publish a page of statistics and other performance measurement information annually on the WestCAT website.



### Technology

#### Reliability of Wi-fi service, Video Surveillance Systems.

Though wi-fi may be perceived as a luxury, its presence on longer trips (such as the Lynx and potential future express service to Oakland/Berkeley/Emeryville) is a perk that may draw users. Possible measures: Percent of devices ready for service or number of days with all units fully functional.

#### Use of Real-Time Information System

With more users requesting access to real-time information, regular review of the system's use is necessary to determine whether information about real-time access is reaching transit users. Possible measures include the average number of weekly real-time queries through 511.org or the reliability of the real time system (through the percent of system downtime).



## Environmental

### **Passenger Miles per Gallon of Fuel Consumption, by Route**

This measure will encourage ridership increases, vehicle upgrades and efficient routing to decrease the amount of fuel consumed. This will provide environmental benefits related to exhaust reduction. Dial-a-ride service will not be included in this metric, as they experience ridership increases differently and are by design less fuel-efficient.



## Bike and Pedestrian Access

### **Percentage of Major Trip Generators within ½ Mile of Transit Stops**

This performance measurement represents a basic measure of access to the most important destinations within the service area. A distance of ½ mile is often considered the maximum distance that users are willing to walk in order to access transit. Though the measure could be altered by outside forces (opening or closing of a major institutional, medical or commercial facility on an existing route) by maintaining or increasing this number the agency will be validating the role of transit and prioritizing access in future routing decisions.

### **Percent of Households within ½ Mile of Transit Stops**

This measure represents the distance that typical transit users are willing to walk to connect with public transit. This would measure the active transportation potential within the service area. Targets will be established within the next SRTP based on baselines established during this period.

### **Percent of Users Who Walk or Bike to Transit**

This will measure the effects of any outreach or service modifications the agency may make to active transportation access in response to the prior two measures, as well as any city efforts to improve bike and pedestrian facilities. Other possible measures that could be added to this measurement include the number of trips where bike racks are at maximum capacity or the number of bicycles transported on a bus bike rack.



## Service Efficiency (Goal 2)

### Fixed-Route Timeliness Tracked by Route

Existing metrics for timeliness on fixed-route service measure the percent of trips that operated on time across the system. For purposes of identifying future areas of improvement, it would be beneficial to report these statistics at a route-level. Because the agency has not yet achieved this goal system-wide, reporting these statistics at the route-level in addition to system-level may allow the agency to more easily identify opportunities for schedule changes or routing adjustments.

### Modeshare

The MTC Vital Signs report currently lists modeshare data for the cities of Pinole and Hercules. Though this does not cover the entire WestCAT service area, this measure will serve as a snapshot for modeshare across western Contra Costa County. The current levels, as of 2014, are 6.9% in Pinole and 10.3% in Hercules. The next report will be available in early 2017.

### Frequency of Service to Most Heavily and Least Heavily Used Stops

### Frequency of Service vs. Load Factor in Peak and Off-Peak

### Frequency of Service to Major Destinations Within Service Area

This measure will identify the disparity of service between the most frequently used stop and the least frequently used stop. The analysis could also be enhanced in its analysis with the addition of income, age, and disability data. This measure will need to be

transitioned in, as the current vehicles do not have the automatic passenger counting ability to count both boarding and alighting statistics. However, the agency will be able to begin with a boarding-only stop count until the AVL system is updated.

The possibility of measuring the frequency of service to major destinations requires the identification of specific types of locations within the WestCAT service area (such as schools, medical centers, or commercial centers). These categories will need to be identified.

### Percentage of Transfers Between Local and Express

### Average Wait Time for Transfer Connection

These measures will describe the system as a whole to transport riders across the region. Transfer penalties, or long wait times between transfers, frequently prevent riders-by-choice from feeling that transit serves their destinations and discourages transit travel.



## Accessibility

### Number of Boardings by Users with Mobility Devices

### Ratio of Fixed-Route/Paratransit Trips Involving Mobility Device

These measures would indicate the success of programs such as travel training to move ADA-eligible riders to fixed-route service. Route changes may also influence this figure, should decreases in service disproportionately effect parts of the service area where more residents with limited mobility live. It may also be influenced by general increases in ridership.



# Finance

This Short Range Transit Plan (SRTP) is the blueprint for the Authority to obtain funding for its transit services over the next 10 years. The Authority strives to meet current and future community needs and demands, as they are supported by the plans and programs presented in this document. These plans are based on an analysis and a balancing of forecasted population growth, planned development changes in constituent communities, and a fiscally constrained budget. This chapter also presents the financial plans supporting both WCCTA's capital and operating budgets, and implementing the short-term service recommendations described in Chapter 8. Each plan covers WCCTA's fixed route and complementary paratransit service for the ten-year period between FY 2016- FY 2025.

## WCCTA Capital and Operating Subsidies

WCCTA uses a variety of funding sources that have thus far been sufficient to sustain its capital assets and operations at existing levels of service. In drafting a plan for the following ten years, WCCTA will face several financial challenges not only in sustaining its existing service levels, but also in funding vehicles and operating costs for service expansions warranted by new development and by growing demand from current and future area residents.

Several factors will combine in the short term to place financial stress on the Authority's transit programs. The following are expected to be the most influential on future WCCTA operating revenues:

- Increases in fuel prices will affect costs of operating service, posing a financial challenge in the future years of the Authority. At the same time, higher fuel costs are likely to increase demand for transit services as automobile drivers make the shift to alternative transportation options.

- The proposed Intermodal Transit Center, along the Waterfront District in Hercules call for the provision of additional bus transit services in the newly developed areas within the City of Hercules. The City of Hercules is also actively encouraging higher density residential development within the city limits, which could not only increase demand on current services provided by WCCTA, but also create demand for new services.

These factors represent a challenge to the Authority since few opportunities exist to secure additional operating funding. One option that could benefit WCCTA is the allocation of developer impact fees to help finance transit expansion to the planned development; however such an initiative is unlikely in the near term.

In anticipation of any financial challenges, WCCTA has aggressively controlled costs and been conservative in its financial planning in order to establish operating reserves to cushion its financial health against these impacts. As many of these changes are expected to be of long duration, WCCTA will need to be increasingly conservative in its provision of service. Any expansion plans will require that new revenue sources be secured in advance of implementation.

In the past, WCCTA has been able to support its capital (vehicle replacement only) and operating expenses through traditional funding sources. When these were no longer sufficient, the Authority became a federal claimant in order to receive FTA 5307 funds. With the acquisition of express service from BART, WCCTA was able to get a commitment from BART to fully fund vehicles and operating costs for this service, along with annual cost adjustments.

Future fleet and facility expansion will be necessary to accommodate increased demands from population growth and planned development. Traditionally, obtaining funding for capital expansion has been extremely difficult. However, WCCTA has been successful at securing money from competitive sources to finance expansion of its fleet. These competitive sources have included Federal Congestion Management Air Quality (CMAQ), State Transportation Program (STP), and Transportation Fund for Clean Air (TFCA) funds.

Inadequate funding for all transportation needs has made it much more difficult for smaller transit properties, like WCCTA, to successfully compete against higher profile highway, and capital intensive regional transit projects. Proposition 1B, which passed in November 2006, did represent a new source of capital funding that allowed WCCTA to purchase larger vehicles for routes where buses were experiencing capacity problems. Proposition 1B also provided an outside source of local match funding for federally funded vehicle replacements, thereby protecting operating revenue that would otherwise have been redirected for this purpose.

The passage of Measure J (Contra Costa County sales tax initiative), further bolstered the county's transit agencies' capital and operating funding through the economic crisis, helping to ensure that service levels have been maintained. The County is currently considering new sales tax measure that would potentially see a new revenue stream for transit. The Low Carbon Transit Operations Program (LCTOP) is a cap-and-trade program established in 2014 that provides funds to public transportation agencies throughout California for operations that reduce greenhouse gas emissions.

The LCTOP will receive \$25 million in fiscal year 2014-15, and 5% of the California Climate Investments Program (CCIP, formerly the Greenhouse

Gas Reduction Fund or GGRF) proceeds in future years. The CCIP is expected to increase, with up to \$5 billion in annual available funding by 2019. Funds from the LCTOP are directly allocated to transit agencies using the State Transit Assistance formula. WCCTA is using the initial allocation of these funds to increase service on the Route 11, the agency will evaluate potential future uses of these funds as they become available.

### **Capital Funds**

Every year WCCTA participates in the MTC Regional Transit Capital Priorities process to compete for federal funding of regional capital projects. Through this process, WCCTA receives "Section 5307" funds from the Federal Transit Administration (FTA) to be used almost exclusively for the replacement of rolling stock. State Transportation Improvement Program (STIP) funds are another source for transit capital improvements or expansion. WCCTA has received these funds in the past, but the process is very competitive and STIP funding has been severely reduced in recent budget cycles, which makes it very unlikely that the Authority will have access to these funds for future needs. The Authority also receives Bridge Toll Funds that are generally used as a partial local match for funding of larger federal projects.

Proposition 1B and Measure J also have programs for which transit capital money has been made available for WCCTA. WCCTA receives funds under two different programs in the Proposition 1B Program, the Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) and the California Transit Security Grant Program (CTSGP). PTMISEA funds have been used to purchase vehicles and to supplement the local match requirement of receiving federal funds and will continue to be utilized in this way. The CTSGP funding has enabled WCCTA to undertake security and safety related projects, both these and

the PTMISEA funds have been fully allocated to the Authority and no further funding is anticipated from these source, however the agency has some reserves in both categories that will be spent within the guidelines of the grant programs.

The Low Carbon Transit Operations Program (LCTOP) is a cap-and-trade program and a potential source of capital and operating funds. The agency is currently evaluating the options of purchasing double-decker vehicles and is working to secure funding through available means. An application was made for Transit and Intercity Rail Program (TIRCP) funding, which is a separate cap-and-trade program, in April 2016.

WCCTA has secured a small capital allocation of Measure J funds which is set aside for the purchase and initial development work on a parcel of land near the current Administration and Operations facility. This land is considered necessary for the development of a future Bus Storage Facility. Additional funding will be sought for improvements on the site.

### **Operating Funds**

One of the primary sources of operating support for WestCAT services is the state Transportation Development Act (TDA), which is funded by a ¼ cent sales tax. WCCTA's allocation of TDA funds is based upon the amount of retail sales in Contra Costa County and the service area's share of the county population. As WCCTA has secured new sources of revenue over the past few years, the proportion of revenues derived from TDA funds has declined from approximately 67% in FY 97-98 to 26% in FY 14-15. BART funds supporting WCCTA's express service now constitute about 23% of the total revenue available to the Authority.

TDA funds not used during the allocated fiscal year are deposited into the Local Transportation Fund (LTF), a reserve account administered by MTC.

Historically, the money has been set aside for the capital and operating needs of each transit agency. This is beneficial to small transit agencies, particularly because they lack taxing authority or transit-specific revenue sources available only to larger agencies. Farebox revenue is another source of operating support for WCCTA, and a critical part of the agency's funding picture, as fares now account for a significant share of total revenues that sustain the operating budget. For instance, fare revenue constituted 13.6% of total system operating revenues in FY 97-98 and increased to 20% in FY 14-15.

Without doubt, the impacts of assuming the BART Express service in 1998 and the introduction of Lynx Transbay service in 2005 have been extremely positive for augmenting WCCTA's farebox revenues. WCCTA last increased fares once in 2008 to close funding gaps however, fare increases should be done carefully as they may result in offsetting ridership losses. During that price increase WCCTA developed a monthly pass (General Public & Senior/Disabled) for the fixed route services which provided a discount to riders, as well as a ride card that is a convenient alternative to using cash on a daily basis. Staff is confident that the introduction of a monthly pass has been an added convenience to many passengers. WCCTA has also worked with other local Contra Costa operators to develop one single pass that can be used for unlimited rides on all participating transit systems (WCCTA, CCCTA, LAVTA and ECCTA).

Clipper was introduced onto the WCCTA system in late 2015. All WCCTA passes are available in both paper format and through the use of the Regional Clipper card system.

Measure J has become an increasingly important source of operating support. The measure levies an additional ½ cent sales tax in Contra Costa County and then distributes the funds to be used for transportation. Contra Costa voters passed Measure J in November 2004. The Measure became effective on April 1,

2009, extending the current transportation 1/2 cent sales tax for 25 years (2009 - 2034). WCCTA receives funds through a number of separate programs under Measure J, including programs allocated to operators throughout the county, and others available only to operators serving West County communities. WCCTA has also been the recipient of operating funding through MTC's Regional Express Bus program, which supported service on Routes 30Z and JPX for their initial three years of operation, using Congestion Management Air Quality (CMAQ) funds. However, with the voters' approval of Regional Measure 2 (RM2) in March 2004, MTC proposed to shift CMAQ funds to other programs in the region that experienced shortfalls during the economic recession, and transfer all of the Regional Express Bus programs to the new RM2 funding under the Express Bus category. WCCTA was successful in its application for additional RM2 funds to operate its Transbay service, the WestCAT Lynx, the JX, and JPX routes. WCCTA has recently been able to increase service on the Transbay service as a result of receiving additional RM2 funds for operating.

WCCTA has successfully applied for funding under the MTC Lifeline program that combines JARC and STA funds to support projects that address mobility and accessibility needs in low-income communities throughout the region. In recent years WCCTA has sought and received almost full reimbursement of costs for operating this Contra Costa College service, and recently successfully applied for funds that will allow for doubling of service on this route, increasing frequency from hourly to every 30 minutes.

### **Paratransit Funding**

Paratransit service is partially funded by Measure J. Measure J currently allocates 5% of the total sales tax receipts to support paratransit services. Measure J Paratransit funds are distributed on a formula basis to eligible operators in the county, and this program guarantees that WCCTA will not

experience any reduction in Paratransit funding when compared to what we received under the previous measure (Measure C). It does not, however, provide for predictable growth in this funding source. There is currently an agreement between the operators in West County on how these funds are split.

### **Other Sources**

Whenever appropriate, WCCTA has aggressively pursued other sources of support to sustain and expand its services. WCCTA has been successful in the past in securing funding through the Bay Area Air Quality Management District, State STIP Augmentation program, Regional Measure 2, Federal Congestion Management Air Quality funds, and other specialized programs. In practice, these outside funding sources have often been the only means of addressing expansion needs within the community. The Contra Costa Transportation Authority will place a measure on the Nov 16 ballot for a 1/2 sales tax to be dedicated to transportation projects throughout the County. If this measure passes WCCTA will receive funds for operating both fixed route and Paratransit services, the agency will work with CCTA, WCCTAC and other transit operators to determine how these funds are split between agencies and programs.

The Authority submits annual applications for transit operating and capital funding to state and federal agencies. Since the reviews for capital funding are more complex than those for operating expenses and given the limited amount of federal funding, MTC has developed a Transit Capital Priorities (TCP) process to fund fleet replacements in the region through Federal Section 5307 funds. Currently, this source of funds is oversubscribed given all the transit replacement needs in the region. The TCP process currently prioritizes bus replacements over any expansion needs. The inability of the region to fund fleet expansions, constrains the ability of local operators to increase the mode share of transit.

It would be beneficial for WCCTA to develop funding strategies in coordination with other agencies or through private-public partnerships to cover expenses for transit capital expansion. Various techniques that aim to increase the economic resources of transit agencies are in place in other parts of the Bay Area. One of them is the Eco-Pass in Santa Clara County, a pass sold to employers for a nominal cost and distributed among their employees as an incentive to use transit. AC Transit has a similar program with the University of California at Berkeley. The Bear Pass provides unlimited AC Transit local and Transbay rides for faculty and staff for a pre-tax cost of \$34.00. In addition, through coordination with AC Transit, the university adopted a policy to increase the student registration fee to include a \$37.20 transit fee, in exchange for which students are entitled to an unlimited number of rides on AC Transit local and Transbay buses during the semester.

Another venue to obtain additional capital funding is through negotiations with jurisdictions within the service area to assess impact fees on new development, especially if the planned construction is large scale and is expected to impact transit. Given the fact that the WCCTA service area is so small and that there would be no economies of scale in implementing employer or institution- based transit passes, the latter option is perhaps the more viable alternative for WCCTA, especially since large-scale development is occurring in Hercules.

Vehicle registration fees are also sources of funding that have been dedicated to fund transit projects in the past. Measure O that proposed to assess an additional \$10.00 vehicle registration fee to support transportation was rejected by Contra Costa County voters in 2010. Measure O was heavily weighted toward streets and roads maintenance. Transit failed to garner the political support necessary to ensure inclusion of significant transit funding into the measure however, and it is unclear whether public transportation will fare any differently should a

similar measure be placed before the voters in future elections.

## **WCCTA Revenues and Expenses**

Figure 7-1 and 7-2 illustrate WCCTA's expenses for and FY13-14 and FY14-15. Operating costs are divided into four main categories: operations, maintenance, non-vehicle maintenance, and administration. Major expenses include purchased transportation, vehicle maintenance and fuel, which are all included in the operations line item. As Figure 7-1 and 7-2 depict, the shares for each category have remained constant between FY13-14 and FY14-15. WCCTA has historically been able to control expenses even in periods of high inflation and extraordinary increased fuel costs. As mentioned previously, the main source of WCCTA's operating revenue has traditionally been TDA funds. Since WCCTA assumed the operation of the BART express bus service in July 1998, funds transferred from BART to operate this service have constituted a considerable source of revenue for WCCTA. Figure 7-3 and 7-4 show the different operating revenue sources available to WCCTA for FY 13-14 and FY14-15, respectively. There have been only minor changes to revenues for the two fiscal years.

## Expenditures, FY 13-14

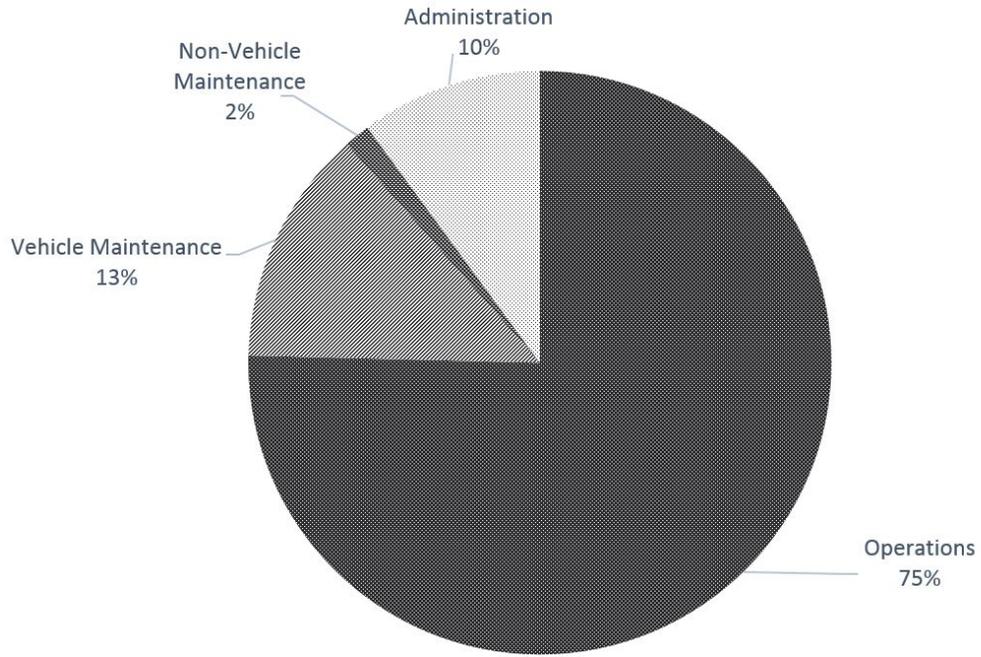


Fig. 7-1: WCCTA Expenditures, 2013-14

## Expenditures, FY 14-15

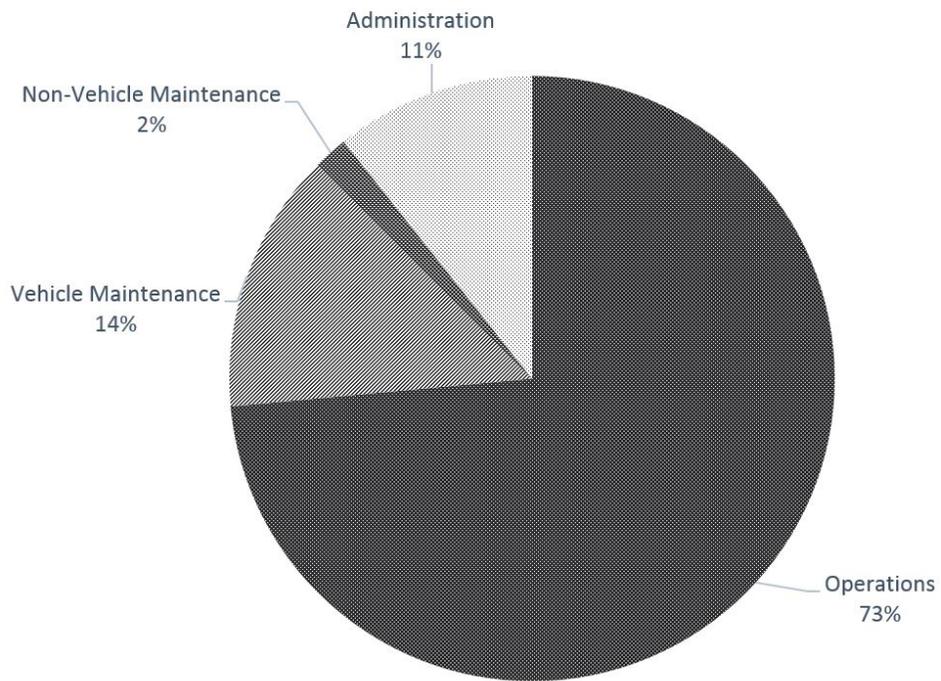


Fig. 7-2: WCCTA Expenditures, 2014-15

## Revenue, FY 13-14

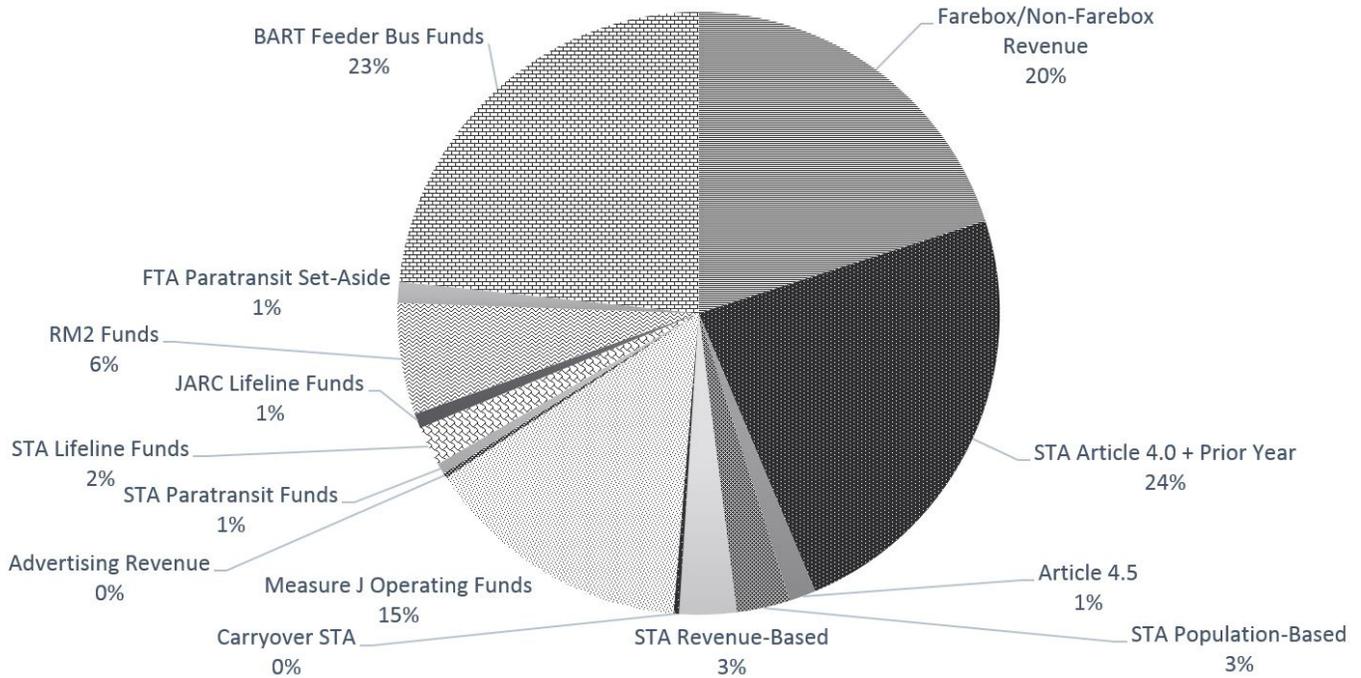


Fig. 7-3: WCCTA Revenue, 2013-14

## Revenue, FY 14-15

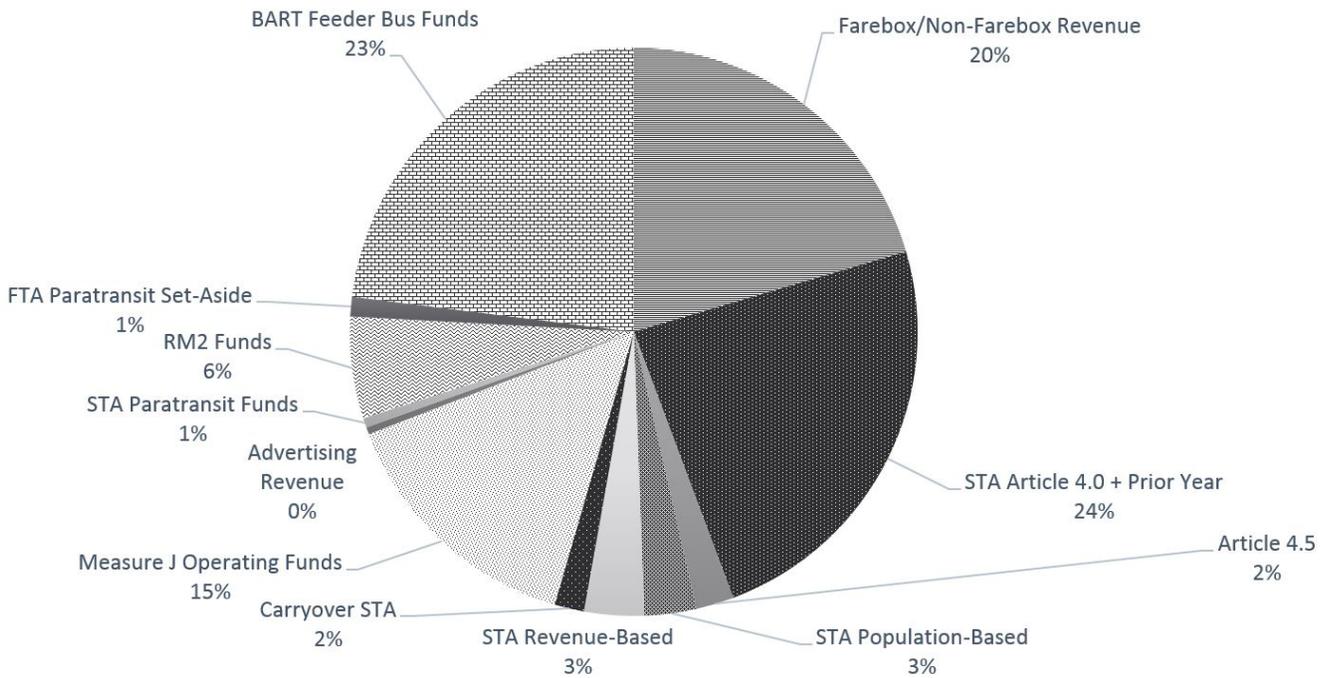


Fig. 7-4: WCCTA Revenue, 2014-15

Vehicle Type	FY15-16	FY16-17	FY17-18	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	FY23-24	FY25-26
Standard Conversion Van	10								10	
Heavy Duty Coach, 35'					5	6				
Heavy Duty Coach, 40'	1	1	2		4					
Administration Vehicles							1			
Over The Road Coach 45'							2			2
Suburban Coach, 40'										
Hybrid Dial-A-Ride vehicle					2					
Double Decker				3						

Fig. 7-5: Vehicle Replacement Plan, 2015-2026

### Capital Improvement Plan

This section presents WCCTA’s ten-year capital improvement plan, covering fixed route and Paratransit services. Included in this section are vehicle needs, capital improvement projects, cost estimates and funding strategies. The complete capital plan is shown in Figure 7-6.

#### Vehicle Needs

WCCTA currently maintains a fleet of 12 paratransit vehicles (10 standard conversion vans, 2 sedans), 16-40 foot diesel transit buses, 20 - 35 foot diesel transit buses, 3 - 40’ diesel commuter coaches, 5 - 45 foot over the road coaches, and 4 administration/supervisor vehicles.

Over the life of this SRTP, 43 vehicles will be acquired – 24 paratransit vehicles, 13 full-size coaches, 4 over the road coaches, 3 double deckers, and 1 administrative vehicle. Table 7-5 summarizes the vehicle replacement schedule for the next ten

years. Major vehicle replacements will take place in FY 19-20 and FY 20-21 when eleven and six new vehicles will be purchased, respectively. The agency also anticipates adding some additional double decker vehicles to the fleet over this period.

Using bus prices established by the MTC Regional Financial Committee, the cost to replace these vehicles is projected to be roughly \$17.2 million – 76% for fixed-route vehicles, 23% for Paratransit vehicles, and 1% for administrative vehicles.

WCCTA begins applying for funds to cover vehicle replacement costs at least one fiscal year before their anticipated replacement date, so that adequate funds will be available as needed.

#### Facility & Equipment Upgrades

WCCTA has a policy of allocating money annually to help finance the cost of any unexpected or planned upgrades to its facility or equipment. This money could be spent on such items as replacing a building’s

<b>Capital Costs</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Totals</b>
Fixed Route Vehicles	\$530,000	\$540,000	\$1,112,400	\$2,823,055	\$5,097,571	\$3,383,279	\$1,522,262			\$1,608,798	<b>\$16,617,365</b>
Paratransit Vehicles	\$1,480,000								\$1,894,006		<b>\$3,374,006</b>
Other Vehicles	\$51,540					\$61,541					<b>\$113,081</b>
Facility/Equipment Upgrade	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	<b>\$700,000</b>
Certificates of Participation	\$138,500	\$139,000	\$134,250	\$134,500	\$134,500	\$134,250	\$138,750	\$137,750			<b>\$1,091,500</b>
Security	\$15,359	\$56,722									<b>\$72,081</b>
<b>Total Capital Costs</b>	<b>\$2,285,399</b>	<b>\$805,722</b>	<b>\$1,316,650</b>	<b>\$3,027,555</b>	<b>\$5,302,071</b>	<b>\$3,649,070</b>	<b>\$1,731,012</b>	<b>\$207,750</b>	<b>\$1,964,006</b>	<b>\$1,678,798</b>	<b>\$21,968,033</b>
<b>Capital Revenues</b>											
Bridge Tolls	\$85,528	\$66,755	\$55,620		254,879	172,241	76,113	0	94,700	\$80,440	<b>\$886,276</b>
PTMISEA	\$315,493		\$121,400								<b>\$436,893</b>
BART Feeder Bus Capital	\$138,300	\$139,000	\$134,250	\$134,500	134,500	134,250	138,750	137,750			<b>\$1,091,300</b>
FTA Capital Assistance Grant	\$1,649,232	\$432,000	\$889,920	\$552,411	4,078,057	2,755,856	1,217,810	0	1,515,205	\$1,287,038	<b>\$14,377,529</b>
OBAG/Bay Bridge Forward				\$2,000,000							<b>\$2,000,000</b>
TDA	\$81,487	\$111,245	\$115,460	\$340,644	\$834,636	\$586,723	\$298,339	\$70,000	\$354,101	\$311,320	<b>\$3,103,955</b>
Security - Prop 1B	\$15,359	\$56,722									<b>\$72,081</b>
<b>Total Capital Revenues</b>	<b>\$2,285,399</b>	<b>\$805,722</b>	<b>\$1,316,650</b>	<b>\$3,027,555</b>	<b>\$5,302,071</b>	<b>\$3,649,070</b>	<b>\$1,731,012</b>	<b>\$207,750</b>	<b>\$1,964,006</b>	<b>\$1,678,798</b>	<b>\$21,968,033</b>

Fig. 7-6: Capital Plan, 2015-2026

roof or upgrading a computer. It is assumed in the financial plan that WCCTA will continue this policy by allocating \$70,000 each year for facility and/or equipment upgrades.

### Lease Payments

In May, 1998, WCCTA received proceeds from the issuance of \$5.33 million in Certificates of Participation, which were used to purchase 11 buses and facility improvements to accommodate the BART service expansion. As of June 30, 2012, the principal for the vehicle purchase had been fully repaid, and the outstanding liability for the remaining Certificates of Participation had fallen to \$1.1M. Payments vary in accord with an established amortization schedule, with an annual obligation of roughly \$136,000 through FY 2023. These lease payment expenses are fully covered by BART, and associated revenues are presented in the “BART Feeder Bus, Capital Funds” line item in the revenue section of the plan.

### Capital Funding Strategies

Every year WCCTA participates in the MTC Regional Transit Capital Priorities process to compete for federal funding of regional capital projects. Through

this process, WCCTA receives 5307 funds from the Federal Transit Administration (FTA) to be used almost exclusively for the replacement of rolling stock. State Transportation Improvement Program (STIP) funds are another potential source for transit capital improvements or expansion. WCCTA has received these funds in the past, but the process is very competitive and the revenue available through the program is very low, which makes it difficult for the Authority to count on these funds in future plans. The Authority also receives bridge toll funds that are generally used as the local match for federal funding, although this source has been declining in purchasing power in recent years.

Primary sources of capital funding are as follows:

- Federal sources - FTA Capital Assistance Grant,
- STP/CMAQ/Other Federal sources,
- State sources – TDA Article 4, PTMISEA
- Regional sources – Bridge tolls (BATA) and BART

The following capital plan is necessarily built upon a series of assumptions about the future availability of funds. The major assumptions used to generate the plan are as follows:

- FTA Capital Assistance Grants are assumed to cover 80% of the replacement cost for Paratransit and fixed route buses.
- STP/CMAQ/Other federal funds are not expected to be available in the short term, and have not been used in the plan to finance capital expenses.
- TDA Article 4 (while primarily used to support operations) may be used to pay for smaller capital projects that may not be able to garner enough funding from local and regional sources. Examples are facility and equipment upgrades, bus stop improvements, support vehicles, and part of the fixed-route vehicle replacement costs.
- BART capital funding will continue to be used to cover the full amount of WCCTA's payments (through the year 2023) to retire its Certificate of Participation indebtedness, in accordance with the amortization schedule established at the time the bonds were issued.
- California Transit Security Grant Program (Proposition 1B Security funds) Proposition 1B provides \$1 billion to California's Transit System Safety, Security, and Disaster Response Account for capital projects that provide increased protection against security and safety threats. Funds may also be used for capital expenditures to increase the capacity of transit operators to develop disaster response transportation systems that can move people, goods, and emergency personnel and equipment in the aftermath of a disaster that impairs the mobility of goods, people, and equipment. WCCTA anticipates it will continue to receive an allocation of roughly \$56,722 annually until the program sunsets in 2016.

- PTMISEA (Proposition 1B funds)  
The Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) was created by Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006. Of the \$19.925 billion available to Transportation, \$3.6 billion dollars was allocated to PTMISEA to be available to transit operators over a ten-year period. PTMISEA funds may be used for transit rehabilitation, safety or modernization improvements, capital service enhancements or expansions, new capital projects, bus rapid transit improvements, or rolling stock (buses and rail cars) procurement, rehabilitation or replacement. Funds in this account are appropriated annually by the Legislature to the State Controller's Office (SCO) for allocation in accordance with Public Utilities Code formula distributions: 50% allocated to Local Operators based on fare-box revenue and 50% to Regional Entities that sub-allocate these funds to individual operators using a formula that tracks the State Transit Assistance program population allocations. WCCTA has drawn down much of the funding available from this program, and the capital plan assumes a remaining balance of \$436,693 that will be applied against capital costs in the first year of the SRTP planning period.

Bridge tolls will be used to pay part of WCCTA's local share of the cost to replace vehicles. Although WCCTA has received bridge toll funding in the past, in the next few years, bridge toll receipts are not expected to fully cover the local match amount for federally funded projects. The plan assumes bridge tolls will account for 5% of total vehicle costs throughout the ten year planning period. As a result, the financial plan assumes that WCCTA's TDA reserves will be necessary to augment the available bridge toll revenue to fully fund the capital replacement program. In previous years WCCTA has been able to utilize PTMISEA funds to offset the local match requirements. This program has ended and the last portion of remaining balance will be used in the

2016 Capital program.

## Capital Plan

According to anticipated capital expenses and presumed revenue sources, the capital plan on the following page outlines how the \$19 million budget will evolve over the 10-year planning horizon. Of the plan, 71% (\$13.5 million) of the funds are being spent on fixed-route vehicle replacement and refurbishing. Another 6% (\$1.1 million) goes to pay WCCTA's outstanding bonded indebtedness, 18% (\$4 million) is being spent on the replacement of Paratransit vehicles and the remaining 5% (\$1 million) is spent on service vehicles, security improvements and facility and equipment upgrades.

On the revenue side, 65% of the capital expenses are funded by FTA's capital assistance grants, 6% from BART, 2% from Proposition 1B (PTMISEA and Security Program Funds), 10% from the new OBAG/ Bay Bridge Forward program that will be used to purchase two double decker vehicles and 4% from bridge tolls, with approximately 14% of the expenses funded from TDA reserves. If any one of these funding sources is reduced dramatically in the future, the WCCTA Board will need to consider engaging in increasingly active advocacy for securing additional funding through regional boards and committees. In addition, WCCTA staff should continue pursuing all opportunities to augment grant funding through the region to help finance capital purchases.

WCCTA's capital plan is presented in Figure 7-6. Budget projections are presented in Figure 7-7.

Expenses	FY15-16	FY16-17	FY17-18	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	FY23-24	FY25-26	Total
Operations	7,337,700	8,184,000	8,638,189	9,120,065	9,631,458	10,174,333	10,750,791	11,363,088	12,013,643	12,705,051	99,918,317
Vehicle Maintenance	1,447,500	1,500,000	1,560,000	1,622,400	1,687,296	1,754,788	1,824,979	1,897,979	1,973,898	2,052,854	17,321,693
Non-Vehicle Maintenance	256,700	229,000	237,360	246,054	255,097	264,500	274,280	284,452	295,030	306,031	2,648,504
Administration	1,205,900	1,050,000	1,090,992	1,133,624	1,177,961	1,224,071	1,272,026	1,321,899	1,373,767	1,427,710	12,277,949
<b>Operating Revenues</b>											
Farebox and Non-Farebox	2,005,000	2,005,000	2,065,000	2,126,800	2,190,454	2,256,018	2,323,548	2,393,105	2,464,748	2,538,540	22,368,212
State Operating Assistance	3,019,445	2,894,957	2,878,026	2,929,255	2,981,396	3,034,464	3,088,478	3,143,453	3,199,406	3,256,356	30,425,235
Measure J Operating Funds	1,434,109	1,502,675	1,598,164	1,659,301	1,722,779	1,787,595	1,855,001	1,924,007	1,995,580	2,069,816	17,549,025
Advertising Revenue	41,948	30,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	391,948
SRTP Planning Funds	30,000	0	0	0	30,000	0	0	0	30,000	0	90,000
STA Paratransit Funds	44,951	60,209	35,758	71,377	77,066	82,826	88,657	94,558	100,529	106,571	762,502
LCTOP Program Funds	0	120,000	123,600	127,308	131,427	135,061	139,113	143,286	147,585	152,012	1,219,093
Lifeline Funds (Federal JARC)	0	100,000	103,000	0	0	0	0	0	0	0	203,000
Lifeline Funds (STA)	0	221,432	228,075	0	0	0	0	0	0	0	449,507
RM2 Funds - JPX	249,294	249,294	249,294	249,294	249,294	249,294	249,294	249,294	249,294	249,294	2,492,940
RM2 Funds - LYNX/JX	704,030	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	7,454,030
RM2 Marketing Funds - LYNX	30,000	30,000	0	0	0	0	0	0	0	0	60,000
FTA Preventative Maintenance	232,000	0	0	0	0	0	0	0	0	0	232,000
FTA Paratransit Set-Aside	243,804	248,192	252,659	257,206	261,836	266,548	271,345	276,229	281,201	286,262	2,645,282
BART Feeder Bus Funds	2,394,219	2,783,354	2,866,855	2,952,860	3,041,446	3,132,689	3,226,670	3,323,470	3,423,174	3,525,870	30,670,608
<b>Total Operating Revenues</b>	10,428,800	10,995,113	11,190,431	11,163,401	11,475,397	11,734,495	12,032,106	12,337,402	12,681,517	12,974,720	117,013,382
<b>Total Operating Expenses</b>	10,247,800	10,963,000	11,526,541	12,122,143	12,751,812	13,417,692	14,122,076	14,867,417	15,656,337	16,491,645	132,166,462
Surplus/Deficit	181,000	32,113	(336,110)	(958,741)	(1,276,414)	(1,683,197)	(2,089,970)	(2,530,015)	(2,974,820)	(3,516,925)	
Available Carryover	3,387,602	3,568,602	3,600,715	3,264,605	2,305,863	1,029,449	0	0	0	0	
<b>Total</b>	3,568,602	3,600,715	3,264,605	2,305,863	1,029,449	(653,748)	(2,089,970)	(2,530,015)	(2,974,820)	(3,516,925)	

Fig. 7-7: Budget Projections, 2015-2026

# Operations Plan and Goals

## Operations Plan and Goals

This chapter presents a discussion of WCCTA service area transportation needs identified through the analysis of WestCAT system and route-level data, as well as through consideration of recent and planned development in West County communities. The operations plan is tailored to acknowledge WCCTA's current and projected financial status. While a detailed discussion of WCCTA's financial plans for capital and operations needs will be presented, it is evident that WCCTA lacks the financial capacity to implement new services without securing additional financial support. Accordingly, the base case operating plan assumes no changes to existing service levels. Specific proposals for future service expansions are described in the chapter, and assigned a relative priority based on projected demand for transit services.

## Expansion Policy

New development and proposed transportation investments within the WCCTA's service area have the potential to dramatically change how local transit service is provided. In terms of residential development, WCCTA pays particular attention to those developments with medium to high densities, which are the most likely to generate demand for transit service. While keeping track of the development process, WCCTA and its Board should do everything within their power to work with interested parties to ensure that the conceptual plans and design can safely accommodate transit vehicles. Since funding for expansion has been always difficult to obtain, it is crucial that the Authority work with the relevant parties from the cities and county to identify additional funding to support transit service to these developments. Staff believes that it is important to maintain a dialogue with public entities – reaffirming the financial impact of new development on the cost of providing transit service. Transit service can become

an integral part of the mobility and accessibility needs of persons who travel to or from new higher-density transit-oriented development as it is built.

## Short-term Recommendations

Short-term recommendations represent the highest priority projects that could be implemented quickly if funding became available to cover project expense. For service expansions, the intent is to have at least two years of funding identified before the project is implemented. The short-term recommendations are intended to acknowledge known or emerging transportation needs within local communities, while remaining cognizant of the growing necessity of maintaining a balanced budget. The identification of these projects will also provide a context for future Board decisions about whether service on existing routes should be reduced in order to extend service to new or growing areas in the community.

## C3 Contra Costa College Expansion

The Route C3 originated as an hourly service between the Hercules Transit Center and the Contra Costa College. It was initially funded by the Low Income Flexible Transportation Fund (LIFT) program, whose purpose is to help low income families get the adequate training to be able to find and maintain jobs to make them less dependent on public services. Accordingly, the C3 is scheduled to provide convenient timed connections to Route 11, which serves communities with lower income residents. Although the community has welcomed the new service with great enthusiasm, many users have requested an increase in service frequency. The route was initially designed to only operate throughout the school term. However, surveys of users indicated that the route would also serve a purpose during the summer months, as the C3 is the only WestCAT

route offering connections to AC Transit's 72 Rapid Route. Route 72 and 72R serve the southern portion of Contra Costa County and downtown Oakland. Operation of this route was extended to serve the college throughout the year. WestCAT was recently awarded sufficient operations funding through the Lifeline/JARC funding program to double service on C3. Starting in the end of 2016 or early 2017 the route will run every half hour rather than every hour. Should this expansion prove popular, this would be a good opportunity to enter serious discussions with the college about establishing a student and faculty subsidized transit pass program. That program would likely take effect in the fall of 2017 at the earliest, with negotiations, outreach and rider education occurring throughout the 2016-17 school year.

### **Facility Expansion**

WCCTA's current bus storage facility is inadequately sized for current needs, and the facility will not accommodate any future growth associated with service expansions. Although the buildings currently housing operations, maintenance and administrative functions on the site are of sufficient size for the current level of WCCTA and its contractor's staffing, the current facility has a limited ability to accommodate new vehicles, or to provide employee parking. Utilizing the available data in terms of anticipated demand and expansion of the WCCTA service, it is foreseeable that the agency will outgrow its current facility in the short- to mid-term. To position WCCTA to be able to grow in future years, the agency will need to acquire a satellite facility, or to consider relocating its operations to a larger facility to accommodate the additional requirements of capacity and maintenance.

WCCTA has taken initial steps to purchase an undeveloped two-thirds acre parcel which adjoins the existing facility. Acquisition of the desired expansion parcel requires buy-in not only from its current owners, but also the city of Pinole and EBMUD.

EBMUD has an easement on some properties adjacent to the current WestCAT facility. While the land acquisition and initial design and engineering costs will be fully covered by Measure J revenues, WCCTA lacks any identified funding to cover the development costs for completing the expansion. If capital money becomes available, it is anticipated that this project would be implemented within a one to two-year time horizon. Expansion of service may require the need to look into a satellite facility, as mentioned previously in this chapter when discussing the facility expansion. In the Express Bus Study that was completed in the middle of the last decade there was discussion of potential opportunities to share maintenance facilities in the future. Some of the conclusions of the recently completed Transit Sustainability Study were for agencies to consider joint procurements and taking advantage of joint opportunities.

### **Hercules Waterfront**

Dramatic changes at the emerging Waterfront District in Hercules, where a large transit-oriented development project is planned, will create new demands for feeder bus service to the planned Capitol Corridor and possible ferry terminal. Bus service will also need to serve residents of the new housing development surrounding this terminal.

The Waterfront District is a major development area comprised of several key private and public projects built around Transit Oriented Development principles. Throughout the planning process for the district, it has been assumed public transportation services will be a critical element of the infrastructure in this area. As previously discussed, the City of Hercules is working towards developing a multi-modal transit hub at the waterfront, which will center around a Capitol Corridor train station, and a possible ferry terminal. WCCTA has been involved for the last decade or more in discussions about the transit hub, and more generally about possible service plans for the district. As development plans have evolved and changed,

WCCTA has worked closely with the City of Hercules and the other partners to ensure that WCCTA can provide the level of service that this district and transit facility will require. WCCTA staff, along with staff from the Water Emergency Transit Authority, Capitol Corridor JPA, and the City of Hercules, is currently working on assessing future transit demand and ridership forecast for this development.

WCCTA anticipates that at least one current express route will be modified to serve the area; however, funding for both capital and operations has not been identified. For a route that will feed the Waterfront ferry terminal and Capitol Corridor station at 15-minute frequencies during the peak and at 30 minutes during the non-peak, it is estimated that operating costs will be approximately \$415,000 a year for a weekday route, and \$519,000 for a route that operates weekdays and Saturdays in 2016 dollars. This is assuming a span of service between 5:30 am and 8:00 pm. The Authority will need to acquire at least two buses to operate under this scenario. WCCTA staff is also exploring whether existing LYNX, JX and JPX resources could be redesigned and extended to the new transit facility, thereby reducing costs and requiring fewer buses without degrading the quality of the services now provided. This would also connect Waterfront District residents to local and express routes at the Hercules Transit Center.

Although the Waterfront District is still building-out, it houses an established neighborhood that has been beyond the reach of the fixed route system for some time. As an interim step, WCCTA is in current discussions with the City of Hercules to develop a plan to initiate service on a limited basis into the neighborhood through the extension of some express JX or JPX trips to the terminus of John Muir Parkway if this can be accomplished within the existing operating budget.

Currently, WCCTA lacks detailed information about potential ridership associated with the train station

and future ferry terminal, and staff must also await completion of access roads through the district to assess vehicle running times and likely operating costs. Another factor will be the level of service provided by the other transit agencies as this will help determine both peak and off peak levels of demand. This discussion is intended as a placeholder from which to develop more defined service plans once the other components are in place. Possible funding for this project may be a combination Measure J and Proposition 1B for capital needs, and Measure J for the operating cost of the program.

The WCCTA Board also expressed a desire to look into potential Park and Ride options within the sphere of influence of the City of Pinole. Staff will continue to explore options and locations. Again, potential opportunities for funding could arise through the designation of PDAs.

### **Safe Routes to Transit**

In a region with a suburban street pattern (i.e. few through-streets, low housing density, many low-traffic side streets and cul-de-sacs), creating the close, grid-like network of routes that often serves cities with high levels of transit access is impossible. Ensuring equitable access to transit service in this environment means not only providing sufficient walk-up coverage to low-income and car-free households, but also evaluating the ease with which transit can be accessed on foot or by bicycle for those residents who live farther from a main thoroughfare.

The agency should prepare a study of the existing bike and pedestrian infrastructure within the service area. This will allow WestCAT to be an effective advocate for improved infrastructure as local cities develop projects and plans. This goal may also require an examination of the areas within WestCAT's service area that are outside of a typical walking distance from the nearest transit stop. These areas may need additional targeted research into potential demand and

possibly investment for fixed-route service.

### **Collect Baselines and Health Measures, esp. for Lifeline Routes**

Routes 30Z, C3, and 11 are considered essential connectors to the ex-urban areas of Rodeo and Crockett, to Contra Costa College, and to Martinez, the county seat of Contra Costa County. Service to these areas provides vital access to health, education, job, and civic opportunities (such as access to county courts and government services).

As a measure of connectivity and transit's impact on livability, average user travel time not only shows the distance users need to travel to access employment and services, but also hints at the amount of transfer penalty they may be experiencing (the amount of time spent waiting between their first and second routes). Using survey tools to collect information from passengers, the agency should identify current travel times for riders on these routes. This will allow the agency to examine potential areas of inefficiency on these routes.

Public health data as it relates to transit access would also be a valuable set of data to collect. This could include data on how many riders use fixed-route transit to access services such as dialysis care or regular doctors' appointments. With this data, the agency can then develop performance measures focusing on services for lower-income residents and those who reside far away from the better-connected areas of the transit network.

### **Mid-term Recommendations**

Mid-term recommendations contain those projects that respond to significant identified demand for transit service, but which are dependent on infrastructure improvements or the completion of key development projects before provision of transit service is completely viable. As noted earlier, a considerable

amount of development activity is planned or under way within the service area, and it is anticipated that many of the mid-term recommendations would be needed within a three to five-year period. Because the projects could not be implemented without new sources of revenue or offsetting cuts to existing WestCAT service, it is crucial that mid-term recommendations be weighed against existing service priorities throughout the period covered by this plan to determine their relative importance.

### **Improved Wayfinding**

In order to encourage transit use, the Authority may wish to work with local cities to devise improved wayfinding methods that include information on transit service. This is especially important in areas with lots of foot traffic, such as downtown Pinole, and areas where future foot traffic is expected, such as the Hercules Waterfront District. This will allow those who are unfamiliar with the locations of transit stops to more easily access transit, particularly where making a transfer requires moving from one stop to another on foot.

### **Long-Term Recommendations**

Long-range recommendations are those anticipated to be implemented at least six years into the future (FY 2022 and beyond). As mentioned earlier, changes in projected revenues and transportation plans will influence the appropriateness of these recommendations.

### **LYNX/Ferry Proposal**

While the fate and schedule for the future ferry terminal is uncertain, WCCTA has had prior discussions with staff at the Water Emergency Transit Authority (WETA), to propose a coordinated operations plan between the two agencies. Under this arrangement, the LYNX would be a joint project of two agencies and would stand-in for the Hercules-San

Francisco ferry until WETA is able to construct and begin operations from the ferry terminal. Thereafter, as a strategy for providing the most cost-effective service delivery for the San Francisco-Hercules corridor, the LYNX would provide five midday trips, two late-night trips, and weekend service for the WETA trips. Weekday service for the additional midday trips would cost \$311,000/year in 2016 dollars. If weekend service is also provided, it would add \$104,000 a year for a total of \$415,000 operating cost per year.

### **Increased Evening Service throughout the Service Area**

In looking at ways in which WCCTA can work to close the transportation gap for low income communities it was noted that local service did not operate into the late evening hours. This change would allow passengers who use the express network to change onto the local routes at the Hercules Transit Center later into the evening. In order to expand service on local routes until around 10 pm (with one-hour headway) additional operating costs of around \$519,000, in 2016 dollars, would be required.

### **WCCTA's Financially Unrestrained Vision for the Future**

This section contains ideas and potential projects that WCCTA view as potential long term goals. However, due to funding constraints they are separated out from the long term recommendations outlined above. The following projects can be categorized as part of the WCCTA 'Vision'. They form part of the overall direction of the agency in striving to provide an efficient and effective alternative to the automobile. It just be noted that unless substantial new funding sources are identified and fully utilized these projects will remain as long term goals of the agency.

### **Service to Oakland / Emeryville**

At the end of FY 04-05, WCCTA commissioned a study with University of California Transportation Center to analyze the market potential for new express service, along with the financial impact that the implementation of the WestCAT LYNX will have on the BART system. In performing this analysis, the study used as its source the extensive database collected for the Regional Express Bus Plan (REB) concluded in December 2004. Results from the draft analysis show that there is a strong commuter demand for downtown Oakland from the WCCTA service area. Most likely, these trips are made by a combination of private automobile and BART as no carpool activity was found for this destination. Approximately 77% of the WCCTA morning trips are ultimately destined for the East Bay (primarily Oakland and UC Berkeley) end at the El Cerrito del Norte BART station, with the majority of them transferring to the BART system. Preliminary results of the REB study showed indications of a potential demand for an express route to West Berkeley, downtown Oakland, and Emeryville's commercial district. Some users may prefer a more direct express route to Oakland, Berkeley, or Emeryville rather than combining WestCAT with BART or AC Transit, or may feel that BART service is presently overcrowded. By serving Oakland, the express service also has the opportunity to connect more easily with BART lines serving central Contra Costa County and north Oakland. Since there are plenty of opportunities for employment and shopping in these areas, WCCTA staff believes that this market is an excellent opportunity for commuter or lifeline bus service.

In the short term, the agency may take the opportunity to expand on the university's analysis to identify potential routing and stop locations as well as new parking facilities in order to be prepared for future funding opportunities. The agency will also need to identify new ways to manage parking expectations, as the current park and ride lot at Hercules Transit

Center could not handle large numbers of new users. The agency is unlikely to find funding and local support to build a raised parking structure, and surface parking may not be the highest and best use for land surrounding the Transit Center. Programs encouraging carpooling to park and ride facilities may prove useful. Development at the Hercules Waterfront may also be able to address this issue.

### **Lynx Service to / from Pinole**

Under this scenario, WCCTA would work with the City of Pinole to attempt to establish an appropriately sized park and ride location within the City of Pinole to enable WCCTA to initiate Lynx service providing direct connections between Pinole and San Francisco and improved connections for residents of Tara Hills and Montalvin Manor. As with the Oakland/Emeryville service possibility, parking for express commuter routes is a primary concern. An appropriate site for a park and ride facility would be necessary for this plan to move forward. Alternatively, routing could be adjusted to start the Pinole Lynx as a neighborhood route, decreasing the need for park and ride facilities.

Because the agency is seeking funding for double-decker buses to serve the Hercules-San Francisco routing of the Lynx, there may be additional vehicle capacity in the near future that would allow the agency to explore this additional route variation. However, operations funding for this change has not yet been identified.

### **Service Expansion Throughout the WCCTA Network**

For transit to be able to provide a realistic alternative to the automobile it must be reliable, frequent, and offer regional connectivity. Current headways throughout the WCCTA service area are directly related to the BART schedule. Increasing frequencies is therefore tied to how the BART network develops and changes throughout the lifetime of this plan,

however if the funding were available WCCTA would look to increase frequencies on a number of routes to create a more dynamic transit network. Operational costs and capital needs would be large should this project develop past the vision stage.

There are no real connections to El Sobrante or to Orinda from the WestCAT service area. Linking up to the AC Transit services that operate in these areas would be an improvement to WestCAT's connectivity throughout the region and would open up service to a greater number of potential riders. Increasing the appeal of riding buses by increasing service frequency and the number of places served is a way to generate an increased ridership base.

Priority areas of service expansion will be identified partly through the West County High-Capacity Transit Study currently being performed by WCCTAC. The study is expected to be completed in the spring of 2017.

### **Increased Weekend Service**

Numerous requests have been received from the community to increase local bus service during the weekends. However, the lack of operating funds has prevented the Agency from implementing such service. Two routes that are the best candidates to operate on Sunday are Routes 11 and 19. Route 11 serves Crockett and downtown Rodeo, which are located in the furthest northeastern portions of the WCCTA service area. Because of this remote location, it is very difficult for residents of these communities to go anywhere if they do not have a personal car available. These two routes currently operate on Saturday and have a very steady ridership base. The annual cost of operating this service on Sundays is \$156,000 in 2016 dollars.

In terms of increasing the usability and appeal of transit offering a weekend, service to parallel the weekday service would be beneficial. The operational and capital implications aside, this approach allows

access to the service to more potential passengers and therefore increases the appeal of the service. In practice, however, trip volume on weekends is historically low, and while some baseline expansion of service may be warranted to extend the reach of the system on weekends, such an expansion would require larger subsidies due to the lower ridership volume.

### **Service to Solano County**

Connecting the WestCAT service to Vallejo is a potential avenue for future development that warrants study. Having an accessible stop in Crockett close to the freeway would enable a direct link to exist to Solano County. Currently, anyone wishing to access the WestCAT system from Solano County must travel south on a regional route and transfer at Del Norte BART. Having a stop near the freeway would allow the Route 11 to link up to a vehicle traveling to and from Solano County. Other service alignment alternatives could also be explored, including an extension to the Vallejo Transit Center, though this could double the cost of the route.

## **Regional Planning**

### **One Bay Area**

One Bay Area is a joint initiative that is comprised of four of the San Francisco Bay Area's regional government agencies – the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), the Bay Conservation and Development Commission (BCDC) and the Metropolitan Transportation Commission (MTC). Plan Bay Area is an integrated land use and transportation plan. All regions in California must complete such plans under Senate Bill 375. The law calls upon California's metro areas to plan jointly for transportation, land-use and housing as part of a "Sustainable Communities Strategy," with the ultimate goal of reducing greenhouse gas emissions. One Bay Area takes a collaborative approach to many

of the challenges the region faces. Many people commute across county borders and depend upon an efficient transportation system to travel to and from their jobs. One Bay Area works in partnership with cities, counties, business groups, community-based organizations and other stakeholders to coordinate efforts and promote innovative solutions.

WCCTA staff will continue to coordinate and collaborate with local and regional agencies to ensure that the funding that is being developed through the One Bay Area can be utilized in ways to support both the regional desire to increase high density developments but also to ensure that funding is tied to current transit networks or is in some way utilized to support local transit networks. It is important to note that new developments that either cannot utilize the existing transit network, or place increased demands on transit can potentially be problematic for the agency.

WCCTA needs to position ourselves to take advantage of any funding opportunities that might arise through the One Bay Area initiative, be it as a sole recipient of funding, or more likely in partnership with a local agency who has authority of land use issues. Working cooperatively to ensure projects that are proposed are done so with the constraints of the current or future transit network in mind. If the current timeline stands, the final version of Plan Bay Area 2040 is set to be adopted in the summer of 2017.

### **Priority Development Areas**

Priority Development Areas (PDAs) are locally-identified, infill development opportunity areas within existing communities. They are generally areas of at least 100 acres where there is local commitment to developing more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. To be eligible to become a PDA, an area had to be within an existing community, near existing or planned transit

or served by comparable bus service, and planned for more housing.

Within the WCCTA service area there are five current or planned PDAs. Pinole has designated their historic downtown and the Appian Way corridor as PDAs, Hercules designated the Waterfront area and the Central Hercules district, and the entire San Pablo Avenue corridor is also under this designation. WCCTA staff will continue to coordinate and work with local agency staff to develop projects and ensure that transit's role is defined and understood within the scope of any development work being undertaken.

### **Other Areas of Opportunity**

Opportunities exist for WCCTA staff to assist the local City and County staff in negotiations with developers to ensure transit amenities are included in project scopes. These can be wide ranging; from ensuring adequate right of way for cut outs located at bus stops, to space for bus shelters, real-time signage, benches, and looking into opportunities to encourage transit usage. Such opportunities to encourage transit use could come from the recent MTC Transit Performance Initiative (TPI) that came out of the larger Transit Sustainability Study. The TPI is seeking to fund projects that increase ridership and/ or improve productivity. Other opportunities to encourage ridership could come through public private partnerships, with WCCTA entering into an agreement with either housing, private or commercial opportunities, to offer a pass program to select individuals or organizations.

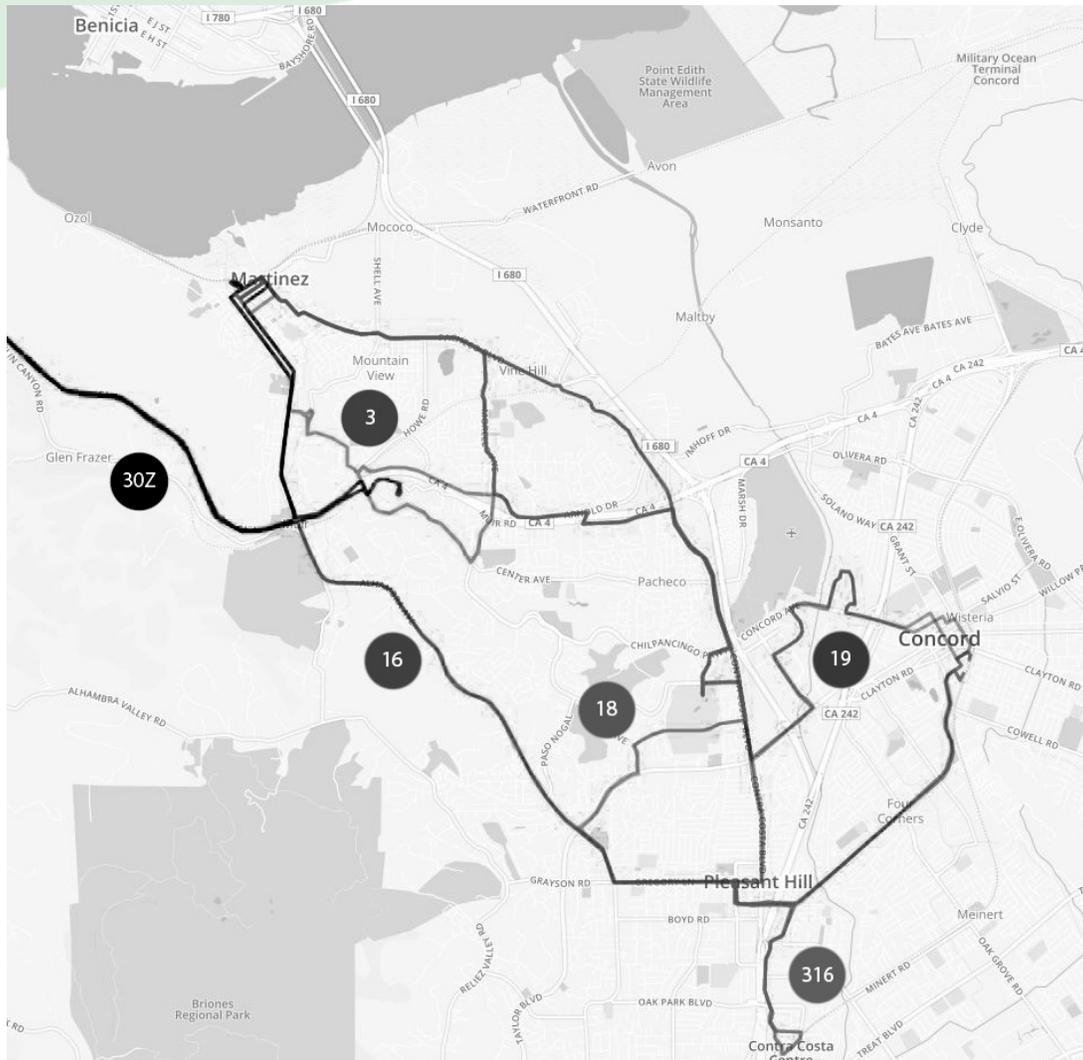
### **Conclusions**

There are numerous unfunded transportation needs in the WCCTA service area and new capital and operating revenues are needed to address them. RM2 is currently providing funds to operate the LYNX, JX, and JPX routes. However, RM2 funds are limited with a low escalation factor that does not fully cover operating costs, therefore additional sources of

funding are vital to maintain the service levels that are currently provided. The low escalation factor does not mirror inflation and makes it difficult for the Authority to fill the gap with available reserves, and to sustain even current service levels without additional revenue. Measure J, on the other hand, includes additional funding for bus transit and express bus service for West County. If sales tax revenues escalate beyond projected levels, some of this revenue may support some of the short term projects outlined earlier. Expansion beyond this into mid-term recommendations and "vision" projects is would require major changes to the way public transit is currently funded, or significant participation from outside agencies or jurisdictions. The "vision" projects have been included because they are often requested; however, because these are likely to have higher ongoing costs and lower passenger volumes, these would clearly require significant additional support before they could be seriously considered for implementation.

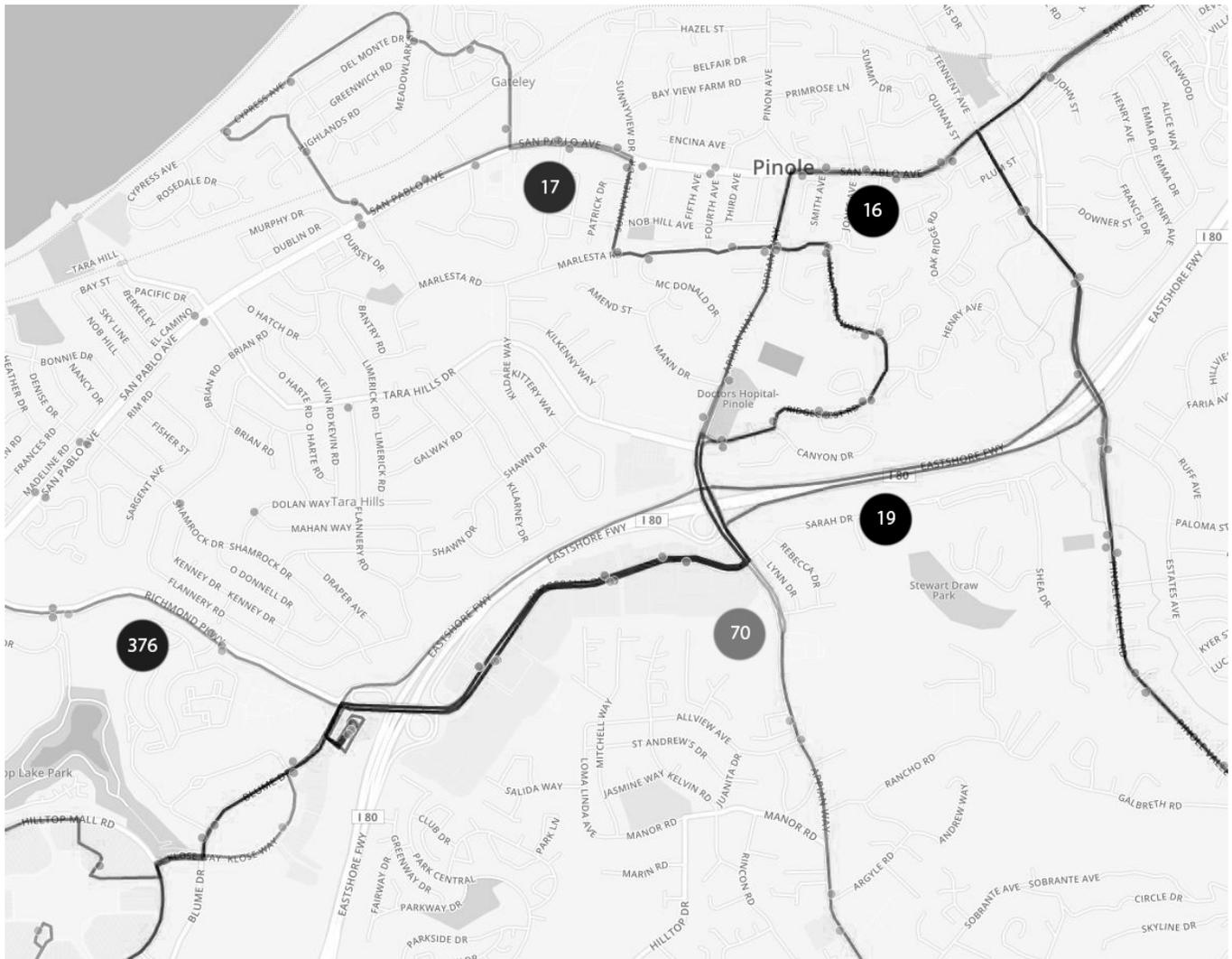
# Appendix A: Connections

## Martinez: Route 30Z to County Connection



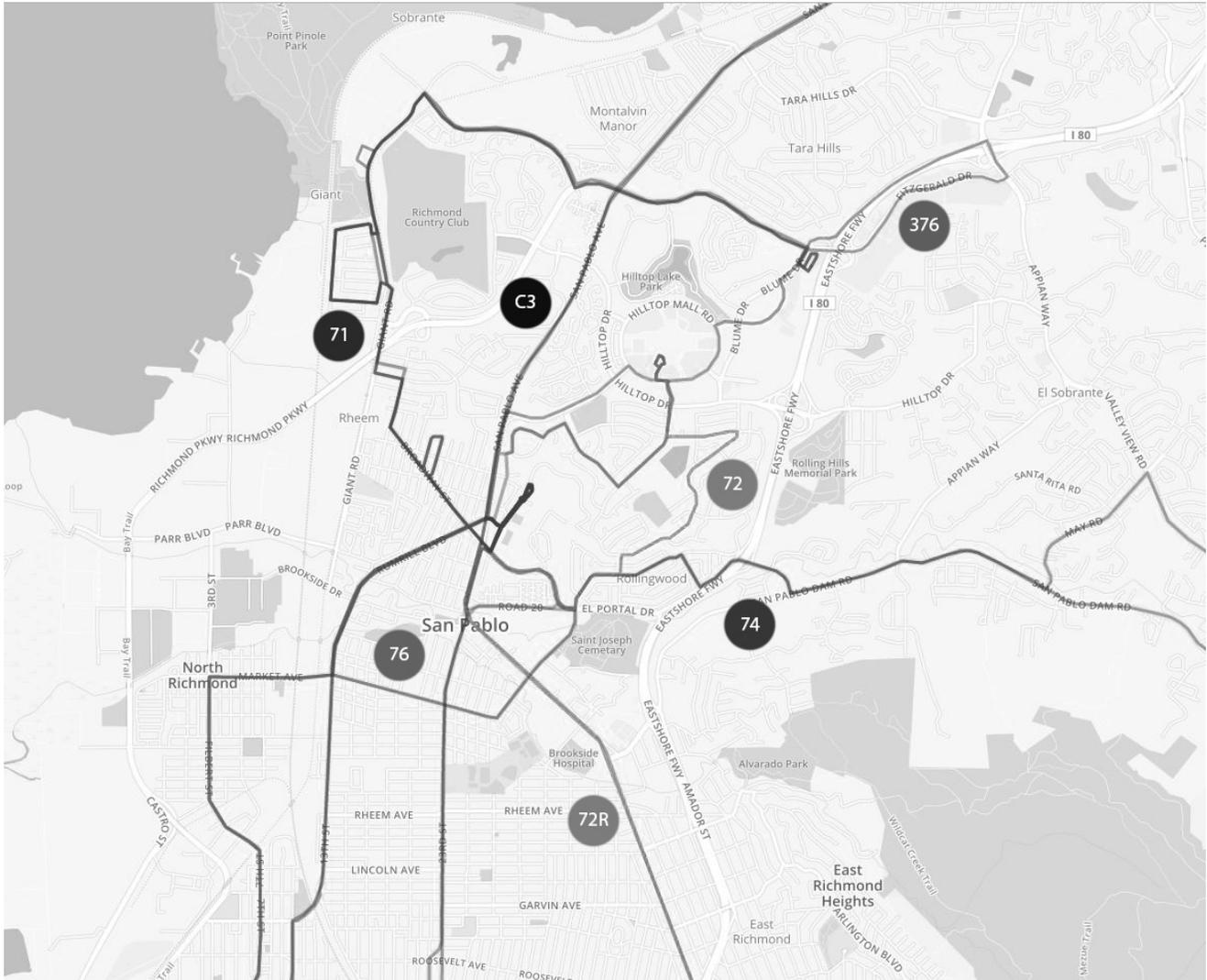
		Headways	Days	Service Times
<b>WestCAT</b>				
<b>30Z</b>	Martinez to Hercules	30-75 Mins	Mon - Fri	6:16 a.m. - 7:40 p.m.
<b>County Connection</b>				
<b>3</b>	Martinez Loop	60 Mins	Mon - Fri	7:00 a.m. - 9:54 p.m.
<b>16</b>	Martinez to Concord BART	40 Mins	Mon - Fri	5:05 a.m. - 11:22 p.m.
<b>18</b>	Martinez to Pleasant Hill BART	80 Mins	Mon - Fri	6:00 a.m. - 9:30 p.m.
<b>19</b>	Martinez to Concord BART	120 Mins	Mon - Fri	6:15 a.m. - 8:00 p.m.
<b>316</b>	Martinez to Pleasant Hill BART	70-150 Mins	<i>Weekend Only: Potential Future Connection</i>	

## El Sobrante: WestCAT to AC Transit at Pinole Vista Center



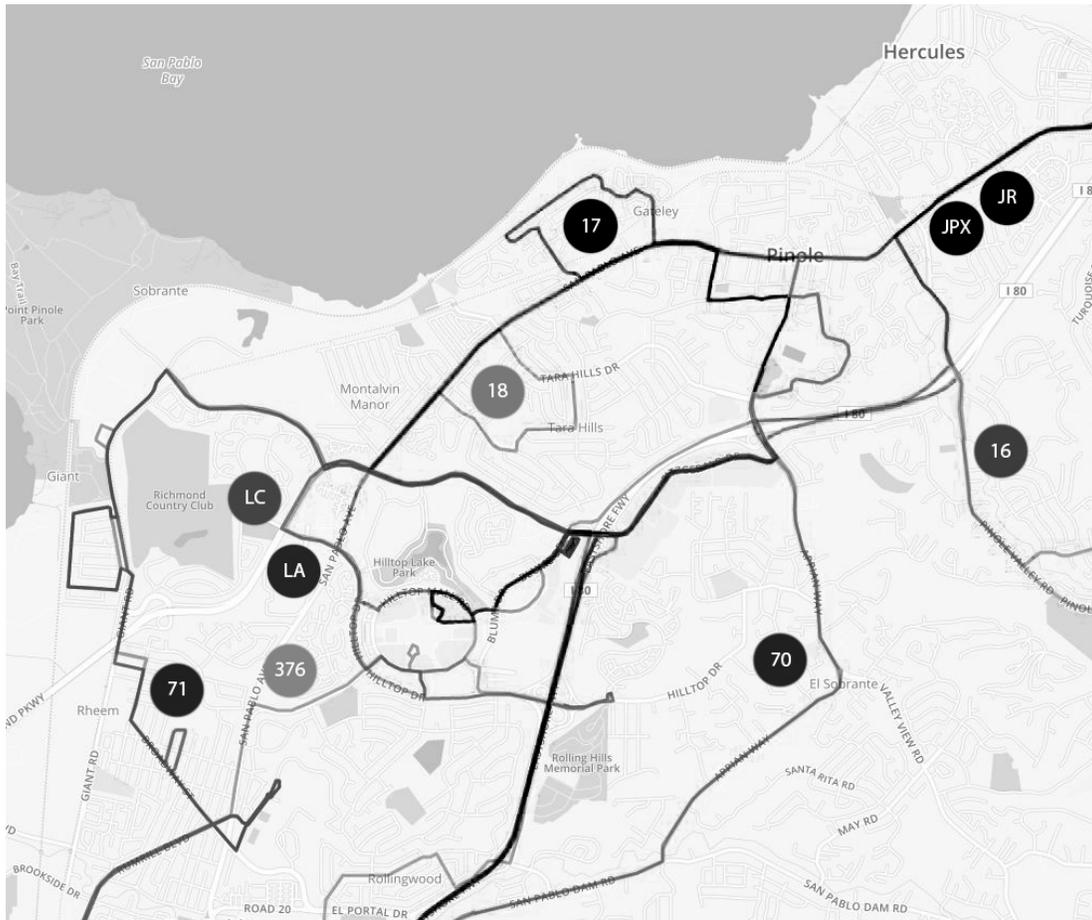
		<b>Headways</b>	<b>Days</b>	<b>Service Times</b>
<b>WestCAT</b>				
<b>16</b>	To Pinole Vista Rd.	30-40 Mins	Mon - Fri	5:05 a.m. - 8:02 p.m.
<b>17</b>	Pinole to Bayview-Montalvin	70-80 Mins	Mon - Fri	6:21 a.m. - 6:33 p.m.
<b>19</b>	Pinole to Hercules Transit Ctr.	30-75 Mins	Saturday	6:16 a.m. - 7:40 p.m.
<b>AC Transit</b>				
<b>70</b>	Pinole to Richmond BART	30-60 Mins	Daily	6:00 a.m. - 9:07 p.m.
<b>376</b>	Pinole to Del Norte BART	30 Mins	Daily	7:51 p.m. - 4:03 a.m.

## San Pablo: C3 to AC Transit at Contra Costa College



		Headways	Days	Service Times
<b>WestCAT</b>				
<b>C3</b>	Hercules to Contra Costa College	60-80 Mins	Mon - Fri	7:30 a.m. - 8:44 p.m.
<b>AC Transit</b>				
<b>71</b>	Richmond to Del Norte BART	30-60 Mins	Daily	5:00 a.m. - 8:43 p.m.
<b>72</b>	Oakland to Point Richmond	30 Mins	Daily	4:45 a.m. - 1:30 a.m.
<b>72R</b>	Oakland to Contra Costa College	12-18 Mins	Daily	6:01 a.m. - 8:23 p.m.
<b>74</b>	Richmond to San Pablo	30-40 Mins	Daily	5:28 a.m. - 10:33 p.m.
<b>76</b>	Richmond to Del Norte BART	30 Mins	Daily	5:27 a.m. - 9:10 p.m.
<b>376</b>	Pinole to Del Norte BART	30 Mins	Daily	7:51 p.m. - 4:03 a.m.

## Richmond: Richmond Parkway Transit Center



		Headways	Days	Service Times
<b>WestCAT</b>				
<b>JR</b>	Hercules to El Cerrito	30-100 Mins	Daily	4:34 a.m. - 12:32 a.m.
<b>JPX</b>	Hercules to El Cerrito	15-90 Mins	Mon - Fri	5:20 a.m. - 8:10 p.m.
<b>16</b>	To Pinole Vista Rd.	30-40 Mins	Mon - Fri	5:05 a.m. - 8:02 p.m.
<b>17</b>	Pinole to Bayview-Montalvin	70-80 Mins	Mon - Fri	6:21 a.m. - 6:33 p.m.
<b>18</b>	Tara Hills to Richmond	70 Mins	Mon - Fri	6:03 a.m. - 6:33 p.m.
<b>AC Transit</b>				
<b>70</b>	RPTC to Richmond BART	30-60 Mins	Daily	6:00 a.m. - 8:47 p.m.
<b>71</b>	Richmond to Del Norte BART	30-60 Mins	Daily	5:00 a.m. - 8:43 p.m.
<b>76</b>	Richmond to Del Norte BART	30 Mins	Daily	5:27 a.m. - 9:10 p.m.
<b>376</b>	Pinole to Del Norte BART	30 Mins	Daily	7:51 p.m. - 4:03 a.m.
<b>LA</b>	Richmond to San Francisco	20-30 Mins	Mon - Fri	A.M. and P.M. Commute Peaks
<b>LC</b>	Martinez to Concord BART	15-40 Mins	Mon - Fri	A.M. and P.M. Commute Peaks



		<b>Headways</b>	<b>Days</b>	<b>Service Times</b>
<b>WestCAT</b>				
<b>JL</b>	Hercules to El Cerrito	30-60 Mins	Daily	4:39 a.m. - 10:34 p.m.
<b>JR</b>	Hercules to El Cerrito	30-100 Mins	Daily	4:34 a.m. - 12:32 a.m.
<b>JX</b>	Hercules to El Cerrito	15 Mins	Mon - Fri	5:20 a.m. - 8:10 p.m.
<b>JPX</b>	Hercules to El Cerrito	15-90 Mins	Mon - Fri	5:27 a.m. - 8:08 p.m.
<b>AC Transit</b>				
<b>7</b>	Del Norte BART to Berkeley BART	30 Mins	Daily	5:45 a.m. - 8:50 p.m.
<b>72</b>	Oakland to Point Richmond	30 Mins	Daily	4:45 a.m. - 1:30 a.m.
<b>72M</b>	Oakland to Point Richmond	30-42 Mins	Daily	4:45 a.m. - 12:27 a.m.
<b>72R</b>	Oakland to Contra Costa College	12-18 Mins	Daily	6:01 a.m. - 8:23 p.m.
<b>76</b>	Richmond to Del Norte BART	30 Mins	Daily	5:27 a.m. - 9:10 p.m.
<b>376</b>	Pinole to Del Norte BART	30 Mins	Daily	7:51 p.m. - 4:03 a.m.
<b>800</b>	Richmond BART to San Francisco	20-60 Mins	Daily	12:40 a.m. - 8:15 a.m.
<b>FAST Transit</b>				
<b>90</b>	Del Norte BART to Fairfield	10-60 Mins	Mon - Sat	4:12 a.m. - 8:10 p.m.
<b>Golden Gate Transit</b>				
<b>40</b>	Del Norte BART to San Rafael	25-60 Mins	Daily	5:30 a.m. 11:25 p.m.
<b>Napa Vine</b>				
<b>29</b>	Del Norte BART to Calistoga	30-60 Mins	Mon - Fri	4:43 a.m. - 7:27 p.m.
<b>SolTrans</b>				
<b>80</b>	Del Norte BART to Vallejo	10-30 Mins	Daily	4:15 a.m. - 11:53 p.m.

# Appendix B: 2014 Survey Excerpt

## WestCAT 2014 On Board Survey

### Background & Methodology

The Western Contra Costa Transit Authority (WestCAT) seeks to periodically learn about its customers and their travel patterns as well as to identify the most popular potential service modifications in order to meet customer needs, increase ridership, and maximize productivity. The robust data from this 2014 On Board Survey will assist WestCAT in the optimal allocation of limited resources, in order to best meet the dynamic needs of the ridership.

### Methodology

WestCAT enlisted the services of TMTP Consulting to conduct an on-board survey of WestCAT riders over a four day period in late September, 2014. A crew of four surveyors were deployed over the entire WestCAT service span over three weekdays (Wed-Fri, September 24-26) and a reduced crew of 2 surveyed the limited Saturday routes on September 27.

Surveys were obtained on the ground at the Hercules Transit Center (HTC), and to a lesser extent at El Cerrito BART and the Richmond Transit Center, and on board buses in revenue service with the goal of obtaining completed surveys from the full spectrum of WestCAT fixed route patrons. The survey plan ensured that all routes were ridden and surveys collected to ensure participation from the entire market spectrum that comprises WestCAT customers.

Due to the nature of the services, a high volume of completed surveys was rather easily obtained from Lynx customers, who in the mornings line up for several minutes at the HTC and were inclined to participate, either while waiting or during their express trips into San Francisco. Likewise, a strong number of surveys were obtained by on-board surveyors riding along with WestCAT's popular JX and JPX express buses between HTC and El Cerrito BART. Obtaining a representative amount of surveys from WestCAT's lesser-ridden local buses was a bit more challenging, but through the sustained efforts of the survey crews, a large amount of completed surveys was eventually obtained from the local route customers.

The survey instrument was crafted by WestCAT and featured a two-sided, legal sized paper survey, bi-lingual (English one side, Spanish the other) and color coded by type of route:

- Green for Lynx
- Blue for Express Bus BART Services
- Pink for Local routes and Regional services such as C3 and 30Z

## Survey Results

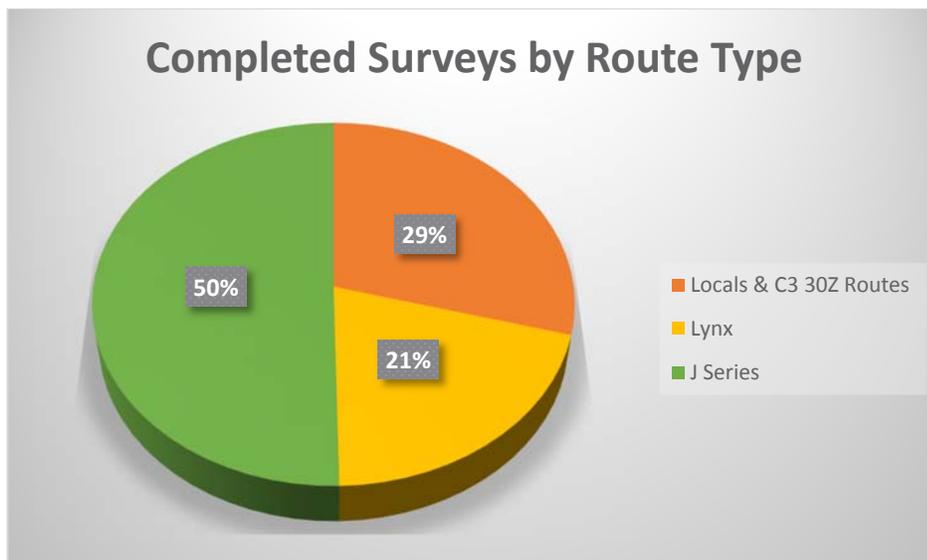
### *Spanish Language Respondents*

Of the 732 completed and partially completed surveys, only 12 utilized the Spanish language side of the survey. This 1.64% response rate to the written Spanish option was lower than anticipated. The survey crew employed a fluent Spanish speaker on both Friday and Saturday of the survey. In addition, other crew members spoke some Spanish, so it is unclear why such a low percentage of respondents chose to complete the Spanish side of the survey. It should be noted however that Question 19 asks the customer for their “primary language” and a total of 30 indicated that Spanish was their primary language, although many completed the English side of the survey, indicating possible bi-lingual Spanish/English customers.

### *Respondents by Route Type*

Of the 732 completed and partially completed surveys, the general response breakdown was:

- Blue (Express Bus, including J, JX, JPX) = 365 (49.9%)
- Pink (Local Routes, including C3 & 30Z) = 212 (29.0%)
- Green (Lynx Service) = 148 (20.2%)



### *Question 1: Open Ended “What is the one thing WestCAT should do?”*

Question 1 asks: What is the ONE thing that WestCAT could do to improve your experience on our system?” Predictably, a wide variety of responses were obtained, and a list is included in Appendix B of this report. Some of the most frequent responses to Question 1 focused on improved frequencies, better schedule adherence, later hours, more weekend service, and Clipper card acceptance. There were also many mentions of improving the wifi on Lynx.

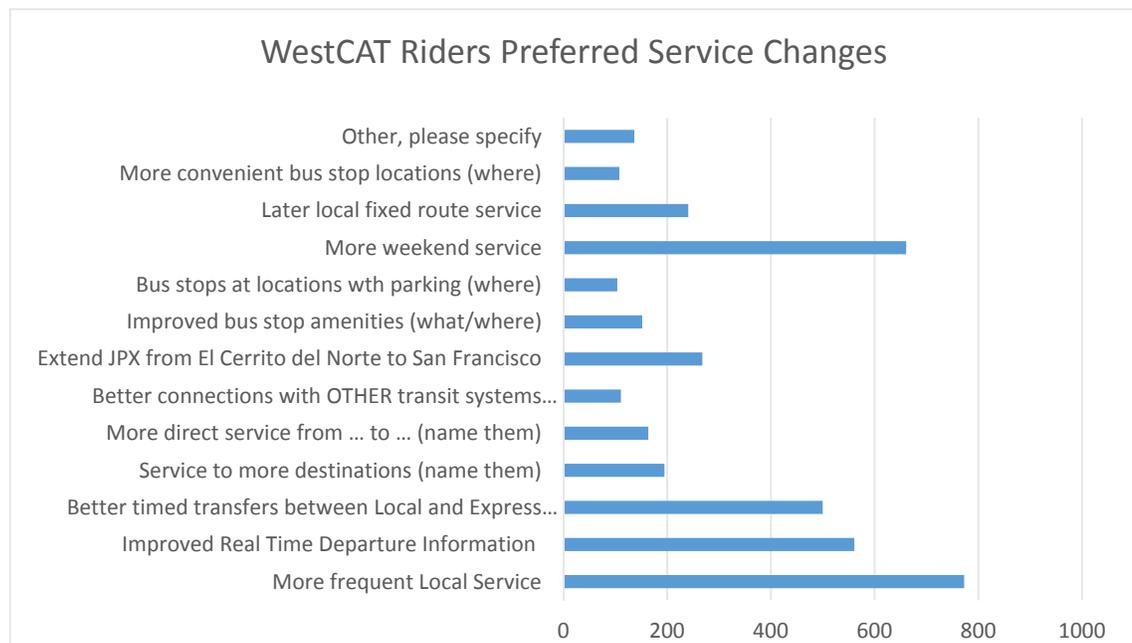
WestCAT  
2014 On Board Customer Survey

*Question 2: If WestCAT is able to make changes, what are your top 3 choices?"*

As mentioned earlier in the methodology and data entry narrative, this key question required some data standardization and scrubbing, but leads to the most robust data in the survey. Of the 732 completed and partially completed surveys, the most popular service improvements as identified by the riders in the 2014 On Board surveys are:

- More Frequent Local Service = 773 (1.056)
- More Weekend Service = 661 (0.903)
- Improved Real Time Departure Info = 561 (0.766)
- Better Timed Transfers Local to/from Express = 500 (0.683)
- Extend the JPX to San Francisco (from BART) = 268 (0.366)
- Later Local Fixed Route Service = 241 (0.329)
- Service to More Destinations = 195 (0.266)
- More Direct Service to/from Destinations = 164 (0.224)
- Improved Bus Stop Amenities = 152 (0.208)
- Other = 137 (0.187)
- Better Connections with OTHER Transit Systems = 111 (0.152)
- More Convenient Bus Stops = 108 (0.148)
- More Bus Stops at Locations with Parking = 104 (0.142)

Total points assigned to each improvement, divided by total responses (x/732). For more information on the methodology of the scoring on this question, please see Appendix A.



The fact that WestCAT respondents are desiring better local and weekend service comes as no surprise in the aftermath of the deep service cuts endured in recent years as WestCAT sought to survive the reduced operations funding that occurred as a direct result of the economic recession of 2006-2009 (Great Recession). Most current weekday Local Route service is on 45- minute frequencies, which is below what Bay Area bus riders would prefer. Weekend service is extremely thin, with a dramatically lower amount of buses serving on weekends, so the request for more weekend services on a wide variety of routes is not surprising. Also, the number 4 priority request, better connectivity between local and express routes is a direct reflection of the aforementioned disparity in service level between the robustly served express bus products (Lynx, Express Bus) and the infrequent offerings of the local routes.

One note to consider is that the request for better weekend service came resoundingly from all route type respondents, not just Local Route riders. Many Lynx patrons requested weekend Lynx, as well as a strong level of requests for more weekend service from the Express Bus, including JPX, and a noticeable amount of requests for weekend 30Z service to/from Martinez.

#### Surprises

Puzzling was the potential extension of JPX service from its current terminus at El Cerrito BART to San Francisco ranking only as 5<sup>th</sup> highest in popularity. The modest ranking makes little sense, especially when so many surveys were completed by Express Bus and Lynx riders. This project would act to nearly double the wildly popular Lynx service, and open it up to Pinole-based riders. Confusion and perhaps a lack of understanding of how this project would effectively increase Lynx service (which most want) seems likely among respondents. It might be worthwhile for WestCAT to conduct further research and/or rider education on this topic.

The fact that riders were quite interested in, and frustrated by the struggles of the current WestCAT real-time information system was enlightening. This is a reflection of the youthful, and tech-savvy nature of the WestCAT rider base. There may be a need for more marketing and rider education on how to fully utilize the current real-time information system.

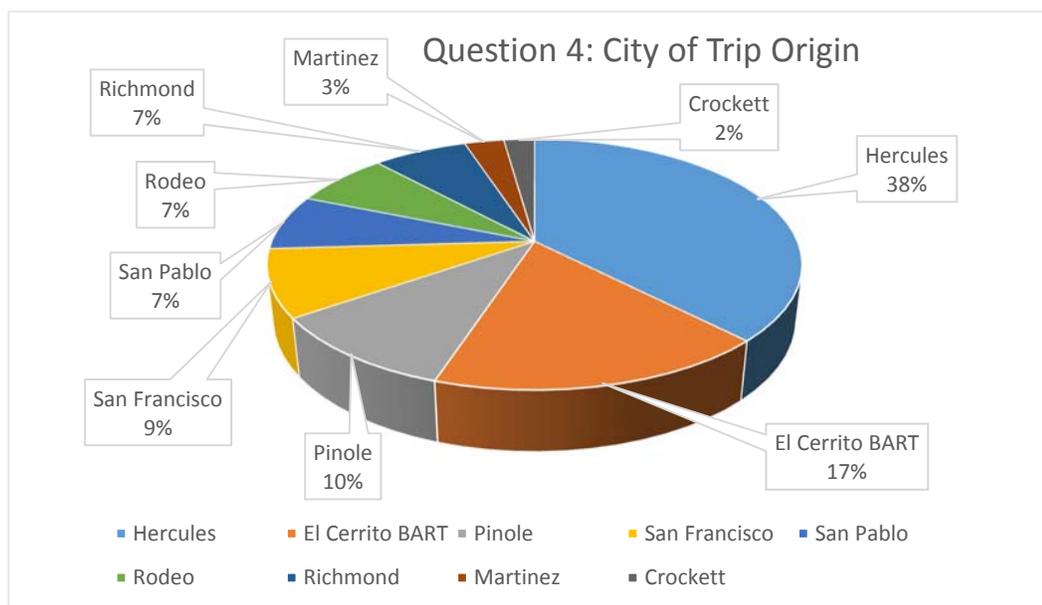
It was also a bit surprising the lack of interest in improved bus stop amenities. While comments surfaced in the open ended questions regarding better shelter and security, mostly at HTC (Hercules Transit Center), this one scored unusually low. The question seeking input on locating additional park and ride opportunities also scored poorly, suggesting that the ample parking at HTC is adequate for the current Lynx and JX/JPX clientele. This could become more of an issue should the JPX extension into San Francisco draw attention to the needs for a transit hub with parking in the Pinole area, or as the last available parking fills at HTC. There were also several negative comments about having to pay for parking at HTC, seeking locations where WestCAT could potentially offer free parking.

*Question 3: Open Ended “What aspects of WestCAT service do you value most, and would not want to see changed?”*

Question 3 asks what riders most appreciate about WestCAT and that should be protected into the future. Although responses varied widely, the most common theme was a loyalty and appreciation of the WestCAT bus operators, who were widely praised for friendliness and professionalism. To view the wide variety of responses that were obtained, please refer to a list included in Appendix C of this report.

*Question 4: Where did you start this trip?”*

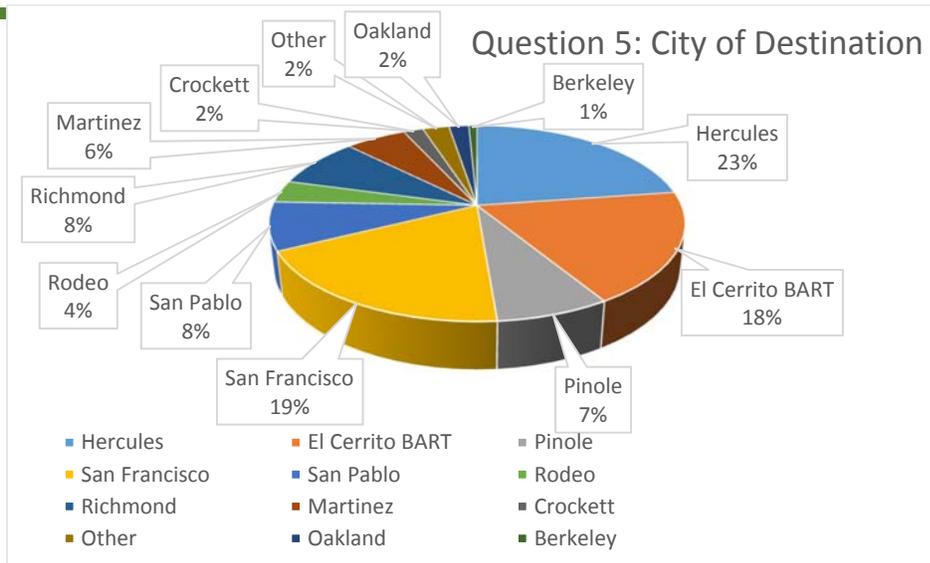
While the intersection level detail was too dispersed to summarize here, a tally of cities is presented here:



Question 4 shows the strong preponderance of Hercules based ridership, especially in comparison to the other communities in the WestCAT service area. Also, it indicates that there is likely room for market growth in the other service area communities, such as Crockett, Rodeo, and Pinole, most of which feature good “transit demographics” and none of which are served by other transit agencies.

*Question 5: Where will you end this trip?”*

While the intersection level detail was too dispersed to summarize here, a tally of cities is presented here:

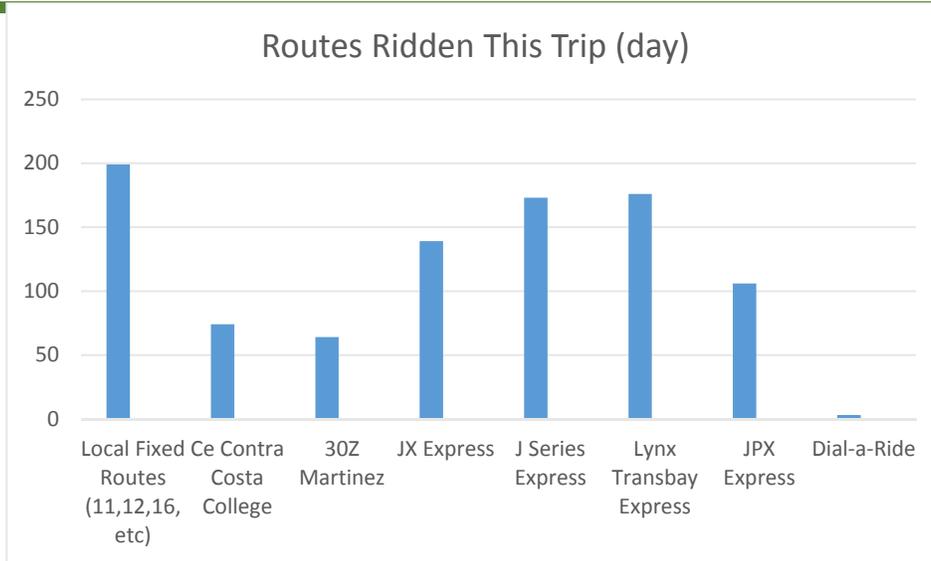


Question 5 shows the wide variety of destination cities. This is a reflection of the region’s dispersed employment and education options, as well as potentially a higher percentage of surveys obtained during the daytime hours, as opposed to the evenings and afternoon commutes. It also may indicate the overall lack of local employment opportunities within the WestCAT service area, showing how the area serves as a bedroom community to the greater East Bay and San Francisco. Still, the comparatively high amount of Hercules-bound travelers compared to other WestCAT member jurisdictions is significant.

*Question 6: Which WestCAT routes will you be using on this trip?”*

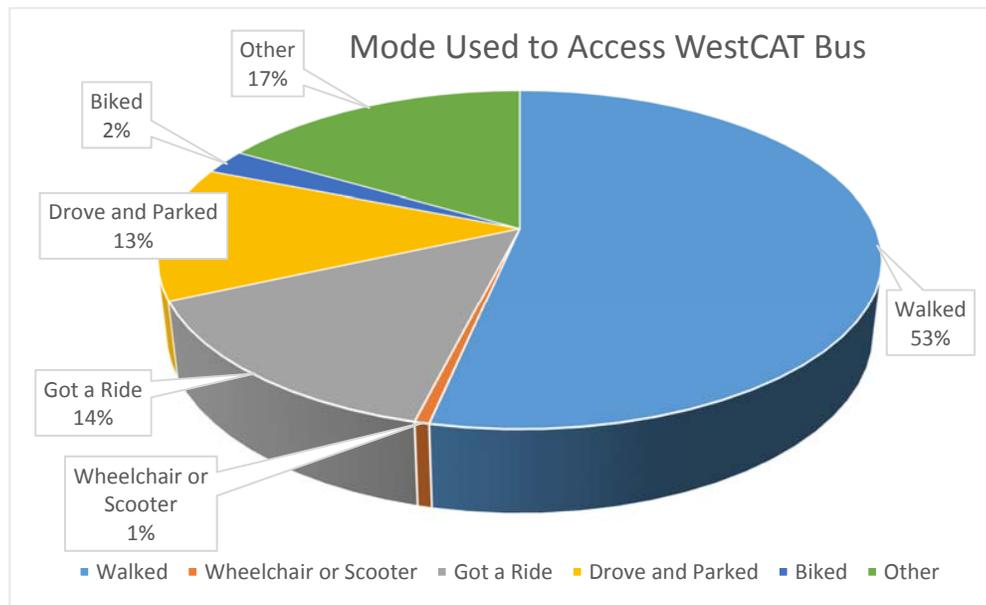
During data entry it began to appear that many riders interpreted this question to mean “what routes will you use today in total” or “what routes do you use the most”. Due to the nature of this question, multiple answers were accepted and were the norm, especially among non-Lynx passengers. The questions results are shown here:

WestCAT  
2014 On Board Customer Survey



*Question 7: "How did you get from where you started this trip to the bus stop?"*

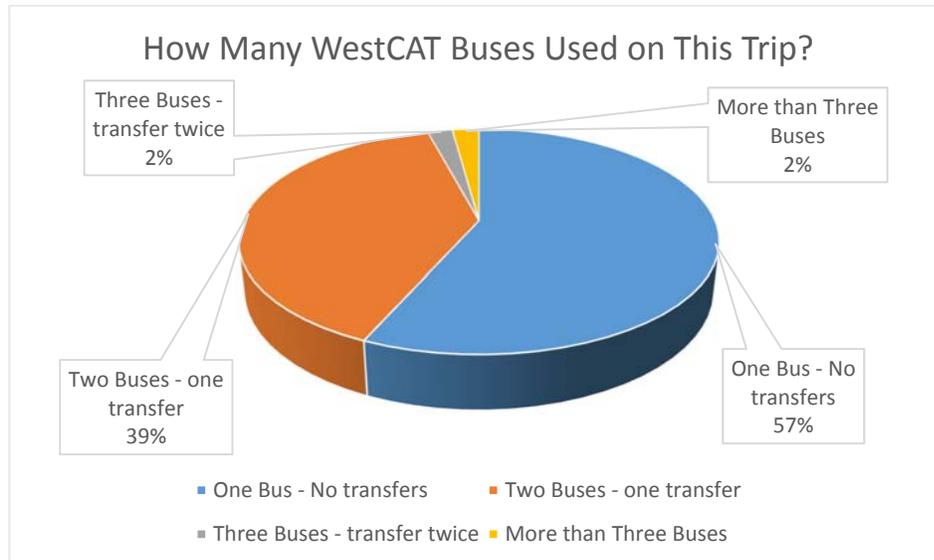
During data entry it was noted that a notable percentage seemed to include "bus" in the other selection option. Other than that, the access mode data was pretty clean:



With a significant portion of the "other" selections hand writing the word "bus" one could safely assume that the walking mode share is even higher than shown here. Most of the "drove and parked" responses were from users of Lynx and JX/JPX routes. A surprisingly low percentage of biking and mobility device users were encountered during the survey.

*Question 8: "How many WestCAT buses will you use to complete this one-way trip?"*

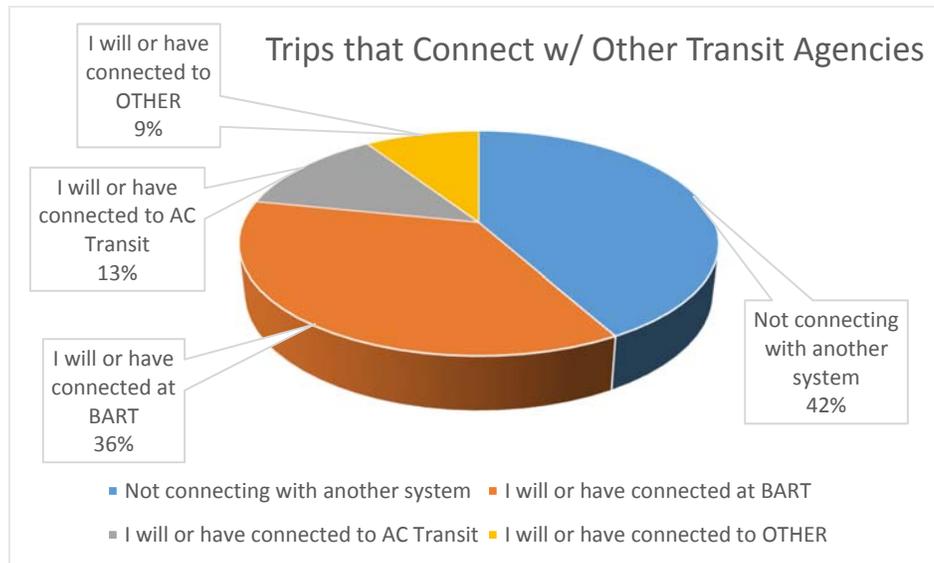
No obvious confusion was noted on this question.



The relatively low amount of bus-to-bus transferring WITHIN WestCAT may be evidence of the underutilization of WestCAT local routes as a mode of feeding into the higher-productive express services. In addition, the long and transit-supportive San Pablo Blvd corridor means that many trips that are "local" in nature actually wholly occur on the Express Bus, thus artificially lowering the ridership attributed to the Locals.

*Question 9: "On today's trip, are you using WestCAT to connect with another transit system, and if so, which one?"*

During data entry it was noted that a sizable number of patrons either didn't understand that BART is another transit system, or didn't consider BART in their answers. This manifested itself in several respondents filling in "El Cerrito BART" as part of their origin/destination pairs (in questions 4 and 5) but then NOT checking the choice for "I will connect or have connected with BART". In this obvious case of confusion, data entry corrected the choice to "will/have connected with BART". There is likely some percent of these "El Cerrito BART" connecting passengers that may actually be connecting with AC Transit (or other bus systems) at this multi-modal transit hub. For the simplicity of data entry, and when not otherwise noted by the respondent, data entry coded the trip to BART. Other than that, the connection with other transit agency data was pretty clean:



The data shows what WestCAT surely is aware of, that its Lynx riders generally have less need to transfer to other systems. This contrasts with Express Bus riders who by nature feed into, and most often utilize BART for part of their travels. A decent amount of Lynx riders do use SF MUNI for their last mile travels, and a noticeable number of reverse commuters live in the SF/Oakland areas and travel out to WestCAT for employment and recreational trips.

*Question 10: "About how many minutes does it take you to get from home to the nearest WestCAT bus stop, in minutes?"*

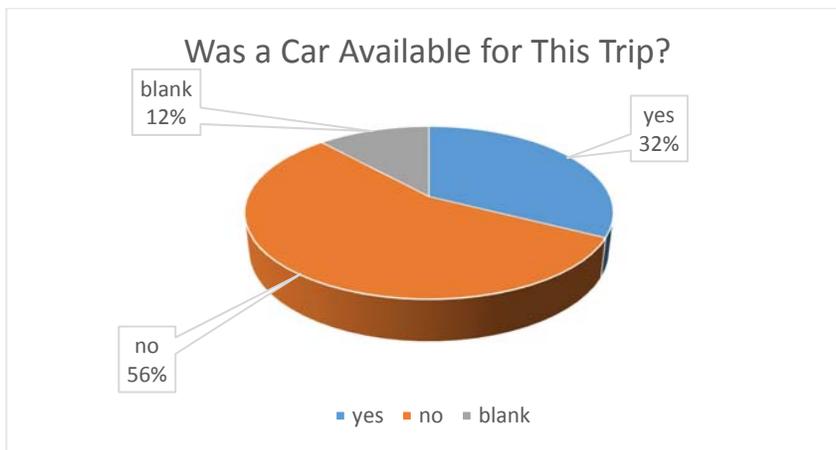
During data entry it was noted that this question had many blank responses, and a very wide spectrum of answers. It seems as if riders were unclear if this referred to walking time or driving time. The data was tabulated and a mean average rendered, with non-responses excluded to maintain data integrity for those who did provide the information.

Distance to nearest WestCAT bus stop (in minutes)	
Responses	588
Mean (Average)	13.1
Median (middle of 588 responses)	8.0
Spread (range of responses)	0, 120

From these responses, it appears that WestCAT does a good job of placing its services near to most of its riders, as very few indicated a long travel time to reach the bus. It was unclear as to how many respondents provided their automobile driving times instead of walking times. Several of the outlier replies indicated that passengers were walking across the Carquinez Bridge to access WestCAT from nearby Vallejo. Others indicated accessing the system from points east such as Concord.

*Question 11: “Was a car or other vehicle (truck, motorcycle, etc.) available for you to drive instead of using WestCAT for this trip?”*

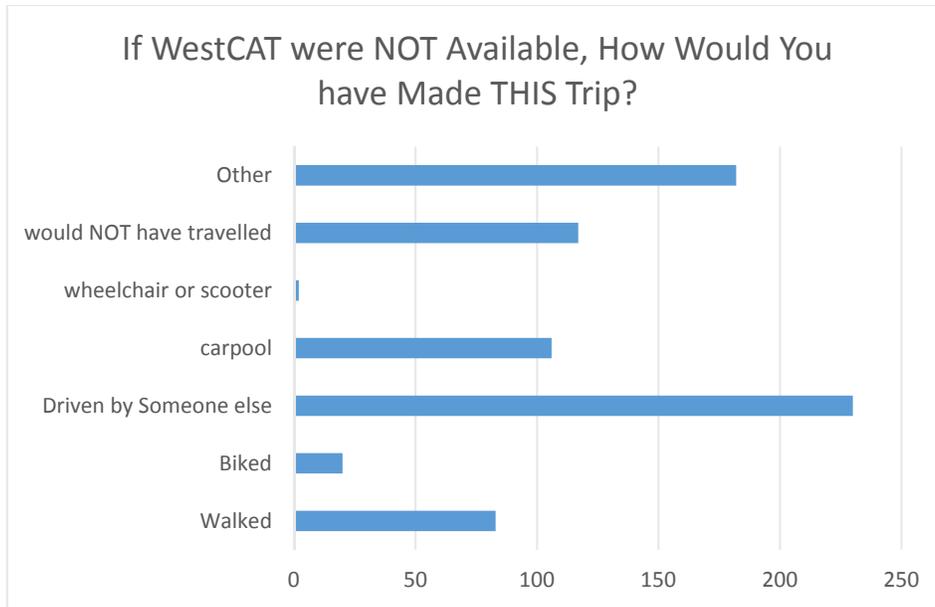
No confusion was noted during data entry.



This question highlights the high level of choice riders (those that have access to a car and choose to use transit instead) that WestCAT enjoys, mainly on its Lynx and JX/JPX services.

*Question 12: “If WestCAT was not available, how would you have made THIS trip?”*

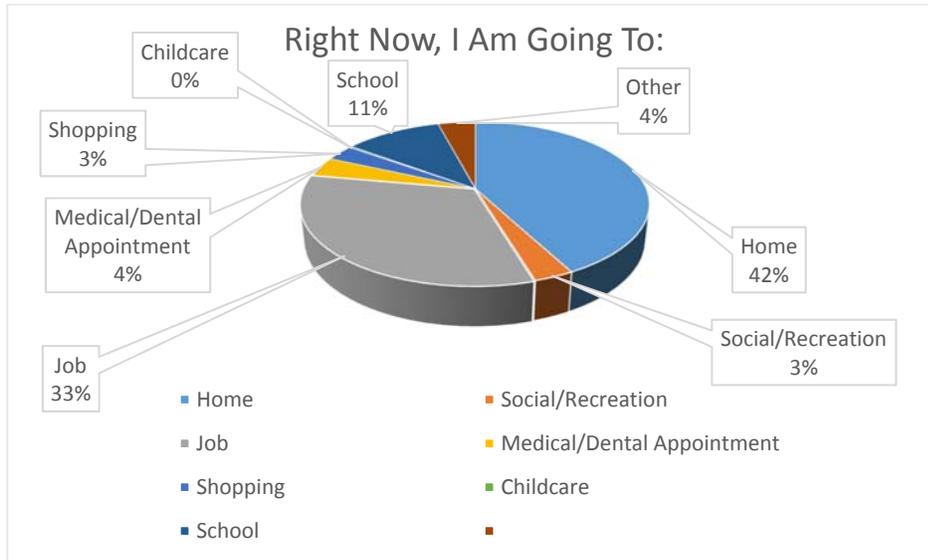
No confusion was noted during data entry.



The other category was dominated by answers relating to driving themselves, either all the way to their destinations, or at least to BART. These 180 or so riders have easy access to cars. This question illuminates the fact that WestCAT is doing a great job reducing auto travel in the I-80 Corridor and without WestCAT, traffic would increase as more bus riders would take to single-occupant vehicle travel, or at least share a ride with a friend or family member, often at an inconvenience. Nearly 200 total respondents either would not have travelled, or would have had to walk, representing the transit dependent bloc, corresponding well to the large (over 60%) amount of “no” answers to Question 11 about car availability.

Question 13: "Right now, I am going to.....?"

No confusion was noted during data entry.



This chart shows trip purpose, and shows the hardworking nature of WestCAT riders, with the supermajority of trips being for work or school. Setting aside the "home" trips (which could have started as any type of trip), the remaining trips break out as follows:

Question 13: Trip Purpose	% of "non-home" Responses
Work/Job	56.9%
School/College	19.0%
Medical/Dental Appt.	6.9%
Social & Recreational	5.2%
Shopping/Errands	5.2%

The amount of non-work, non-school trip taking is oddly low, especially considering the low cash fares for seniors and the disabled, and low cost 31-day passes for all demographics. These value-laden unlimited ride passes elsewhere lead to heavy recreational and shopping usage by the transit dependent members of the rider base. WestCAT extends its low fares to all its Express Bus buses, including the true express services JX and JPX, which is a great value for its customers.

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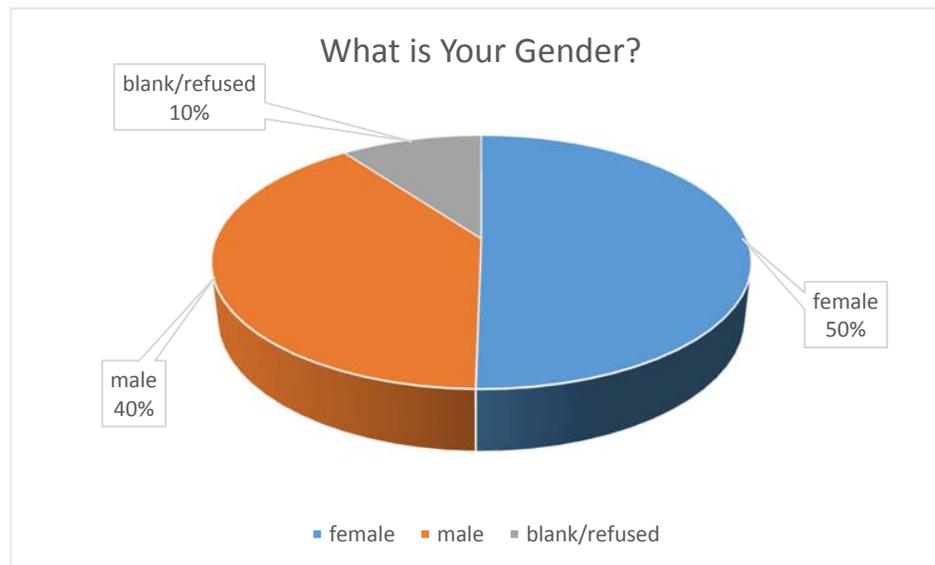
*Question 14: “What year were you born?”*

This question did lead to significant confusion, as a significant number of respondents felt compelled to provide WestCAT with their places of birth, rather than year. Blank responses and places of birth were excluded from the data, then a mean average was calculated based upon the numerical years provided by the riders:

Year of Birth (Age) of WestCAT Survey Respondents	Year	Age
Responses	538	538
Mean (Average)	1975	39
Median (middle of 538 responses)	1978	36
Spread (lowest of responses)	1920	94
Spread (highest of responses)	2002	12

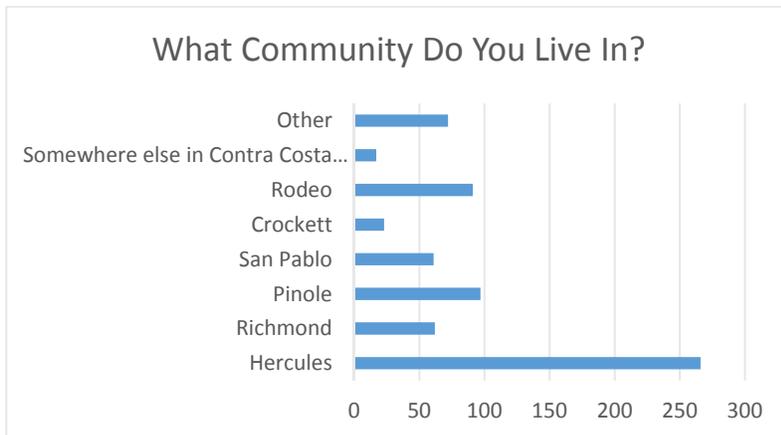
*Question 15: “What is your gender?”*

No confusion was noted during data entry. WestCAT riders seem to be slightly more than half female, which is consistent with transit patronage nationwide in the USA.



*Question 16: “What community do you live in?”*

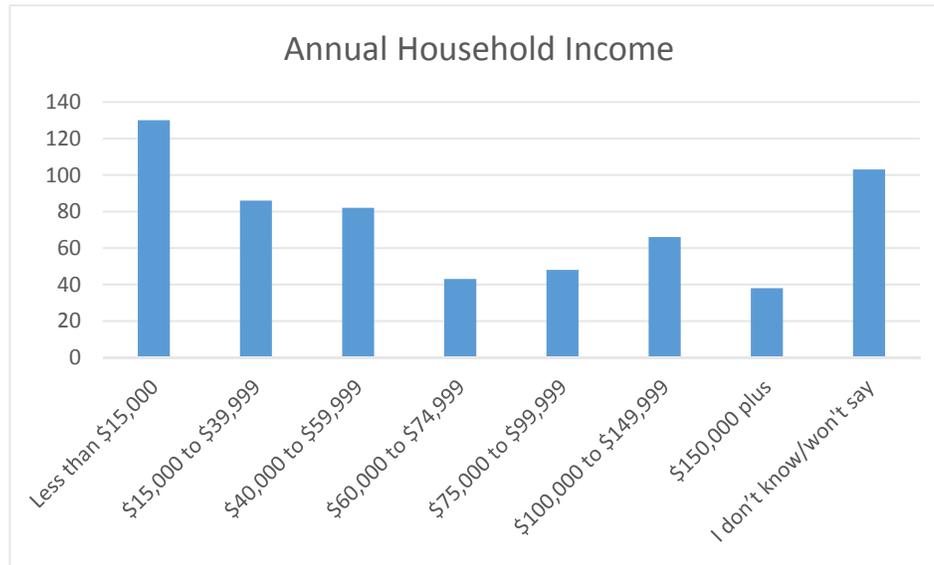
The only confusion noted during data entry was a number of passengers checked more than one city, which was not expected. This is most likely due to split residences and staying with family and friends for periods of time. As mentioned before, this question highlights the remarkable success WestCAT has enjoyed growing its Hercules ridership base.



The “other” selection accounted for approximately 70 responses, and the gamut of places of residence included significant numbers of San Franciscans, Martinez (should have selected “somewhere else in Contra Costa County” but didn’t), Oakland, Berkeley, and Vallejo.

*Question 17: “What is your total annual household income?”*

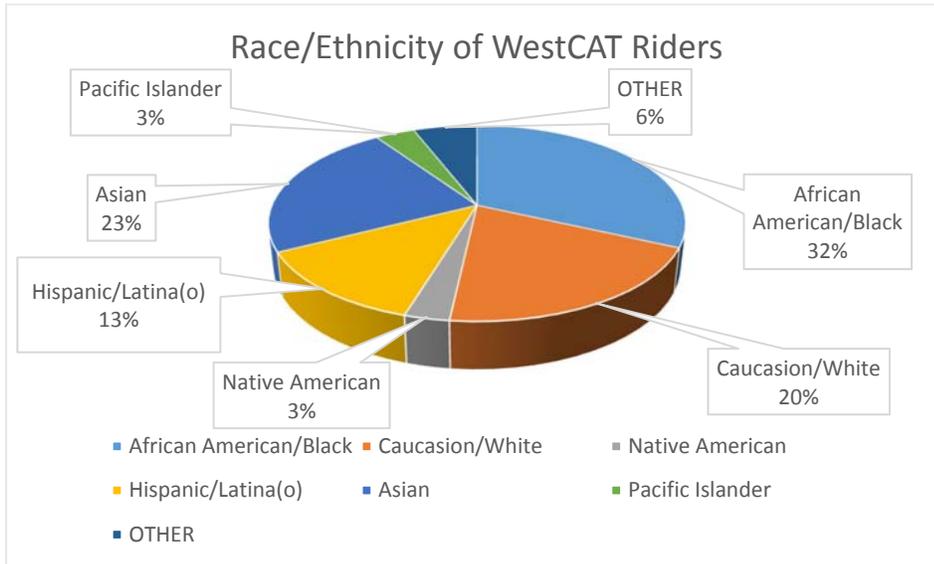
This question not surprisingly rendered the most blank responses, and combined with “I don’t Know’ left only 596 (actually 493, as 103 didn’t know or wouldn’t say) total responses.



Nearly 300 of the 493 actual responses that gave a strata of income fall into a “low-income” category (household annual income under \$60,000) especially considering the extremely high cost of living in the Bay Area, especially housing costs. Just under 100 responses (about 20%) indicated household annual incomes in the \$60,000-\$99,999 range, what would likely be classified as middle class by Bay Area standards. The same 20% percent range of riders indicated an annual household income of over \$100,000. These riders clearly can afford to drive everywhere they need to go, but these critical thinkers are choosing to utilize WestCAT as a more efficient use of time. Many of these higher income patrons are using Lynx and JX/JPX to better optimize their commute times and avoid bridge tolls and high parking costs.

*Question 18: "Do you consider yourself to be... check all that apply?"*

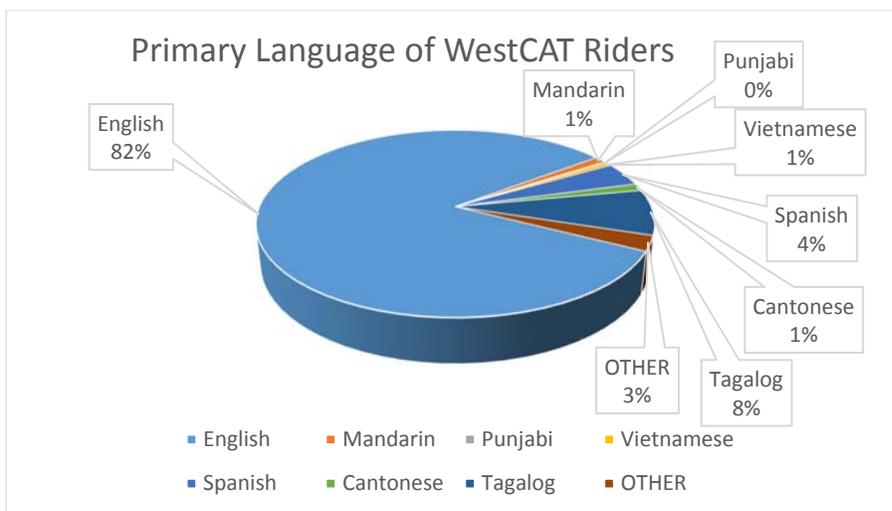
This question sought the race/ethnicity of the WestCAT riders. This question also got a significant number of blank/refused to say responses, and a few snarky comments.



The chart speaks for itself and highlights the diversity of the WestCAT customer base. It also sheds light on the challenges of marketing and communications with such a diverse group. Luckily, most passengers speak English, even if it's a second language (based upon the very low participation in the Spanish Language side of the survey itself).

*Question 19: "What is your primary language?"*

This question sought the first or primary language of the WestCAT riders.

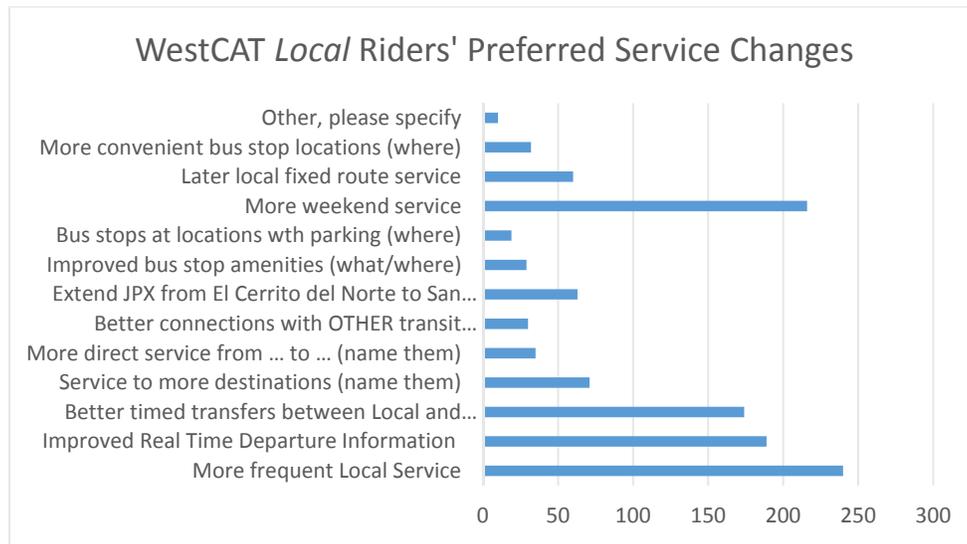


### Segment Specific Data

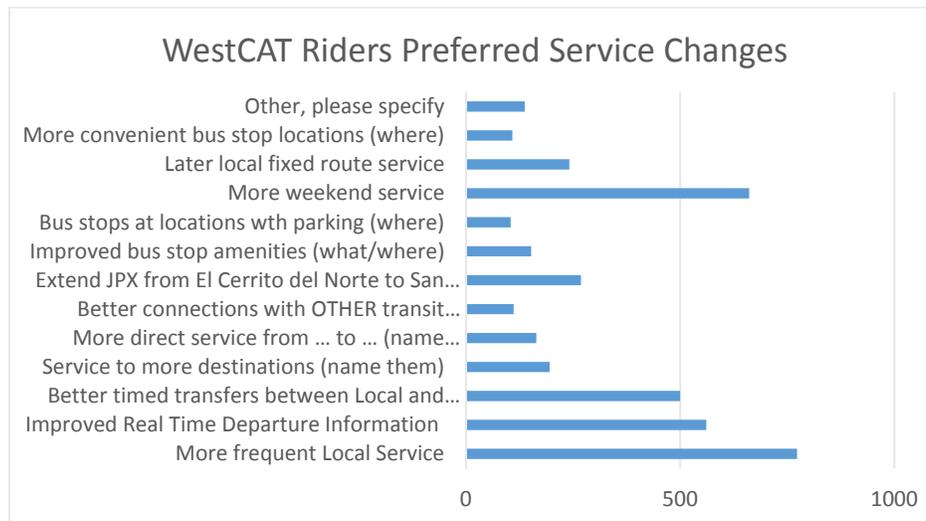
The Western Contra Costa Transit Authority (WestCAT) interested in how specific customer segments compare to the overall rider population in various questions.

#### Local Route Riders

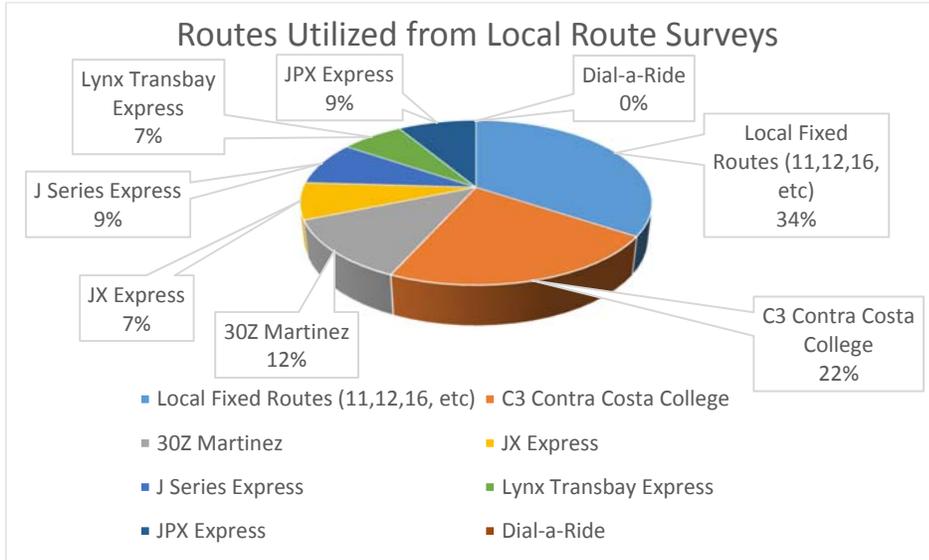
WestCAT's local riders provided answers to the series of questions about what WestCAT could do to improve the service for them:



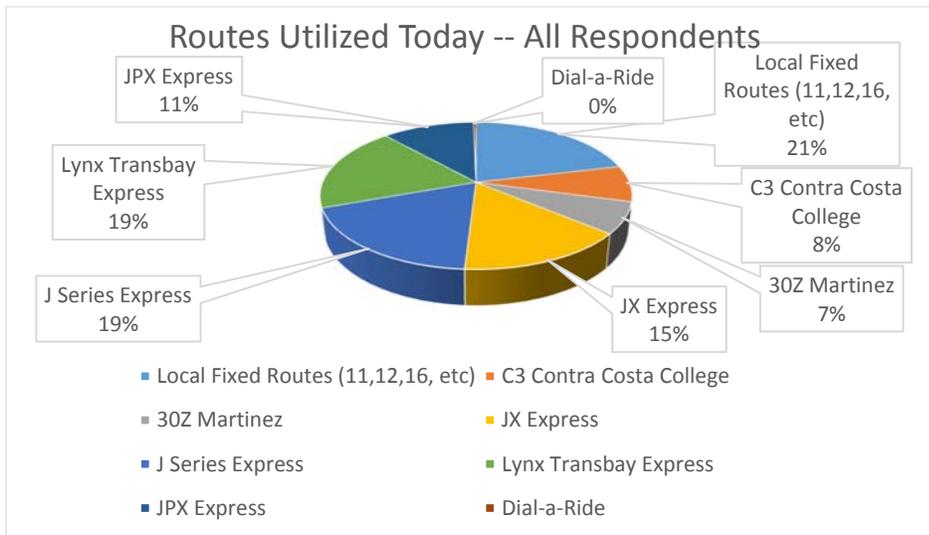
As compared to all WestCAT riders, the responses are eerily similar:



Next, we identify the mix of routes utilized by WestCAT patrons that filled out a “Local Route” pink survey, as opposed to the overall mix of routes utilized by all survey respondents:



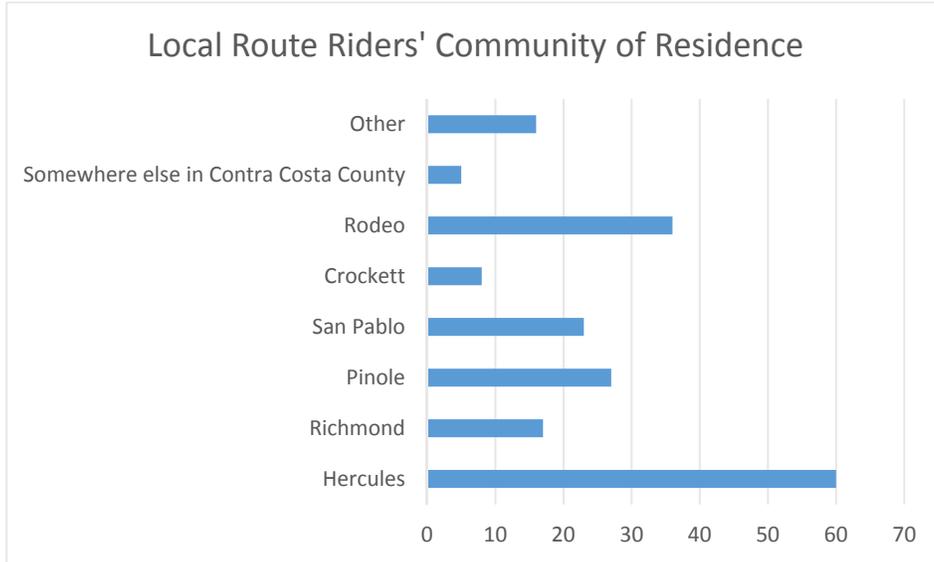
For the sake of the survey, Local Routes included C3 and 30Z. The below shows the cumulative response for all passengers surveyed:



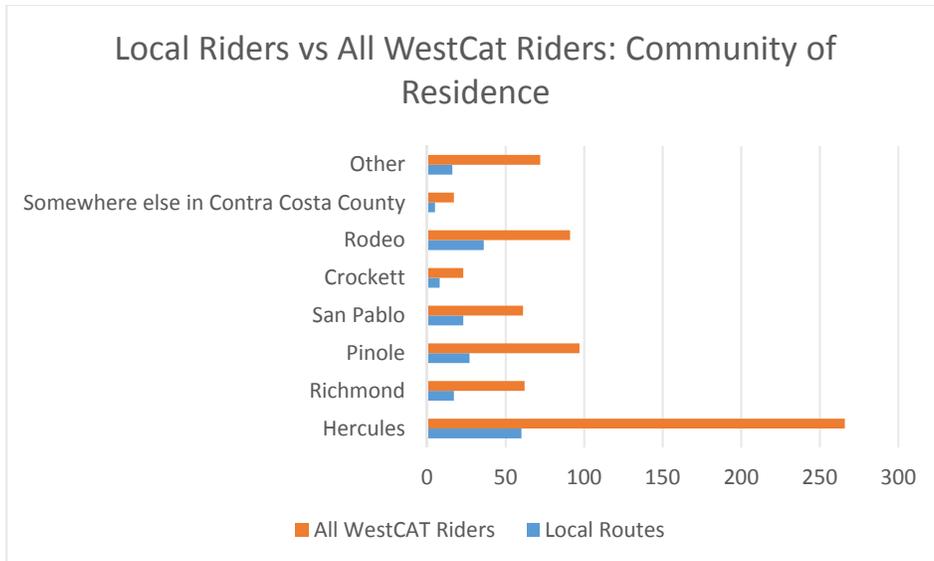
While the color-coding was not 100% followed, those riders who stated that they were waiting for, or riding on, a local route did tend to use the locals more than the overall WestCAT rider population (68% versus 36%) and use less Express/Lynx (32% vs 64%).

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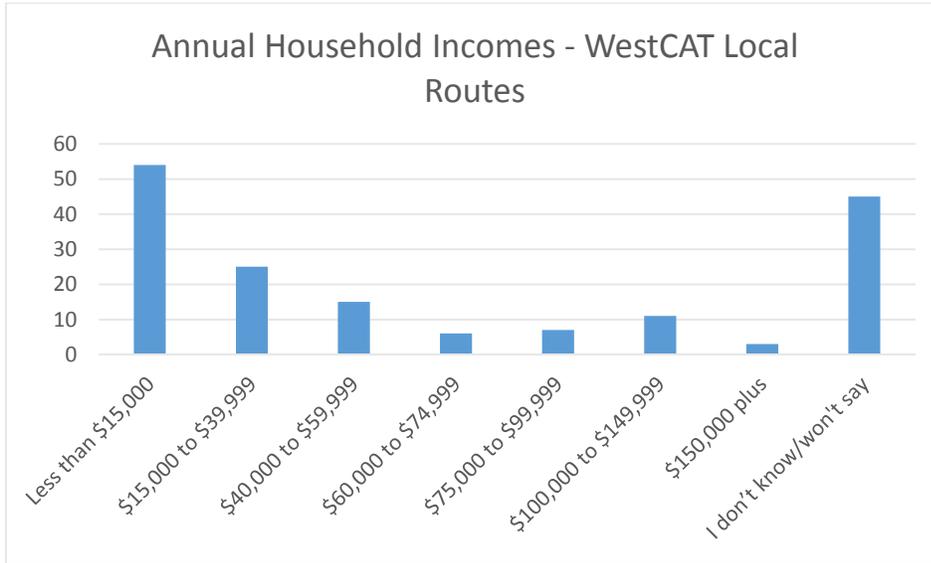
Local Route riders tend to reside more heavily in the communities of Rodeo and Crockett, and San Pablo, when compared to the overall WestCAT ridership base. This highlights the high demand for basic local bus service in Rodeo and the ability to support added local service.



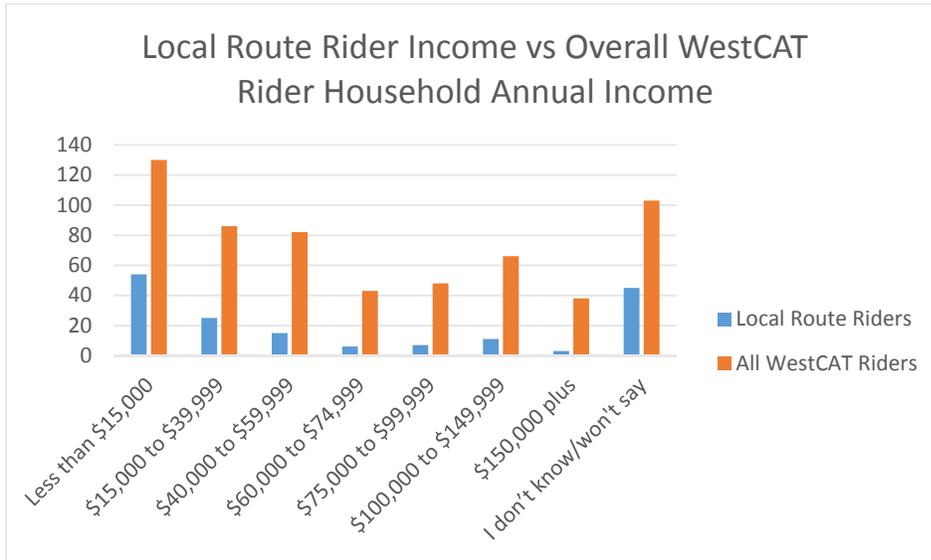
Here is the ridership breakdown showing Local & all WestCAT riders overall:



Local Route riders tend to earn far lower annual income than those of either the Express Bus (which does contain some “local” service segments) or the commuter-based Lynx.

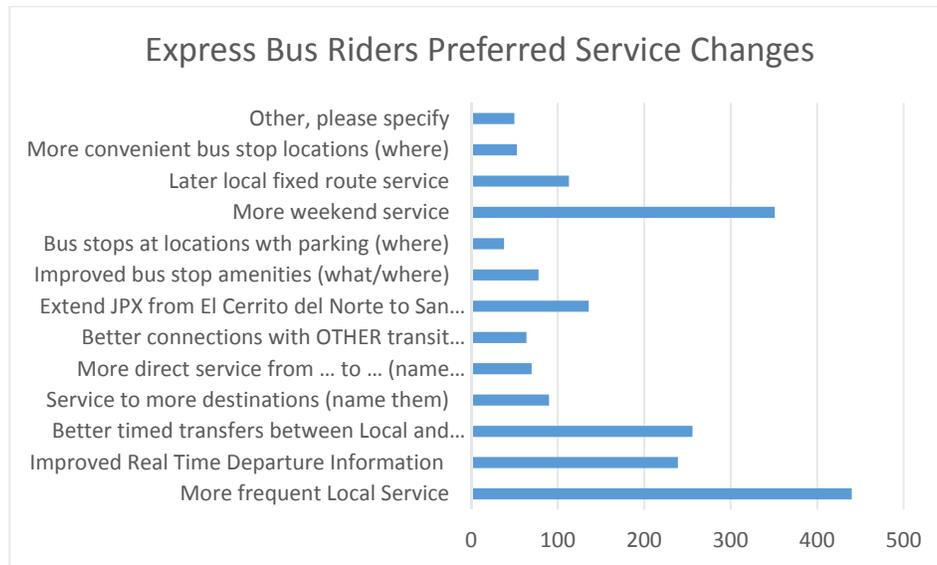


The local route patron income curve is heavily weighted on the lower end of the income spectrum, with a slight uptick in usage at the \$100,000+ income level, but nothing like the overall WestCAT rider income chart from earlier in the report:

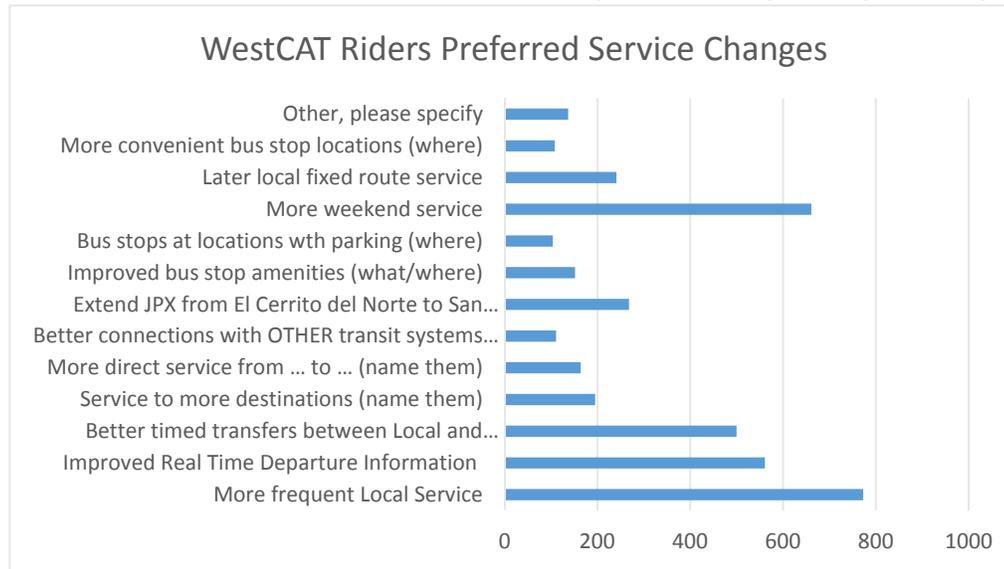


Express Bus Route Riders

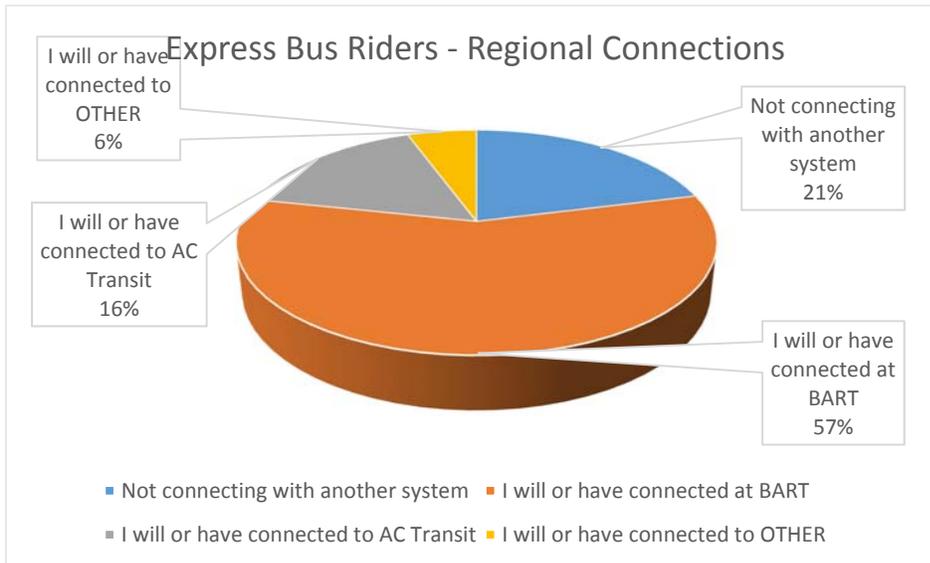
WestCAT's Express Bus riders provided answers to the series of questions about what WestCAT could do to improve the service for them:



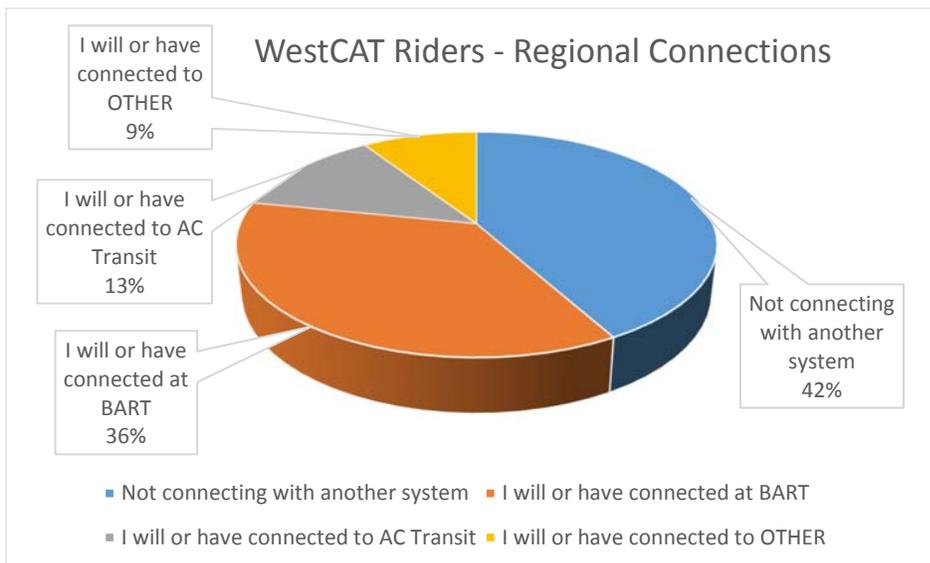
Almost identical to the rankings of all survey respondents, with slightly less interest in the real-time information. This is a reflection of the Express Bus being the largest rider group.



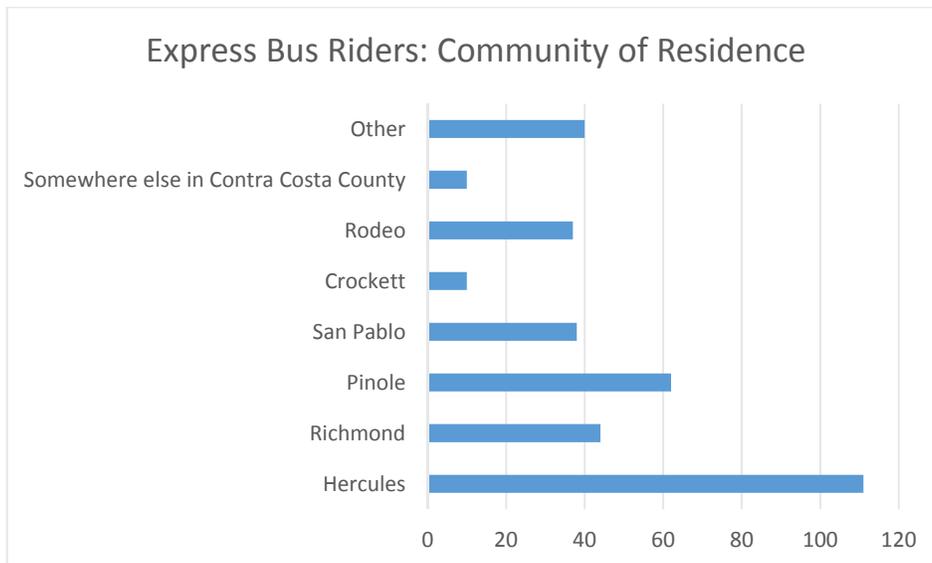
The Express Bus riders show a high propensity for connecting to other regional transit systems, indicating longer commutes involving more transferring among agencies, especially BART and AC Transit:



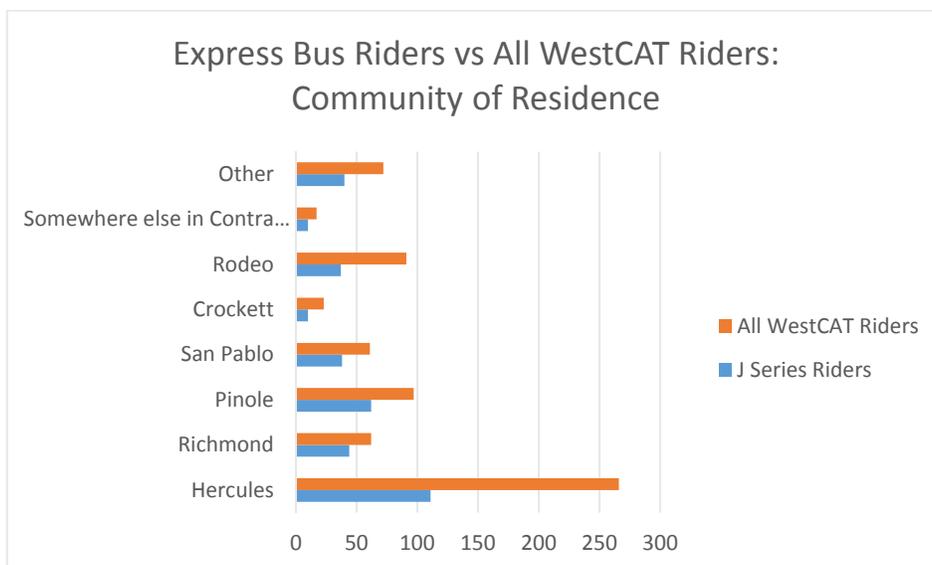
This makes sense, as J routes all serve BART, and have significant shared stop transfer opportunities with AC Transit. Compared to all WestCAT riders, J riders have far more inter-agency travel (79% vs 57%), and should value inter-agency information and connectivity more.



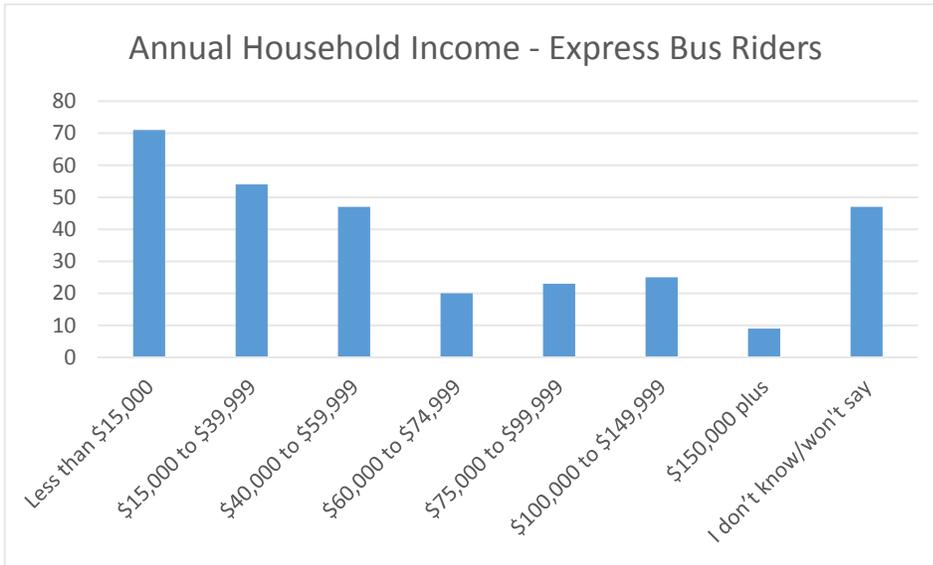
The Express Bus routes serve Pinole, San Pablo and Richmond, and here we see a stronger amount of riders residing in these cities.



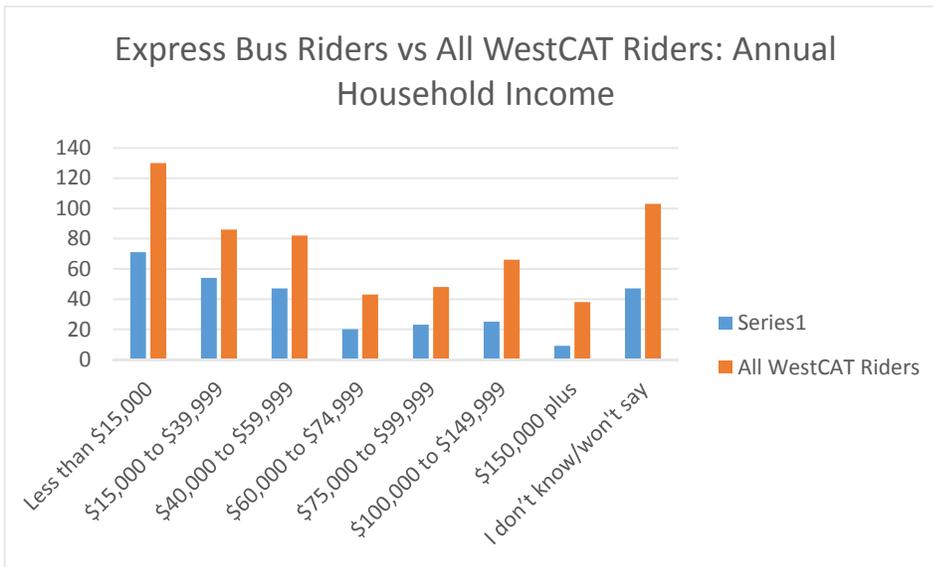
Hercules is still the greatest ridership generator community, but the ratio is more balanced on the J. This could be due to the Lynx handling many Hercules trips.



Express Bus riders tend to be in the middle and a good representation of income levels of all WestCAT riders (with Lynx on the high-income end, and Locals on the lower end of the earnings spectrum). The main difference is that Express Bus features less riders whose household incomes exceed \$100,000.

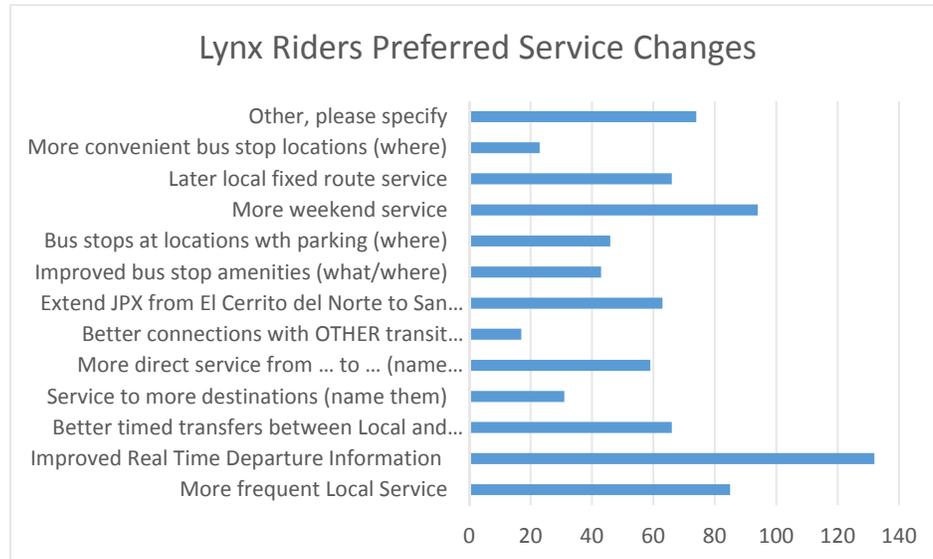


The Express Bus almost mirrors WestCAT's overall customer income base. Express Bus riders trail overall WestCAT in the over \$100,000/year income group, which are heavy Lynx users.

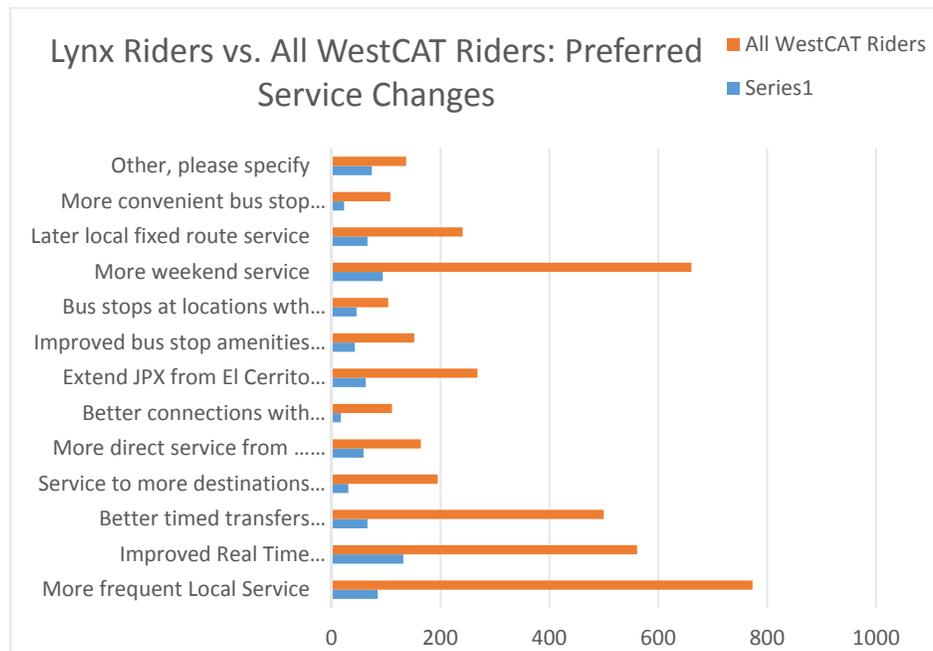


Lynx Riders

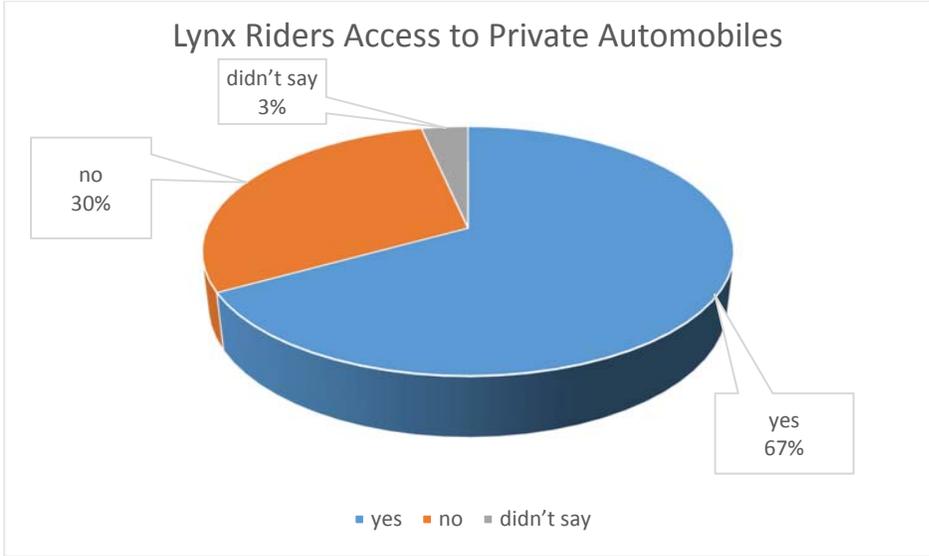
Lynx riders answered the question about what WestCAT could do to improve the service:



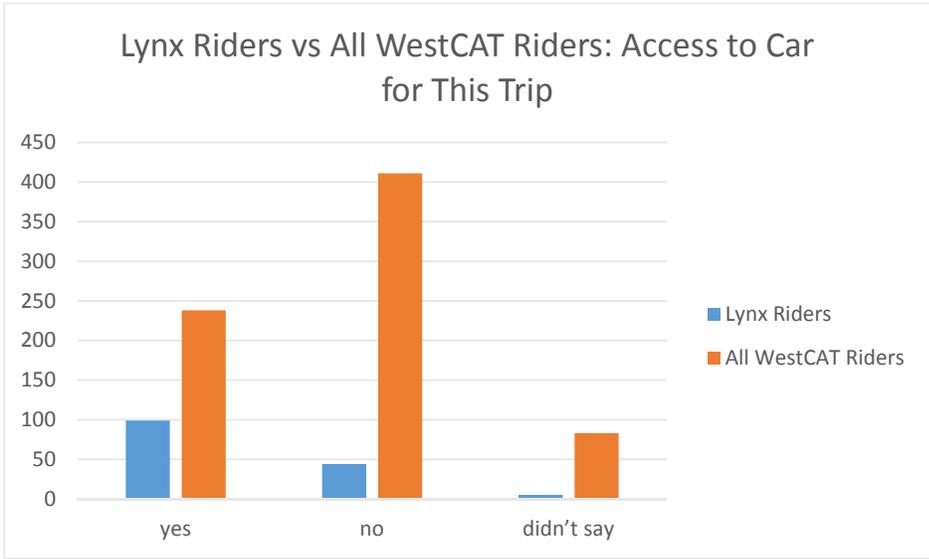
The Lynx customers have a much stronger interest in improving the real-time departure information system. There is likely an opportunity to better educate them on how the current system works, and improve the usage of the system through rider education. Lynx riders want weekend service (perhaps on different routes) and more frequent local service. While many drive to HTC, if good local route feeder service were available, they might leave cars at home.



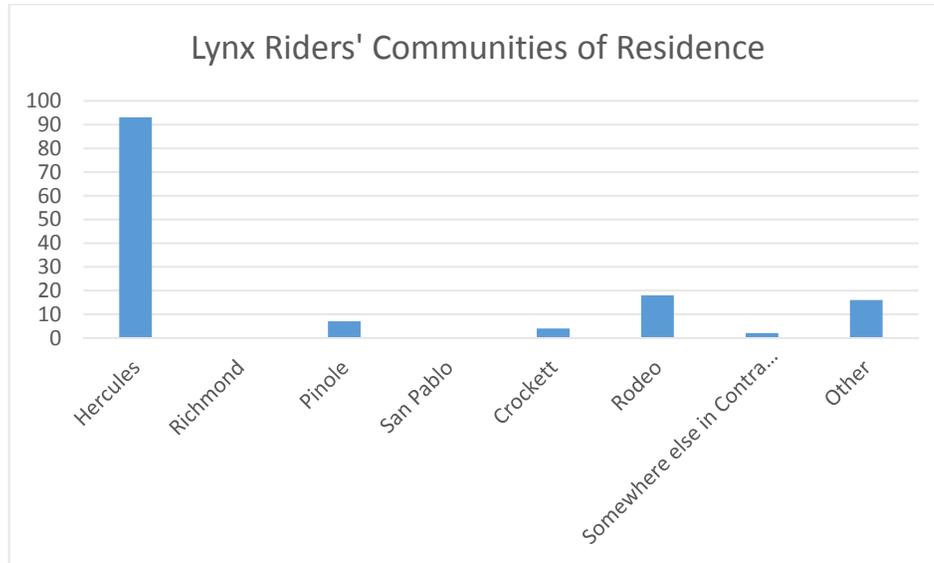
Lynx riders have a high level of access to a private automobile for travel, many are truly “choice riders”:



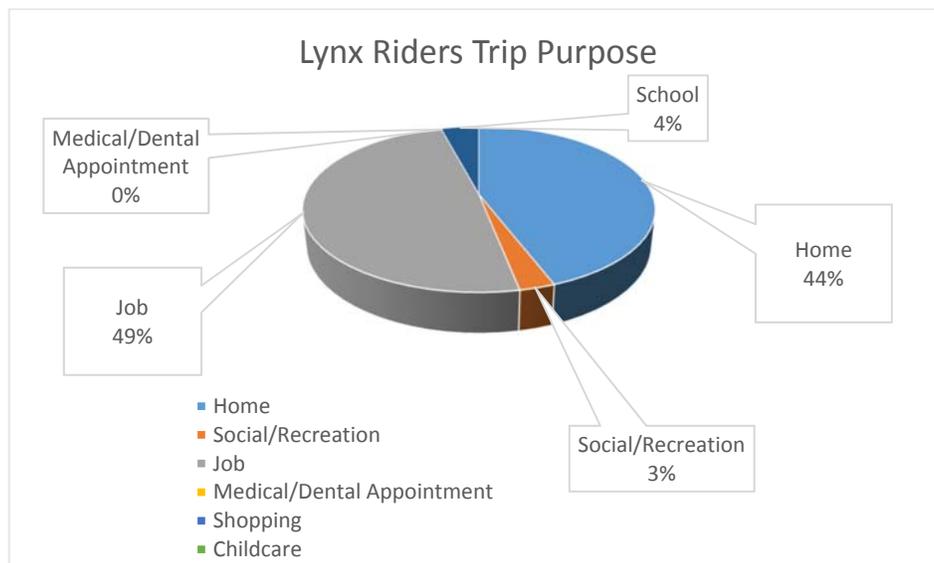
The 67% access to personal automobiles is over double the overall percentage of all WestCAT riders. This shines light on the vast differences in resources between the Lynx riders and the WestCAT ridership as a whole. That said, the preferred service changes were not dissimilar.



The Lynx riders, not surprisingly, are mostly Hercules-based, as most persons that own cars are reluctant to travel out of direction to access transit services (in other words, Pinole and San Pablo travelers would often balk at driving northeast to get on a bus (even the Lynx) going southwest.

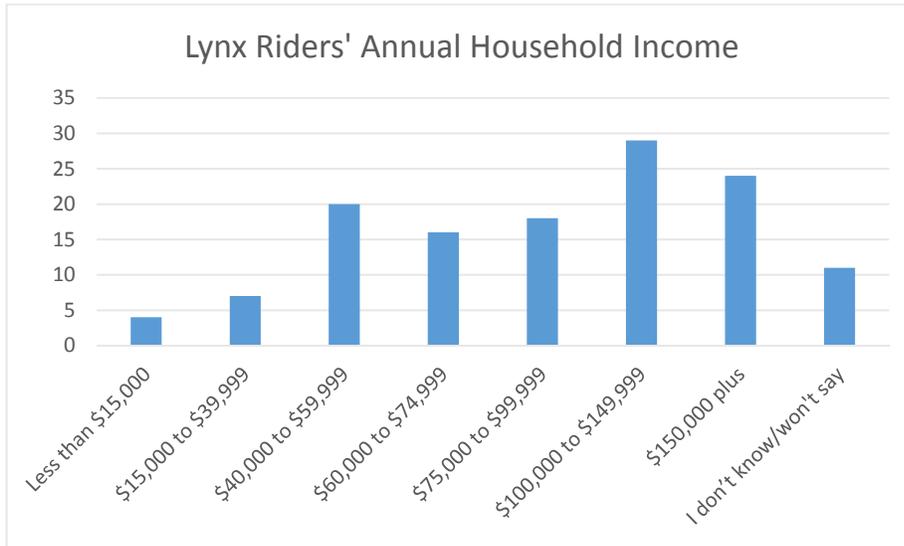


A number of Rodeo residents also utilize the Lynx, and may be accessing it via Route 11.



Almost all Lynx trips are commutes, mostly to work and back, with a few to school.

Lynx riders have the highest income of any WestCAT riders. The Lynx separates from the Express Bus (mainly BART riders) in the upper income levels (above 100,000/year). There is very little poverty among Lynx customers.



This chart shows the dramatic differences between rider groups in the WestCAT family:

